Draft Environmental Impact Report

Sutter Pointe Specific Plan



SCH #2007032157

Volume 1

(Summary through Section 3.5, Noise)

Prepared by:

EDAW
2022 J Street
Sacramento, CA 95811

December 2008

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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This DEIR has been prepared to evaluate the potential environmental impacts of the Sutter Pointe Specific Plan (proposed project), which is proposed for implementation by the Measure M Group (project applicant). Because the project is proposed for development over a 20–30 year period, depending on the timing of environmental and regulatory permits and other approvals and market conditions, there is a potential that other applicants could purchase land for development in the future. This DEIR has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.) As stated in Section 15123(a) of the State CEQA Guidelines, "[a]n EIR shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the State CEQA Guidelines, this executive summary includes (1) a summary description of the proposed project, (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-2, at the end of this chapter), (3) identification of the alternatives evaluated, and (4) a discussion of the areas of controversy associated with the proposed project.

ES.2 TYPE OF EIR

This EIR can be characterized either as a "Program EIR" prepared pursuant to CEQA Guidelines section 15168 or as a "First Tier EIR" prepared pursuant to CEQA Guidelines section 15152. These labels are complementary, not mutually exclusive. Regardless of its title, the document is intended to act as an analytical superstructure for subsequent more detailed analyses associated with individual project applications (e.g., for small-lot tentative maps). The County's goal in preparing the current document is to minimize the amount of new information that will be required in the future at the "project level" by dealing as comprehensively as possible in this document with cumulative impacts, regional considerations, and similar "big picture" issues. The County recognizes that the document does not include the level of detail necessary to qualify as a "project EIR." (For additional detailed discussion regarding the type of EIR, see Chapter 1, "Introduction," Section 1.6 "Intended Uses and Type of Environmental Impact Report.")

ES.3 REQUESTED ENTITLEMENTS

The following land use entitlements are requested from Sutter County for the Sutter Pointe Specific Plan. Additional authorizations, approvals, and permits that would be required from other agencies are summarized in Chapter 1, "Introduction."

ES.3.1 SUTTER COUNTY

Adoption of the Sutter Pointe Specific Plan requires approval of the following County entitlements for those lands under the control of the project applicant:

- approval of a general plan amendment,
- approval of a zoning code and map amendments,
- adoption of the Sutter Pointe Specific Plan,
- adoption of an urban services plan,
- adoption of a public facilities/infrastructure financing plan,

- adoption of a public facilities/infrastructure phasing plan, and
- adoption of a development agreement between the County and the project applicant (including establishment of maintenance districts).

ES.4 PROJECT OBJECTIVES

The purpose of the project is to create a mixed-use community through the development of employment-generating land uses and a variety of residential housing types. The proposed project is intended to be a pedestrian-friendly, transit-oriented development that provides a multifaceted and multiphased transit program.

Outlined below are the main project objectives defined by the project applicant for the proposed Sutter Pointe Specific Plan project:

- **Objective 1:** Create a major employment center in south Sutter County that serves both Sutter County and the greater Sacramento region and generates tax revenue to Sutter County.
- **Objective 2:** Accommodate projected regional growth in a location adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
- **Objective 3:** Provide a complementary and supportive array of land uses that enables development of a community featuring employment centers, homes, shopping, schools, recreation, cultural and worship facilities, and public services.
- **Objective 4:** Provide a range of housing choices for all family types.
- **Objective 5:** Promote a mixed-use community composed of neighborhoods and activity centers.
- **Objective 6:** Provide for development of needed regional service facilities, such as a hospital/medical center and/or community college.
- **Objective 7:** Establish a system of multimodal transportation facilities that connects to the regional transportation system, including pedestrian and bicycle trails and future bus rapid transit.
- **Objective 8:** Create an efficient internal street system that connects residents to employment, commercial and civic centers, schools, and recreational and community facilities.
- **Objective 9:** Locate neighborhood parks adjacent to schools, and establish joint use of park and school sites.
- **Objective 10:** Provide usable recreation facilities that also act as transition zones between employment areas and adjacent residential neighborhoods, including dual-use recreation and drainage facilities.
- **Objective 11:** Comply with the Natomas Basin Habitat Conservation Plan, Sacramento Area Flood Control Agency flood control plans, and other regional resource conservation and safety plans.
- **Objective 12:** Provide connectivity between individual habitat reserves and between reserves and surrounding agricultural lands.
- **Objective 13:** Promote a balance in the type and phasing of land uses that supports a strong tax base and generates financial resources to pay for public services and infrastructure without financial burden to existing Sutter County residents.
- **Objective 14:** Maintain flexibility to adapt and adjust to changing economic and market conditions.

- **Objective 15:** Support incorporation of the Specific Plan area as a city at the optimal time in the future.

- **Objective 16:** Develop a project that complies with the Measure M advisory initiative as approved by Sutter County voters in 2004 (refer to Section 3.1, "Land Use," for a detailed description of Measure M).

ES.5 PROJECT CHARACTERISTICS

ES.5.1 GENERAL CHARACTERISTICS

The proposed project features a diverse mix of land uses, including employment centers, many different housing types, retail shopping villages, recreation amenities, schools, community services, supporting on- and off-site infrastructure, and roadway improvements. Proposed for an approximately 7,528-acre site presently in agricultural and industrial use, the proposed project would be contained within the 9,500-acre "Sutter County Industrial-Commercial Reserve," as designated by the adopted Sutter County General Plan (County General Plan). The proposed project would also implement the provisions of voter-approved Measure M, an advisory initiative that identified potential development caps for the project site.

Generally, the proposed project would permit a maximum of 17,500 residential units and up to 49.706 million square feet of commercial/industrial space. The proposed project would also include parks, schools (six K–8 and one comprehensive high school), a library, a civic center, and other civic buildings and public services, including law enforcement and fire protection. These facilities and services would be paid for by project development, without reducing current service levels, as suggested by Measure M. Similarly, all necessary on- and off-site road, bridge, water, drainage, sewer, and other improvements would be paid for by project development. The proposed Specific Plan has been designed to achieve the purpose and objectives listed above and presented in Chapter 1, "Introduction" of this DEIR.

The project site is located approximately 2 miles northeast of the Sacramento International Airport and has been designed to comply with the land use requirements and restrictions of the Sacramento International Airport Comprehensive Land Use Plan. The proposed project has been designed to respond to several growth principles established by the Sacramento Area Council of Governments (SACOG) Blueprint plan, to the extent feasible under the restrictions of Measure M. The Blueprint plan, which was established subsequent to Measure M approval, envisions a greater range of housing choices and diversity, compact development, natural resources conservation, design for quality, mixed-use development, and transportation choices. The proposed project includes the construction of a range of housing types (e.g., high, medium, low density) that would be located close to public transportation systems. The SACOG Blueprint plan and the relationship of the project to the Blueprint plan are discussed in Section 3.1, "Land Use."

The proposed project is organized as a system of five villages and five activity centers, geographically dispersed with complementary land use designations allowable within each area. Villages are broad areas generally designated by either employment or residential use. Activity centers feature a mix of uses and serve as focal points for the villages and community at large. Additional information describing the proposed villages and activity centers is included in the Specific Plan (attached as an appendix to this DEIR).

The proposed South Employment Village would be situated west of the Riego Road/SR 99/70 intersection. This village would be designed to provide sizable (up to hundreds of acres) sites for a wide variety of industry, distribution, technology, and service uses.

The proposed North Employment Village would be located along Sankey Road, east of SR 99/70. This village also would provide sizable sites (up to hundreds of acres) for industry, distribution, technology, and service uses. The existing 50-acre Sysco Corporation warehousing and distribution center and the Holt Tractor Manufacturing facility are two prominent industrial uses that currently exist in the proposed village.

The proposed Greenbelt Village would be situated east of SR 99/70 between the proposed South and North Employment Villages. The village would be composed of medium- and high-density residences, a K–8 school, a regional park, four neighborhood parks (three developed for structured play, and one developed for unstructured recreational use), and a greenbelt system of landscaped trails. The village also may include senior neighborhoods and a senior/community center. High-density residential uses along with regional and local retail/commercial centers border the village at its southern edge. This village would be accessed on the north by Sankey Road, on the south by Riego Road, on the east by a planned north-south arterial roadway generally aligned with current Pacific Avenue, and bounded on the west by SR 99/70.

The proposed Recreational Village would be situated within the easterly portion of the project site southeast of the proposed North Employment Village and north of the proposed Traditional Village. This village would be configured around a regional park, and a large open space which could be used for an 18-hole golf course. Five neighborhood parks (three developed for structured play, and two developed for unstructured recreational use) are also proposed for this village. The village also may include senior neighborhoods and a senior/community center. Low-density housing would surround the regional park and open space. Medium- and high-density housing products, four neighborhood parks, and two K–8 schools would wrap around the regional park, open space, and single-family housing areas. This village also may include a clubhouse.

The proposed Traditional Village would be located in the southeast portion of the project site, south of Riego Road and east of the proposed South Employment Village. The village would consist of medium- and low-density housing surrounding approximately 160 acres of parks configured around a series of lakes. A high school would be sited within the proposed Traditional Village adjacent to a lake shore park, encouraging joint use of the school and park's open space and recreational facilities. This village includes three K–8 schools, a high school and community library, five neighborhood parks (three developed for structured play, and two developed for unstructured recreational use), one community park, and three lake shore community parks. The village also may include senior neighborhoods and a senior/community center. The proposed Traditional Village is envisioned to be a traditional neighborhood design emphasizing small-town grid street patterns and neighborhoods.

To complement the residential villages, the proposed project establishes the following five mixed-use activity centers.

The proposed West Activity Center consists of land immediately surrounding the Riego Road/SR 99/70 intersection. Commercial areas within this activity center would accommodate region-serving commercial, highway commercial, commercial office, and community commercial uses. This activity center also provides for mixed-use commercial and residential development northwest of the proposed interchange. The activity center would serve as a buffer between the proposed industrial and warehousing uses west of SR 99/70 and the proposed residential communities east of SR 99/70.

The proposed East Activity Center would be located along the eastern boundary of the project site, along Riego Road between the Recreational and Traditional Villages. Commercial areas within this activity center would accommodate regional service or institutional uses, such as a campus-oriented community college, a hospital, a medical center, or an office park. Additional neighborhood-serving commercial uses would be located within this activity center to support the adjacent residential villages. Proposed high-density residential uses would surround and support the commercial and employment functions of the center. The center would also include employment areas strategically located to facilitate future development of either additional commercial, office, mixed commercial or residential uses, depending on future demand.

The proposed North Activity Center would be oriented around a future interchange at Sankey Road and a future north-south arterial in the eastern portion of the project site. This center would provide neighborhood-serving goods and services to the adjacent residential villages. The center would feature retail uses, buffered by employment areas. The center would also include employment areas strategically located to facilitate future

development of either additional commercial, office, mixed commercial or residential uses, depending on future demand.

The proposed Town Center would serve as the community's public, institutional and social center, featuring a variety of residential, commercial, recreational, and public uses. Located immediately southeast of a planned freeway interchange at Riego Road and SR 99/70 (not part of the proposed project), the Town Center would be anchored to the north by regional-serving retail uses around the new interchange, parks and open spaces within the Traditional Village to the east, agricultural areas and habitat preserves to the south, and industrial uses to the west in the South Employment Village. This area is intended to be an activity node, providing a pedestrian- and transit-oriented, easily accessible, mixed-use retail core, surrounded and supported by high-density residential and employment uses. The Town Center would accommodate transit stops, civic buildings, movie theaters, groceries, cafes, boutique shops, and specialty retail shops. A pedestrian-scale "Main Street" is envisioned to be the heart of the Town Center, supporting local shops, plazas, a movie theater, or similar uses. The Town Center also would include a government center, and a transit center.

Mixed-use development that would be permitted in the Town Center includes both vertical mixed-use, consisting of ground floor commercial uses with residences or offices above, and horizontal mixed-use, consisting of commercial and residential development occurring on the same site. Specialty retail uses, including restaurants, are intended to front the adjacent lake and lake shore park to the east. The Town Center also would feature distinct streetscapes and roadway configurations that support and encourage pedestrian, bicycle, and transit use.

The proposed Mid-Riego Neighborhood Center would be located at the intersection of the three residential villages along Riego Road. The location is intended to provide for the retail and service needs of immediate neighborhoods within a 1/2- to 1-mile radius. This shopping center would accommodate neighborhood-serving retail uses, such as convenience stores, gas stations, realty offices, cafes, and restaurants.

The project site would be developed in four phases of construction and would ultimately be built out in 20–30 years, depending on market conditions and absorption, as well as the ability to secure permits and other regulatory approvals.

For the purposes of phasing, the proposed project has been split into two parts: 1) a mixed-use residential community, consisting of the Greenbelt Village, Traditional Village, Recreational Village, East Activity Center, North Activity Center, and mixed-use Town Center and 2) the employment villages, consisting of the South Employment Village and North Employment Village. The proposed specific plan outlines four distinct phases for the residential mixed-use community components (Phases 1-4) and the employment villages (Phases A-D), coupled with the timely construction of infrastructure and public facilities needed to support each development phase.

ES.6 ALTERNATIVES

The State CEQA Guidelines (Section 15126.6) require that an EIR describe a range of reasonable alternatives to the project that could feasibly attain the basic objectives of the project and avoid and/or lessen the significant environmental impacts of the project. Chapter 4 of this DEIR provides a comparative analysis between the proposed project and three development alternatives. As required under CEQA, a no project alternative is also evaluated in Chapter 4. The text below provides a brief summary of the alternatives to the proposed project.

ES.6.1 NO PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

This alternative considers potential impacts if the proposed project was not approved, and development proceeded based on the adopted Sutter County General Plan and the Natomas Basin Habitat Conservation Plan (NBHCP). The Sutter County General Plan designates the project site as Commercial/Industrial Reserve. This designation is applied to an approximately 9,500-acre area (10,500 acres were originally designated) in the southern portion of Sutter County. The description of the Industrial/Commercial Reserve in the General Plan specifies that up to

3,500 acres of land within the 9,500-acre Industrial/Commercial Reserve area may be developed with industrial and commercial uses (at a ratio of 85% industrial to 15% commercial). New commercial or industrial development that results in less than 3,500 acres in commercial and industrial use in the Industrial/Commercial Reserve would be required to obtain rezoning to the South Sutter County Industrial/Commercial district (SSCI/C), and conduct associated technical studies. Development that would result in more than 3,500 acres of industrial and commercial use would require a general plan amendment.

For the purpose of this alternative, it is assumed that a total of 3,500 acres of commercial and industrial development would occur on the project site or in the immediate vicinity in conformance with the existing General Plan. As specified in the General Plan, the expectation is that zoning would be updated to the SSCI/C district as projects are proposed. Buildout of the existing General Plan would result in development of a total of 3,500 acres of industrial and commercial uses, leaving the balance of the project site (approximately 4,000 acres) in ongoing agricultural use. This alternative would include all improvements to the roadway network identified in the Sutter County General Plan, including widening SR 99/70 to six lanes in the project vicinity, widening Riego Road to four or six lanes, and widening Sankey Road to four or six lanes. Other specific infrastructure improvements are not included in this alternative; the 3,500 acres of industrial and commercial development could potentially be distributed across the 9,500-acre I/C Reserve in a manner that would permit individual wells and septic systems, and electric, natural gas, and other utility needs.

ES.6.2 SACOG BLUEPRINT PREFERRED SCENARIO ALTERNATIVE

This alternative assumes that South Sutter County is developed in accordance with the SACOG Blueprint Preferred Scenario. The Blueprint identifies approximately 20,000 jobs and 8,500 residential units in South Sutter County. The total land area proposed for development in the Blueprint is about 7,420 acres (similar to the 7,528-acre footprint of the proposed project), and includes about 3,470 acres of industrial uses, 1,870 acres of mixed residential uses, 1,790 acres of urban reserve, and 290 acres of retail use. The South Sutter area defined by SACOG is approximately the same size as the project site, although the conceptual land use map presented in the alternative does not match the project footprint; instead, it includes areas to the east and west of the proposed project. This alternative would include future development of Placer Parkway along the current Sankey Road alignment as a limited access freeway, including two interchanges and an overcrossing at Pacific Avenue. The improvements proposed in SACOG's Draft 2035 Regional Metropolitan Transportation Plan are also assumed to be part of the Blueprint Alternative. SACOG makes clear that the land use designations presented on the Blueprint Preferred Scenario are conceptual, and reflect general land use locations in a local area. In considering the relative environmental effects of the Blueprint Alternative, the total area of developed use proposed for South Sutter is considered, although the conceptual developed footprint of the Blueprint Alternative as provided by SACOG is slightly different than the footprint defined for the proposed project.

The Blueprint Preferred Scenario differs from the Existing General Plan in that it includes a different mix of land uses, including a residential component. It also identifies a specific, albeit conceptually so, layout of the land uses. The SACOG Blueprint and its evolution are explained in detail in Section 3.1, "Land Use."

ES.6.3 REDUCED INTENSITY DEVELOPMENT ALTERNATIVE

This alternative consists of a 25% reduction in development on the same footprint as the proposed project. The 25% reduction would be applied to all land use categories that result in either residential units or non-residential square footage. This alternative would provide for approximately 13,125 dwelling units and 37.3 million non-residential square feet on the project site. (The proposed project accommodates 17,500 dwelling units and 49.7 million square feet of non-residential land use.) This alternative would include future development of Placer Parkway along the current Sankey Road alignment as a limited access freeway, including two interchanges and an overcrossing at Pacific Avenue.

In general, this alternative would involve development of urban uses in a mix comparable to that of the proposed project. Even with a substantial reduction in the proposed intensity/density or size of the project, the overall magnitude of the project under this alternative would be considerable. However, reduced project size may also impair the project's ability to achieve other project objectives such as provision of multimodal transportation facilities and regional service facilities.

ES.6.4 PERMANENT ON-SITE SANKEY GAP OVERFLOW STORAGE ALTERNATIVE

In this alternative, the proposed interim on-site Sankey Gap storage area would be used on a permanent basis for stormwater retention. Approximately 408 acres designated as Employment 1 – Interim Flood Zone on the proposed project land use diagram would be designated as Industrial Drainage Basin. This alternative would reduce the amount of industrial/commercial square feet within the proposed project by approximately 6.2 million square feet; providing for approximately 17,500 dwelling units and 43.5 million non-residential square feet on the project site. (The proposed project accommodates 17,500 dwelling units and 49.7 million non-residential square feet). This alternative would include future development of Placer Parkway along the current Sankey Road alignment as a limited access freeway, including two interchanges and an overcrossing at Pacific Avenue.

ES.6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Sections 15126.6(e)(1) and 15126.6(e)(2) of the State CEQA Guidelines state that an EIR must identify an "environmentally superior" alternative based on the comparative analysis among project alternatives (but not including the No Project Alternative). The Sankey Gap Alternative would be the Environmentally Superior Alternative.

When the No Project Alternative has been identified as the environmentally superior alternative, CEQA requires that an additional alternative be identified as the environmentally superior alternative in the absence of the No Project Alternative. As shown in Table ES-1, other than the No Project Alternative, the Sankey Gap Alternative would be the Environmentally Superior Alternative. The Permanent On-Site Sankey Gap Overflow Storage Alternative (Sankey Gap Alternative) would be consistent with many of the project objectives, but would not be consistent with Object 16, Compliance with Measure M, because only about 3,200 acres would be developed for employment uses, as opposed to the 3,600 acres called for in Measure M.

ES.7 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Chapter 3 of this DEIR evaluates in detail the environmental impacts that would result from implementation of the proposed project and sets forth feasible mitigation measures to avoid or reduce environmental impacts, where applicable. Chapter 5 evaluates potential cumulative impacts associated with the proposed project. Table ES-2 (at the end of this chapter) lists each of the environmental impacts of the proposed project, then presents the level of significance of each impact before mitigation, mitigation measures for significant and potentially significant impacts, and the level of significance of each impact after mitigation. It also lists the significant cumulative impacts to which the proposed project would contribute. As shown in Table ES-2, implementation of the proposed project could result in significant impacts in a number of environmental resources and issue areas, but feasible mitigation is included to reduce these impacts to a less-than-significant level, where applicable. A discussion of significant and unavoidable impacts is provided in Chapter 6 of this DEIR.

ES.8 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Section 15123 of the State CEQA Guidelines requires that a summary of an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public. During the public comment period for the NOP, various comment letters were received regarding the proposed project. Appendix A of this DEIR

includes a summary of the public scoping process as well as summaries of the comments received in writing and at the public meeting held on March 29, 2006. In general, areas of potential controversy known to the County and the project applicant(s) include loss of prime agricultural land; air quality effects; preservation of wetlands and riparian habitat, as well as impacts on special-status species and habitat in areas not covered by the Natomas Basin Habitat Conservation Plan; near- and long-term effects on existing and proposed state highways (State Routes 70 and 99) and roads, as well as Interstate 5; effects on water quality, including effects from groundwater overdraft; sufficiency of water supply and sewer capacity. These issues were considered in the preparation of this DEIR and, where appropriate, are addressed in the environmental impact analyses presented in Chapter 3.

ES.9 PUBLIC PARTICIPATION AND ADDITIONAL STEPS IN THE CEQA REVIEW PROCESS

This DEIR is being distributed to interested federal, state, regional, and local agencies; agencies with jurisdiction over elements of the proposed project; stakeholder organizations; individuals; and those agencies, organizations, and/or individuals who responded to the NOP. This distribution ensures that interested parties have an opportunity to express their views regarding the environmental effects of the proposed project and identified mitigation measures, and to ensure that information pertinent to discretionary permits and approvals is provided to decision makers for the lead agency, federal agencies, and CEQA responsible agencies. This DEIR is available for review by the public during normal business hours at the Sutter County Community Services Department, 1130 Civic Center Boulevard, Yuba City, CA 95993. The DEIR is being distributed for a 45-day review period.

Written comments should be sent to the following address:

Mr. Doug Libby, AICP
Sutter County Community Services Department
1130 Civic Center Boulevard, Suite E
Yuba City, CA 95993
(530) 822-7400

A public hearing on the DEIR may be conducted by the County during the 45-day public review period. It is not necessary to provide testimony during the public hearing; comments on the DEIR will be accepted throughout the meeting and will be recorded. Comments may also be submitted throughout the comment period as described above.

Once all comments have been assembled and reviewed, responses will be prepared to address significant environmental issues that have been raised in the comments. The responses will be included in a final EIR.

Table ES-1
Comparison of Significant Environmental Effects of the Alternatives to the Proposed Project

Environmental Issue Area	No Project/ Existing General Plan and Zoning	SACOG Blueprint Preferred Scenario Alternative	Reduced Intensity Development Alternative	Permanent On-Site Sankey Gap Overflow Storage Alternative
Land Use	Greater	Greater	Similar	Greater
Population, Housing, and Employment	Greater	Similar	Greater	Similar
Transportation and Circulation	Less	Similar	Similar	Similar
Air Quality	Similar	Similar	Similar	Similar
Noise	Less	Similar	Similar	Similar
Geology, Soils, and Paleontological	Similar	Similar	Similar	Similar

Table ES-1
Comparison of Significant Environmental Effects of the Alternatives to the Proposed Project

Environmental Issue Area	No Project/ Existing General Plan and Zoning	SACOG Blueprint Preferred Scenario Alternative	Reduced Intensity Development Alternative	Permanent On-Site Sankey Gap Overflow Storage Alternative
Resources				
Hydrology and Water Quality	Greater	Greater	Greater	Less
Public Services	Greater	Similar	Greater	Similar
Water Supply	Similar	Similar	Similar	Similar
Public Utilities	Less	Similar	Similar	Similar
Agricultural Resources	Similar	Similar	Similar	Similar
Public Health and Hazards	Similar	Similar	Similar	Greater
Biological Resources	Less	Greater	Similar	Similar
Parks and Open Space	Less	Similar	Less	Less
Cultural Resources	Less	Less	Similar	Similar
Visual Resources	Similar	Similar	Similar	Similar
Climate Change	Greater	Greater	Similar	Similar

Source: Data compiled by EDAW in 2008

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.1 LAND USE		
Program Level		
3.1-1: Consistency with Sutter County LAFCO Guidelines. The proposed project would require approval by the Sutter County LAFCO of a reorganization for detachment of its existing CSA and creation of a new CSA, establishment of a sphere of influence coterminous with the boundaries of the project site, and possible eventual incorporation of the project site. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	No Direct or Indirect
3.1-2: Consistency with Sutter County LAFCO and Sacramento LAFCO Guidelines for Service to the Project Site by SRCSD. Extension of the SRCSD sphere of influence to the project site would require approval by Sacramento LAFCO before SRCSD could provide wastewater service to the proposed project. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	No Direct or Indirect
3.1-3: Compatibility with the Sacramento International Airport Comprehensive Airport Land Use Plan. The Sacramento International Airport CLUP defines compatible land uses within airport safety zones and prohibits new residential development in those areas subject to noise levels of 65-db CNEL or above. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	No Direct or Indirect
3.1-4: Conflict with the SACOG Sacramento Region Blueprint. Implementation of the proposed project would differ somewhat from the SACOG Sacramento Region Preferred Blueprint Scenario. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	No Direct or Indirect
3.1-5: Consistency with Measure M. Implementation of the proposed project would include development of residential uses, commercial/industrial uses, supporting public facilities and services, and infrastructure improvements consistent with the recommendations of Measure M. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	No Direct or Indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Additional Detailed Analysis (Phase 1 and Phase A)		
3.1-6: Consistency with Sutter County LAFCO Guidelines. Development of Phase 1 and Phase A would require approval by the Sutter County LAFCO of a reorganization for detachment of its existing CSA and creation of a new CSA, establishment of a sphere of influence coterminous with the boundaries of the project site, and possible eventual incorporation of the project site. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.1-7: Consistency with Sutter County LAFCO and Sacramento LAFCO Guidelines for Service to Attachment the Project Site by SRCSD. Extension of the SRCSD service area sphere of influence to include Phase 1 and Phase A would require approval by Sacramento LAFCO before SRCSD could provide wastewater service to the proposed project. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.1-8: Compatibility with the Sacramento International Airport Comprehensive Airport Land Use Plan. The Sacramento International Airport CLUP defines compatible land uses within airport safety zones and prohibits new residential development in those areas subject to noise levels of 65-dB CNEL or above. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.1-9: Conflict with the SACOG Sacramento Region Blueprint. Implementation of Phase 1 and Phase A would differ somewhat from the SACOG Sacramento Region Preferred Blueprint Scenario. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.1-10: Consistency with Measure M. Implementation of Phase 1 and Phase A would include development of residential uses, commercial/industrial uses, supporting public facilities and services, and infrastructure improvements consistent with the recommendations of Measure M. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.2 Population, Housing, and Employment		
Program Level		
3.2-1: Temporary Increase in Employment and Subsequent Housing Demand during Construction. Implementation of the proposed project would generate a temporary increase in employment and subsequent housing demand in Sutter County from construction jobs. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	Direct & LTS, No Indirect
3.2-2: Permanent Increase in Population Growth. Implementation of the proposed project would result in the development of new residential dwelling units, which would cause a direct long-term increase in population. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, (Indirect evaluated in 3.3 through 3.17)	Direct & LTS, (Indirect evaluated in 3.3 through 3.17)
3.2-3: Consistency with Sutter County Affordable Housing Goals and Policies. Implementation of the proposed project would include development of an affordable housing strategy consistent with the adopted Sutter County General Plan Housing Element and Sutter County's Affordable Housing Program Ordinance. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, (Indirect evaluated in 3.3 through 3.17)	Direct & LTS, No Indirect
3.2-4: Temporary Increase in Employment and Subsequent Housing Demand during Construction. Implementation of the proposed project would generate a temporary increase in employment and subsequent housing demand in Sutter County from construction jobs. **On-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.2-5: Permanent Increase in Population Growth. Implementation of the proposed project would result in the development of new residential dwelling units, which would cause a direct increase in population. **On-Site:** No mitigation measures are required.	Direct & LTS, (Indirect evaluated in 3.3 through 3.17)	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.2-6: Consistency with Sutter County Affordable Housing Goals and Policies. Implementation of the proposed project would include development of an affordable housing strategy consistent with the adopted Sutter County General Plan Housing Element and Sutter County's Affordable Housing Program Ordinance.	Direct & LTS, (Indirect evaluated in 3.3 through 3.17)	N/A (additional detailed analysis of on-site elements only)
On-Site: No mitigation measures are required.		
3.3 Transportation and Circulation		
Program Level		
3.3-1: Unacceptable Operations on the Regional Roadway Network. The proposed project would contribute to traffic volumes that exceed the capacity of the regional roadway network under existing conditions and cumulative conditions.	Significant	N/A

Mitigation Measure 3.3-1: Participate In Funding Improvement to the Regional Roadway Network.

On-Site Elements

a. Developers of property within the plan area ("Specific Plan," "SPSP," or "the Project") shall be responsible for the Project's fair share of all feasible physical improvements necessary and available to reduce the severity of the Project's significant transportation-related impacts, based on "cumulative plus project conditions," consistent with the policies and exceptions set forth in the Transportation and Circulation Element of the 1994 Sutter County General Plan. (For purposes of this measure, "cumulative plus project conditions" refers to development authorized under the Specific Plan as well as development consistent with approved general plans, specific plans, and other entitlements in Sutter County and other jurisdictions.) In cases where the Project's fair share contribution is identified, the share will be based on the Project's relative contribution to traffic growth under "cumulative plus project conditions." The Project's contribution toward such improvements may take any, or some combination, of the following forms:

   1. Construction of roads and related facilities within and adjacent to the boundaries of the Specific Plan area, which may be subject to fee credits and/or reimbursement, coordinated by the County, from other fee-paying development projects if available with respect to roads or other facilities that would also serve those non-SPSP fee-paying development projects;
   2. Construction of roads, road improvements, or other transportation facilities outside the boundaries of the Specific Plan area but within unincorporated Sutter County, subject in some instances to fee credit against other improvements necessitated by the SPSP or future reimbursement, coordinated by the County, from other fee-paying development projects if available where the roads or improvements at issue would also serve those non SPSP fee paying development projects;
   3. The payment of impact fees to Sutter County in amounts that constitute the Project's fair share contributions to the construction of transportation facilities to be built or improved within unincorporated Sutter County, consistent with the County's Capital Improvement Program ("CIP");
   4. The payment of other adopted regional impact fees that would provide improvements to roadways, intersections and/or interchanges that are affected by multiple jurisdictions, except where the project applicant's payments of other fees or construction of improvements within Sutter County creates credit against the payment of regional impact fees.;

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

5. The payment of impact fees to Sutter County in amounts that constitute the Project's fair share contributions to the construction of transportation facilities and/or improvements within affected jurisdictions outside of Sutter County, which payments to Sutter County and transmittal of fees to other agencies would occur through one or more enforceable agreements that are consistent with Sutter County General Plan policy 3.A.7 and provided that for each required improvement, there is a reasonable mitigation plan that ensures that (i) the fees collected from the SPSP will be used for their intended purposes, and (ii) the improvements will actually be built within a reasonable period of time, and
6. The payment of impact fees to Sutter County in amounts that constitute the Project's fair share contributions to the construction of transportation facilities and/or improvements on federal or state highways or freeways needed in part because of the Project, to be made available to the California Department of Transportation ("Caltrans") if and when Caltrans and Sutter County enter into an enforceable agreement consistent with state law and Sutter County General Plan policy 3.A.7.

b. In pursuing a single agreement or multiple agreements with any jurisdictions outside of Sutter County that will be affected by traffic from the Project in order to effectuate proposed mitigation measures for improvements outside of Sutter County, Sutter County will seek to negotiate in good faith with these other jurisdictions to enter into fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SPSP, commitments for (i) the provision of adequate "fair share" mitigation payments from the Project for out-of-jurisdiction traffic impacts and impacts on federal and state freeways and highways, and (ii) reciprocal payments from regional development projects to Sutter County to address cumulative "fair share" mitigation payments towards federal and state freeways and highways for transportation-related facilities and/or improvements within Sutter County necessitated by the development within the region. It is intended that these agreements shall permit the participating agencies flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These agreements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements (e.g., the Sierra Vista and Creek View Specific Plans in Roseville or the Curry Creek Community Plan in Placer County), (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs.

c. If transportation improvements required to be constructed as mitigation are constructed prior to SPSP implementation, the Project will pay its fair share portion for those improvements.

d. In considering individual projects within the SPSP area (e.g., small-lot tentative subdivision maps or similar discretionary non-residential approvals), Sutter County shall identify required improvements, and shall base its calculations for such projects' fair share payments, based on the most recent traffic modeling (i.e., modeling that accounts for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, and (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs).

e. At the time of issuance of building permits for individual development projects within the plan area, the County shall collect fair share fee payments for improvements or facilities addressed by its CIP as it exists at that time.

Significance after Mitigation: significant and unavoidable.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.3-2: Unacceptable Operations on Sutter County Roadways. The proposed project would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-2: Construct Improvements to Sutter County Roadways. **On-Site Elements** The project applicant shall construct the following mitigation projects, which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1.2. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase. Segment A – Widen Riego Road from two to four lanes between the Natomas Road and Pleasant Grove Road (S). a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing. Significance after Mitigation: significant and unavoidable.		
3.3-3: Unacceptable Operations on Placer County Roadways. The proposed project would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-3: Participate In Funding Improvements to Placer County Roadways. **On-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Segment A – Widen Baseline Road from two to four lanes between Pleasant Grove Road (S) and Locust Road. Segment B – 1. Widen Baseline Road from two to four lanes between Locust Road and Brewer Road. OR 2. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection. Segment C – Widen Baseline Road from two to four lanes between Brewer Road and Watt Avenue. Segment D – Widen Baseline Road from two to four lanes between Watt Avenue to Fiddyment Drive.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
The roadway projects recommended in Mitigation Measure 3.3-3B through 3.3-3C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP. Significance after Mitigation: significant and unavoidable.		
3.3-4: Unacceptable Operations on Sacramento County Roadways. The proposed project would increase daily traffic volumes using Sacramento County roadway segments that do not meet minimum design standards for travel lane and shoulder width under existing plus project conditions.	Significant	Significant
Mitigation Measure 3.3-4: Participate In Funding Improvements to Sacramento County Roadways. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 to widen Powerline Road from the Sacramento County line to Elverta Road to meet Sacramento County design standards including minimum width travel lanes and usable shoulders. Significance after Mitigation: significant and unavoidable.		
3.3-5: Unacceptable Operations on Caltrans Roadways. The proposed project would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-5: Participate in Funding Improvements to Caltrans Roadways. **On-Site Elements** The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for the widening of I-5 between Del Paso Road and Arena Boulevard from six to eight lanes. Significance after Mitigation: significant and unavoidable.		
3.3-6: Unacceptable Operations at Sutter County Intersections. The proposed project would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-6: Construct Improvements to Sutter County Intersections. **On-Site Elements** The project applicant shall construct or make fair share contributions towards the construction of the following mitigation projects, some of which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1. Because the proposed project will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Intersection A – 1. Construct a grade-separated locally-serving interchange (Type-L7 configuration or equivalent). To the extent feasible, the interchange should be constructed to accommodate (at minimal extra cost) a future Type L-9 interchange configuration suitable for the Placer Parkway. Intersection B – 1. Implement Mitigation Measure 3.3-2A. Install a traffic signal, construct exclusive left- and right-turn lanes on the southbound approach and construct an exclusive left-turn lane on the eastbound approach. Intersection C – 1. Construct a grade-separated locally-serving Type-L7 (Upgradeable to a Type-L9 interchange configuration) with a minimum bridge width to accommodate five travel lanes across SR 70/99. With the recent passage of Proposition 1B, $19.1 million was appropriated for the construction of an interchange at the SR 70/SR 99/Riego Road interchange. The project applicants shall provide the local match for construction of this improvement subject to reimbursement or credit pursuant to agreements which may be negotiated in accordance with Mitigation Measure 3.3-1 or otherwise. Elements of the interim interchange such as the EB Riego Road to SB SR 70/99 and WB Riego Road to NB SR 70/99 slip on-ramps can be phased. The slip ramps would eliminate corresponding eastbound and westbound left-turn lanes at the SB and WB off-ramp terminal intersections, respectively. The addition of the SB slip on-ramp and NB slip on-ramp should be constructed before issuance of occupancy permits for over 65% of Phase 1/A development. Significance after Mitigation: significant and unavoidable.		
3.3-7: Unacceptable Operations at Placer County Intersections. The proposed project would increase peak hour traffic volumes using Placer County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-8: Participate in Funding Improvements to Sacramento County Intersections. **On-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Intersection A – 1. Install a traffic signal 2. Modify the intersection and construct the following intersection lanes. Northbound – an exclusive left-turn lane and a shared through/right-turn lane. Southbound – an exclusive left-turn lane and a shared through/right-turn lane. Eastbound – an exclusive left, through, and right-turn lane. Westbound – an exclusive left, through, and right-turn lane. Intersection B – 1. Construct a grade-separated interchange on SR 99 at Elverta Road. Caltrans has allocated approximately $19.1 million in bond money for this project, similar to SR 99 at Riego Road.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Intersection C – 1. Modify the intersection traffic control to side-street stop control and limit access to E. Levee Road to right-in/right-out only. Elverta Road would be uncontrolled. 2. Construct a center curb median to prevent restricted turn movements. Intersection D – 1. Install a traffic signal. Construct an exclusive eastbound left-turn lane and exclusive southbound left and right-turn lanes. Intersection E – 1. Install traffic signals. Intersection F – 1. Install a traffic signal. 2. Modify the eastbound approach to provide one left-turn lane and one through lane. Significance after Mitigation: significant and unavoidable.		
3.3-8: Unacceptable Operations at Sacramento County Intersections. The proposed project would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-8: Participate in Funding Improvements to Sacramento County Intersections. **On-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Intersection A – 1. Install a traffic signal 2. Modify the intersection and construct the following intersection lanes. Northbound – an exclusive left-turn lane and a shared through/right-turn lane. Southbound – an exclusive left-turn lane and a shared through/right-turn lane. Eastbound – an exclusive left, through, and right-turn lane. Westbound – an exclusive left, through, and right-turn lane. Intersection B – 1. Construct a grade-separated interchange on SR 99 at Elverta Road. Caltrans has allocated approximately $19.1 million in bond money for this project, similar to SR 99 at Riego Road. Intersection C – 1. Modify the intersection traffic control to side-street stop control and limit access to E. Levee Road to right-in/right-out only. Elverta Road would be uncontrolled. 2. Construct a center curb median to prevent restricted turn movements. Intersection D – 1. Install a traffic signal. Construct an exclusive eastbound left-turn lane and exclusive southbound left and right-turn lanes.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
Intersection E – 1. Install traffic signals. Intersection F – 1. Install a traffic signal. 2. Modify the eastbound approach to provide one left-turn lane and one through lane. Significance after Mitigation: significant and unavoidable.		
3.3-9: Unacceptable Operations on Caltrans Facilities. The proposed project would increase peak hour traffic volumes using Caltrans facilities, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A
Mitigation Measure 3.3-9: Participate in Funding improvements to Caltrans Facilities. **On-Site Elements** The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for adding mainline capacity to SR 70/99 and I-5 as set forth below. Exhibits 3.3-35 and 3.3-37 show a freeway improvement concept for SR 70/99 and I-5 without and with Placer Parkway. This concept was developed based on cumulative conditions analysis and was developed to provide a comprehensive analysis of freeway operations in the SR 70/99/I-5 corridor that would link current planning on I-5 with future needs on the SR 99 corridor. Caltrans is currently planning HOV lanes on I-5 that would extend from just north of the American River that would terminate just north of Del Paso Road. While still in the planning stages, the I-5 HOV lane project would include direct connector ramps at the I-5/I-80 interchange. In addition, Caltrans is considering to extend the HOV lane project further north on I-5 to Airport Boulevard to take advantage of I-5 mainline improvements (west of SR 70/99) that are to be funded by Sacramento County development. While the ultimate improvements will be developed by Caltrans, the improvement concept shown on Exhibits 3.3-35 and 3.3-36 includes improvements that would connect the I-5 HOV lane improvements to SR 70/99 for a continuous HOV lane that would extend into Sutter County. The concept was also developed with current and continuing system-wide corridor constraints in mind, like the limited capacity of the I-5/I-80 interchange, to not deliver more traffic to system-widen constraints than can be accommodated. The following summarizes the mainline improvements shown on the exhibits: *Without Placer Parkway* Construct HOV lanes northbound and southbound on SR 70/99 from midway between Sankey Road and Riego Road to I-5. Construct direct HOV connector ramps between SR 99 and I-5, linking the SR 99 and I-5 HOV lanes. Construct auxiliary lanes between the SB I-5 to NB SR 70/99 and SB SR 70/99 to NB I-5 connector and Elkhorn Boulevard. *With Placer Parkway* The improvements would be the same as "without" Placer Parkway with the following exception: The SB HOV lane would begin just north of the WB Placer Parkway to SB SR 70/99 on-ramp. The NB HOV lane would end and the third mainline lane would be a trap lane to EB Placer Parkway with two mixed-flow lanes continuing on NB SR 70/99. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.3-10: Unacceptable Operations On Sutter County Roadways. The proposed project would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-10: Participate In Funding Improvements to Sutter County Roadways. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Demand of travel through the Riego Road – Baseline Road corridor is greater than shown in Table 3.3-18 and 3.3-25. Currently, there is no funding identified for widening the segments of Riego Road – Baseline Road between the SPSP and Locust Road in Placer County. The Placer Vineyards Specific Plan is conditioned to improve Baseline Road from Locust Road east along its frontage and includes intersection improvements in Sutter County on Riego Road. The SPSP will widen Riego Road in the plan area to a six- /eight-lane expressway. Consequently, the unimproved (two-lane) segment constrains traffic volumes. Based on the SPSP TDF model, travel demand for these segments of Riego Road under cumulative conditions is about 12,000 vehicles per day higher than shown in Tables 3.3-18 and 3.3-25 assuming six lanes on Riego Road – Baseline Road between the SPSP and Locust Road in Placer County. Another important feature of the cumulative impact analysis is that the cumulative no project and cumulative plus project are two separate "snapshots" of the future. The project's traffic is not added to a fixed amount of traffic under the no project scenario. Both scenarios are fully modeled, which more accurately allows for changes in the matching of trip origins and trip destinations as well as trip routing. Therefore, the project may contribute traffic to many roadways under the cumulative plus project scenarios, but may not necessarily result in higher volumes on a roadway segment when compared to the cumulative no project scenario and not cause an impact. However, as noted in Mitigation Measure 3.3-1, the project will be required to pay impact fees to Sutter County in amounts that constitute the project's fair share contributions to the construction of transportation facilities to be built or improved within unincorporated Sutter County, consistent with the County's CIP. This mitigation measure also extends responsibility for the project to mitigate roadway impacts in other jurisdictions if an enforceable agreement between Placer County and the other jurisdiction is established. The unconstrained traffic volumes were used to develop the mitigation discussed below. Segment A – 1. Widen Riego Road from two to six lanes between the Natomas Road and Pleasant Grove Road (S). 2. Eliminate the traffic control on eastbound and westbound Riego Road at Natomas Road and restrict access to Natomas Road to right-in/right-out only. 3. Construct a six-lane grade-separated crossing of the Union Pacific Railroad between Natomas Road and Pleasant Grove Road (N). 4. Realign Pleasant Grove Road (N) to the east to Pleasant Grove Road (S) so that the roadways form a single intersection. Provide local connection (to maintain local-access) concurrent with realignment. This improvement is needed to accommodate grade-separation of the Union Pacific Railroad. 5. Install a traffic signal at the Riego Road/Pleasant Grove Road (realigned) intersection. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.3-11: Unacceptable Operations On Placer County Roadways. The proposed project would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-11: Participate In Funding Improvements to Placer County Roadways. **On-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Segment A – 1. Construct Placer Parkway as a four-lane freeway/expressway between SR 65 and SR 70/99. 2. Add center lanes on 16th Street (for a total of four-lanes) from the Placer County line to Elverta Road. **On-Site and Off-Site Elements** Segment B – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2. Segment C – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2. 2. Construct Watt Avenue between Baseline Road and PFE Road as a six-lane high-access control facility. The roadway projects recommended in Mitigation Measure 3.3-3B through 3.3-3C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP. The recommended mitigation measure contains multiple roadway projects of a regional nature. This is necessary for two reasons. One, a future roadway network to support the cumulative no project scenario at the LOS thresholds established in local or State policies has not been developed. Two, traffic volume forecasts under cumulative conditions will change in response to changes in the roadway network. Therefore, the mitigation for the cumulative scenarios involved the testing of roadway capacity expansion projects to determine the projects that helped to minimize project impacts. At this time, full funding has not yet been identified for Placer Parkway. Significance after Mitigation: significant and unavoidable.		
3.3-12: Unacceptable Operations On Sacramento County Roadways. The proposed project would increase daily traffic volumes using Sacramento County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-12: Participate In Funding Improvements to Sacramento County Roadways. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Segment A – 1. Widen Elverta Road from two to four lanes between SR 70/99 to East Levee Road. Segment B – 1. Widen Elverta Road from two to four lanes between East Levee Road and Sorento Road. Segment C – 1. Implement Mitigation Measure 3.3-11A.1.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Segment D – 1. Implement Mitigation Measure 3.3-11A.2. Segment E – Implement Mitigation Measure 3.3-4. The implementation of Placer Parkway would reduce daily traffic volumes on Elverta Road compared to "no Placer Parkway" conditions. Significance after Mitigation: significant and unavoidable.		
3.3-13: Unacceptable Operations On Caltrans Roadways. The proposed project would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-13: Participate In Funding Improvements to Caltrans Roadways. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Segment A – Widen the segment of I-5 between SR 70/99 to Del Paso Boulevard from six to eight lanes. Segment B – Implement Mitigation Measure 3.3-5. Segment C – Widen the segment of I-5 between Arena Boulevard and I-80 from eight to 10 lanes. Significance after Mitigation: significant and unavoidable.		
3.3-14: Unacceptable Operations At Sutter County Intersections. The proposed project would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-14: Participate In Funding Improvements to Sutter County Intersections. **On-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Intersection A – 1. Implement Mitigation Measure 3.3-6A.1. Intersection B – 1. Implement Mitigation Measure 3.3-10A.1 through 3.3-10A.5, and 2. Modify the intersection and construct the following intersection lanes. Northbound – two left-turn lanes and a shared through/right-turn lane. Southbound – a separate left-turn lane and a shared through/right-turn lane.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Eastbound – a separate left-turn lane, three through lanes, and a right-turn lane. Westbound – a separate left-turn lane, three through lanes, and a right-turn lane. Intersection C – 1. Upgrade the interim interchange (identified in Mitigation Measure 3.3-6C.1) to a grade-separated locally-serving Type-L9 interchange configuration with a minimum bridge width to accommodate eight travel lanes across SR 70/99 and a southbound loop on-ramp that enters SR 70/99 as its own lane and merges with the southbound slip on-ramp creating an auxiliary lane. **Off-Site Elements** **Intersection B – Implement Mitigation Measure 3.3-14B** Significance after Mitigation: significant and unavoidable.		
3.3-15: Unacceptable Operations at Placer County Intersections. The proposed project would increase peak hour traffic volumes using Placer County intersections, which would exacerbate unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-15: Participate In Funding Improvements to Placer County Intersections. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Intersection A – 1. Implement Mitigation Measure 3.3-14B. Intersection B – 1. Implement Mitigation Measure 3.3-10A.1 through 3.3-10A.5. 2. Modify the intersection to provide the following intersection lanes. Northbound – one left- turn lane, one through lane, and a right-turn lane. Southbound – one left- turn lane and a shared through/right-turn lane. Eastbound – one left-turn lane, three through lanes, and a right-turn lane. Westbound – one left-turn lane, three through lanes, and a right-turn lane. Intersection C – Provide a right-turn overlap phase for the southbound right-turn, which would require prohibiting eastbound u-turn movements. Intersection D – Provide a right-turn overlap phase for the southbound and westbound right-turns, which would require prohibiting eastbound and southbound u-turn movements. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.3-16: Unacceptable Operations at Sacramento County Intersections. The proposed project would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under Cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-16: Participate In Funding Improvements to Sacramento County Intersections. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Intersection A – 1. Install a traffic signal 2. Modify the intersection and construct one left-turn lane, one through lane, and a right-turn lane on all approaches. Intersection B – 1. Implement Mitigation Measure 3.3-8C, and 2. Install a traffic signal. Intersection C – Construct separate left and right-turn lanes on the southbound approach. Intersection E – Construct a second westbound left-turn lane **On-Site Elements** Intersection D – Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements. Significance after Mitigation: significant and unavoidable.		
3.3-17: Unacceptable Operations on Caltrans Facilities. The proposed project would increase peak hour traffic volumes using Caltrans facilities, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	Significant
Mitigation Measure 3.3-17: Participate In Funding Improvements to Caltrans Facilities. **On-Site and Off-Site Elements** The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for adding mainline capacity to SR 70/99 and I-5. Implement Mitigation Measure 3.3-9. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.3-18: Increased Demand for Public Transit. The proposed project would increase demand for public transit under cumulative conditions.	Significant	Significant
Mitigation Measure 3.3-18: Participate In Funding Interim Commuter Bus Service. **On-Site and Off-Site Elements** The project applicant shall pay for interim commuter bus service through an existing service provider like Yuba-Sutter Transit, which would require modification of their current Sacramento Commuter Express to serve the Sutter Pointe project until sufficient ridership is generated to meet minimum thresholds to support a project-administered commuter bus service through the TMA. Significance after Mitigation: significant and unavoidable.		
3.3-19: Increased Demand for Non-motorized Travel. The proposed project would increase demand for non-motorized travel under cumulative conditions.	Significant	Significant
Mitigation Measure 3.3-19: Modify Design Elements of the Riego Road and SR 70/SR 99 Interchange. **On-Site and Off-Site Elements** The project applicant shall coordinate with Caltrans to implement lower speed entrances to the slip on-ramps at the Riego Road interchange. AND Implement reduced cross-sections at study intersections by minimizing the number of left- and right-turn lanes at intersections providing controlled right-turn movements. Significance after Mitigation: significant and unavoidable.		
3.3-20: Impacts of Transportation Mitigation on Riego Road and SR 70/99. Mitigation measures implemented to reduce transportation impacts could increase travel demand on Riego Road under cumulative conditions.	Significant	Significant
Mitigation Measure 3.3-20: Participate in Funding Improvements to Provide Alternative Connections to Sacramento County and to SR 70/99. **On-Site and Off-Site Elements** Implement Mitigation Measure 3.3-6A, which is the construction of a grade-separated locally-serving interchange (Type-L7 configuration or equivalent). To the extent feasible, the interchange shall be constructed to accommodate (at minimal extra cost) a future Type L-9 interchange configuration suitable for the Placer Parkway. In addition, the project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for providing a parallel facility to SR 70/SR 99. Sutter County shall coordinate with the Sacramento County to pursue the construction of a two-lane frontage road (just east of SR 99) connecting the SPSP to Elverta Road to provide a local alternative to SR 70/99 and the SR70/99/Riego Road interchange. The frontage road shall be located adjacent to SR 99 and connect to Road A to minimize potential conflicts with the HCP located south of the plan area. Right-of-way for the frontage road shall be new right-of-way, exclusive of the right-of-way for SR 70/99.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Mitigation Measure: Implement Mitigation Measure 3.3-14C.1: Participate in Funding Improvements to Sutter County Intersections. Significance after Mitigation: significant and unavoidable.		
3.3-21: Impacts of Transportation Mitigation. Mitigation measures implemented to reduce transportation impacts could adversely affect traffic in other jurisdictions.	Significant	Significant
Mitigation Measures 3.3-21 Coordinate Jurisdictions and Agencies on Mitigation for the Proposed Project. **On-Site Elements** The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for designing roadway improvements to minimize impacts on existing and future roadways and intersections. Consistent with Mitigation Measure 3.3-1, Sutter County shall coordinate with the City of Roseville, Placer County, Sacramento County, and Caltrans to ensure that roadway improvements implemented in whole or in part as mitigation for the proposed project are designed to minimize impacts on existing and future roadways and intersections according to the LOS policies of affected jurisdictions. Significance after Mitigation: significant and unavoidable.		
3.3-22: Impacts of Transportation Mitigation on the Physical Environment. Mitigation measures implemented to reduce transportation impacts could have indirect adverse impacts on the physical environment.	No significance determination	No significance determination
Because the specific roadway improvements have not been engineered or designed, the full extent and magnitude of the potential physical impacts on the environment resulting from roadway improvements cannot be known at this time. Therefore, pursuant to Section 15145 of the CEQA Guidelines, the County believes it would be too speculative to attempt to further define impacts or attempt to provide mitigation measures for impacts that are unknown. After the roadway improvements have been design and engineered, a subsequent CEQA analysis would be required to examine the full extent of, and determine any necessary feasible mitigation measures for, the physical impacts that could occur from implementation of proposed roadway improvements.		
3.3-23: Increased Development Near Aircraft Flight Paths. The proposed project would increase development near aircraft flight paths serving the Sacramento International Airport. Significance after Mitigation: No mitigation measures are required.	LTS	LTS
Additional Detailed Analysis (Phase 1 and Phase A)		
3.3-24: Unacceptable Operations on Sutter County Roadways. Phase 1 and Phase A would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-24: Construct Improvements to Sutter County Roadways. The project applicant shall construct the following mitigation projects, which may be subject to fee credits and/or reimbursements, as defined in Mitigation		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Measure 3.3-1.2. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase. Segment A – Widen Riego Road from two to four lanes between the Natomas Road and Pleasant Grove Road (S). a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing. Significance after Mitigation: significant and unavoidable.		
3.3-25: Unacceptable Operations on Placer County Roadways. Phase 1 and Phase A would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-25: Participate In Funding Improvements to Placer County Roadways. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Segment A – Widen Baseline Road from two to four lanes between Pleasant Grove Road (S) and Locust Road. Segment B –1. Widen Baseline Road from two to four lanes between Locust Road and Brewer Road. OR 2. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection. Segment C – Widen Baseline Road from two to four lanes between Brewer Road and Watt Avenue. Segment D – Widen Baseline Road from two to four lanes between Watt Avenue and Fiddyment Drive The roadway projects recommended in Mitigation Measure 3.3-25B and 3.3-25C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP. Significance after Mitigation: significant and unavoidable.		
3.3-26: Unacceptable Operations on Sacramento County Roadways. Phase 1 and Phase A would increase daily traffic volumes using Sacramento County roadway segments that do not meet minimum design standards for travel lane and shoulder width under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Mitigation Measure 3.3-26: Participate In Funding Improvements to Sacramento County Roadways. Implement Mitigation Measure 3.3-4, which is to widen Powerline Road from the Sacramento County line to Elverta Road to meet Sacramento County design standards including minimum width travel lanes and usable shoulders. Significance after Mitigation: significant and unavoidable.		
3.3-27: Unacceptable Operations on Caltrans Roadways. Phase 1 and Phase A would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-27: Participate in Funding Improvements to Caltrans Roadways. The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for the widening of I-5 between Del Paso Road and Arena Boulevard from six to eight lanes. Significance after Mitigation: significant and unavoidable.		
3.3-28: Unacceptable Operations at Sutter County Intersections. Phase 1 and Phase A would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-28: Construct Improvements to Sutter County Intersections. The project applicant shall construct or make fair share contributions towards the construction of the following mitigation projects, some of which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1. Because the proposed project will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase. Intersection A – 1. Implement Mitigation Measure 3.3-2A, which is the widening of Riego Road from Natomas Road (SPSP area boundary) to Pleasant Grove Road (S). Install a traffic signal, construct exclusive left- and right-turn lanes on the southbound approach and construct an exclusive left-turn lane on the eastbound approach. a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing. b. Should Placer County decline to approve the necessary permits for widening Riego Road to 500 feet east of Pleasant Grove Road (S), than widen Riego Road and outlined in Mitigation Measure 3.3-2A and transitions to two lanes west of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1.2, towards future grade separation at railroad crossing.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Intersection B – 1. Implement Mitigation Measure 3.3-6C.1. Significance after Mitigation: significant and unavoidable.		
3.3-29: Unacceptable Operations at Placer County Intersections. Phase 1 and Phase A would increase peak hour traffic volumes using Placer County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-29: Participate in Funding Improvements to Placer County Intersections. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Intersection A – 1. Implement Mitigation Measure 3.3-2A 2. Install a traffic signal 3. Construct an exclusive westbound left-turn lane and an exclusive northbound left- and right-turn lane. Intersection B – 1. Implement Mitigation Measure 3.3-2A 2. Install a traffic signal 3. Modify the intersection and construct the following intersection lanes. Northbound – a separate left, through, and right-turn lane. Southbound – a separate left-turn lane and a shared through/right-turn lane. Eastbound – a separate left-turn lane, two through lanes, and a separate right-turn lane. Westbound – a separate left-turn lane, two through lanes, and a separate right-turn lane. Intersection C – 1. Implement Mitigation Measure 3.3-2A 2. Install a traffic signal 3. Modify the intersection and construct the following intersection lanes. Southbound – a shared through/right-turn lane. Eastbound – an exclusive left-turn lane and two through lanes. Westbound – an exclusive right-turn lane and two through lanes. OR 4. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection. Intersection D – 1. Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.3-30: Unacceptable Operations at Sacramento County Intersections. Phase 1 and Phase A would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-30: Participate in Funding Improvements to Sacramento County Intersections. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Intersection A – 1. Construct a grade-separated interchange on SR 99 at Elverta Road. Caltrans has allocated approximately $19.1 million in bond money for this project, similar to SR 99 at Riego Road. Intersection B – 1. Modify the intersection traffic control to side-street stop control and limit access to E. Levee Road to right-in/right-out only. Elverta Road would be uncontrolled. 2. Construct a center curb median to prevent restricted turn movements. Intersection C – 1. Install traffic signals. Intersection D – 1. Install a traffic signal. 2. Modify the eastbound approach to provide one left-turn lane and one through lane. Significance after Mitigation: significant and unavoidable.		
3.3-31: Unacceptable Operations on Sutter County Roadways. Phase 1 and Phase A would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-31: Participate In Funding Improvements to Sutter County Roadways. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Segment A – Widen Riego Road from two to four lanes between the Natomas Road and Pleasant Grove Road (S). a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.3-32: Unacceptable Operations on Placer County Roadways. Phase 1 and Phase A would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-32: Participate In Funding Improvements to Placer County Roadways. Segment A – 1. Implement Mitigation Measure 3.3-3A Segment B – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2 Segment C – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2. 2. Construct Watt Avenue between Baseline Road and PFE Road as a six-lane high-access control facility. The roadway projects recommended in Mitigation Measure 3.3-32A and 3.3-32C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP. Significance after Mitigation: significant and unavoidable.		
3.3-33: Unacceptable Operations on Sacramento County Roadways. Phase 1 and Phase A would increase daily traffic volumes using Sacramento County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-33: Participate In Funding Improvements to Sacramento County Roadways. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Segment A – 1. Widen Elverta Road from two to four lanes between SR 70/99 to East Levee Road. Segment B – 1. Widen Elverta Road from two to four lanes between East Levee Road and Sorento Road. Segment C – 1. Implement Mitigation Measure 3.3-11A.2. Significance after Mitigation: significant and unavoidable.		
3.3-34: Unacceptable Operations on Caltrans Roadways. Phase 1 and Phase A would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-34: Participate In Funding Improvements to Caltrans Roadways. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Segment A – Implement Mitigation Measure 3.3-13A. Segment B – Implement Mitigation Measure 3.3-5. Segment C – Implement Mitigation Measure 3.3-13C. Significance after Mitigation: significant and unavoidable.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.3-35: Unacceptable Operations at Sutter County Intersections. Phase 1 and Phase A would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-35: Participate In Funding Improvements to Sutter County Intersections. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Intersection A – 1. Implement Mitigation Measure 3.3-6A. Intersection B – 1. Implement Mitigation Measure 3.3-6B Intersection C – 1. Implement Mitigation Measure 3.3-6C.1 Significance after Mitigation: significant and unavoidable.		
3.3-36: Unacceptable Operations at Placer County Intersections. Phase 1 and Phase A would increase peak hour traffic volumes using Placer County intersections, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-36: Participate In Funding Improvements to Placer County Intersections. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Intersection A – Implement Mitigation Measure 3.3-7A Intersection B – Implement Mitigation Measure 3.3-7B Significance after Mitigation: significant and unavoidable.		
3.3-37: Unacceptable Operations at Sacramento County Intersections. Phase 1 and Phase A would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under Cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Mitigation Measure 3.3-37: Participate In Funding Improvements to Sacramento County Intersections. The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding. Intersection A – 1. Implement Mitigation Measure 3.3-8C, and 2. Install a traffic signal. Intersection B – Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements. Significance after Mitigation: significant and unavoidable.		
3.3-38: Unacceptable Operations on Caltrans Facilities. Phase 1 and Phase A would increase peak hour traffic volumes using Caltrans facilities, resulting in unacceptable LOS conditions under cumulative plus project conditions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-38: Participate In Funding Improvements to Caltrans Facilities. The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for adding mainline capacity to SR 70/99 and I-5. Implement Mitigation Measure 3.3-9. Significance after Mitigation: significant and unavoidable.		
3.3-39: Increased Demand for Public Transit. Phase 1 and Phase A would increase demand for public transit.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-39: Participate In Funding Interim Commuter Bus Service. The project applicant shall negotiate for interim commuter bus service through an existing service provider like Yuba-Sutter Transit, which would require modification of their current Sacramento Commuter Express to serve the Sutter Pointe project until sufficient ridership is generated to meet minimum thresholds to support a project-administered commuter bus service through the TMA. Significance after Mitigation: significant and unavoidable.		
3.3-40: Increased Demand for Non-motorized Travel. Phase 1 and Phase A would increase demand for non-motorized travel.	Significant	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Mitigation Measure 3.3-40: Modify Design Elements of the Riego Road and SR 70/SR 99 Interchange. The project applicant shall coordinate with Caltrans to implement lower speed entrances to the slip on-ramps at the Riego Road interchange. AND Implement reduced cross-sections at study intersections by minimizing the number of left- and right-turn lanes at intersections providing controlled right-turn movements. Significance after Mitigation: significant and unavoidable.		
3.3-41: Impacts of Transportation Mitigation on Other Jurisdictions. Mitigation measures implemented to reduce transportation impacts could adversely affect traffic in other jurisdictions.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.3-41: Coordinate Jurisdictions and Agencies on Mitigation for the Proposed Project. The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for designing roadway improvements to minimize impacts on existing and future roadways and intersections. Consistent with Mitigation Measure 3.3-1, Sutter County shall coordinate with the City of Roseville, Placer County, Sacramento County, and Caltrans to ensure that roadway improvements implemented in whole or in part as mitigation for the proposed project are designed to minimize impacts on existing and future roadways and intersections according to the LOS policies of affected jurisdictions. Significance after Mitigation: significant and unavoidable.		
3.4 Air Quality		
Program Level		
3.4-1: Generation of Temporary, Short-Term Construction Emissions of ROG, NO_X, and PM_{10}. Construction activities associated with development of the proposed project would generate temporary, short-term emissions of PM_{10}, ROG, and NO_X. Because of the large size of the project, construction-generated emissions of NO_X, an ozone precursor, would exceed air district-recommended thresholds and would substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS.	Indirect & significant, Direct & significant	Indirect & significant, Direct & significant
On-Site, Off-Site: Mitigation Measure 3.4-1: Develop and Implement Applicable Air District-Endorsed Project-Level Air Quality Mitigation Plan for All Phases of Construction. The project applicant(s) of all project phases shall require their construction contractors, at the time construction is performed, to implement those construction mitigation measures that are required by the respective air district that has jurisdiction over the area in which construction activity would occur. For all construction activity on the project site, the project applicant(s) shall require construction contractors to implement both FRAQMD's Standard Mitigation Measures and Best Available Mitigation Measures for Construction Activity to reduce emissions to the maximum extent feasible for all construction activity performed in Sutter County. For all construction activity that would occur in another air district (i.e., outside of Sutter County), such as the installation of the sewer force main connection to SRCSD and other off-site improvements, the project applicant(s) shall require construction contractors to comply with the best management practices and construction emission reduction measures required by the respective local air district. No project-related construction activity shall		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

occur until an emissions reduction plan developed by the contractor(s) is reviewed and approved in writing by Sutter County in consultation with the respective air district (i.e., FRAQMD, PCAPCD, or SMAQMD) , or, where air district approval is required by law, with the approval of the air district. The following list presents all of the FRAQMD-required measures. (Both PCAPCD and SMAQMD require similar measures.)

1. The applicant shall implement FRAQMD's Fugitive Dust Control Plan with the following mitigation measures:
   - All grading operations on a project shall be suspended when winds exceed 20 miles per hour (mph) or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.
   - Construction sites shall be watered as directed by the FRAQMD and as necessary to prevent fugitive dust violations.
   - An operational water truck shall be on-site at all times. Water shall be applied to control dust as needed to prevent visible emissions violations and off-site dust impacts.
   - On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind-blown dust emissions. The use of approved nontoxic soil stabilizers shall be incorporated according to manufacturers' specifications to all inactive construction areas.
   - All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.
   - Approved chemical soil stabilizers shall be applied according to the manufacturers' specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas.
   - To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed before each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks and prevent/diminish track-out.
   - Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom permitted) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.
   - Temporary traffic control shall be provided as needed during all phases of construction to improve traffic flow, as deemed appropriate by the appropriate department of public works and/or California Department of Transportation (Caltrans), and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.
   - Traffic speeds on all unpaved surfaces shall be reduced to 15 mph or less, and unnecessary vehicle traffic shall be reduced by restricting access. Appropriate training to truck and equipment drivers, on-site enforcement, and signage shall be provided.
   - Ground cover shall be reestablished on the construction site as soon as possible and before final occupancy through seeding and watering.
   - Open burning shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (e.g., trash, demolition debris) may be conducted at the project site. Vegetative wastes shall be chipped or delivered to waste-to-energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials off-site for disposal by open burning.
2. Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions Limitations (40% opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall take action to repair the equipment within 72 hours or remove the equipment from service. Failure to comply may result in a notice of violation from FRAQMD.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3. The primary contractor shall be responsible for ensuring that all construction equipment is properly tuned and maintained before and for the duration of on-site operation. 4. Idling time shall be minimized to 5 minutes in accordance with ARB airborne air toxic control measure 13 (CCR Chapter 10 Section 2485) unless more time is required per engine manufacturers' specifications or for safety reasons. 5. Existing power sources (e.g., power poles) or clean-fuel generators shall be used rather than temporary power generators. 6. A traffic plan shall be developed 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. Operations that affect traffic shall be scheduled for off-peak hours. Obstruction of through-traffic lanes shall be minimized. A flag person shall be provided to guide traffic properly and ensure safety at construction sites. 7. Portable engines and portable engine-driven equipment units used on the project site, with the exception of on-road and off-road motor vehicles, may require ARB Portable Equipment Registration with the state or a local district permit. The owner/operator of the equipment shall be responsible for arranging appropriate consultations with ARB or the FRAQMD to determine registration and permitting requirements before the equipment is operated at the site. 8. The project proponent shall assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that will be used an aggregate of 40 or more hours for the construction project and provide a plan for approval by FRAQMD demonstrating that the heavy-duty (equal to or greater than 50 horsepower) off-road equipment to be used for construction, including owned, leased, and subcontractor vehicles, will achieve a projectwide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction. These equipment emission reductions can be demonstrated using the most recent version of the Construction Mitigation Calculator developed by the SMAQMD. Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology (Carl Moyer Guidelines), after-treatment products, voluntary off-site mitigation projects, the provision of funds for air district off-site mitigation projects, and/or other options as they become available. In addition, implementation of these measures would also result in a 5% reduction in ROG emissions from heavy-duty diesel equipment. FRAQMD shall be contacted to discuss alternative measures. Significance after Mitigation: significant and unavoidable.		
3.4-2: Generation of Long-Term Operational (Regional) Emissions of ROG, NO_X, and PM_{10}. Operational area- and mobile-source emissions related to implementation of the proposed project would exceed the FRAQMD-recommended threshold of 25 lb/day for ROG and NO_X and 80 lb/day for PM_{10} and would result in or substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS. In addition, because of the large increase in emissions associated with buildout of the proposed project and the fact that the proposed project is not within an already approved plan (which means that increased emissions would not already be accounted for in applicable air quality plans), project implementation could conflict with air quality planning efforts.	Direct & significant, No indirect	Indirect & significant, Direct LTS
On-Site, Off-Site: Mitigation Measure 3.4-2: Develop and Implement FRAQMD-Endorsed Project-Level Air Quality Mitigation Plans to Reduce Operational Emissions. An individual air quality mitigation plan (AQMP) shall be developed for each development phase of the proposed project, as prescribed by the Sutter Pointe Master AQMP prepared in June 2008 (as stated in HDR 2008), which offers a programmatic review of emission reduction measures. Each individual AQMP shall		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

prescribe a percent reduction target for emissions of ozone precursors and PM_{10} as determined by Sutter County in consultation with FRAQMD. Individual AQMPs shall outline specific measures that reduce emissions of ozone precursors and PM_{10} to less-than-significant levels where feasible. These measures may include but would not be limited to those recommendations suggested by FRAQMD at the time each AQMP is prepared, and could also include measures suggested by the Sutter Pointe Master AQMP (HDR 2008), and others (e.g., industry standards or otherwise referenced measures). These potential measures are listed below. Where implementation of on-site mitigation measures would not be sufficient to reach FRAQMD's prescribed reduction target, voluntary FRAQMD-approved off-site mitigation projects may also be employed. The list of measures included in each AQMP shall be agreed to by the project applicant and the County, in consultation with FRAQMD.

FRAQMD Standard Mitigation Measures Applicable to All Projects

- Provide for the use of energy-efficient lighting and process systems, such as low-NO_X water heaters, furnaces, and boiler units.
- Use EPA Phase II-certified devices for all newly installed woodburning devices.
- Design streets to maximize pedestrian access to transit stops.
- Include bus shelters at transit access points where deemed appropriate by Yuba-Sutter Transit Authority in large residential, commercial, and industrial projects.

FRAQMD Supplemental Mitigation Measures for Residential Projects

- Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements) that reduce traffic congestion.
- Equip residential structures with electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.
- Provide for, or contribute to, dedication of land for off-site Class I and Class II bicycle trails linking the project to designated bicycle commuting routes in accordance with the regional bikeway master plan.
- Contribute to the provision of synchronized traffic signals on roadways affected by the project and as deemed necessary by the Department of Public Works.
- Provide transit-enhancing infrastructure that includes bus turnouts/bulbs, passenger benches, street lighting, route signs and displays, and shelters as demand and service routes warrant, subject to review and approval by local transportation planning agencies.
- Provide pedestrian-enhancing infrastructure that includes sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety designs/infrastructure, street furniture and artwork, street lighting, pedestrian signalization and signage, and/or access between bus service and major transportation points within the project. As described in the master AQMP, any uses that may impede pedestrian or bicycle circulation, such as berms, gates, walls, or other structures, shall be discouraged, except in areas where the design of the community requires such structures, and if a residential area is separated from a retail/commercial area by a soundwall, openings and connections to such development must be provided to allow for bicycle and pedestrian travel.
- Include neighborhood park(s) or other recreational options, such as trails, within the development to minimize vehicle travel to off-site recreational and/or commercial uses.
- Install solar water heaters on at least 25% of the residential units.
- Incorporate mixed uses, where permitted by local development regulations, to achieve a balance of commercial, employment, and housing options on the project site.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► Include neighborhood telecommunications/telework centers.		
FRAQMD Supplemental Mitigation Measures for Commercial Projects		
► Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements) that reduce traffic congestion and do not substantially increase roadway capacity.		
► Provide preferential parking spaces for carpool and vanpool vehicles, implement parking fees for single-occupancy vehicle commuters, and implement parking cash-out program for employees. As described in the Master AQMP, 10% of all employee parking spaces at employment (office/industrial) areas shall be reserved for carpools and vanpools. These spaces shall be covered or shaded. Other design features may include a separate parking lot for carpool and vanpool vehicles that is closer to the employee building entrance than the parking lot for single-occupancy vehicles and/or connecting the preferential parking lot to the employee entrance of the building with shaded, landscaped walkways or with open-air, covered walkways.		
► Use clean fuel vehicles in the vehicle fleet.		
► Require all employment centers to include an adequate number of on-site shower/locker facilities for bicycling and pedestrian commuters (typically one shower and three lockers for every 25 employees of a shift).		
► Construct/contribute to bicycle and pedestrian facility improvements, such as trails linking commuter routes as identified in the Yuba Sutter Bikeway Master Plan and secure, covered bicycle parking. The Master AQMP states that Sutter Pointe's commercial projects will provide 20% more Class I and Class II bicycle parking than Sutter County Zoning Code requires.		
► Provide ancillary services within walking distance of the project (no further than 1,500 feet), such as cafeterias, health clubs, automatic tellers, and a post office, as appropriate and in compliance with local development regulations.		
► Provide park-and-ride lots as deemed feasible and appropriate by Yuba and Sutter transportation planning agencies.		
► Employment centers that exceed a designated size, as measured by the number of employees, shall provide on-site child care and after-school facilities or contribute to off-site construction of such facilities within walking distance of employment land uses. For employment centers on or adjacent to industrial land uses, on-site child daycare centers shall be provided only if supported by the findings of a comprehensive HRA performed in consultation with the FRAQMD.		
► Provide on-site pedestrian facility enhancements, such as walkways, benches, proper lighting, vending machines, and building access, that are physically separated from parking lot traffic.		
► Feature alternative work schedules, where practical, that allow for work hours that are compressed into fewer than 5 days (e.g., 9/80, 4/40, or 3/36 schedules), or allow flextime schedules.		
► Provide transit amenities (e.g., on-site/off-site bus turnouts, passenger benches, or shelters) where deemed appropriate by local transportation planning agencies.		
► Contribute to the provision of synchronized traffic signals on roadways affected by the proposed project and as deemed necessary by the Department of Public Works.		
► Install solar water heaters for at least 25% of the building floor area.		
► Incorporate mixed uses, where permitted by local development regulations, to achieve a balance of commercial, employment, and housing options within the project site.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► Provide video conferencing facilities.		
► Commit to support programs that include guaranteed ride home, subsidized transit passes, and rideshare matching.		
► Use available emissions offset credits.		
► Provide transportation (e.g., shuttles) to major transit stations and multimodal centers.		
Additional Mitigation Measures		
► Require each employer employment center (more than 25 employees) to assign a transportation coordinator for the Sutter Pointe Transportation Management Association (TMA) as prescribed by the Master AQMP.		
► Require all employers to install a permanent display in employee common areas of alternate transit information, as determined by the requirements of the TMA.		
► Require employers or employment centers (more than 25 employees) to implement a guaranteed ride home program. A described in the Master AQMP, this program is designed to provide a free ride home to any individual registered in the employee alternative commute or rideshare program in the event of a personal emergency or if the individual needs to work approved, unexpected overtime. Eligible employees include those who primarily commute via an alternative: by carpool, vanpool, transit, or bicycle or by walking. A guaranteed ride home program provides those who use an alternative commute option with the assurance that if they register in the program, they will have the peace of mind knowing that they always have a way to get home if an emergency arises.		
► Require employers or employment centers (more than 25 employees) to implement an incentive program for riding transit, carpooling, vanpooling, biking, and walking instead of driving a single-occupancy vehicle to work. As described in the Master AQMP, incentives could include a cash subsidy, a gas card, prizes, or compensatory time off. Free public transit passes would also serve as an incentive.		
► Design and locate buildings to facilitate transit access.		
► Require employers or employment centers (more than 25 employees) to limit the number of employee parking spaces in their lots to discourage driving, as recommended by the Master AQMP.		
► Require commercial and retail development on the project site to exceed Sutter County shading requirements by a minimum of 10%, as recommended by the Master AQMP. Implementing this measure results in a requirement of 50% shading in parking areas with five to 24 vehicle spaces and 60% shading in parking areas with 25 or more spaces. These shade requirements can be met with trees and/or carports with solar panels.		
► Install Energy Star (or equivalent) cool roofing systems on all buildings. As stated in the Master AQMP, the use of light-colored roof systems results in cooler building temperatures, which in turn leads to lower energy costs, reduced energy consumption, and reduced emissions associated with energy generation.		
► Implement energy-efficient design features in all buildings.		
► Establish midday shuttle service from worksite to food service establishments/commercial uses, and provide shuttle service to transit stations/multimodal centers.		
► Provide bicycle storage at apartment complexes or condos without garages.		
► Design shuttle and transit exits to adjoining streets to reduce time to reenter traffic from the project site.		
► Increase wall and attic insulation to 20% beyond Title 24 requirements (residential and commercial).		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► Orient buildings to take advantage of solar heating and natural cooling, and use passive solar designs (residential, commercial, and industrial). ► Provide energy-efficient windows (double pane and/or Low-E) and awnings or other shading mechanisms for windows, porches, patios, and walkways. ► Consider passive solar cooling and heating designs, ceiling and whole house fans, and programmable thermostats in the design of heating and cooling systems. ► Use day lighting systems, such as skylights, light shelves, and interior transom windows. ► Prohibit drive-throughs at restaurants, banks, and other commercial uses. Significance after Mitigation: significant and unavoidable		
3.4-3: Generation of Local Mobile-Source CO Emissions. Project-generated local mobile-source CO emissions would not result in or substantially contribute to concentrations that exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No indirect	Direct & LTS, No indirect
3.4-4: Exposure of Sensitive Receptors to Short- and Long-Term Emissions of Toxic Air Contaminants. Project implementation would result in exposure of sensitive receptors to short- and long-term emissions of TACs from on-site mobile and stationary sources.	Construction Equipment: Direct & potentially significant, No indirect. Stationary Source: Direct & LTS, No indirect Airport Related: No Impact Conclusion Off-Site Mobile Source: Direct & significant, No indirect On-Site Mobile Sources: Direct & potentially significant, No indirect.	Direct & LTS, No indirect
On-Site: Mitigation Measure 3.4-4a: Develop a Plan to Reduce Emissions by Construction Activity and Implement Measures to Control Exposure of Sensitive Receptors to Toxic Air Emissions. The project applicant(s) of all project phases shall develop a plan to reduce the exposure of sensitive receptors to TACs from project construction. The plan shall be submitted to the County for review and approval before the approval of any grading plans. The plan may include such measures as scheduling construction activities when the residences are the least likely to be occupied, requiring equipment to be shut off when not in use, and prohibiting heavy trucks from idling. Applicable measures shall be included in all project plans and specifications for all project phases.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

Off-Site: No mitigation measures are required.

On-Site: Mitigation Measure 3.4-4b: Perform a Site-Specific Health Risk Assessment for All Sensitive Receptors That Would Be Located within the Setback Distances Recommended by ARB.

The project applicant(s) of all project phases shall fund and implement the following measures:

- A site-specific HRA shall be conducted for all proposed sensitive receptors (e.g., residences, schools, overnight medical facilities) that would be located within the respective setback distances recommended in ARB's Air Quality and Land Use Handbook (ARB 2005) or any updated direction from ARB, as becomes available, that provides guidance on land use compatibility with sources of TACs. Each HRA shall be performed according to the standards set forth by the FRAQMD for the purpose of disclosure to the public and decision makers of Sutter County.
- If the incremental risk of cancer in the HRA exceeds 10 in 1,000,000, design mitigation shall be employed. The mitigation shall include tiered tree planting of fine-needle species, such as redwood, along the near side of the segments of SR 99/70 that are within 500 feet of proposed residential receptors and along the freeway 500 feet north and south of the initial planting to enhance the dispersion and filtration of mobile-source TACs associated with the adjacent freeway. These trees shall be planted at a density such that a solid visual buffer is achieved after the trees reach maturity, which breaks the line of sight between the freeway and the proposed homes. These trees shall be planted before occupation of any sensitive land uses located within 500 feet of SR 99/70. This measure encourages the planting of these trees in advance of the construction of these facilities to allow the trees to become established and progress toward maturity. It is consistent with the recommendation of the Master AQMP prepared for the proposed project (HDR 2008).
- To improve the indoor air quality, the following measures shall be implemented by the project applicant(s) of all project phases for the proposed project before the occupancy of the residences:
  - Equip all residences developed on the project site that are within 500 feet of SR 99/70 with High Efficiency Particle Arresting (HEPA) filter systems at all mechanical air intake points to the dwelling.
  - Use the heating, ventilation, and air conditioning (HVAC) systems to maintain all residential units under positive pressure at all times.
  - Locate air intake systems for HVAC as far away from roadway air pollution sources as possible.
  - Develop and implement an ongoing education and maintenance plan for filtration systems associated with HVAC.

Off-Site: No mitigation measures are required.

On-Site: Mitigation Measure 3.4-4c: Develop and Implement Planning and Design Measures to Reduce the Potential for TAC Exposure from On-Site Mobile Sources.

The following mitigation measures shall be implemented to reduce the potential for TAC exposure and related health risk from on-site mobile sources, including diesel trucks:

- Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop and implement a plan to reduce emissions that may include such measures as scheduling such activities when the residential uses are the least occupied, requiring such equipment to be shut off when not in use, and prohibiting heavy-duty trucks from idling. Measures may also include using alternatively fueled vehicles to handle on-site operations (e.g., electric forklifts, yard trucks). The plan shall be submitted to and approved by the County before loading dock activities or other operations begin. For those facilities that include loading docks for trucks, copies of the plan shall be provided to all residential dwellings and schools located within 1,000 feet of loading dock areas.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► Proposed commercial/convenience land uses (e.g., loading docks) that have the potential to emit TACs shall be located as far away as feasibly possible from existing and proposed sensitive receptors. **Off-Site:** No mitigation measures are required. Significance after Mitigation: health-related risks associated with construction activity are less than significant, exposure to mobile-source hazardous pollutant emissions from nearby freeways is significant and unavoidable, exposure to mobile-source TAC emissions from on-site mobile sources is significant and unavoidable.		
3.4-5: Possible Exposure of Sensitive Receptors to Odorous Emissions. Short-term construction and long-term operation of the proposed project could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions.	Temporary Construction: Direct & LTS, No indirect Operations: Direct & significant, No indirect	Temporary Construction: Direct & LTS, No indirect Operations: Direct & LTS, No indirect
On-Site: Mitigation Measure 3.4-5: Develop and Implement Planning and Design Measures to Reduce the Potential for Adverse Odor Exposure. The project applicant(s) of all project phases shall implement the following measures: ► Proposed industrial/commercial/convenience land uses (e.g., fast-food restaurants, painting operations) that have the potential to emit objectionable odors shall be located as far away as feasibly possible from existing and proposed sensitive receptors and oriented where possible to place buildings or other obstructions between the odor source and downwind receptors. ► Truck delivery areas or other areas where trucks would regularly congregate shall be located as far away as feasibly possible from existing and proposed sensitive receptors. ► The odor-producing potential of land uses shall be considered when the exact type of facility that would occupy commercial/convenience areas is determined. ► If an odor-emitting facility is to occupy space in the industrial/commercial/convenience area, the odor-producing potential of the source and potential control devices shall be determined in coordination with the FRAQMD and shall be based on the number of complaints associated with existing sources of the same nature. Odor-control devices (e.g., wet chemical scrubbers, activated carbon scrubbers, biologically active filters, enclosures) shall be identified in the improvement plans before the approval of building permits by Sutter County. The odor-control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant		
Additional Detailed Analysis (Phase 1 and Phase A)		
3.4-6: Generation of Temporary, Short-Term Construction-Related Emissions of Criteria Air Pollutants and Precursors. Project-generated, construction-related emissions of ROG and NO_X would exceed the FRAQMD's significance threshold of 25 lb/day, and emissions of PM_{10} would exceed the FRAQMD's significance threshold of 80 lb/day. Thus, project-generated, construction-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing	Direct & significant, Indirect & significant	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts.		
On-Site: Mitigation Measures: Implement Mitigation Measure 3.4-1. Significance after Mitigation: significant and unavoidable		
3.4-7: Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Precursors. Operation-related activities associated with the land uses developed in Phase 1 and Phase A would result in mass emissions of ROG, NO_X, and PM_{10} that exceed the FRAQMD's significance thresholds of 25 lb/day, 25 lb/day, and 80 lb/day, respectively. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation and/or expose sensitive receptors to substantial pollutant concentrations, especially considering the nonattainment status of Sutter County with respect to ozone and PM_{10}. In addition, because the FRAQMD's significance thresholds approximately correlate with reductions from heavy-duty vehicles and land use project emission reduction requirements in the SIP, project-generated emissions could also conflict with air quality planning efforts. **On-Site: Mitigation Measure: Implement Mitigation Measure 3.4-2.** Significance after Mitigation: significant and unavoidable	Direct & significant, Indirect & significant	N/A (additional detailed analysis of on-site elements only)
3.4-8: Generation of Local Mobile-Source CO Emissions. Project-generated local mobile-source CO emissions would not result in or substantially contribute to concentrations that exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm. **On-Site:** No mitigation measures are required.	Direct & LTS, No indirect	N/A (additional detailed analysis of on-site elements only)
3.4-9: Exposure of Sensitive Receptors to Short- and Long-Term Emissions of Toxic Air Contaminants. Project implementation would result in exposure of receptors to short- and long-term emissions of TACs from on-site mobile and stationary sources.	Construction Equipment: Direct & potentially significant, No indirect. Stationary Source: Direct & LTS, No indirect Airport Related: No Impact Conclusion	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
	Off-Site Mobile Source: Direct & significant, No indirect On-Site Mobile Sources: Direct & potentially significant, No indirect.	
On-Site: Implement Mitigation Measures 3.4-4a, 3.4-4b and 3.4-4c Significance after Mitigation: health-related risks associated with construction activity are less than significant, exposure to mobile-source hazardous pollutant emissions from nearby freeways is significant and unavoidable, exposure to mobile-source TAC emissions from on-site mobile sources is significant and unavoidable.		
3.4-10: Possible Exposure of Sensitive Receptors to Odorous Emissions. Short-term construction and long-term operation of Phase 1 and Phase A could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions.	Temporary Construction: Direct & LTS, No indirect Operations: Direct & significant, No indirect	N/A (additional detailed analysis of on-site elements only)
On-Site: Implement Mitigation Measure 3.4-5. Significance after Mitigation: less than significant		
3.5 Noise		
Program Level		
3.5-1: Exposure of Noise-Sensitive Land Uses to Community Noise Equivalent Level from Sacramento International Airport.	Potentially significant	LTS
On-Site: Mitigation Measure 3.5-1: Prepare an Acoustical Study for any Transient Lodging within the 60 dB CNEL contour of Sacramento International Airport. The project applicant shall prepare an acoustical analysis of proposed construction plans and building materials for any transient lodging facilities located within the 60 dB CNEL noise contours for Sacramento International Airport. All plans must meet interior noise levels within habitable rooms so they do not exceed 45 dB CNEL or 65 dB SEL during individual aircraft events. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.5-2: Exposure of Residential and School Uses Developed on the Project Site to Excessive Single-Event Noise from Sacramento International Airport Operations.	LTS	LTS
On-Site and Off-Site: No mitigation measures are required.		
3.5-3: Exposure of Noise-Sensitive Land Uses to Noise from Union Pacific Railroad Operations.	Significant	LTS
On-Site: Mitigation Measure 3.5-3: Prepare an Acoustical Study for any Sensitive Uses within the 60 dB L_{dn} Contour of the UPRR Operations. The project applicant shall prepare an acoustical analysis of proposed site plans, construction plans, and building materials for any residential uses proposed within the 60 dB L_{dn} contours shown in Table 3.5-15. The applicant shall ensure that adequate noise insulation features are included in the project design to reduce exterior noise levels to 60 dB L_{dn} at primary outdoor activity areas and interior noise levels within habitable rooms to 45 dB L_{dn} and 70 dB SEL. The appropriate exterior noise mitigation would depend on the type of residential product proposed (i.e., what form would the outdoor activity areas take), proximity of the outdoor space to an at-grade crossing, and the ultimate elevation of the outdoor spaces relative to the railroad tracks. If a primary outdoor activity area is proposed approximately 150 feet from the railroad tracks, Table 3.5-15 indicates that the exterior noise exposure at that location would be approximately 70 or 75 dB L_{dn}, depending on whether or not the site is affected by warning horn usage. As such, a 10 to 15 dB exterior noise level reduction would be required to achieve satisfaction with the County's 60 dB L_{dn} exterior noise level standard (the County may permit exterior noise levels up to 65 dB L_{dn} in cases where 60 dB L_{dn} cannot be achieved through a practical application of the best available noise reduction technology). A 10 to 15 dB in railroad noise through the construction of noise barriers alone is very difficult to achieve, as the effective noise source height for railroad sources is placed 10 feet above the tracks for noise barrier calculations. As a result, outdoor activity areas should be set back from the railroad tracks the maximum extent practical, and shielded by intervening residential structures or solid noise barriers to accomplish the necessary attenuation. While it is feasible to mitigate exterior railroad noise exposure at the project site to a state of compliance with the County noise standards, more detailed recommendations for exterior noise mitigation measures cannot be provided until more detailed site and grading plans are available. Interior noise mitigation would also depend on proximity of the habitable room to the tracks and whether the residential structure is affected by warning horn noise. If residences are proposed as close as 150 feet from the railroad tracks near a grade crossing, approximately 30 dB of building facade noise reduction would be required to achieve satisfaction with the 45 dB L_{dn} interior noise level standard of Sutter County, and 34 dB of building façade attenuation would be required to reduce interior SEL values to 70 dB or less. The design to achieve this degree of attenuation shall be specified in the prepared acoustical analysis and likely would take the form of upgraded windows and more massive construction of building walls. Such measures are feasible in noise environments up to 75 dB L_{dn}, but more specific measures for mitigating interior noise levels cannot be developed until site and building plans are available. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		
3.5-4: Exposure of Residential Uses Developed within the Project Site to Excessive Vibration Levels During Passage of Trains on the UPRR Tracks.	LTS	LTS
On-Site and Off-Site: No mitigation measures are required.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.5-5: Noise Impacts Associated with Project Construction Activities.	Significant	Significant
On-Site, Off-Site: Mitigation Measure 3.5-5a: Construction activities taking place in Sutter County shall be restricted to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays, Sundays, and Federal Holidays. This measure is consistent with many jurisdictions code requirements pertaining to permissible construction. The intent of this measure is to prevent construction activities during the more sensitive nighttime period. **Off-Site: Mitigation Measure 5-5b: Construction activities taking place in Placer and Sacramento Counties shall adhere to the applicable Counties ordinances and regulations regarding construction activity hours of operation.** Although Sutter County does not have a specific provision within its ordinances pertaining to construction, Placer County exempts construction activities from the provisions of its noise ordinance provided it occurs between 6 a.m. and 8 p.m. Monday through Friday, and between 8 a.m. and 8 p.m. on Saturday and Sunday provided all construction equipment is fitted with factory-installed muffler devices and maintained in good working order. It is recommended that construction activity occurring on the project site (within Sutter County) be limited to those hours as well. **On-Site, Off-Site: Mitigation Measure 3.5-5c: Measures to Minimize Potential for Sleep Disturbance and Speech Interference.** In addition to MM 3.5-5a and b, the following mitigation shall be incorporated into construction plans to ensure speech interference and sleep disturbance does not occur. ► All construction equipment and staging areas shall be located at the farthest distance possible from nearby noise-sensitive land uses. ► All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. ► All motorized construction equipment shall be shut down when not in use to prevent idling. ► A disturbance coordinator shall be designated and the person's telephone number conspicuously posted around the project sites and supplied to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. Significance after Mitigation: less than significant.		
3.5-6: Agricultural Noise Levels at Future Residences within the Plan Area.	Potentially significant	LTS
On-Site: Mitigation Measure 3.5-6a: Disclosure statements should be provided to all future residences located adjacent to active agricultural areas informing them of the likelihood of elevated noise levels during agricultural operations. This measure will ensure that prospective residents of the developments located adjacent to residential areas are aware of the potential presence of periodic agricultural noises. **On-Site: Mitigation Measure 3.5-6b: Ensure that residential construction provides minimum 30 dB noise reduction.** All residences constructed adjacent to active agricultural areas shall be of sufficient construction to reduce noise levels by 30 dB within bedrooms to minimize the potential for sleep disturbance and ensure compliance with County noise standards during early morning agricultural operations. Construction "sufficient" to provide 30 dB of exterior to interior noise level reduction would consist of stucco siding and windows with a minimum Sound Transmission Class (STC) rating of at least 30.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Off-Site: No mitigation measures are required Significance after Mitigation: less than significant.		
3.5-7: Exposure of Noise Sensitive Land Uses on the Project Site to noise Generated by New Commercial, Industrial, Recreation, School, Utilities, and Public Facility Uses.	Potentially significant	Potentially significant
On-Site: Mitigation Measure 3.5-7a: Require acoustical analyses for new on-site commercial, industrial, recreation, school, utilities, and public facility uses constructed within Sutter County determined to have the potential to exceed applicable noise standards. Sutter County shall make a determination upon review of applications for new noise producing land uses as to whether the proposed use would potentially impact existing or proposed noise-sensitive land uses in the vicinity of the proposed use. Where the County estimates that a project may generate significant levels of noise (i.e. above standards set by the Sutter County General Plan, see Table 3.5-2, 3), a noise analysis shall be required. The noise analysis shall include a detailed mitigation plan based on project level designs and may include, but is not limited to, the construction of noise barriers, modifications to site design, building façade upgrades, or any other means necessary to reduce noise levels that achieve compliance with the County noise standards. The mitigation from the noise analysis shall then be incorporated into the final construction plans before County approval and then built to the specifications designated by the noise analysis. Such mitigation is routinely included in the construction of new school and commercial developments and has been demonstrated to be feasible in mitigating noise impacts. Noise generated by new industry within the project site is typically considerably more variable and complicated, thereby triggering the requirement for a project-specific noise analysis. **Off-Site: Mitigation Measure 3.5-7b: Require acoustical analyses for new off-site utilities and public facility uses constructed within Placer or Sacramento Counties determined to have the potential to exceed applicable noise standards.** For all off-site noise producing infrastructure, such as pumping and transfer stations, all noise generating equipment that is in excess of the applicable county noise standards for new non-transportation noise sources at the property boundary of the nearest sensitive receptor would be required to have an acoustical analysis completed by a acoustical professional and appropriate measures would be required to reduce noise levels to within the applicable standard, such as but not limited to, encasing the equipment within a building or constructing a barrier around the noise generating equipment. Encasing equipment and/or properly constructed noise barriers can typically attenuate noise from 5 dB to complete attenuation depending on design. Significance after Mitigation: less than significant.		
3.5-8: Exposure of Noise Sensitive Land Uses on the Project Site to Noise Generated by Existing Industrial Uses within the Project Site.	Potentially significant	LTS
On-Site: Mitigation Measure 3.5-8: Require acoustical analyses for residential uses within 1,500 feet of existing industrial uses. When applications are filed for residential uses within 1,500 feet of an existing industrial use, an acoustical analysis of specific site, grading and construction plans shall be required to ensure that sufficient noise reduction measures are included in the project design to achieve satisfaction with Sutter County noise standards. **Off-Site:** No mitigation measures are required Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.5-9: Increase in Traffic Noise Levels Due to Project Buildout.	Significant	No impact
On-Site: Mitigation Measure: no mitigation measures are available. Development of the entire project would cause traffic noise levels to increase on the local roadway network. The extent to which existing land uses are affected by these increases will depend on their proximity to the roadways in question as well as their individual sensitivity to noise. The reason no noise mitigation measures are available for this impact is that such mitigation would require modification to either the source of traffic noise, the transmission path between the road and the receivers, or the receiver. Modification to the noise source would require the quieting of individual vehicles, which is preempted from local control by the State Motor Vehicle Code. While noise-reducing pavement materials have been shown to reduce traffic noise levels in some areas, such materials may not provide sufficient noise reduction to reduce this impact to a level of insignificance. Treatment of the path of sound between the roadway and receiver would require the construction of noise barriers at impacted receptors along the impacted segments. Irrespective of the cost associated with such mitigation, barriers could not be constructed at all locations or would not be effective at all locations because of engineering and safety constraints, as well as topographic and vehicular access constraints. Finally, treatment of the receptor would essentially consist of retrofitting the buildings of noise-sensitive receptors to provide additional attenuation of traffic noise by the amount which development of the project site would cause traffic noise to increase. The costs and other constraints associated with such retrofitting would render this option infeasible. **Off-Site:** No mitigation measures are necessary. Significance after Mitigation: significant and unavoidable		
3.5-10: Traffic Noise Exposure at Noise-Sensitive Uses Proposed Within the Project Site.	Significant	No impact
On-Site: Mitigation Measure 3.5-10: Prepare Acoustical Analyses for Residential and Other Noise-Sensitive Development located within areas impacted by traffic noise. When applications are filed for residential and other noise-sensitive uses within the 60 dB Ldn contours shown in Appendix D of Appendix G of this DEIR, or for other noise-sensitive land uses identified in Table 3.5-4, an acoustical analysis of specific site, grading and construction plans shall be required to ensure that sufficient noise reduction measures are included in the project design to achieve satisfaction with Sutter County noise standards. **Off-Site:** No mitigation measures are necessary. Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Additional Detailed Analysis (Phase 1 and Phase A)		
3.5-11: Exposure of Noise-Sensitive Land Uses to Community Noise Equivalent Level from Sacramento International Airport.	LTS	N/A (additional detailed analysis of on-site elements only)
Mitigation Measures: No mitigation measures are required.		
3.5-12: Exposure of Residential and School Uses Developed on the Project Site to Excessive Single-Event Noise from Sacramento International Airport Operations.	LTS	N/A (additional detailed analysis of on-site elements only)
Mitigation Measures: No mitigation measures are required.		
3.5-13: Exposure of Noise-Sensitive Land Uses to Noise from Union Pacific Railroad Operations.	Significant	N/A (additional detailed analysis of on-site elements only)

Mitigation Measure 3.5-13: Apply Mitigation Measure 3.5-3 – Require Acoustical Analyses for residential uses constructed within the 60 dB L_{dn} contours.

The project applicant shall prepare an acoustical analysis of proposed site plans, construction plans, and building materials for any residential uses proposed within the 60 dB L_{dn} contours shown in Table 3.5-15. The applicant shall ensure that adequate noise insulation features are included in the project design to reduce exterior noise levels to 60 dB L_{dn} at primary outdoor activity areas and interior noise levels within habitable rooms to 45 dB L_{dn} and 70 dB SEL.

The appropriate exterior noise mitigation would depend on the type of residential product proposed (i.e., what form would the outdoor activity areas take), proximity of the outdoor space to an at-grade crossing, and the ultimate elevation of the outdoor spaces relative to the railroad tracks.

If a primary outdoor activity area is proposed approximately 150 feet from the railroad tracks, Table 3.5-15 indicates that the exterior noise exposure at that location would be approximately 70 or 75 dB L_{dn}, depending on whether or not the site is affected by warning horn usage. As such, a 10 to 15 dB exterior noise level reduction would be required to achieve satisfaction with the County's 60 dB L_{dn} exterior noise level standard (the County may permit exterior noise levels up to 65 dB L_{dn} in cases where 60 dB L_{dn} cannot be achieved through a practical application of the best available noise reduction technology). A 10 to 15 dB in railroad noise through the construction of noise barriers alone is very difficult to achieve, as the effective noise source height for railroad sources is placed 10 feet above the tracks for noise barrier calculations. As a result, outdoor activity areas should be set back from the railroad tracks the maximum extent practical, and shielded by intervening residential structures or solid noise barriers to accomplish the necessary attenuation. While it is feasible to mitigate exterior railroad noise exposure at the project site to a state of compliance with the County noise standards, more detailed recommendations for exterior noise mitigation measures cannot be provided until more detailed site and grading plans are available.

Interior noise mitigation would also depend on proximity of the habitable room to the tracks and whether the residential structure is affected by warning horn noise. If residences are proposed as close as 150 feet from the railroad tracks near a grade crossing, approximately 30 dB of building facade noise reduction would be required to achieve satisfaction with the 45 dB L_{dn} interior noise level standard of Sutter County, and 34 dB of building façade attenuation would be required to

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
reduce interior SEL values to 70 dB or less. The design to achieve this degree of attenuation shall be specified in the prepared acoustical analysis and likely would take the form of upgraded windows and more massive construction of building walls. Such measures are feasible in noise environments up to 75 dB L_{dn}, but more specific measures for mitigating interior noise levels cannot be developed until site and building plans are available. Significance after Mitigation: less than significant.		
3.5-14: Exposure of Residential Uses Developed within the Project Site to Excessive Vibration Levels During Passage of Trains on the UPRR Tracks.	LTS	N/A (additional detailed analysis of on-site elements only)
Mitigation Measures: No mitigation measures are required.		
3.5-15: Noise Impacts Associated with Project Construction Activities.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.5-15a: Implement Measure 3.5-5a - Construction activities shall be restricted to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays, Sundays, and Federal Holidays. This measure is consistent with many jurisdictions code requirements pertaining to permissible construction. The intent of this measure is to prevent construction activities during the more sensitive nighttime period. **Mitigation Measure 3.5-15b: Implement Measure 3.5-5c - Measures to Minimize Potential for Sleep Disturbance and Speech Interference.** In addition to MM 3.5-5a, the following mitigation shall be incorporated into construction plans to ensure speech interference and sleep disturbance does not occur. ► All construction equipment and staging areas shall be located at the farthest distance possible from nearby noise-sensitive land uses. ► All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. ► All motorized construction equipment shall be shut down when not in use to prevent idling. ► A disturbance coordinator shall be designated and the person's telephone number conspicuously posted around the project sites and supplied to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.5-16: Agricultural Noise Levels at Future Residences within the Plan Area.	Potentially significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.5-16: Implement Measure 3.5-6a: Disclosure statements should be provided to all future residences located adjacent to active agricultural areas informing them of the likelihood of elevated noise levels during agricultural operations. This measure will ensure that prospective residents of the developments located adjacent to residential areas are aware of the potential presence of periodic agricultural noises. **Mitigation Measure 3.5-16b: Implement Measure 3.5-6b - Ensure that residential construction provides minimum 30 dB noise reduction** All residences constructed adjacent to active agricultural areas shall be of sufficient construction to reduce noise levels by 30 dB within bedrooms to minimize the potential for sleep disturbance and ensure compliance with County noise standards during early morning agricultural operations. Construction "sufficient" to provide 30 dB of exterior to interior noise level reduction would consist of stucco siding and windows with a minimum Sound Transmission Class (STC) rating of at least 30. Significance after Mitigation: less than significant.		
3.5-17: Exposure of Noise Sensitive Land Uses on the Project Site to noise Generated by New Commercial, Industrial, Recreation, School, Utilities, and Public Facility Uses.	Potentially significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.5-17a: Implement Measure 3.5-7a: Require acoustical analyses for new on-site commercial, industrial, recreation, school, utilities, and public facility uses constructed within Sutter County determined to have the potential to exceed applicable noise standards. Sutter County shall make a determination upon review of applications for new noise producing land uses as to whether the proposed use would potentially impact existing or proposed noise-sensitive land uses in the vicinity of the proposed use. Where the County estimates that a project may generate significant levels of noise (i.e. above standards set by the Sutter County General Plan, see Table 3.5-2, 3), a noise analysis shall be required. The noise analysis shall include a detailed mitigation plan based on project level designs and may include, but is not limited to, the construction of noise barriers, modifications to site design, building façade upgrades, or any other means necessary to reduce noise levels that achieve compliance with the County noise standards. The mitigation from the noise analysis shall then be incorporated into the final construction plans before County approval and then built to the specifications designated by the noise analysis. Such mitigation is routinely included in the construction of new school and commercial developments and has been demonstrated to be feasible in mitigating noise impacts. Noise generated by new industry within the project site is typically considerably more variable and complicated, thereby triggering the requirement for a project-specific noise analysis. **Mitigation Measure 3.5-17b: Implement Measure 3.5-7b - Require acoustical analyses for new off-site utilities and public facility uses constructed within Placer or Sacramento Counties determined to have the potential to exceed applicable noise standards.** For all off-site noise producing infrastructure, such as pumping and transfer stations, all noise generating equipment that is in excess of the applicable county noise standards for new non-transportation noise sources at the property boundary of the nearest sensitive receptor would be required to have an acoustical analysis		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
completed by a acoustical professional and appropriate measures would be required to reduce noise levels to within the applicable standard, such as but not limited to, encasing the equipment within a building or constructing a barrier around the noise generating equipment. Encasing equipment and/or properly constructed noise barriers can typically attenuate noise from 5 dB to complete attenuation depending on design. Significance after Mitigation: less than significant.		
3.5-18: Exposure of Noise Sensitive Land Uses on the Project Site to Noise Generated by Existing Industrial Uses within the Project Site.	Potentially significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure 3.5-18: Implement Measure 3.5-8 - Require acoustical analyses for residential uses within 1,500 feet of existing industrial uses. When applications are filed for residential uses within 1,500 feet of an existing industrial use, an acoustical analysis of specific site, grading and construction plans shall be required to ensure that sufficient noise reduction measures are included in the project design to achieve satisfaction with Sutter County noise standards. Significance after Mitigation: less than significant.		
3.5-19: Increase in Traffic Noise Levels Because of Phase I Development of Project Site.	Significant	N/A (additional detailed analysis of on-site elements only)
Mitigation Measure: No mitigation measures are available. Development of the Phase I project would cause traffic noise levels to increase on the local roadway network. The extent to which existing land uses are affected by these increases would depend on their proximity to the roadways in question as well as their individual sensitivity to noise. The reason no noise mitigation measures are available for this impact is that such mitigation would require modification to either the source of traffic noise, the transmission path between the road and the receivers, or the receiver. Modification to the noise source would require the quieting of individual vehicles, which is preempted from local control by the State Motor Vehicle Code. While noise-reducing pavement materials have been shown to reduce traffic noise levels in some areas, such materials may not provide sufficient noise reduction to reduce this impact to a level of insignificance. It is difficult to mitigate an increase in noise levels at existing residences because mitigation would either not be enforceable or physically infeasible. For example, funds could be provided to those affected residences to purchase acoustic insulation or new windows to help off-set the increase in traffic noise. However, this measure would not be considered feasible mitigation because it is not enforceable by the County: the County cannot require homeowners to retrofit their homes or landlords to retrofit their residential properties. Although money could be provided to the landowner for this purpose, no guarantee could be made that the landowner would use these funds for their intended purpose, and the County cannot require them use the funds in this way. Consequently, even if payment was made to affected residential landowners, this would not necessarily have the effect of reducing noise impacts for the existing or potential future residents of the property. Since many residential properties in the area are older, landowners that actually want to use a fee to upgrade their property may be constrained by the original construction materials or building design. These factors could limit the ability of the landowner to successfully insulate their property against traffic noise, and so the effectiveness of this mitigation cannot be ensured.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
The other mitigation would be to construct sound walls to help off-set the increase in traffic noise. In many instances it may not be feasible or desirable for the homeowner to have a sound wall constructed on their property. Therefore, this would not be considered a feasible mitigation. Treatment of the path of sound between the roadway and receiver would require the construction of noise barriers at impacted receptors along the impacted segments. Irrespective of the cost associated with such mitigation, barriers could not be constructed at all locations or would not be effective at all locations because of engineering and safety constraints, such as the creation of unsafe site distances, inability to construct barriers over utility easements or on private property, as well as topographic and vehicular access constraints. Finally, treatment of the receptor would essentially consist of retrofitting the buildings of noise-sensitive receptors to provide additional attenuation of traffic noise by the amount which development of the project site would cause traffic noise to increase. The costs and other constraints associated with such retrofitting would render this option infeasible. Significance after Mitigation: significant and unavoidable.		
3.6 Geology, Soils, and Paleontological Resources		
Program Level		
3.6-1: Potential Temporary, Short-Term Construction-Related Erosion. Construction activities during project implementation would involve extensive grading and movement of earth, which could temporarily expose soils to erosion.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
On-Site, Off-Site: Mitigation Measure 3.6-1: Prepare and Implement a Grading and Erosion Control Plan. A grading and erosion control plan shall be prepared by a California Registered Civil Engineer retained by the project applicant(s) for all project phases. The grading and erosion control plan shall be submitted to the applicable County Public Works Department(s) before issuance of grading permits for all new development on the project site and all supporting elements. The plan shall be consistent with the state's NPDES permit requirements and shall include the site-specific grading associated with development for all project phases. The plan shall include the location, implementation schedule, and maintenance schedule of all erosion and sediment control measures, a description of measures designed to control dust and stabilize the construction site road and entrance, and a description of the location and methods of storage and disposal of construction materials. Erosion and sediment control measures could include the use of detention basins, berms, swales, wattles, and silt fencing; and covering or watering of stockpiled soils to reduce wind erosion. Stabilization of construction entrances to minimize trackout (control dust) is commonly achieved by installing filter fabric and crushed rock to a depth of approximately 1 foot. The project applicant(s) of all project phases shall ensure that the construction contractor is responsible for securing a source of transportation and deposition of excavated materials. Implementation of Mitigation Measure 3.7-1 (discussed in Section 3.7, "Hydrology and Water Quality") also would help to reduce erosion-related impacts. Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.6-2: Risks to People and Structures Caused by Surface Fault Rupture and Strong Seismic Ground Shaking. People and structures on the project site could be susceptible to damage from strong seismic ground shaking.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
On-Site, Off-Site: Mitigation Measure 3.6-2a: Prepare a Final Geotechnical Report, and Implement All Applicable Recommendations. Before construction begins for all project phases and all off-site elements, a final geotechnical subsurface investigation report shall be prepared by the project applicant(s) for the proposed development and shall be submitted to the applicable County Public Works Department(s). The final geotechnical engineering report shall be prepared according to the standards adopted in the 2007 or subsequently adopted CBC, and shall address and make recommendations on the following that shall be implemented by the project applicant(s) for all project phases: ▸ seismic design; ▸ site preparation; ▸ appropriate sources and types of fill; ▸ potential need for soil amendments; ▸ road, pavement, and parking areas; ▸ structural foundations, including retaining wall design; ▸ grading practices; ▸ erosion/winterization; ▸ shallow surface water table; ▸ expansive soils/lateral spreading/subsidence; ▸ unstable soils; and ▸ liquefaction. In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions for both on-site and off-site project elements and shall determine appropriate foundation designs that are consistent with the 2007 or subsequently adopted CBC. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant(s) of all project phases. Special recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented as appropriate before on- and off-site construction begins. Design and construction of all new development in all phases of the project shall be in accordance with the 2007 or subsequently adopted CBC. It is the responsibility of the project applicant(s) to provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the geotechnical report. **On-Site, Off-Site: Mitigation Measure 3.6-2b: Monitor On- and Off-Site Earthwork.** All earthwork shall be monitored by a licensed geotechnical or soils engineer retained by the project applicant(s) for all project phases and all off-site elements. The geotechnical or soils engineer shall provide oversight during all excavation, placement of fill, and disposal of materials removed from and deposited on the subject site and other sites. Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.6-3: Seismically Induced Risks to People and Structures Caused by Liquefaction. Soil and groundwater conditions within a portion of the project site render it susceptible to liquefaction from strong seismic ground shaking. **On-Site, Off-Site: Implement Mitigation Measures 3.6-2a and 3.6-2b.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
3.6-4: Seismically Induced Risks to People and Structures Caused by Landsides. The project site and off-site elements are located in an area of relatively flat topography and are not located in or near a landslide hazard area. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No indirect	Direct & LTS, No indirect
3.6-5: Potential Damage to Structures and Infrastructure from Construction on Expansive/Unstable Soils. Portions of the project site and off-site improvements are underlain by soils that have a moderate to high potential for expansion when wet and may also contain areas of unstable soils. **On-Site, Off-Site: Implement Mitigation Measures 3.6-2a and 3.6-2b.** Significance after Mitigation: less than significant.	Indirect & potentially significant, No Direct	Indirect & potentially significant, No Direct
3.6-6: Possible Damage to Unknown, Potentially Unique Paleontological Resources during Earthmoving Activities. Construction activities could disturb previously unknown paleontological resources at the project site and along the alignments of the off-site elements. **On-Site, Off-Site: Mitigation Measure 3.6-6: Conduct Construction Worker Personnel Training, Stop Work if Paleontological Resources Are Encountered, and Implement Paleontological Resources Recovery Plan.** To minimize potential adverse impacts on unique, scientifically important paleontological resources, the project applicant(s) of all project phases and off-site elements shall do the following: ▸ Before the start of grading or excavation activities within the Modesto, Riverbank, or Turlock Lake Formations as shown in Exhibit 3.6-1, the project applicant(s) shall retain a qualified paleontologist or archaeologist to train all construction personnel (including the site superintendent) involved with earthmoving activities, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. ▸ If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the applicable County Public Works Department. The project applicant(s) shall retain a qualified paleontologist to evaluate the resource and prepare a proposed recovery plan in accordance with Society of Vertebrate Paleontology guidelines (1996). The recovery plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
determined by the county to be necessary and feasible shall be implemented before construction or demolition activities can resume at the site where the paleontological resources were discovered. Significance after Mitigation: less than significant.		
Additional Detailed Analysis (Phase 1 and Phase A)		
3.6-7: Potential Temporary, Short-Term Construction-Related Erosion. Construction activities during project implementation would involve extensive grading and movement of earth, which could expose soils to erosion. **On-Site: Implementation of Mitigation Measures 3.6-1 and 3.7-1.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.6-8: Risks to People and Structures Caused by Surface Fault Rupture and Strong Seismic Ground Shaking. The project is susceptible to damage from strong seismic ground shaking. **On-Site: Implementation of Mitigation Measures 3.6-2a and 3.6-2b.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.6-9: Seismically Induced Risks to People and Structures Caused by Liquefaction. Soil and groundwater conditions within a portion of the site render it susceptible to liquefaction from strong seismic ground shaking. **On-Site: Implementation of Mitigation Measures 3.6-2a and 3.6-2b.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.6-10: Seismically Induced Risks to People and Structures Caused by Landsides. The project site and off-site elements are located in an area of relatively flat topography and are not located in or near a landslide hazard area. **On-Site:** No mitigation measures are required.	Direct & LTS, No indirect	N/A (additional detailed analysis of on-site elements only)
3.6-11: Potential Damage to Structures and Infrastructure from Construction on Expansive/Unstable Soils. Portions of the project site and off-site improvements are underlain by soils that have a moderate to high potential for expansion when wet and may also contain areas of unstable soils.	Indirect & potentially significant, No direct	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-Site: Implementation of Mitigation Measures 3.6-2a and 3.6-2b. Significance after Mitigation: less than significant.		
3.6-12: Possible Damage to Unknown, Potentially Unique Paleontological Resources during Earthmoving Activities. Construction activities could disturb previously unknown paleontological resources at the project site.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
On-Site: Implementation of Mitigation Measure 3.6-6. Significance after Mitigation: less than significant.		
3.7 Hydrology and Water Quality		
Program Level		
3.7-1: Potential Temporary Construction-Related Drainage and Water Quality Effects. Construction activities during proposed project implementation would involve extensive grading and movement of earth, which would substantially alter on-site drainage patterns and could generate sediment, erosion, and other nonpoint source pollutants in on-site stormwater that could drain to off-site areas and degrade local water quality.	Direct & significant, Indirect & significant	Direct & significant, Indirect & significant
Mitigation Measure 3.7-1: Acquire Appropriate Regulatory Permits and Implement SWPPP and BMPs. **On-Site and Off-Site Elements** Prior to the approval of grading permits and improvement plans, the project applicant(s) of all project phases shall prepare a SWPPP consistent with the existing statewide NPDES stormwater permit for general construction activity. The project applicant(s) shall also prepare and submit the appropriate NOIs and any other necessary engineering plans and specifications for pollution prevention and control to the County and the RWQCB. The SWPPP and other appropriate plans shall identify and specify: ▸ the use of erosion and sediment-control BMPs, including construction techniques, that shall reduce the potential for runoff as well as other measures to be implemented during construction. These may include but would not be limited to sedimentation ponds, inlet protection, perforated riser pipes, check dams, and silt fences; ▸ the implementation of approved local plans, nonstormwater-management controls, permanent postconstruction BMPs, and inspection and maintenance responsibilities; ▸ the pollutants that are likely to be used during construction that could be present in stormwater drainage and nonstormwater discharges, including fuels, lubricants, and other types of materials used for equipment operation; ▸ spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills; ▸ personnel training requirements and procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
BMPs specified in the SWPPP; and ► the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP. Where applicable, BMPs identified in the SWPPP shall be in place throughout all site work and construction/demolition activities and shall be used in all subsequent site development activities. BMPs may include such measures as the following: ► Implementing temporary erosion-control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation. ► Establishing permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration. ► Using drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways and facility infrastructure. All construction contractors shall retain a copy of the approved SWPPP on the construction site. Significance after Mitigation: less than significant.		
3.7-2: Potential Increased Risk of Flooding from Increased Stormwater Runoff. Proposed project implementation would increase the amount of impervious surfaces on the project site, thereby increasing surface runoff. This increase in surface runoff would result in an increase in both the total volume and the peak discharge rate of stormwater runoff, and therefore could result in greater potential for on- and off-site flooding.	Direct & significant, Indirect & significant	Direct & significant, Indirect & significant
Mitigation Measure 3.7-2a: Prepare and Submit Final Drainage Plans to the County and Implement Requirements Contained in Those Plans. **On-Site and Off-Site Elements** a. For each increment of new development on the project site requiring a discretionary approval, the County shall confirm that the area to be developed either already has or shall have prior to issuance of building permits the minimum level of flood protection required at the time of the development approval by state or federal law, whichever is more stringent. The requirement for such a showing shall be made a condition of any small lot tentative map approval (i.e., prior to final approval) associated with the new development and satisfaction of the condition shall be verified by the County prior to recordation any final map associated with the new development. Where no small lot tentative map and final map is required for a non-residential discretionary development approval, the requirement for such confirmation, to be demonstrated no later than the time of occupancy, shall be made a condition of approval of project-level discretionary approvals analogous to issuance of small-lot tentative maps. After the County general plan amendments and zoning changes made in response to the Central Valley Flood Protection Plan as mandated by Government Code Sections 65302.9 and 65860.1 have become effective (expected in 2015), the County shall not approve a development agreement, tentative map, parcel map, or any other discretionary permit or other discretionary entitlement, or any ministerial permit that would result in the construction of a new residence, for a project located within a flood hazard zone unless the County finds, based on substantial evidence, one of the following: ► flood management facilities shall provide the area to be developed with a level of protection necessary to withstand a 200-year flood event;		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

- the County has imposed conditions on the development agreement or other entitlement that shall provide the area to be developed with a level of protection necessary to withstand 200-year flood event; or
- local flood management agencies have made adequate progress towards construction of a flood protection system intended to provide the area to be developed with a level of protection necessary to withstand a 200-year flood event to justify the expectation that the area to be developed shall have that level of protection by 2025.

b. Before the approval of grading plans and building permits, the project applicant(s) of all project phases shall submit final drainage plans to the County demonstrating that off-site upstream runoff would be appropriately conveyed through the project site, and that project-related on-site runoff would be appropriately contained in detention basins to reduce flooding impacts, such that the flood control requirements in (a) are met. At the time of the Sankey Gap storage detailed design, capacity shall be based on 100-year flood protection unless the requirements of SB 5 dictate 200-year protection. If it is determined that more capacity is needed than the 3,740 acre-feet of storage calculations based on Wood Rodgers (2008), then a combination of the above three drainage alternatives shall be implemented, giving up to three times the 3,740 acre-feet amount and appropriately conveying the 5,800 acre-feet volume as estimated by Sutter County (2008).

c. The 408 acres on the project site designated "E1 Interim Flood Zone" shall remain available for on-site detention, and thus shall not be developed with uses inconsistent with detention, until such time as the entire project site has a level of protection necessary to withstand a 200-year flood event.

Mitigation Measure 3.7-2b: Perform a Detailed Geotechnical Analysis of Proposed Levees or Raised Ground Areas.

On-Site and Off-Site Elements

A detailed geotechnical analysis of the proposed on-site levees or raised ground areas required for prevention of flooding from the adjacent off-site floodplain shall be performed. This analysis shall also be required for the berm systems in the event that the off-site flood storage elements are utilized. This detailed geotechnical analysis shall be completed to evaluate the potential for underseepage, and shall include the following:

- Thickness and permeability characterizations of the top stratum, both waterside and landside of the berms, shall be taken by borings or other appropriate methods, to a depth sufficient to provide data for stability analyses and underseepage conditions of the berms.
- If the potential for seepage exists, detailed materials and construction performance standards sufficient to comply with FEMA flood protection standards (44 Code of Federal Regulations Section 65.10) shall be utilized to ensure that underseepage does not occur.
- Before the start of construction activities, the project applicant(s) shall retain a licensed hazardous materials specialist to collect and evaluate representative soil samples from potential borrow sites for contaminant residues (e.g., trace metals, pesticides, PCBs) that may be encountered in excavation and grading activities. This evaluation shall address any requirements pursuant to the Central Valley RWQCB permitting and approval process for the proposed project (e.g., waste discharge permitting and/or Section 401 certification).
- If contaminant residues are encountered at hazardous levels, a site remediation plan shall be prepared pursuant to Section 25401.05(a)(1) that identifies any necessary remediation activities identified by the hazardous materials specialist, including excavation and removal of on-site contaminated soils and redistribution of clean fill material on the project site. The plan shall include measures that provide for the safe transport, use, and disposal of contaminated soil and debris removed from the site (e.g., compliance with Caltrans transport regulations, and disposal at facilities permitted by EPA and/or the California Department of Toxic Substances Control (DTSC) to accept hazardous wastes). If the evaluation of soil samples detects the presence of contaminants that are not present at hazardous levels, the results of the evaluation shall be reported to the RWQCB for classification in its designated waste classification program. The RWQCB will determine the acceptability of the material for levee construction based on the potential of the borrow material to impair water quality.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Mitigation Measure 3.7-2c: Negotiate an Agreement with RD 1000. **On-Site Elements** The project applicant(s) of all project phases shall comply with the Drainage Improvement Agreement between RD 1000 and Sutter County. The agreement specifies the standards for design and construction of the improvements within the RD 1000 system that are required to accommodate the runoff from the channel improvements that would be required to convey storm water runoff through the Natomas Basin in order to maintain flood control requirements for the 100-year flood stage. This agreement includes the following provisions: ► Stormwater from the project site discharged in to the RD 1000 drainage system shall not exceed 0.16 cfs/acre. ► Hydrologic modeling for stormwater drainage impacts shall use RD 1000's Natomas Basin Modeling Plans. ► The proposed project shall provide additional pumping and carrying capacity to the extent that demands on RD 1000 pumping plants and canals are increased as a result of the proposed project. ► The agreement defines the roles and responsibilities of the project applicant(s), Sutter County, and RD 1000. Significance after Mitigation: less than significant.		
3.7-3: Flooding Risk from Potential for Levee or Dam Failure, or Inundation from Slow-rise Flooding during a 100-Year Flood Event. The project site is located within a designated 100-year floodplain as currently delineated by FEMA. **Mitigation Measure: Implement Mitigation Measure 3.7-2a.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
3.7-4: Potential Damage From 200-Year Flood Event. The project site is located within an area that does not have 200-year flood protection, which will be required by SB 5. **Mitigation Measure: Implement Mitigation Measure 3.7-2a.** **Mitigation Measure 3.7-4a: Incorporate Flood Control Measures to Provide Protection from 200-Year Sankey Gap Flood Flows.** **On-Site and Off-Site Elements** In the event that, as of 2015, the County concludes that it is not reasonably foreseeable that SAFCA will provide 200-year protection with respect to the Sankey Gap 200-year overflow by 2025, the County, in granting discretionary development approvals, shall require the applicant to develop and implement a program to engineer the project site to be protected by the 200-year storm event as required by SB 5 by no later than 2025. That program could include, but is not limited to, the following components: ► Enlarge/deepen the proposed on-site detention basins to accommodate flows between the 100-year and 200-year events. ► Develop off-site detention basins located east of the Sankey Gap (as noted in Alternative 2 described above and in detail in the SPSP Drainage Master Plan [Wood Rodgers 2008]). ► Develop off-site detention basins located west of the project site (as noted in Alternative 3 described above and in detail in the SPSP Drainage Master Plan	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
[Wood Rodgers 2008]). ► Allow greater overland flows during the 100- to 200-year events onto adjoining agricultural fields located west and northwest of the site (as noted in Exhibit 3.7-13). ► Raise building pad elevations to higher elevations to protect against higher run-off events. ► Allow more residual flooding in non-structural areas during high-flood events (e.g., parking lots, parks, and streets). ► Improve flood flow conveyance capacity west of the site under State Highway 99/70 by improving/increasing culvert capacity under the highway. ► Increase flood storage in the RD 1000 North Drainage Canal and other applicable drainage canals that could potentially accommodate increases in flood storage volumes. As part of this program, the applicants shall conduct hydrologic engineering studies to support the above options that would include the following components: ► One-dimensional and two-dimensional unsteady state modeling (i.e., the ability to account for flows and flood stages that change quickly over time) shall be developed as needed to calculate flow paths and flood depths to the accuracy required by local, state, and federal requirements for protection of property. ► On-site (Alternative One) storage volume expansion and conveyance capacity shall be considered and evaluated via this modeling in order to ensure that basin freeboard and street culvert capacity have the hydraulic capacity to offset estimated 200-year flood increases through or around the project site. ► Modeling efforts for major off-site flood storage infrastructure (Alternatives Two and Three) shall identify the most efficient ways available to direct and detain flooding. This modeling shall include evaluations of potential groundwater basin effects, and rainfall/river elevation (hydrologic) coincidence between the Natomas Cross Canal and Sacramento River watersheds as they affect the magnitude of spilling and storage into the project site during 200-year storm conditions. Significance after Mitigation: less than significant.		
3.7-5: Long-Term Water Quality Effects from Urban Runoff. The proposed project would convert a large area of undeveloped land to residential and commercial uses, thereby changing the amount and timing of potential long-term contaminants in stormwater runoff to the Natomas Basin Drainage System and other drainage courses on-site.	Direct & significant, Indirect & significant	Direct & significant, Indirect & significant
Mitigation Measure 3.7-5: Develop and Implement a BMP and Water Quality Maintenance and Monitoring Plan. Before approval of the final small-lot subdivision map for all project phases, detailed hydrology plans, and a water quality study, shall be prepared by a qualified engineer retained by the project applicant(s). Drafts of these plans shall be submitted to the County for review and approval concurrently with development of tentative subdivision maps for all project phases. These plans shall finalize the water quality improvements and further detail the structural and nonstructural BMPs proposed for the project. The plans shall include the following: ► a quantitative analysis of proposed conditions incorporating the proposed drainage design features. ► pre-development and post-development calculations demonstrating that the proposed water quality BMPs meet or exceed requirements established by the Central Valley RWQCB and including details regarding the size, geometry, and functional timing of storage and release.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► source control programs to control water quality pollutants on the project site, which may include but are limited to recycling, street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills and illegal dumping, and effective management of public trash collection areas. ► a lake management plan for the proposed basins that shall include management and maintenance requirements for the design features and BMPs, and responsible parties for maintenance and funding. Significance after Mitigation: less than significant.		
3.7-6: Depletion of Groundwater Supplies or Substantial Interference with Groundwater Recharge. Shallow and deep percolation of rainwater and related runoff and consequent depth to groundwater could be affected locally by the development of additional impervious surface, which may limit infiltration and recharge. Furthermore, M&I groundwater use proposed as part of the project could affect groundwater supplies. Mitigation Measures: No mitigation measures are required.	Direct & LTS, No indirect	Direct & LTS, No indirect
3.7-7: Potential for Project-Related Water Supply to Exceed Groundwater or Surface Water Quality Objectives. Proposed project municipal groundwater or surface water from the Sacramento River that exceeds water quality standards for arsenic, or from contaminants from the Holt Site, could affect M&I water supplies for the proposed project.	Direct & potentially significant, no indirect	No direct, No indirect
Mitigation Measure: Implement Mitigation Measure 3.12-2. **Mitigation Measure 3.7-7a: Implement a Surface Water and Groundwater Treatment Program.** **On-Site Elements** The project applicant(s) of all project phases shall implement a surface water and groundwater treatment program that contains the following elements: 1. Groundwater and surface water shall be treated to meet the regulations of both DPH, and EPA, including the Title 22 drinking water quality standards that are in place at the time the treatment plants are constructed. 2. The treatment process shall provide removal of iron, manganese, and arsenic to levels that meet the water quality standards listed in Table 3.7-1. For arsenic and magnesium the lower, more conservative EPA MCL standards shall be met. 3. Solids from the treatment process shall be disposed of either: ► By discharge to the public sewer system (if deemed appropriate by SRCSD); ► By storage of the decanted sludge in the bottom of the on-site storage tank for periodic pumping and trucking to a Class III landfill as a low water content sludge (3% - 4% water content), or ► By periodically transferring the low water content sludge to sludge drying beds and then harvesting the dried sludge and trucking it to an appropriately permitted landfill. 4. The treatment facilities shall comply with Sutter County Department of Public Works Design Standards for Domestic Water Supply Systems (Section 6).		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
5. The applicant(s) shall obtain all necessary regulatory agency approval and operational permits, including DPH Domestic Drinking Water Permit, sludge waste classification pursuant to federal Resource Conservation and Recovery Act regulations (Code of Federal Regulations Title 40), California Health and Safety Code (Division 20, Chapter 6.5, Hazardous Waste Control Law) regulations, and California Code of Regulations Title 22, Division 4.5 regulations, and shall abide by the permit conditions.		
Mitigation Measure 3.7-7b: Maintain Sufficient Distance between On-Site Production Wells and the Holt Facility. **On-Site Elements** M&I wells installed to meet water demands for the proposed project shall maintain a distance from the Holt site sufficient to ensure that the water quality objectives described in 3.7.1, "Regulatory Background," and Table 3.7-1 are met. This distance shall be determined as follows: ▸ The vertical extent of the contamination shall be determined by installation of new monitoring wells at areas of suspect contamination, to depths determined by a professional hydrologist to be sufficient to determine the vertical extent. This information, in addition to the horizontal extent of contamination determined by existing Luhdorff & Scalmanini Consulting Engineers (2008) groundwater assessment monitoring wells, shall be used to define the extent contaminant plume. No project-related wells shall be installed within or downgradient of the contaminated groundwater plume emanating from the Holt facility. Proposed M&I well locations shall be approved by the Sutter County Environmental Health Division and/or Central Valley RWQCB. All well installation activities shall be conducted under the supervision of a registered geologist or civil engineer licensed by the State of California. **Off-Site Elements** Mitigation Measures: No mitigation measures are required. Significance after Mitigation: less than significant.		
3.8 Public Services		
Program Level		
3.8-1: Temporary Obstruction of Roadways during Construction. Project implementation could obstruct roadways in the project vicinity during construction, potentially obstructing or slowing emergency vehicles attempting to access the area.	Direct & significant, No indirect	Direct & significant, No indirect
On-Site, Off-Site: Mitigation Measure 3.8-1: Prepare and Implement Construction Traffic Control Plans. The project applicant(s) and/or project contractor(s) of all project phases shall prepare and implement construction traffic control plans for construction activities that may affect road rights-of-way. The traffic control plans must follow any applicable standards of the agency responsible for the affected roadway and must be signed by a professional engineer. Measures typically identified in traffic control plans include advertising planned lane closures, posting warning signage, using a flagperson to direct traffic flows when needed, and implementing methods to ensure continued access by emergency vehicles. During project construction, access to existing land uses shall be maintained at all times, with detours used as necessary during road closures. The traffic control plans shall be submitted to the applicable county public works department or Caltrans (for SR 99/70), depending on jurisdiction, for review and approval before the approval of all project plans		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
or permits for all project phases, including off-site elements, where implementation may cause impacts on existing traffic flow. Significance after Mitigation: less than significant.		
3.8-2: Increased Demand for Fire Protection Facilities, Systems, Equipment, and Services. Project development would result in increased demand for fire protection facilities and services, potentially resulting in the need for additional staff members, facilities, and equipment to maintain an adequate level of service.	Direct & LTS, No indirect	No direct, No indirect
On-Site: Mitigation Measure 3.8-2: Prepare and Implement a Wildfire Management Plan. The project applicant(s) and/or project contractor(s) of all project phases shall prepare and implement a wildfire management plan. The plan would be aimed at providing fire protection for those developing properties that are adjacent to lands that are not developed. Measures typically identified in wildfire management plans include construction requirements for buildings adjacent to open space or undeveloped land and standards for vegetative establishment and maintenance. Significance after Mitigation: less than significant. **Off-Site:** No mitigation measures are required.		
3.8-3: Increased Demand for Fire Flow. Project implementation would include the development of residential, commercial, school, and other uses that would require adequate available water flow for fire suppression. Lack of adequate fire flow would impede the ability of Sutter County Fire Services to provide effective fire suppression at the project site.	Direct & significant, No indirect	No direct, No indirect
On-Site: Mitigation Measure 3.8-3: Incorporate Fire Flow Requirements into Project Design. The project applicant(s) of all project phases shall incorporate into their project designs fire flow requirements based on the California Fire Code and other applicable requirements based on Sutter County fire prevention standards. A letter from Sutter County shall be obtained verifying that adequate water is available for fire flow for the project site. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		
3.8-4: Increased Demand for Law Enforcement Protection Facilities, Services, and Equipment. Project development would increase the demand for law enforcement protection facilities and services, resulting in the need for additional staff members and equipment to maintain an adequate level of service.	Direct & significant, No indirect	No direct, No indirect
On-Site: Mitigation Measure 3.8-4: Incorporate Recommendations of Applicable Law Enforcement Agencies into Project Design. The project applicant(s) of all project phases shall consult with the Sheriff's Department and other law enforcement agencies with jurisdiction over the site and incorporate into the project design the recommendations of these agencies. Consultation shall occur as part of each subdivision map review, and each subdivision shall be modified to include the requirements from the consultation.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Off-Site: No mitigation measures are required. Significance after Mitigation: less than significant.		
3.8-5: Increased Demand for School Facilities and Services. Project implementation would increase demand for elementary and high schools to serve the project site. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No indirect	No direct, No indirect
3.8-6: Increased Demand for Library Services. Project implementation would increase demand for library services at the project site. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No indirect	No direct, No indirect
3.8-7: Increased Demand for Judicial, Public Health, Mental Health, and Social Services. Project implementation would increase demand for judicial, public health, mental health, and social services in Sutter County. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No indirect	No direct, No indirect
3.9 Water Supply		
Program Level		
3.9-1: Increased Demand for Water Supplies. Project implementation would increase groundwater pumpage in the North American Subbasin and would shift the timing for surface water use as compared to current use, with more water used during winter months and less water used during summer months.	Groundwater: Direct & LTS, No indirect Surface water: Direct & significant, no indirect	No direct, No indirect
Mitigation Measure 3.9-1: Submit Proof of Surface Water Supply Availability. **On-Site Elements** a. Prior to approval of any small-lot tentative subdivision map subject to Government Code Section 66473.7 (SB 221), the County shall comply with that statute. Prior to approval of any small-lot tentative subdivision map for a proposed residential project not subject to that statute, the County need not comply with Section 66473.7, or formally consult with any public water system that would provide water to the affected area; nevertheless, the County shall make a factual showing or impose conditions similar to those required by Section 66473.7 to ensure an adequate water supply for development authorized by the map. b. In approving a small-lot tentative subdivision map pursuant to paragraph (a), the County shall impose conditions accomplishing the following: (i) requiring, prior to final map recordation, either the conveyance to the County, or to any other public entity responsible for providing wholesale or retail surface water to the affected property (e.g., a County Service Area), all shares the affected landowner(s) may hold in the Natomas Central Mutual Water Company that are appurtenant to the land subject to the tentative subdivision map or, in lieu thereof, a contract with Natomas Central Mutual Water Company providing a water		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

supply equivalent to that available through such shares; and (ii) disallowing non-agricultural development in the area subject to the map absent such conveyance or agreement or, alternatively, absent the conveyance or agreement, proof of a right to use an alternate surface water source that is of sufficient quantity to serve the area and is as reliable as the surface water the Natomas Central Mutual Water Company uses pursuant to its water rights and consistent with its settlement agreement with the United States Bureau of Reclamation.

c. Prior to recordation of each final subdivision map, or prior to County approval of any similar project-specific discretionary approval or entitlement required for nonresidential uses, the project applicant(s) of that project phase or activity shall demonstrate the availability of a reliable and sufficient water supply from a public water system for the amount of development that would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement. Such a demonstration shall consist of information showing that both existing sources are available or needed supplies and improvements will be in place prior to occupancy. Where a landowner seeking a project-specific non-residential discretionary approval or entitlement has shares in the Natomas Mutual Water Company but has not conveyed them or provided an agreement achieving the practical equivalent of such conveyance, or has not been required to convey them, pursuant to paragraph (b), the County shall condition the non-residential approval or entitlement so as to disallow non-agricultural development in the area subject to the map absent such conveyance or agreement or, alternatively, absent the conveyance to the County, or to any other public entity responsible for providing wholesale or retail surface water to the affected property, of the right to use an alternate surface water source that is of sufficient quantity to serve the area and is as reliable as the surface water the Natomas Mutual Water Company uses pursuant to its water rights and consistent with its settlement agreement with the United States Bureau of Reclamation.

d. In approving a small-lot tentative subdivision map pursuant to paragraph (a), the County shall impose conditions accomplishing the following: requiring, prior to final map recordation, that the landowner seeking the project-specific small-lot subdivision map provide the to the County, or to any other public entity responsible for providing wholesale or retail groundwater to the affected property, a permanent agreement, in recordable form (i) authorizing the County or the other public entity to act as the exclusive agent for exercising the overlaying groundwater rights appurtenant to the land subject to the tentative subdivision map, and (ii) prohibiting the landowner or its successor or assigns from extracting groundwater or otherwise exercising such rights on their own behalf.

e. Prior to recordation of each final subdivision map, or prior to County approval of any similar project-specific discretionary approval or entitlement required for nonresidential uses, the project applicant(s) of that project phase or activity shall provide to the County, or to any other public entity responsible for providing wholesale or retail groundwater to the affected property, a permanent agreement, in recordable form, (i) authorizing the County or the other public entity to act as the exclusive agent for exercising the overlaying groundwater rights appurtenant to the land subject to the tentative subdivision map, and (ii) prohibiting the landowner or its successor or assigns from extracting groundwater or otherwise exercising such rights on their own behalf.

f. In approving a small-lot tentative subdivision map pursuant to paragraph (a) or prior to County approval of any similar project-specific discretionary approval or entitlement required for nonresidential uses, the County shall impose water conservation measures including, but not limited to, the following:

- With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public area and commercial landscaping. Use water-efficient turf in parks and other turf-dependant spaces.
- Install the infrastructure to use reclaimed water for landscape irrigation and/or washing cars.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances.
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces. These restrictions should be included in the Covenants, Conditions, and

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Restrictions of the community. ► Provide education about water conservation and available programs and incentives. **Off-Site Elements** Mitigation Measures: No mitigation measures are required. Significance after Mitigation: less than significant.		
3.9-2: Need for Off-Site Water Conveyance Facilities. Project implementation would require construction of off-site water conveyance facilities to implement the surface water element of the project.	N/A	Direct & Potentially significant, No indirect
Mitigation Measure 3.9-2: Submit Proof of Adequate Water Conveyance Facilities and Implement Off-site Infrastructure Service Systems or Assure that Adequate Financing is Secured. **Off-Site Elements** Prior to approval of building permits for all project phases, the project applicant(s) of all project phases shall submit proof to the County that an adequate off-site delivery system either has been constructed or is assured through the use of bonds or other sureties to the County's satisfaction. Off-site water facilities sufficient to provide adequate water to the proposed project's residential or nonresidential uses shall be in place prior to the approval of the final map, or their financing shall be assured to the satisfaction of the County. Significance after Mitigation: less than significant.		
3.9-3: Need for On-Site Water Conveyance and Storage Facilities. Project implementation would result in increased demand for water supply. On-site water conveyance and storage facilities would be required to deliver water to customers on the project site.	Direct & Potentially significant, No indirect	N/A
Mitigation Measure 3.9-3. Submit Proof of Adequate Water Conveyance Facilities and Implement On-site Infrastructure Service Systems or Assure that Adequate Financing is Secured. **On-Site Elements** Prior to approval of building permits for all project phases, the project applicant(s) of all project phases shall submit proof to the County that an adequate on-site delivery system either has been constructed or is assured through the use of bonds or other sureties to the County's satisfaction. On-site facilities sufficient to provide adequate water to the proposed project's residential or nonresidential uses shall be in place prior to the approval of the final map, or their financing shall be assured to the satisfaction of the County. Significance after Mitigation: less than significant.		
3.9-4: Increased Demand for Groundwater and Surface Water Treatment Plant Facilities. Project implementation would require construction of on-site groundwater and surface water treatment plant facilities.	Direct & Potentially significant, No indirect	No direct, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
Mitigation Measure 3.9-4: Demonstrate Adequate Water Treatment Capacity. **On-Site Elements** The project applicant(s) of all project phases shall demonstrate adequate capacity at the groundwater treatment plants and SWTP for treatment of raw groundwater and surface water. This shall involve preparing a tentative map–level study and paying connection and capacity fees as determined by the County. Approval of the final project map shall not be granted until the County verifies adequate water treatment capacity either is available or is certain to be available when needed at the groundwater treatment plants and SWTP for the amount of development identified in the tentative map. Significance after Mitigation: less than significant.		
3.9-5: Temporary Curtailment of Project Development. Implementation of Mitigation Measure 3.9-1 (for surface water supplies) and Mitigation Measure 3.9-2 (for off-site water conveyance facilities) could result in the temporary curtailment of development during the period of time when the project would be dependent on off-site water conveyance facilities and surface water supplies, resulting in a partially built-out project.	Land Use, Population, Housing, and Employment: Direct & LTS, Indirect & LTS All other impact areas: Direct & potentially significant or significant, Indirect & potentially significant or significant	Land Use, Population, Housing, and Employment: Direct & LTS, Indirect & LTS All other impact areas: Direct & potentially significant or significant, Indirect & potentially significant or significant
On-Site, Off-Site: Mitigation Measure: Implement the same mitigation measures called for in this DEIR, as specifically set forth in Table ES-1. Significance after Mitigation: less than significant for geology, soils, and paleontological resources; hydrology and water quality; and public health and hazards; significant and unavoidable for transportation and circulation, air quality, noise, public utilities, agricultural resources, parks and open space, biological resources, and visual resources.		
3.10 Public Utilities		
Program Level		
3.10-1: Increased Demand for Wastewater Conveyance Facilities. Project implementation would result in increased generation of wastewater.	Direct & potentially significant, Indirectly to direct & significant and unavoidable	Direct LTS, No indirect
On-Site: Mitigation Measure 3.10-1a: Submit Proof of Adequate Wastewater Conveyance Facilities and Implement On- and Off-site Infrastructure Service Systems or Assure that Adequate Financing is Secured. Before the approval of a final map and issuance of building permits for all project phases, the project applicant(s) shall submit proof to Sutter County that an adequate wastewater conveyance system either has been constructed or is assured through the use of bonds or other sureties to the County's satisfaction. Both on- and off-site wastewater conveyance infrastructure sufficient to provide adequate service to proposed project shall be in place for the amount of development		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
identified in the tentative map before approval of the final map and issuance of building permits for all project phases, or their financing shall be assured to the satisfaction of the County. **Mitigation Measure 3.10-1b: Develop a Principles of Agreement, Wastewater Services Agreement, and an Operations Agreement with SRCSD and Operate On-Site and Off-Site Wastewater Facilities Per These Agreements.** The project applicant(s) for all project phases shall demonstrate that wastewater conveyance and treatment from SRCSD is provided to the project site. This shall involve developing and executing a Principles of Agreement, Wastewater Services Agreement, and an Operations Agreement with SRCSD, and paying connection and capacity fees as identified by SRCSD through these agreements. The County Service Area shall operate the on-site wastewater facilities and off-site force mains per the requirements of these agreements. Approval of the final map and issuance of building permits for all project phases shall not be granted until the County verifies that a Principles of Agreement, Wastewater Services Agreement, and an Operations Agreement have been developed and executed by the project applicant(s) and SRCSD. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant, indirect impacts on two issue areas would remain significant and unavoidable.		
3.10-2: Increased Demand for Wastewater Treatment Plant Facilities. Project implementation would result in increased generation of wastewater, thereby increasing the demand for wastewater treatment facilities to support the proposed project. Wastewater treatment would be provided by the SRWTP.	Direct & potentially significant, Indirectly to direct & significant and unavoidable	Direct LTS, No indirect
On-Site: Mitigation Measure 3.10-2: Demonstrate Adequate Wastewater Treatment Capacity. The project applicant(s) for all project phases shall demonstrate adequate capacity at the SRWTP for new wastewater flows generated by the project. This shall involve preparing a tentative map–level study and paying connection and capacity fees as identified by SRCSD. Approval of the final map and issuance of building permits for all project phases shall not be granted until the County verifies adequate SRWTP capacity is available for the amount of development identified in the tentative map. **Mitigation Measure: Implement Mitigation Measure 3.10-1b.** **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant, indirect impacts on two issue areas would remain significant and unavoidable.		
3.10-3: Short-Term Generation of Solid Waste during Project Construction. Construction of the proposed project would generate short-term construction-related debris and waste.	Direct LTS, No indirect	Direct LTS, No indirect
On-site, Off-Site: No mitigation measures are required.		
3.10-4: Increased Generation of Solid Waste. Project implementation would increase long-term solid-waste generation.	Direct LTS, No indirect	No direct, No indirect
On-site, Off-Site: No mitigation measures are required.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.10-5: Increased Demand for Electricity and Infrastructure. Project implementation would increase the demand for electricity and electrical infrastructure. **On-site, Off-Site:** No mitigation measures are required.	Direct LTS, No indirect	Direct LTS, No indirect
3.10-6: Increased Demand for Natural Gas and Infrastructure. Project implementation would increase the demand for natural gas and infrastructure and would include the extension of existing natural gas pipelines. **On-site, Off-Site:** No mitigation measures are required.	Direct LTS, No indirect	Direct LTS, No indirect
3.10-7: Increased Demand for Communications Service and Infrastructure. Implementation of the proposed project would increase the demand for communications service and infrastructure and would include the extension of existing communication lines. **On-site, Off-Site:** No mitigation measures are required.	Direct LTS, No indirect	Direct LTS, No indirect
3.10-8: Increased Demand for Cable Television Service and Infrastructure. Implementation of the proposed project would increase the demand for cable television service and infrastructure and would include the extension of existing cable television lines. **On-site, Off-Site:** No mitigation measures are required.	Direct LTS, No indirect	Direct LTS, No indirect
3.10-9: Increased Energy Demand. Project implementation would increase energy consumption during construction and operation of the proposed project. **On-site, Off-Site:** No mitigation measures are required.	Direct LTS, No indirect	Direct LTS, No indirect
3.11 Agricultural Resources		
Program Level		
3.11-1: Permanent Conversion of Important Farmland to Nonagricultural Urban Uses. Implementation of the proposed project would result in the permanent conversion of Important Farmland to nonagricultural uses. **On-Site, Off-Site: Mitigation Measure 3.11-1: Establish Conservation Easements Consistent with the Natomas Basin Habitat Conservation Plan** The project applicant(s) of all project phases shall participate in the NBHCP through payment of fees or land dedication as required under NBHCP, on a per-acre basis for lost agricultural land during development of all elements of the proposed project that involve the conversion of Important Farmland to nonagricultural uses. The NBC would use these funds to purchase conservation easements on agricultural and habitat lands in the project vicinity. The preservation in perpetuity of	Direct significant, No indirect	Direct significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
agricultural lands through the NBHCP, a portion of which consists of Important Farmland, would ensure the continued protection of farmland in the project vicinity, partially offsetting project impacts. Significance after Mitigation: significant and unavoidable.		
3.11-2: Cancellation of Williamson Act Contracts. Implementation of the proposed project would not result in the cancellation of Williamson Act contracts, because none of the lands are currently under Williamson Act. **On-site, Off-Site:** No mitigation measures are required.	Direct LTS, No indirect	Direct LTS, No indirect
3.11-3: Conflict with Existing On-Site and Off-Site Agricultural Operations. Implementation of the proposed project would locate urban land uses adjacent to existing agricultural lands, which could impair adjacent agricultural activities, result in land use compatibility conflicts, and potentially result in the ultimate conversion of this land to nonagricultural land uses.	Direct significant, Indirect significant	Direct LTS, No indirect
On-Site: Mitigation Measure 3.11-3a: Establish Buffers between Urban Land Uses and Existing Agricultural Operations. As development occurs on the project site, on-site fencing, walls, landscaping, or other suitable barriers shall be constructed or established at the interface between development and adjacent off-site agricultural lands. In addition, a buffer zone of at least 150 feet shall be provided between the edge of all residential development and the adjacent agricultural land. Roads, greenbelts, and similar facilities can function as these buffers. The County shall include the buffer as a condition of development approval. The buffer shall be maintained by the applicant(s) or the individual developer in areas adjacent to agricultural land until each development phase is completed, at which point maintenance of the buffer may be transferred to a homeowner's or other Sutter Pointe community association. **Mitigation Measure 3.11-3b: Provide the County's the Agricultural Operations Disclosure to Prospective Residents and Tenants Adjacent to the Agricultural Buffers.** The project applicant(s) of all project phases shall provide the County's Agricultural Operations Disclosure (Ordinance Code 1013, Chapter 1330 Section 1330) to all prospective residents and tenants of parcels adjacent to the 150-foot agricultural buffers, consistent with the County's Right-to-Farm ordinance. The Agricultural Operations Disclosure shall be included in all residential deed and tenant agreements at the time of sale or lease. **Mitigation Measure 3.11-3c: Encourage the Continuation of Existing On-Site Agricultural Operations in Areas Adjacent to New Urban Land Uses.** The project applicant(s) of all project phases shall coordinate with landowners and on-site agricultural operators to sustain existing agricultural operations, at their discretion, within the project site until the individual agricultural parcels are needed for urban development. **Off-Site:** No mitigation measures are required. Significance after Mitigation: significant and unavoidable.		
3.11-4: Potential Temporary, Short--Term Disruption of Existing Agricultural Operations during Construction. Implementation of the proposed project could potentially affect existing agricultural operations and result in a temporary, short- or long-term loss in agricultural productivity.	Direct LTS, No indirect	Direct potentially significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-site: No mitigation measures are required. **Off-Site: Mitigation Measure 3.11-4: Avoid Disruption of Existing Agricultural Operations.** The project applicant(s) of all project phases, including the off-site elements, and/or construction contractor shall include the following measure in construction plans: ▸ Construction activities shall be undertaken in an expedient fashion, and associated construction staging areas and/or access roads shall be located outside of the agricultural fields to the extent possible. If it is necessary to locate staging areas and/or access roads on agricultural lands, these areas shall be returned to pre-project conditions by the construction contractor once construction is completed. ▸ Pipelines in areas subject to ground disturbance from agricultural activities shall be placed at a depth beyond the typical depth of ground disturbance that occurs as a part of the agricultural operations. Construction plans shall be submitted to the applicable county community services department or planning department for review and approval before the issuance of building permits for all project phases and off-site elements. During project construction, the applicable county department shall conduct periodic inspection to ensure implementation of these measures. Significance after Mitigation: less than significant.		
Additional Detailed Analysis (Phase 1 and Phase A)		
3.11-5: Conversion of Important Farmland to Nonagricultural Urban Uses. Implementation of the proposed project would result in the conversion of Important Farmland to nonagricultural uses. **On-site: Implementation of Mitigation Measure 3.11-1.** Significance after Mitigation: significant and unavoidable.	Direct significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.11-6: Cancellation of Williamson Act Contracts. Implementation of the proposed project would not result in the cancellation of Williamson Act contracts, because none of the lands are currently under Williamson Act. **On-site:** No mitigation measures are required.	Direct LTS, No indirect	N/A (additional detailed analysis of on-site elements only)
3.11-7: Conflict with Existing Off-Site Agricultural Operations. Implementation of the proposed project would locate urban land uses adjacent to existing agricultural lands, which could impair adjacent agricultural activities, result in land use compatibility conflicts, and potentially result in the ultimate conversion of this land to nonagricultural land uses. **On-site: Implementation of Mitigation Measure 3.11-3a and 3.11-3b.** Significance after Mitigation: significant and unavoidable.	Direct significant, Indirect significant	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.11-8: Potential Temporary, Short-, or Long-Term Disruption of Existing Agricultural Operations during Construction. Implementation of the proposed project could potentially affect existing agricultural operations and result in a temporary, short- or long-term loss in agricultural productivity. **On-site:** No mitigation measures are required.	Direct & LTS, No indirect	N/A (additional detailed analysis of on-site elements only)
3.12 Public Health and Hazards		
Program Level		
3.12-1: Routine Transport, Use, or Disposal of Hazardous Materials. Project implementation would involve the storage, use, and transport of hazardous materials at the project site during demolition, construction, and operation activities. **On-site, Off-Site:** No mitigation measures are required.	Direct & LTS, Indirect & LTS	Direct & LTS, Indirect & LTS
3.12-2: Potential Human Health Hazards from Exposure to Existing On-Site Hazardous Material. Construction workers could be exposed to hazardous materials present on-site during construction activities, and hazardous materials on-site could create an environmental or health hazard if left in place. **On-site, Off-Site: Mitigation Measure 3.12-2: Retain a Licensed Professional to Investigate the Extent to Which Soil and/or Groundwater May Have Been Contaminated, Including in Areas Not Covered by the Phase I ESAs, and Implement Required Measures, as Necessary.** To reduce health hazards associated with potential exposure to hazardous substances, the project applicant(s) for all project phases shall implement the following measures before the start of ground-disturbing or demolition activities within each phase of project development: ► Prepare a Phase II ESA investigation of Area G based on the recommendation of the WKA (2005c) Phase I ESA. ► Prepare a Phase I ESA covering all areas before development. If recommended by the Phase I(s), a Phase II ESA investigation is also required. These investigations shall follow Phase I and/or II ESA and/or other appropriate testing guidelines and shall include, as necessary, analysis of soil and/or groundwater samples taken at or near the potential contamination sites. Recommendations in the Phase I and/or II ESA(s) to address any contamination that is found shall be implemented before ground-disturbing activities are initiated in these areas. ► A new Phase I ESA or ESAs covering sites that are proposed for use by schools shall be submitted to DTSC for review and approval before CDE will approve purchase of the site. If toxic or hazardous substances, including pesticides, naturally occurring asbestos, or other regulated hazardous materials, are found to be present, subsequent studies (i.e., a Phase II Preliminary Endangerment Assessment, Phase III remedial action) shall be performed as required by DTSC and CDE. ► If Phase I and/or Phase II ESAs indicate the presence of soil and/or groundwater contamination, a site remediation plan shall be prepared pursuant to Section 25401.05(a)(1) that identifies any necessary remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, redistribution of clean fill material on the project site, and remediation of contaminated groundwater (e.g., installation of groundwater extraction and treatment [GET] facilities). The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil and building	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

debris removed from the site (e.g., compliance with Division of Traffic Operations (DTO)and Caltrans transport regulations, and disposal at facilities permitted by EPA and/or DTSC to accept hazardous wastes). If contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to the County, DTSC, and other appropriate regulatory agencies as required (e.g., the Central Valley RWQCB), and shall follow required actions specified by the regulatory agencies (e.g., dewater the excavated area, properly dispose of contaminated groundwater, or set up GET facilities as required). The contractors of all project phases shall be required to comply with the site remediation plan, which shall outline measures for specific handling and reporting procedures for hazardous materials, and disposal of hazardous materials removed from the site at an appropriately permitted off-site disposal facility.

- Retain a licensed contractor to remove all USTs, leaking USTs, and ASTs within the project site. Additionally, any stained soils associated with the debris piles, USTs, and/or ASTs shall also be removed by the licensed contractor, in accordance with Sutter County Environmental Management Department and RWQCB regulations, including Division 7 of the California Water Code (Porter Cologne Water Quality Control Act) and the State Water Resources Control Board regulations (Underground Tank Regulations, CCR 23 Division 3, Chapter 16).
- Retain a licensed contractor to remove and dispose of all transite pipe found within the project site in accordance with Section 39658(b)(1) of the Health and Safety Code and EPA's NESHAP for Asbestos.
- Retain a licensed contractor to remove all septic systems in accordance with applicable local, state, and federal regulations.
- Retain a licensed professional to conduct groundwater sampling from existing water supply wells on the Hintz parcel of Area G to evaluate the potential for nitrate and/or particulate contamination of groundwater as recommended by Geocon. If groundwater contamination is identified, prepare a site remediation plan pursuant to Section 25401.05(a)(1), as described above, in consultation with the appropriate regulatory agencies (e.g., EPA, DTSC, RWQCB).
- Retain a Cal-OSHA-certified Asbestos Consultant and Lead Based Paint Inspector/Assessor before demolition of any on-site buildings to investigate whether any asbestos-containing materials or lead-based paints are present. If any materials containing asbestos or lead are found, they shall be removed by an accredited contractor in accordance CCR 17 Section 36000 and 36100 (lead based paint) and Section 39658(b)(1) of the Health and Safety Code (asbestos). In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal-OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriately permitted off-site disposal facility.
- Obtain an assessment conducted by PG&E pertaining to the contents of the existing pole-mounted transformers located on the project site. The assessment shall determine whether existing on-site electrical transformers contain PCBs and whether there are any records of spills from such equipment. If equipment containing PCB is identified, the maintenance and/or disposal of the transformer shall be subject to the regulations of the Toxic Substances Control Act under the authority of the Sutter County Environmental Health Division.
- Refrain from developing existing on-site agriculture or domestic water wells for further use. Such wells shall be closed in accordance with local and state guidelines. Consistent with DOG guidelines, project-related structures shall not be constructed atop abandoned wells.
- Obtain an inspection of abandoned boring sites by DOG and hire a licensed environmental professional to determine whether reabandonment of the two "dry hole" gas borings is required to meet current standards.

Implementation of this mitigation measure for later project phases may have indirect impacts that could affect residents of earlier project phases, as the required activities have the potential to generate dust, noise, traffic, and transportation of hazardous materials. Hazardous materials transportation is governed by existing regulations as described in the "Environmental Setting" section above and the discussion of Impact 3.12-1. Other indirect impacts, including noise, traffic, and air quality emissions, are analyzed throughout this DEIR in Sections 3.1 through 3.17.

Significance after Mitigation: less than significant.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.12-3: Public Health Hazards from Project Development on a Known Hazardous Materials Site Compiled Pursuant to Government Code Section 65962.5. Two areas of the project site are listed on the Cortese List as known hazardous materials sites. Implementation of the proposed project could expose construction workers to hazardous materials from these sites during construction activities, and hazardous materials on-site could create an environmental or health hazard if left in place.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect

Mitigation Measure: 3.12-3: Retain Licensed Professional to Investigate the Environmental Status of the Contaminated Groundwater Plume, Contaminated Soils, and Any Remediation Activities at the Holt Tractor and Farm Air Service Sites, and Implement All Remedial Measures, as Necessary.

On-Site Elements

Before excavation or construction activities begin on the project site in the vicinity of the Farm Air Service and Holt Tractor parcels, the project applicant(s) of all affected project phases shall retain a licensed professional to investigate the environmental status of the contaminated groundwater plume, contaminated soils, and any remediation activities at the Holt Tractor and Farm Air Service sites. This investigation may include a review of Cal-EPA or DTSC files and shall include identification of the specific location of the Farm Air Service site, which was not defined in the available Phase I ESAs. Prior to the start of development activities adjacent to the Holt Tractor parcel, additional intrusive investigation shall be conducted by a licensed professional to delineate the extent of the contaminated groundwater plume (which could have changed after preparation of this EIR) and recommend potential treatment options.

Project development shall not occur in any area of contaminated soil or groundwater until the following activities take place:

- Remove all contaminated soil, dispose of contaminated soils at a properly licensed facility, and replace contaminated soil with clean fill dirt.
- Consult with appropriate regulatory agencies, such as DTSC, RWQCB, and Sutter County Department of Environmental Health, and implement all actions required by the regulatory agencies (e.g., dewatering, installation of groundwater monitoring wells, installation of GET facilities) during the consultation process in areas of contaminated groundwater.

Off-Site Elements

The project applicant(s) of all affected project phases shall retain a licensed professional to prepare Phase I ESAs for all off-site project elements. Project development shall not occur in any area of contaminated soil or groundwater until the following activities take place:

- Remove all contaminated soil, dispose of contaminated soils at a properly licensed facility, and replace contaminated soil with clean fill dirt.
- Consult with appropriate regulatory agencies, such as DTSC, RWQCB, and Sutter County Department of Environmental Health, and implement actions required by the regulatory agencies during the consultation process (e.g., dewatering, installation of groundwater monitoring wells, installation of GET facilities) in areas of contaminated groundwater.

To further reduce health hazards associated with potential exposure to hazardous substances, the project applicant(s) of all project phases shall implement the following measures before the start of ground-disturbing or demolition activities within each phase of project development:

- Prepare a site plan for each development phase that identifies any necessary remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, redistribution of clean fill material on the project site, and remediation of contaminated groundwater (e.g., installation of groundwater extraction and treatment [GET] facilities). The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site (e.g., compliance with DTO and Caltrans transport regulations, and disposal at facilities permitted

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
by EPA and/or DTSC to accept hazardous wastes). If contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to the County, DTSC, and other appropriate regulatory agencies as required (e.g., the Central Valley RWQCB), and shall follow all required actions specified by the regulatory agencies (e.g., dewater the excavated area, properly dispose of contaminated groundwater, or set up GET facilities as required). The contractors of all project phases shall be required to comply with the site remediation plan, which shall outline measures for specific handling and reporting procedures for hazardous materials, and disposal of hazardous materials removed from the site at an appropriately permitted off-site disposal facility. ► Notify the Sutter County Environmental Health Division and DTSC if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas shall be cleaned up in accordance with recommendations made by the Sutter County Environmental Health Division, Central Valley RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies as generally described above. Significance after Mitigation: less than significant.		
3.12-4: Safety Hazard for People Residing or Working Near a Public or Private Airstrip. A portion of the project site is located within Sacramento International Airport's designated safety zone.	Direct & potentially significant, No indirect	No direct or indirect
On-Site: Mitigation Measure 3.12-4: Evaluate Compatibility of Future On-Site Land Uses Within the Sacramento International Airport's Approach-Departure Zone. Where required by state law, the County shall consult with the Airport Land Use Commission to obtain a determination as to whether proposed land uses are consistent with the Sacramento International Airport Comprehensive Land Use Plan. In no event shall the Board of Supervisors approve any land use that the Board determines is inconsistent with the purposes of the State Aeronautics Act. In addition, prior to County approval of improvement plans for any individual development proposal that includes land within the approach-departure zone, the County shall consult with the Sacramento International Airport. Any feasible restrictions on land uses recommended by the Sacramento International Airport (e.g., lights of certain colors, building materials to reduce reflection of sunlight, requirements for hazardous material use and storage) shall be implemented by the project applicant(s). **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		
3.12-5: Potential for Airspace Safety Hazards Associated with Project Water Features. The proposed project would include on-site lakes/detention basins, which could attract large numbers of birds, thereby potentially creating a flyway between the site and the Sacramento River and interfering with existing aircraft flight routes. Birds are recognized by the Sacramento International Airport CLUP as a potential hazard to aircraft because of the remote potential for high-speed collisions with birds, as well as the ingestion of birds into aircraft engines.	Direct & significant, No indirect	No direct, No indirect
On-Site: Mitigation Measure: 3.12-5: Prepare and Implement a Design and Management Plan for the Proposed Water Features. The project applicant(s) of all project phases shall prepare and implement a design and management plan for all proposed water features. The plan shall be prepared in coordination with the Sacramento International Airport Operations Manager and the Sacramento County ALUC and approved by Sutter County before		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
commencement of construction. The plan shall identify the sizes for the lakes/detention basins and incorporate specific design measures to minimize bird strikes and other wildlife-related airspace safety hazards in the vicinity of the project site(s) (e.g., allowing grass to grow up to 20 centimeters in height, preventing growth of cattails or aquatic plants, installing barriers between lakes and nearby vegetated areas, installing signs prohibiting feeding of birds, removing nesting materials, and hazing birds to discourage use of lakes). The plan shall include information sufficient to satisfy requirements for preparation of a wildlife hazard management plan and shall be prepared by a qualified wildlife hazard damage biologist. The plan shall include a detailed design drawing of the proposed lake/detention, and include a description of design and landscape features which will reduce attraction of birds. An adaptive management plan shall be prepared and incorporated into the wildlife hazard management plan. The adaptive management plan shall provide for the long-term management of nuisance birds around the lakes/basin. The management plan shall involve perpetual monitoring and employment of various techniques for controlling birds using adaptive information and bird control products. A CSA (and the city, following incorporation) shall be responsible for ensuring the implementation and continued enforcement of the adaptive management plan and provision of adequate funding. If monitoring efforts reveal that additional control efforts are necessary, the program manager for the adaptive management plan may implement one or more control techniques outlined in the adaptive management plan or other techniques based on best available scientific and commercial information. Bird control techniques currently being used at airports, on agricultural lands, and in other areas where birds pose a hazard or nuisance shall be described in the adaptive management plan. These techniques include (but are not limited to) allowing grass to grow up to 20 centimeters in height, preventing growth of cattails or aquatic plants, installing barriers between lakes and nearby vegetated areas, installing signs prohibiting feeding of birds, removing nesting materials, and hazing birds to discourage use of the lakes. The bird control program manager shall have the discretion to use any one or more of the techniques based on the need, practicability, and land use compatibility. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		
3.12-6: Potential for Public Health Hazards from Mosquitoes Associated with Project Water Features. The proposed project would include on-site lakes/detention basins, which could attract mosquitoes and other water-borne vectors of disease.	Direct & potentially significant, No indirect	No direct, No indirect
On-Site: Mitigation Measure: 3.12-6: Prepare and Implement a Vector Control Plan. The project applicant(s) of all project phases shall prepare and implement a vector control plan. This plan shall be prepared in coordination with the SYMVCD and shall be submitted to the County for approval before issuance of the grading permit for the lake/detention basin. The plan shall incorporate specific measures deemed sufficient by Sutter County in consultation with SYMVCD to minimize public health risks from mosquitoes. The plan shall include the following: ▸ description of the project; ▸ description of lakes/detention basins and all facilities that would control on-site water levels; ▸ goals of the plan; ▸ description of the water management elements and features that would be implemented: • best management practices (BMPs) that would implemented on-site, • public education and awareness,		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
• sanitary methods used (e.g., disposal of garbage), • mosquito-control methods used (e.g., fluctuating water levels, biological agents, pesticides, larvacides, circulating water), and • stormwater management (consistent with stormwater management plan); and ▸ long-term maintenance of the lakes/detention basins and all related facilities (e.g., specific ongoing enforceable conditions or maintenance by a homeowner's association). To reduce the potential for mosquitoes to reproduce in the lake/detention basin, the project applicant(s) shall coordinate with the SYMVCD to identify and implement BMPs based on their potential effectiveness for project site conditions. Potential BMPs that the project applicant(s) shall include, but are not limited to, the following practices: ▸ Stock the lakes/detention basins with mosquitofish, guppies, backswimmers, flatworms, and/or other invertebrate predators. ▸ Maintain a stable water level in the lakes/detention basins to reduce water level fluctuation resulting from evaporation, transpiration, outflow, and seepage. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		
3.12-7: Exposure of Project Residents to Electric and Magnetic Fields. The proposed project would place residential housing within 100 feet of a 115-kV transmission line along the eastern project site boundary. There is a potential that EMFs emitted from the 115-kV transmission line could result in potential health hazards to residents at the project site.	Direct & potentially significant, No indirect	No direct, No indirect
On-Site: Mitigation Measure: 3.12-7: Prohibit Construction of Residential Housing within 100 Feet of Any 115-kV Transmission Line. The project applicant(s) of all project phases shall demonstrate to the County that residential housing would be located a minimum of 100 feet from the 115-kV transmission line easement prior to subdivision map approval. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		
3.12-8: Safety of Project Residents and Workers Proximate to SR 99/70 and UPRR Rail Line. Implementing the proposed project would result in the construction of urban uses in proximity to SR 99/70 and a UPRR rail line.	Direct & LTS, No indirect	No direct, No indirect
On-Site, Off-Site: No mitigation measures are required.		
Additional Detailed Analysis (Phase 1 and Phase A)		
3.12-9: Routine Transport, Use, or Disposal of Hazardous Materials. Project implementation would involve the storage, use, and transport of hazardous materials at the project site during demolition, construction, and operation activities.	Direct & LTS, Indirect & LTS	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-site: No mitigation measures are required.		
3.12-10: Potential Human Health Hazards from Exposure to Existing On-Site Hazardous Material. Construction workers could be exposed to hazardous materials present on-site during construction activities, and hazardous materials on-site could create an environmental or health hazard if left in place. **On-site: Implementation of Mitigation Measure 3.12-2.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.12-11: Public Health Hazards from Project Development on a Known Hazardous Materials Site Compiled Pursuant to Government Code Section 65962.5. Two areas of the project site are listed on the Cortese List as known hazardous materials sites. Implementation of the proposed project could expose construction workers to hazardous materials from these sites during construction activities, and hazardous materials on-site could create an environmental or health hazard if left in place. **On-site: Implementation of Mitigation Measure 3.12-3.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.12-12: Safety Hazard for People Residing or Working Near a Public or Private Airstrip. Neither Phase 1 nor Phase A are located within Sacramento International Airport's designated safety zone. **On-site: Implementation of Mitigation Measure 3.12-4.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.12-13: Potential for Airspace Safety Hazards Associated with Project Water Features. The proposed project would include on-site lakes/detention basins, which could attract large numbers of birds, thereby potentially creating a flyway between the site and the Sacramento River and interfering with existing aircraft flight routes. Birds are recognized by the Sacramento International Airport CLUP as a potential hazard to aircraft because of the remote potential for high-speed collisions with birds, as well as the ingestion of birds into aircraft engines. **On-site: Implementation of Mitigation Measure 3.12-5.** Significance after Mitigation: less than significant.	Direct & significant, No indirect	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.12-14: Potential for Public Health Hazards from Mosquitoes Associated with Project Water Features. The proposed project would include on-site lakes/detention basins, which could attract mosquitoes and other water-borne vectors of disease. **On-site: Implementation of Mitigation Measure 3.12-6.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.12-15: Exposure of Project Residents to Electric and Magnetic Fields. The proposed project would place residential housing within 100 feet of a 115-kV transmission line along the eastern project site boundary. There is a potential that EMFs emitted from the 115-kV transmission line could result in potential health hazards to residents at the project site. **On-site: Implementation of Mitigation Measure 3.12-7.** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.12-16: Safety of Project Residents and Workers Proximate to SR 99/70 and UPRR Rail Line. Implementing the proposed project would result in the construction of urban uses in proximity to SR 99/70 and a UPRR rail line. **On-site:** No mitigation measures are required.	Direct & LTS, No indirect	N/A (additional detailed analysis of on-site elements only)
3.13 Biological Resources		
Program Level		
3.13-1: Effects on Giant Garter Snake. Implementation of the proposed project would result in both direct and indirect impacts on the giant garter snake. These impacts would include loss and degradation of existing habitat and effects on habitat connectivity.	Habitat and Individual Loss: Direct & potentially significant, Indirect & potentially significant Habitat Connectivity: Direct & less than significant, Indirect & less than significant Contaminants: Indirect & LTS, Direct addressed in Section 3.7.	Habitat and Individual Loss: Direct & potentially significant, Indirect & potentially significant Habitat Connectivity: Direct & less than significant, Indirect & less than significant Contaminants: Indirect & LTS, Direct addressed in Section 3.7.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

On-Site, Off-Site: Mitigation Measure 3.13-1a: Implement NBHCP ITP Giant Garter Snake Mitigation Measures

The project applicants(s) of all Authorized Development shall adhere to the relevant giant garter snake take, avoidance, and minimization measures contained in the NBHCP (Sections V.A.1 and VI.E.1i) and summarized below:

- Reduce direct impacts on giant garter snake by restricting construction in giant garter snake habitat to the active period for giant garter snake (between May 1 and September 30).
- Completely dewater all irrigation ditches, canals, or other aquatic habitat, with no puddled water remaining, for at least 15 consecutive days before the excavation or filling in of the dewatered habitat to remove giant garter snake prey. Dewatering shall occur between April 15 and September 30.
- Survey the project area for giant garter snake no more than 24 hours before the start of construction activities (site preparation and/or grading). If construction activities stop on the project site for 2 weeks or more, a new snake survey shall be completed no more than 24 hours before the restart of construction activities.
- Confine clearing to the minimal area necessary to facilitate construction activities. Giant garter snake habitat within or adjacent to the project site shall be flagged as an "Environmentally Sensitive Area" and designated as avoided.
- Provide USFWS-approved environmental awareness training for all construction personnel completing site preparation and grading operations. Construction personnel shall be trained on how to identify giant garter snakes and their habitats and on handling protocol if a giant garter snake is encountered during construction activities. An on-site biological monitor shall be available during the training.
- Immediately notify USFWS and the project biological monitor if a live snake is found during construction activities. The snake shall be monitored by the biological monitor and allowed to leave the area on its own.
- Remove any temporary fill and/or construction debris used by the snake as an overwintering site from the site upon completion of construction.
- When working within 200 feet of snake aquatic or rice habitat, avoid plastic, monofilament, jute, or similar erosion control matting that could entangle snakes.
- Construct fences within the project site along the shared boundary of urban development and the North Drainage Canal and the East Drainage Canal. The fences shall be subject to the following guidelines:
  a. Provide a minimum of 100 feet from fence to fence.
  b. Limit access to the canals by constructing gates.
  c. Place a snake deterrent along the fences on the North Drainage Canal and the East Drainage Canal. The design of the deterrent shall be subject to approval by a qualified biologist.
  d. Immediately install the fence/barrier after site grading is completed.

Off-Site: Mitigation Measure 3.13-1b: Implement Measures to Mitigate Impacts on the Giant Garter Snake That Are Not Covered by the NBHCP.

The project applicant(s) of all off-site elements not covered by the NBHCP shall implement the following measures to avoid, minimize, and compensate for potential project impacts on giant garter snake:

- Consult with a qualified biologist to ensure that the alignments for all off-site improvement areas avoid giant garter snake to the extent feasible. All aquatic and upland habitats that can be avoided shall be protected by temporary fencing during construction. Additional measures consistent with the goals and objectives of the NBHCP shall be implemented to minimize the potential direct injury or mortality of individual giant garter snakes during construction. Such measures shall be finalized in consultation with DFG and USFWS and are likely to include conducting worker awareness training, timing initial ground disturbance to correspond with the snake's active season (as feasible in combination with minimizing disturbance of nesting Swainson's hawks), dewatering

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
aquatic habitat before fill, conducting preconstruction surveys, and conducting biological monitoring during construction. ► Develop and implement a giant garter snake conservation strategy that is consistent with the NBHCP's strategy for establishing an interconnected reserve system composed of marshland, uplands, and rice fields in the Natomas Basin. The conservation strategy shall include on- and off-site habitat preservation, restoration, and creation as needed to meet the performance standard of no net loss in function and value of giant garter snake habitat. The conservation strategy shall establish specific success for habitat creation, specify remedial measures to be undertaken if success criteria are not met (e.g., adaptive management, physical adjustments to created habitat, additional monitoring), and describe short- and long-term maintenance and management of the features. Long-term protection of the created features and funding for their management shall be provided through appropriate mechanism to be determined by the project applicant(s), DFG, and USFWS before project implementation. Authorization for take of giant garter snake shall be obtained as necessary to comply with the ESA and CESA. All measures subsequently adopted through the permitting process shall be implemented. Significance after Mitigation: less than significant.		
3.13-2: Potential Loss and Degradation of Jurisdictional Wetlands and Other Waters of the United States and Waters of the State. Implementation of the proposed project could result in the placement of fill material into jurisdictional waters of the United States, including wetlands subject to USACE jurisdiction under the federal CWA, and the potential loss and degradation of wetland habitats protected under state and local regulations.	Direct & significant, Indirect & significant	Direct & significant, Indirect & significant
On-Site, Off-Site: Mitigation Measure 3.13-2: Secure Clean Water Act Section 404 and 401 Permits and Streambed Alteration Agreements; Implement All Permit Conditions; and Ensure No Net Loss of Wetlands, Other Waters of the United States, and Associated Functions and Values. The project applicant(s) of all project phases shall retain a qualified biologist to delineate all wetlands and waters of the United States within proposed off-site improvement areas and all on-site areas not included in the ECORP wetland delineation. The findings shall be documented in detailed reports and submitted to USACE for verification as part of the formal Section 404 wetland delineation process. If wetland delineations for a particular phase conclude that wetlands are not present or would be avoided (no direct or indirect impacts), no further mitigation actions would be needed. For each phase of development, including off-site improvements, the County shall ensure the avoidance of any net loss of wetland function and values for direct and indirect impacts to wetlands subject to federal, state, and/or local jurisdiction, and the project applicant(s) shall secure applicable permits and regulatory approvals described below and shall implement all permit conditions: ► If there would be unavoidable impacts on habitats under USACE jurisdiction for direct and indirect impacts requiring a Section 404 permit, the Section 404 permitting process shall be completed and authorization shall be secured before any fill is placed in jurisdictional wetlands or other waters of the United States. The acreage of jurisdictional wetlands affected shall be replaced so as to ensure no net loss of functions and values, in accordance with USACE regulations. The range of compensation for fill of jurisdictional waters could be less than 1:1 or more than 1:1, depending on the timing, functions, and values of the jurisdictional waters created for compensation. The final compensatory range shall be negotiated with the resources agencies and specified in regulatory permits issued for that particular phase of the project. ► Habitat restoration, rehabilitation, and/or replacement shall be at a location and shall be conducted by feasible methods agreeable to USACE, the County, or other applicable agencies (depending on which agency has permitting authority). Agreement by the applicable agencies shall be obtained before the start of any grading activities that could affect wetland features. Methods for designing and implementing restored, rehabilitated, and replacement wetlands shall be determined by qualified restoration ecologists and geomorphologists to ensure that the desired results are achievable. The design shall include features to		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
maximize the long-term maintenance of functions and values (e.g., fencing) and success criteria. A minimum of 5 years of monitoring shall be required for all restored, rehabilitated, and replacement wetlands. A monitoring plan shall be developed that includes remedial actions to be taken if the success criteria are not met. Before the mitigation design and monitoring plan are finalized, the project applicant(s) shall obtain the approval of USACE, RWQCB, and DFG, as appropriate, indicating that the planned features are sufficient to replace lost habitat values at equivalent or higher levels. Compensation requirements shall be evaluated in conjunction with any benefits obtained through compliance with the NBHCP. ► A streambed alteration agreement shall be obtained for any unavoidable impacts on habitats regulated under Section 1602 of the California Fish and Game Code, and affected habitats shall be mitigated on a no-net-loss basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and shall be conducted by methods agreeable to DFG. Minimization and compensation measures adopted through the Section 1602 permitting process shall be implemented. ► Water quality certification pursuant to Section 401 of the CWA shall be obtained as required for any USACE permit. Any measures required as part of the issuance of water quality certification shall be implemented. ► A report of waste discharge shall be filed for any waters of the state with the Regional Water Quality Control Board. Significance after Mitigation: Potentially significant and unavoidable.		
3.13-3: Effects on Swainson's Hawk. Implementation of the proposed project would result in the direct short- and long-term loss of Swainson's hawk foraging habitat within the project site and off-site improvement areas, potential nest tree removal, and disturbance during breeding season.	Direct & potentially significant, Indirect & potentially significant	Direct & potentially significant, Indirect & potentially significant
On-Site: Mitigation Measure 3.13-3a: Implement NBHCP ITP Swainson's Hawk Avoidance and Minimization Measures. The project applicants(s) of all Authorized Development shall adhere to the relevant Swainson's hawk take avoidance and minimization measures described in the NBHCP (Sections V.A.1 and VI.E.1i) and summarized below: ► Conduct a preconstruction survey by a qualified biologist before the commencement of activities at any construction site to determine (1) whether any hawk nest trees will be removed on-site or (2) whether any active hawk nest sites occur on or within 0.5 mile of the development site. These surveys shall be conducted by an experienced Swainson's hawk biologist and according to the Swainson's Hawk Technical Advisory Committee's methodology or updated methodologies, as approved by USFWS and DFG. ► Avoid construction if breeding hawks are identified. No new disturbances shall occur within 0.5 mile of the active nest between March 15 and September 15 or until a qualified biologist, with concurrence by DFG, has determined that the young have fledged, that the nest is no longer occupied, or that construction will not affect nest success. If the active nest site is located within 0.25 mile of existing urban development, the no-new-disturbance zone can be limited to 0.25 mile. ► Temporarily avoid (i.e., defer construction activities until after the nesting season) construction where disturbance of a Swainson's hawk nest cannot be avoided. If permanently unavoidable, the nest tree may be destroyed during the nonnesting season. For purposes of this provision, the Swainson's hawk nesting season is defined as March 15 to September 15. If a nest tree must be removed, tree removal shall only occur between September 14 and February 1. ► Avoid removal of a Swainson's hawk nest tree if fledglings are present. The tree shall not be removed until September 15 or until DFG has determined that the young have fledged and are no longer dependent upon the nest tree. ► The raptor nesting season shall be avoided when scheduling construction near nests in accordance with applicable guidelines published by DFG or through consultation with DFG.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► Provide funding for purchase, planting, maintenance, and monitoring of trees in accordance with the NBHCP. ► Provide sufficient funding for monitoring survival success of existing Swainson's hawk nest tree trees for a period of 5 years. Provide for replacement trees in accordance with the NBHCP. Ensure that a 100% success rate is achieved. **Off-Site: Mitigation Measure 3.13-3b: Implement Measures to Mitigate Impacts on Swainson's Hawk Not Covered by the NBHCP.** Before commencement of elements of the proposed project development not covered by the NBHCP ITP, the project applicant(s) of all project phases shall implement the following measures to reduce potential impacts on Swainson's hawk: ► Retain a qualified biologist to conduct preconstruction surveys to identify active nests (i.e., occupied nests) within 0.5 mile of construction areas, in accordance with DFG guidelines. If an active nest is found, no new disturbance shall occur within 0.5 mile of the nest until the nest is no longer active or appropriate avoidance measures are developed, approved by DFG, and implemented to ensure that the nest is adequately protected. ► Restore off-site temporary disturbance to grassland and agriculture habitat to provide equal or greater foraging value for Swainson's hawk. The project applicant(s) shall develop and implement a restoration plan for each off-site improvement that could result in impacts on Swainson's hawk foraging habitat to ensure that the performance standard of no net loss of Swainson's hawk foraging habitat is met. The restoration plans shall establish specific success criteria for habitat restoration, specify remedial measures to be undertaken if success criteria are not met (e.g., supplementary planting and additional monitoring), and describe short- and long-term maintenance and management actions. ► If there is any permanent loss of habitat, the project applicant(s) shall mitigate for that loss at 1:1 with lands of equivalent value. Significance after Mitigation: less than significant.		
3.13-4: Potential Loss and Degradation of Habitat for Special-Status Fish and Wildlife. Implementation of the proposed project could result in the loss and degradation of habitat for a number of special-status wildlife species. The black-crowned night-heron and burrowing owl have both been documented on the project site. The project site and area proposed for off-site improvements provide potential habitat for vernal pool invertebrates, valley elderberry longhorn beetle, western spadefoot toad, northwestern pond turtle, burrowing owl and other raptors, tricolored blackbird, white-faced ibis, loggerhead shrike, and special-status fish species; however, these species are not known to occur in these areas.	Direct & potentially significant, Indirect & potentially significant for tricolored blackbird, black-crowned night-heron, white-faced ibis, loggerhead shrike, western spadefoot toad, northwestern pond turtle, special status fish species. Direct & LTS, Indirect & LTS for other listed species. Direct & significant, Indirect & significant for burrowing owl.	Direct & potentially significant, Indirect & potentially significant for tricolored blackbird, black-crowned night-heron, white-faced ibis, loggerhead shrike, western spadefoot toad, northwestern pond turtle, special status fish species. Direct & LTS, Indirect & LTS for other listed species. Direct & significant, Indirect & significant for burrowing owl.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

On-Site: Mitigation Measure 3.13-4a: Implement NBHCP ITP Avoidance and Minimization Measures for Valley Elderberry Longhorn Beetle, White-Faced Ibis, Loggerhead Shrike, Burrowing Owl, Northwestern Pond Turtle, California Tiger Salamander, Western Spadefoot Toad, and Vernal Pool Invertebrates.

The project applicants(s) of all Authorized Development shall adhere to the relevant take, avoidance, and minimization measures described in the NBHCP (Sections V.A.1 and VI.E.1i) and summarized below. In case of conflict, the NBHCP controls.

Valley Elderberry Longhorn Beetle

The project applicant(s) of all Authorized Development shall implement the following measures:

- Comply with USFWS Compensation Guidelines for Valley Elderberry Longhorn Beetle (USFWS 1999).
- Avoid impacts on habitat for the valley elderberry longhorn beetle whenever possible.
- Transplant during the dormant season (November 1 to February 15) all elderberry plants that cannot be avoided to an area protected in perpetuity and approved by USFWS.
- Provide replacement seedling plants at a ratio of 2:1 to 5:1 depending on the extent of beetle, utilizing the plants moved or lost.
- Monitor annually valley elderberry longhorn beetle habitat in planted mitigation sites for a 10-year period.
- Meet a 60% survival rate by the end of the year and a 60% survival rate for the term of the applicable permit for all replacement elderberry shrubs.

Tricolored Blackbird

The project applicant(s) of all Authorized Development shall implement the following measures:

- Conduct a preconstruction survey of potential breeding and nesting habitat for presence of tricolored blackbird before approval of an urban development permit.
- If surveys determine this species to be present, install brightly colored construction fencing to establish a boundary 500 feet from the active nest site. Avoid disturbance within 500 feet of active (occupied) nests during the nesting season of May 15 through July 1 or until a qualified biologist, with concurrence of USFWS, has determined that young have fledged or that the nest is no longer occupied.

White-Faced Ibis

The project applicant(s) of all Authorized Development shall implement the following measures:

- Conduct a preconstruction survey of potential nesting habitat for presence of white-faced ibis before approval of an urban development permit.
- Avoid disturbance within 0.25 mile of active (occupied) nesting colonies during the nesting season of May 15 through August 31 or until a qualified biologist, with concurrence of DFG and USFWS, has determined that young have fledged or that the nest is no longer occupied if surveys determine this species to be present.

Loggerhead Shrike

The project applicant(s) of all Authorized Development shall implement the following measures:

- Conduct a preconstruction survey to determine the presence of the loggerhead shrike.
- Install brightly colored construction fencing that establishes a boundary 100 feet from any active loggerhead shrike nests identified during preconstruction surveys. No disturbance associated with authorized development shall occur within the 100-foot fenced area during the nesting season of March 1 through July 31. A qualified biologist, with the concurrence of USFWS, must determine that young have fledged or that the nest is no longer occupied before

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

disturbance of the nest site can occur.

Burrowing Owl

The project applicant(s) of all Authorized Development shall implement the following measures:

- Retain a DFG-approved qualified biologist to conduct a preconstruction survey of all construction site(s) to determine whether any burrowing owls are using the site for foraging or nesting before the initiation of grading or earth-disturbing activities. Submit the pre-construction survey to the County prior to commencement of construction activities.
- Avoid disturbance of occupied burrows during the nesting season (February 1 through August 31) unless a qualified biologist approved by DFG verifies through noninvasive measures either that the birds have not begun egg laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If on-site avoidance is required, then the location of the buffer zone shall be determined by a qualified biologist. Mark the limit of the buffer zone with yellow caution tape, stakes, or temporary fencing. Maintain the buffer during the construction period.
- Contact USFWS and DFG if nest site(s) are found. The agencies shall be contacted regarding suitable mitigation measures, which may include establishing a 300-foot buffer around the nest site during the breeding season (February 1 through August 31) or relocating the burrowing owls if the birds have not begun egg laying and incubation or the juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- Retain a qualified biologist to prepare a plan for relocating the owls to a suitable site if relocation of the owls is approved by USFWS and DFG. The relocation plan must include the content specified by the NBHCP.
- Offset disturbance and/or destruction of burrows through development of suitable habitat on NBC upland reserves where on-site avoidance is not possible. Such habitat shall include creation of new burrows with adequate foraging area (a minimum of 6.5 acres) or 300-foot radii around the newly created burrows.

Northwestern Pond Turtle

The project applicant(s) of all Authorized Development shall implement the following measure:

- Minimize the take of the northwestern pond turtle as a result of habitat destruction during construction activities, including construction related to the removal of irrigation ditches and drains and ditch and drain maintenance (e.g., relocate turtles to suitable habitat away from the construction area).
- The dewatering requirements described in the NBHCP take avoidance, minimization, and mitigation measures for giant garter snake shall be implemented.

California Tiger Salamander

The project applicant(s) of all Authorized Development shall implement the following measure:

- Conduct a preconstruction survey for California tiger salamander before approval of an urban development permit. If the survey determines the presence of California tiger salamander, the project applicant(s) shall consult with USFWS and DFG to determine appropriate measures to avoid and minimize take of individuals, which may include but are not limited to, modifying the project design to avoid occupied habitat; limiting access and construction activities in the vicinity of the occupied habitat using fencing or other means; relocating adult salamanders to suitable habitat outside of the construction area; and implementing compensatory mitigation, including preservation of off-site habitat.

Western Spadefoot Toad

The project applicant(s) of all Authorized Development shall implement the following measure:

- Conduct a preconstruction survey of western spadefoot toad before approval of an urban development permit. If the survey determines that western spadefoot toad is present, the project applicant(s) shall consult with DFG to determine appropriate measures to avoid and minimize take of individuals, which include but are not limited to, modifying the project design to avoid occupied habitat; limiting access and construction activities in the vicinity of the occupied habitat

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

using fencing or other means; relocating adult toads to suitable habitat outside of the construction area; and implementing compensatory mitigation, including preservation of off-site habitat.

Special-Status Vernal Pool Invertebrates

The project applicant(s) of all Authorized Development shall implement the following measure:

- Conduct a preconstruction survey for special-status vernal pool invertebrates. If the survey determines that vernal pool fairy shrimp, vernal pool tadpole, and midvalley fairy shrimp are present, the project applicant(s) shall consult with USFWS to determine appropriate measures to avoid and minimize take of individuals, which include but are not limited to, modifying the project design to avoid occupied habitat; limiting access and construction activities in the vicinity of the occupied habitat using fencing or other means; relocating vernal pool invertebrates to suitable habitat outside of the construction area; and implementing compensatory mitigation, including preservation of off-site habitat.
- Comply with Measures to Minimize Take of Vernal Pool Species in NBHCP V.A.4.

Off-Site: Mitigation Measure 3.13-4b: Implement Measures to Mitigate Impacts on Special-Status Wildlife Species Not Covered by the NBHCP.

Before commencement of construction activities outside the NBHCP ITP area, the project applicant(s) of all project elements not covered by the NBHCP shall implement the following measures to reduce potential effects on special-status wildlife species.

Valley Elderberry Longhorn Beetle

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Comply with USFWS Compensation Guidelines for Valley Elderberry Longhorn Beetle (USFWS 1999), which requires that impacts on elderberry shrubs be avoided whenever possible. If elderberry shrubs cannot be avoided, they must be transplanted in accordance with methods outlined in the guidelines, replaced by planting shrubs in a conservation area at a ratio ranging from 1:1 to 8:1, or mitigated by purchasing credits in an approved mitigation bank as agreed upon through consultation with USFWS.
- Retain a qualified biologist to conduct preconstruction surveys for elderberry shrubs before initiation of earth-moving activities for all proposed project phases not covered by the NBHCP ITP, including the proposed off-site infrastructure elements. If the survey determines that elderberry shrubs are present and that they could be adversely affected by the project, the project applicant(s) shall develop and implement a management plan for each off-site improvement the implementation of which could result in impacts on valley elderberry longhorn beetle. Implementation of the plan shall ensure that the performance standard of no net loss of valley elderberry longhorn beetle habitat is met. The restoration plans shall establish specific success criteria for habitat restoration, specify remedial measures to be undertaken if success criteria are not met (e.g., supplementary planting and additional monitoring), and describe short- and long-term maintenance and management actions. Long-term protection of restored areas and funding for their management shall be provided through appropriate mechanism to be determined by the project applicant(s) and the applicable county in consultation with USFWS. Authorization for take of valley elderberry longhorn beetle shall be obtained as necessary to comply with the ESA. All measures subsequently adopted through the permitting process shall be implemented.

Tricolored Blackbird

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Retain a qualified biologist to conduct preconstruction surveys for tricolored blackbird before initiation of earth-moving activities for all proposed project phases not covered by the NBHCP ITP, including the proposed off-site infrastructure elements.
- Avoid disturbance to active (occupied) nesting colonies during the nesting season if the surveys determine that tricolored blackbirds are present. If they are

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

present, a boundary shall be marked by brightly colored construction fencing that establishes a boundary 500 feet from the active nest site. No disturbance associated with project development shall occur within the 500-foot fenced area during the nesting season or while birds are present. Construction shall not commence until a qualified biologist, with the concurrence of DFG, has determined that the young have fledged and that the nest sites are no longer active.

Black-Crowned Night-Heron and White-Faced Ibis

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Retain a qualified biologist to conduct preconstruction surveys for black-crowned night-heron and white-faced ibis before initiation of earth-moving activities for all project phases not covered by the NBHCP ITP, including the proposed off-site infrastructure elements. The preconstruction surveys shall be conducted within 0.25 mile of the applicable project site(s).
- Avoid construction activities within 0.25 mile of any nests found during the nesting season (May 15 through August 31) until a qualified biologist, in consultation with DFG, has determined that the young have fledged or that the nest is no longer occupied.

Loggerhead Shrike

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Retain a qualified biologist to conduct preconstruction surveys for loggerhead shrike before initiation of earth-moving activities of all proposed project phases not covered by the NBHCP ITP, including the proposed off-site infrastructure elements. The preconstruction surveys shall be conducted within 100 feet of the applicable project site(s).
- Install a buffer with brightly colored construction fencing that establishes a boundary 100 feet from the active nest if surveys identify an active loggerhead shrike nest that would be adversely affected by project development. No disturbance associated with authorized development shall occur within the 100-foot fenced area during the nesting season (March 1 through July 31). A qualified biologist, with concurrence of DFG, must determine that the young have fledged or that the nest is no longer occupied before disturbance of the nest site can occur.

Burrowing Owl

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Retain a qualified biologist to conduct preconstruction surveys before initiation of earth-moving activities for all project phases not afforded coverage by the NBHCP ITP. The preconstruction surveys shall occur during the breeding season (February through August) to identify active burrows within 500 feet of the project site.
- Establish a buffer to protect any burrowing owl nest within 500 feet of the project site. No project activity shall commence within the buffer area until a qualified biologist confirms that the young have fledged and the nest is no longer active. DFG guidelines recommend implementation of a 0.25- or 0.5-mile buffer, but the size of the buffer may be adjusted if a qualified biologist and the applicable county, in consultation with DFG, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.
- Conduct a survey for active owl burrows before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction for all proposed project phases, including proposed off-site infrastructure elements. If burrowing owls are detected, the project applicant(s) shall notify DFG. If no active burrows are found, no further mitigation is required. If active burrows are found, the project applicant(s) shall prepare a mitigation plan. The plan shall be submitted to the applicable county for review and approval before initiation of any ground-disturbing activities. The plan may consist of installing one-way doors on all burrows during the nonbreeding season to allow owls to exit but not reenter and constructing artificial burrows within the project vicinity, as needed. If active burrows contain eggs and/or young, no construction shall occur within 165 feet

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

of the burrow until the young have fledged or no longer rely on the burrow. After it is confirmed that there are no owls inside burrows, these burrows may be collapsed.

Northwestern Pond Turtle

The project applicant(s) of all project phases, including off-site elements, shall implement the following measure:

- Retain a qualified biologist to conduct preconstruction surveys before initiation of earth-moving activities for all project phase(s) not covered by the NBHCP ITP. The surveys shall include all aquatic habitats to be dewatered and/or filled during project construction. Surveys shall be conducted immediately after any dewatering and before any fill of aquatic habitat. If pond turtles are found, the biologist shall capture them and move them to the nearby areas of suitable habitat that would not be disturbed by project construction.

California Tiger Salamander

The project applicant(s) of all project phases, including off-site elements, shall implement the following measure:

- Retain a qualified biologist to conduct preconstruction surveys during the appropriate survey period as determined through consultation with USFWS and DFG, and before initiation of earth-moving activities for all project phases not afforded coverage by the NBHCP ITP. If a future survey determines the presence of California tiger salamander, the project applicant(s) shall develop and implement a management plan for each off-site improvement the implementation of which could result in impacts on California tiger salamander. If feasible, the management plan shall describe measures to avoid and minimize impacts to California tiger salamander habitat. If complete avoidance is not feasible, the plan shall include compensatory mitigation. Implementation of the plan shall ensure that the performance standard of no net loss of California tiger salamander habitat is met. The management plan shall establish specific success criteria for habitat creation/preservation, specify remedial measures to be undertaken if success criteria are not met, and describe short- and long-term maintenance and management actions. Long-term protection of created and preserved areas and funding for their management shall be provided through an appropriate mechanism to be determined by the project applicant(s) and the applicable county in consultation with USFWS.

  Authorization for take of California tiger salamander shall be obtained if necessary to comply with the ESA. All measures subsequently adopted through the permitting process shall be implemented.

Western Spadefoot Toad

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Retain a qualified biologist to conduct a survey for western spadefoot toad during the appropriate survey period as determined during consultation with USFWS and DFG, before initiation of earth-moving activities for all project phases not afforded coverage by the NBHCP ITP.
- Develop and implement a management plan for each off-site improvement, the implementation of which could result in impacts on western spadefoot toad, if the preconstruction survey determines the presence of the toad. Implementation of the plan shall ensure that the performance standard of no net loss of western spadefoot toad habitat is met. The management plan shall establish specific success criteria for habitat creation/preservation, specify remedial measures to be undertaken if success criteria are not met, and describe short- and long-term maintenance and management actions. Long-term protection of created and preserved areas and funding for their management shall be provided through an appropriate mechanism to be determined by the project applicant(s) and the applicable county in consultation with DFG.

Vernal Pool Invertebrates

The project applicant(s) of all project phases, including off-site elements, shall implement the following measures:

- Retain a qualified biologist to conduct preconstruction surveys to identify potential habitat for vernal pool species during the appropriate season (as

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
established by USFWS). The surveys shall identify vernal pools, seasonal swales, and other suitable habitats that might be directly or indirectly affected by the project. The project shall, if feasible, avoid causing take of any federally listed vernal pool invertebrates. Standards for the survey shall be in accordance with the USFWS Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the ESA for the Listed Vernal Pool Branchiopods (April 19, 1996) or the most recent approved USFWS survey guidelines for vernal pool species. Conservation and minimization measures are likely to include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction, a detailed monitoring plan, and reporting requirements. ► If complete avoidance is not feasible, construction shall not proceed until a take authorization has been issued by USFWS and the project applicant(s) have abided by the conditions of the authorization, including the conservation and minimization measures intended to be completed before construction begins. ► Identify mitigation for direct and indirect impacts on vernal pools and other seasonal wetland habitats that support or potentially support federally listed vernal pool invertebrates that shall ensure no net loss of habitat (acreage and function) for these species (e.g., through habitat creation, rehabilitation, and/or preservation). The project applicant(s) shall complete and implement a habitat mitigation and monitoring plan that compensates for the loss of acreage, function, and value of affected vernal pool habitat. The habitat mitigation and monitoring plan shall be consistent with guidance provided in *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California* (USFWS 1996) or shall provide an alternative approach that accomplishes no net loss of habitat. ► If the project discharges dredge or fill material into wetlands or other waters of the United States, the project applicant(s) shall secure a USACE Section 404 CWA permit and achieve no net loss of wetlands. ► Provide sufficient upland habitat within the proposed mitigation areas for creation and restoration of vernal pools and vernal pool complexes to provide ecosystem health. The land used to satisfy this mitigation measure shall be protected through a conservation easement or deed restriction. *Special-Status Fish* The project applicant(s) of all project phases, including off-site elements, shall implement, or ensure the implementation of, the following measures: ► If the American Basin Fish Screen and Habitat Improvement Project is fully implemented, it is assumed that the potential for entrainment and associated injury or mortality would be substantially reduced from baseline conditions and that no additional analysis or mitigation would be necessary to reduce this impact or to comply with the ESA. However, if NMFS determines that take of listed salmonids would occur, authorization for take shall be obtained to comply with ESA. All measures subsequently adopted through the permitting process shall be implemented. ► If water supply Alternative B is selected and it requires long-term modification of the timing of water diversion from the Sacramento River, this would be considered a change in the proposed project and a separate CEQA analysis shall be prepared to determine whether additional mitigation would be required to ensure that impacts to special-status fish species from changes in river hydrology and associated physical habitat would remain less than significant. Additional mitigation may include, for example, improved fish screens, limits on diversions when juvenile salmonids may be present in the river system, and other avoidance and minimization measures developed in consultation with NOAA Fisheries under Section 7 of the ESA. Significance after Mitigation: less than significant		
3.13-5: Potential Loss and Degradation of Special-Status Plant Species and Habitat. Implementation of the proposed project could result in direct and/or indirect impacts on special-status plant species and in the removal of vernal pool grassland, seasonal wetland, and riparian habitat along the off-site infrastructure alignments that have potential to support special-status plant species.	Direct & potentially significant, Indirect & potentially significant	Direct & potentially significant, Indirect & potentially significant

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-Site: Mitigation Measure 3.13-5a: Implement NBHCP ITP Avoidance and Minimization Measures for Impacts on Special-Status Plant Species. The project applicants(s) of all Authorized Development shall adhere to the relevant take, avoidance, and minimization measures described in the NBHCP and summarized below. In case of conflict, the NBHCP controls. *Delta Tule Pea* The project applicant(s) of all Authorized Development shall implement the following measure: ► Conduct preconstruction survey of Delta tule pea. If Delta tule pea plants are identified through the preconstruction survey, USFWS and DFG shall be immediately notified. Under such circumstances, the project applicant(s) shall provide for transplantation of the identified plants before site disturbance. *Sanford's Arrrowhead* The project applicant(s) of all Authorized Development shall implement the following measure: ► Conduct a preconstruction survey of Sanford's arrowhead. If Sanford's arrowhead plants are identified through the preconstruction survey, USFWS and DFG shall be notified immediately. Under such circumstances, the project applicant(s) shall provide for the transplantation of the identified plants before site disturbance. *Boggs Lake Hedge-Hyssop, Sacramento Orcutt Grass, Slender Orcutt Grass, Colusa Grass, and Legenere* The project applicant(s) of all Authorized Development shall implement the following measure: ► Conduct a preconstruction survey of Boggs Lake hedge-hyssop, Sacramento Orcutt grass, slender Orcutt grass, Colusa grass, and legenere. If the survey determines that Boggs Lake hedge-hyssop, Sacramento Orcutt grass, slender Orcutt grass, Colusa grass, or legenere are present, the project applicant(s) shall consult with USFWS and DFG to determine appropriate measures to avoid and minimize loss of individuals, which may include but is not limited to, fencing of the population before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. Indirect impacts (i.e., changes in hydrology) shall be minimized by placing culverts away from any plant populations, if necessary. Other potential actions include the collection of seeds from the existing populations and inoculation of the collected seeds into a new area. **Off-Site: Mitigation Measure 3.13-5b: Implement Measures to Mitigate Impacts on Special-Status Plants Not Covered by the NBHCP.** The project applicant(s) of all proposed project phases not covered by the NBHCP, including the proposed off-site infrastructure elements, shall: ► Retain a qualified biologist to conduct preconstruction surveys to identify potential habitat for special-status plant species during the appropriate season (as established by USFWS). The surveys shall identify vernal pools, seasonal swales, and other suitable habitats that might be directly or indirectly affected by the project. If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter report to USFWS, DFG, and the applicable county, and no further mitigation shall be required. The project shall, if feasible, avoid causing take of special-status plant species. If complete avoidance is not feasible, construction shall not proceed until take authorization has been issued by USFWS or DFG, and the project applicant(s) have abided by the conditions of the authorization, including the conservation and minimization measures intended to be completed before construction begins Significance after Mitigation: less than significant.		
3.13-6: Consistency with the NBHCP. Implementation of the proposed project and the mitigation measures presented in this EIR would be consistent with the NBHCP and would not preclude the attainment of any goals or objectives included in the plan.	Direct & less than significant, No indirect	Direct & less than significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact / Mitigation	Project Component: On-Site	Project Component: Off-Site
3.14 Parks and Open Space		
Program Level		
3.14-1: Sufficiency of Project Site Parkland to Meet Increased Demand. The proposed project provides 6.14 acres per 1,000 residents of developed parks, which exceeds the Quimby Act maximum requirement of 5 acres per 1,000 residents. The total amount of parkland (including greenbelts, pedestrian and bicycle trails, lakes, basins, a potential golf course, and other similar amenities) proposed is 18.7 acres per 1,000 residents, which exceeds the County policy of striving to achieve and maintain a standard of 10 acres of total parkland per 1,0000 residents. Construction of the developed parks and other parkland areas may result in an adverse physical impact on the environment. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, Indirect addressed in Sections 3.1 through 3.17	No Direct, No Indirect
3.14-2: Increased Use and Potential Physical Deterioration of Existing Off-Site Local or Regional Park Facilities. Project implementation would result in a large number of new residents, which would increase the use and cause the potential physical deterioration of existing off-site local and regional park facilities. **On-Site, Off-Site:** No mitigation measures are required.	Indirect & LTS, No direct	No Direct, No Indirect
3.14-3: Sufficiency of Project Site Parkland to Meet Increased Demand. The proposed Phase 1 and Phase A development areas may fall short of the maximum Quimby Act standard of 5 acres per 1,000 residents for developed parks and the County's goal of 10 acres per 1,000 residents of overall parkland, depending on the mix of age-restricted units in Phase 1.	Direct & potentially significant, Indirect addressed in Sections 3.1 through 3.17	N/A (additional detailed analysis of on-site elements only)
On-Site: Mitigation Measure 3.14-3: Require Compliance with the Parkland Standards through a Combination of Parkland Dedication and the Payment of In-lieu Fees To achieve a park dedication goal of 5 acres of parkland per 1,000 residents, a condition of approval shall be required of future subdivisions that include residential lands that shall require compliance with parkland standards set forth in the Sutter Pointe Specific Plan by either providing sufficient parkland to meet the standards or in combination with payment of in-lieu fees to cover the deficiency between parkland provided by the development and the standard. Significance after Mitigation: less than significant.		
3.14-4: Increased Use and Potential Deterioration of Existing Off-Site Local or Regional Park Facilities. Project implementation would result in a large number of new residents, which would increase the use of and cause the potential deterioration of existing off-site local and regional park facilities.	Indirect & LTS, No direct	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-Site, Off-Site: No mitigation measures are required.		
3.15 Cultural Resources		
Program Level		
3.15-1: Damage to or Destruction of Historic-Era Identified Resources. Implementation of the proposed project would result in ground disturbance to a depth of several feet and removal of certain existing structures, which may result in damage or destruction to identified historic-era building/structure complexes.	Direct & potentially significant, No indirect	Direct & LTS, No indirect
On-Site: Mitigation Measure 3.15-1: Complete Cultural Resources Evaluations of Previously Identified Historic-Era Resources. The project applicant(s) and the construction contractors within development Phases B and 4 shall implement the following measures to reduce potentially significant impacts on the three historic-era structure/building complexes on the project site: ▸ Before the start of any ground-disturbing activities within 100 feet of the three historic-era structure/building complexes, a qualified professional architectural historian shall conduct archival research and additional documentation of the sites to complete NRHP/CRHR evaluations. ▸ If any of the three complexes is found to be significant as defined under CEQA, additional treatment shall be implemented at that complex. Treatment designed to mitigate adverse impacts may involve avoidance; rehabilitation or reuse consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or a Historic American Buildings Survey, HAER, or similar documentation, as recommended by a qualified architectural historian. **Off-Site:** No mitigation measures are required. Significance after Mitigation: potentially significant and unavoidable.		
3.15-2: Damage to or Destruction of Undocumented Subsurface Archaeological Resources during Construction. Because of the project's proximity to Curry Creek and the Sacramento River, there is a potential for unidentified archaeological resources, particularly the remains of Native American occupation, to be encountered during ground-disturbing activities.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
On-Site, Off-Site: Mitigation Measure 3.15-2: Educate Construction Workers regarding Buried Cultural Resources, Suspend Ground-Disturbing Activities if Resources are Encountered, and Employ an Archaeologist to Assess the Find. To reduce impacts on potentially undiscovered cultural resources, the project applicant(s) of all project phases shall do the following: ▸ Before the start of construction activities, the project applicant(s) of all project phases shall retain a qualified archaeologist to conduct training for construction workers, to educate them about the possibility of encountering buried cultural resources and inform them of the proper procedures should resources be encountered. ▸ The project applicant(s) of all project phases, including off-site elements, shall retain a qualified archaeologist who is trained in the identification of buried deposits to be present for all ground-disturbing activities within 1,000 feet of Curry Creek, which is located within Phase D and Phase 4 of project		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
development. ► The project applicant(s) of all project phases shall temporarily suspend all ground-disturbing activity if previously undocumented archaeological materials (e.g., remains of historic buildings or structures; deposits or scatters of historic artifacts; or prehistoric artifacts such as stone tool flaking debris, mortars, pestles, shell, or bone) are encountered during project construction,. At that time, the project applicant(s) shall retain a qualified archaeologist. Construction activities shall be suspended within a 100-foot radius of the find or a distance determined by a qualified archaeologist to be appropriate based on the potential for disturbance of additional resource-bearing soils. The archaeologist shall conduct a field investigation of the specific site and recommend specific treatment measures deemed necessary to protect or recover any cultural resources concluded by the archaeologist to represent significant or potentially significant resources as defined by CEQA. Specific treatment measures include but are not limited to avoiding the resource or conducting data recovery and recordation. The applicant(s) shall implement all of the archaeologist's feasible recommendations to the satisfaction of the County before construction resumes in the area where cultural materials were discovered. Significance after Mitigation: less than significant.		
3.15-3: Damage to or Destruction of Human Remains during Construction. Numerous Native American habitation sites, many of which contain human remains, have been documented within and on the periphery of the Natomas Basin. Although none are known to exist within the project site, there is a potential for previously unknown human remains to be located below the surface both on-site and off-site.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
On-Site, Off-Site: Mitigation Measure 3.15-3: Suspend Ground-Disturbing Activities if Undocumented Human Remains are Encountered and follow California Health and Safety Code Procedures. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, including those associated with off-site improvements, the project applicant(s) shall immediately halt potentially damaging excavation in the area of the burial and notify the County coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or public lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). After the coroner's findings are complete, the project applicant(s), an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting on notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code. Upon the discovery of Native American remains, the procedures above regarding involvement of the County coroner, notification of the NAHC, and identification of an MLD shall be followed. The applicant(s) shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have at least 48 hours after being granted access to the site to inspect the site and make recommendations. A range of possible treatments for the remains may be discussed: nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment. As suggested by Assembly Bill (AB) 2641 (Chapter 863, Statutes of 2006), the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the applicant(s) shall comply with one or more of the following requirements:		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
▸ Record the site with the NAHC or the appropriate Information Center. ▸ Utilize an open-space or conservation zoning designation or easement. ▸ Record a document with the county in which the property is located. The applicant(s) or its authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify an MLD or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The applicant(s) or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the landowner. Ground disturbance in the zone of suspended activity shall not recommence without authorization from the archaeologist. Significance after Mitigation: less than significant.		
3.15-4: Damage to or Destruction of Cultural Resources in Unsurveyed Areas. Portions of the project site either have not been subjected to systematic inventory or are covered with a dense cover of vegetation that precludes observation of the surface and assessment of the presence of cultural resources.	Direct & potentially significant, No indirect	Direct & potentially significant, No indirect
On-Site, Off-Site: Mitigation Measure 3.15-4: Conduct Archaeological Surveys of All Unsurveyed Areas, and Implement Additional Treatment of Resources, if Necessary The project applicant(s) of all project phases, both on-site and off-site elements, shall retain a qualified archaeologist to conduct focused surveys of all portions of the project site that have not been previously surveyed. The survey shall be conducted before any ground-disturbing activities, including site preparation, commence. If cultural resources are identified as a result of the survey, the archaeologist shall evaluate the significance of the finds and recommend appropriate mitigation measures for significant resources. Mitigation shall include but shall not be limited to avoiding significant (as defined under CEQA) resources through modifications in project design, and/or conducting subsurface testing and data recovery. Significance after Mitigation: less than significant.		
Additional Detailed Analysis (Phase 1 and Phase A)		
3.15-5: Damage to or Destruction of Identified Resources. Implementation of the proposed project would result in ground disturbance to a depth of several feet, resulting in damage to or destruction of archaeological deposits and the removal of any existing buildings and structures.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
On-Site: No mitigation measures are required.		
3.15-6: Damage to or Destruction of Undocumented Subsurface Archaeological Resources during Construction. Although an intensive inventory has been conducted within Phase 1 and Phase A of the project site, there is a potential that previously unknown subsurface cultural materials may be discovered during ground-disturbing activities.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-Site: Implementation of Mitigation Measure 3.15-2 Significance after Mitigation: less than significant.		
3.15-7: Damage to or Destruction of Human Remains during Construction. Numerous Native American habitation sites, many of which contain human remains, have been documented in the vicinity of the project site. There is the potential for previously undocumented remains to be located below the surface within Phase 1 and Phase A of the project site. **On-Site: Implementation of Mitigation Measure 3.15-3** Significance after Mitigation: less than significant.	Direct & potentially significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.16 Visual Resources		
Program Level		
3.16-1: Alteration of a Scenic Vista. Implementation of the proposed project would not result in the degradation of the visual quality of a scenic vista. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No indirect	Direct & LTS, No indirect
3.16-2: Damage to Scenic Resources within a State Scenic Highway. Implementation of the proposed project would not damage scenic resources and is not visible from a state-designated scenic highway. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	No direct, No indirect
3.16-3: Degradation of Visual Character. Project implementation would substantially alter the visual character of the project site through conversion of agricultural land to developed urban uses. **On-Site:** No feasible mitigation measures are available. **Off-Site:** No mitigation measures are required. Significance after Mitigation: significant and unavoidable	Direct & significant, No indirect	Direct & LTS, No indirect
3.16-4: Temporary Degradation of Visual Character for Developed Project Land Uses during Construction. The presence and movement of heavy construction equipment and staging areas could temporarily degrade the existing visual character and/or quality of the project site and surrounding area.	Direct & significant, No indirect	Direct & significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
On-Site: Mitigation Measure 3.16-4: Screen Construction Staging Areas. The project applicant(s) for all project phases shall locate staging and material storage areas as far away from sensitive land uses (e.g., residential areas, schools, parks) and/or nearby roadways as feasible. Staging and material storage areas shall be approved by the County before the approval of grading plans and building permits for all project phases and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include berms or fences. The screen design shall be approved by the County to further reduce visual effects to the extent possible. **Off-Site:** The project applicant(s) for all project phases shall implement Mitigation Measure 3.16-4, "Screen Construction Staging Areas," for all staging areas that would be located within 500 feet of a residence. Otherwise, implementation of Mitigation Measure 3.16-4 shall not be required for construction of the off-site elements. Significance after Mitigation: significant and unavoidable		
3.16-5: New Light and Glare. Project implementation would require lighting of new development, which could inadvertently cause increased light and glare.	Direct & significant, No indirect	No Direct or indirect
On-Site: Mitigation Measure 3.16-5: Establish and Require Conformance to Lighting Standards and Prepare and Implement a Lighting Plan. To reduce impacts associated with light and glare, the project applicant(s) for all project phases shall conform to the following guidelines: ► Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties. ► Place and direct flood or area lighting needed for construction activities or for nighttime sporting activities to not disturb adjacent residential areas and passing motorists. ► Prohibit the use of harsh mercury vapor, low-pressure sodium, or fluorescent bulbs for public lighting in residential neighborhoods. ► Prohibit light fixtures that are of unusually high intensity or brightness or that blink or flash; ► Use appropriate building materials, lighting, and signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways. ► Design exterior lighting as an integral part of the building and landscape design in the Sutter Pointe Specific Plan area. Lighting fixtures shall be architecturally consistent with the overall site design. ► Establish standards for outdoor lighting to reduce high-intensity nighttime lighting and glare as part of the Sutter Pointe Specific Plan design guidelines/standards. Consideration shall be given to design features, namely directional shielding for street lighting, parking lot lighting, and other significant light sources, that will reduce effects of nighttime lighting. In addition, consideration shall be given to the use of automatic shutoffs or motion sensors for lighting features to further reduce excess nighttime light. All nighttime lighting shall be shielded to prevent the light from shining off of the surface intended to be illuminated. A lighting plan shall be submitted to the County for review and approval which shall include the above elements. The lighting plan may be submitted concurrently with other improvement plans, and shall be submitted before the installation of any lighting or the approval of building permits for all phases. The project applicant(s) of all future phases shall implement the approved lighting plan. **Off-Site:** No mitigation measures are required. Significance after Mitigation: less than significant.		

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.16-6: New Skyglow Effects. The proposed project would require lighting of new development that would result in increased skyglow effects, effectively obscuring views of stars, constellations, and other features of the night sky. **On-Site: Implement Mitigation Measure 3.16-5** **Off-Site:** No mitigation measures are required. Significance after Mitigation: significant and unavoidable.	Direct & significant, No indirect	No Direct, No indirect
Additional Detailed Analysis (Phase 1 and Phase A)		
3.16-7: Alteration of a Scenic Vista. Implementation of the proposed project would not result in the degradation of the visual quality of a scenic vista. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.16-8: Damage to Scenic Resources within a State Scenic Highway. Implementation of the proposed project would not damage scenic resources and is not visible from a state-designated scenic highway. **On-Site, Off-Site:** No mitigation measures are required.	Direct & LTS, No Indirect	N/A (additional detailed analysis of on-site elements only)
3.16-9: Degradation of Visual Character. Project implementation would substantially alter the visual character of the project site through conversion of agricultural land to developed urban uses. **On-Site:** No feasible mitigation measures are available. **Off-Site:** No mitigation measures are required. Significance after Mitigation: significant and unavoidable	Direct & significant, No indirect	N/A (additional detailed analysis of on-site elements only)
3.16-10: Temporary Degradation of Visual Character for Developed Project Land Uses during Construction. The presence and movement of heavy construction equipment and staging areas could temporarily degrade the existing visual character and/or quality of the project site and surrounding area. **On-Site: Mitigation Measure 3.16-4: Screen Construction Staging Areas.** Significance after Mitigation: significant and unavoidable	Direct & significant, No indirect	Direct & significant, No indirect

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
3.16-11: New Light and Glare. Project implementation would require lighting of new development, which could inadvertently cause increased light and glare. **On-Site: Implement Mitigation Measure 3.16-5.** Significance after Mitigation: less than significant	Direct & significant, No indirect	No Direct or indirect
3.16-12: New Skyglow Effects. The proposed project would require lighting of new development that could inadvertently cause increased skyglow effects, effectively obscuring views of stars, constellations, and other features of the night sky. **On-Site: Implement Mitigation Measure 3.16-5.** Significance after Mitigation: significant and unavoidable	Direct & significant, No indirect	No Direct or indirect
3.17 Climate Change		
Program Level		
3.17-1: Generation of Temporary, Short-Term Construction-Related GHG Emissions. Project-related construction activities associated with development of the proposed project would result in increased generation of GHGs. These emissions would be temporary and short-term and would decline over time as new regulations are developed that address medium- and heavy-duty on-road vehicles and off-road equipment under the mandate of AB 32. However, based on current technology and measured against current standards, project-related construction emissions of GHGs are expected to be substantial and would contribute considerably to cumulative construction-related GHG emissions. **Mitigation Measure: Implement Mitigation Measure 3.4-1.** Significance after Mitigation: significant and unavoidable.	Cumulatively considerable incremental contribution to significant cumulative GHG emission impact	Cumulatively considerable incremental contribution to significant cumulative GHG emission impact
3.17-2: Increased Long-Term Operational GHG Emissions. Operation of the proposed project over the long term would result in increased generation of GHGs, which would contribute considerably to cumulative GHG emissions.	Cumulatively considerable contribution to a significant cumulative impact related to long-term operational generation of GHGs	Cumulatively considerable contribution to a significant cumulative impact related to long-term operational generation of GHGs

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

Mitigation Measure: Implement Mitigation Measure 3.4-2.

Mitigation Measure 3.17-1: Implement Additional Measures to Reduce GHG Emissions.

For each increment of new development within the project site requiring a discretionary approval (e.g., proposed tentative subdivision map, conditional use permit), the County shall impose mitigation measures that reduce GHG emissions to the extent feasible and to the extent appropriate with respect to the state's progress at the time toward meeting GHG emissions reductions required by the California Global Warming Solutions Act of 2006 (AB 32).

The County shall require feasible reduction measures that, in combination with existing and future regulatory measures developed under AB 32, will reduce GHG emissions associated with the operation of developments and supporting infrastructure that are part of the proposed project by 30% from business-as-usual emissions levels projected for 2020, if it is feasible to do so.

For each increment of new development, the County shall submit to the developer a list of potentially feasible GHG reduction measures to be considered in the development design. The County's list of potentially feasible GHG reduction measures shall reflect the current state of the regulatory environment, which will continuously evolve under the mandate of AB 32. The developer shall then submit to the County a mitigation report that contains an analysis demonstrating which GHG reduction measures are feasible and the associated reduction in GHG emissions. The report shall also demonstrate why measures not selected are considered infeasible. The County must review and approve the mitigation report for the applicable increment of development to receive its discretionary approval. In determining what sorts of measures should appropriately be imposed by a local government under the circumstances, the County shall consider the following factors:

- the extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the project site are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by EPA;
- the extent to which mobile-source GHG emissions, which at the time of writing this EIR comprise a substantial portion of the state's GHG inventory, can also be reduced through design measures that result in trip reductions and reductions in trip length;
- the extent to which GHG emissions emitted by the mix of power generation operated by PG&E, the electrical utility that will serve the project site, are projected to decrease pursuant to the Renewables Portfolio Standard required by SB 1078 and SB 107, as well as any future regulations, policies, and/or plans adopted by the federal and state governments that reduce GHG emissions from power generation;
- the extent to which replacement of CCR Title 24 with the California Green Building Standards Code or other similar requirements will result in new buildings being more energy efficient and consequently more GHG efficient;
- the extent to which any stationary sources of GHG emissions that would be operated on a proposed land use (e.g., industrial) are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that will be developed as part of ARB's implementation of AB 32, or other pertinent regulations on stationary sources that have the indirect effect of reducing GHG emissions;
- the extent to which the feasibility of existing GHG reduction technologies may change in the future, and to which innovation in GHG reduction technologies will continue, effecting cost-benefit analyses that determine economic feasibility; and
- whether the total costs of proposed mitigation for GHG emissions, together with other mitigation measures required for the proposed development, are so great that a reasonably prudent property owner would not proceed with the project in the face of such costs.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site

In considering how much, and what kind of, mitigation is necessary in light of these factors, the County shall consider the following list of options, though the list is not intended to be exhaustive, as GHG reduction strategies and their respective feasibility are likely to evolve over time. These measures are derived from multiple sources including the Mitigation Measure Summary in Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, CEQA & Climate Change (CAPCOA 2008), and the California Attorney General's Office (2008).

Energy Efficiency

- Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, small wind turbines).
- Design buildings to meet CEC Tier II requirements (e.g., exceeding the requirements of the Title 24 (as of 2007) by 35%).
- Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use.
- Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings.
- Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes.

Water Conservation and Efficiency

- With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public area and commercial landscaping. Use water-efficient turf in parks and other turf-dependant spaces.
- Install the infrastructure to use reclaimed water for landscape irrigation and/or washing cars.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances.
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces. These restrictions should be included in the Covenants, Conditions, and Restrictions of the community.
- Provide education about water conservation and available programs and incentives.
- In order to reduce stormwater runoff, which typically bogs down wastewater treatment systems and increases their energy consumption, construct driveways to single family detached residences and parking lots and driveways of multi-family residential uses with pervious surfaces. Possible designs include Hollywood drives (two concrete strips with vegetation or aggregate in between) and/or the use of porous concrete, porous asphalt, turf blocks, or pervious pavers.

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste at all buildings.
- Provide adequate recycling containers in public areas, including parks, school grounds, golf courses, and pedestrian zones in areas of mixed-use development.

Table ES-2
Summary of the Program-Level and Additional Detailed Analysis (Phase 1 and Phase A) Impacts and Mitigation Measures

Impact	Project Component	
Mitigation	On-Site	Off-Site
► Provide education and publicity about reducing waste and available recycling services.		
Transportation and Motor Vehicles		
► Promote ride sharing programs and employment centers (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride share vehicles, and providing a web site or message board for coordinating ride sharing).		
► Provide the necessary facilities and infrastructure in all land use types to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).		
► At industrial and commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used on-site at non-residential land uses shall be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption.		
Golf Course Design and Operations		
► Incorporate best management practices into the design and operation of any golf courses developed under the proposed project. Such practices include but are not limited to the use of low-maintenance grass, electric landscaping equipment and golf carts, electric-powered golf carts, bicycle rentals for patrons, use of drought-tolerant native plants, water-efficient irrigation systems and devices such as soil moisture-based irrigation controls, biodegradable golf tees, and development of a water conservation plan. Attain the review and approval of the full design and golf course operations plan from the Environmental Institute for Golf or a like-organization to be selected by the Sutter County Community Services Department.		
Significance after Mitigation: significant and unavoidable.		

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1 INTRODUCTION

1.1 INTRODUCTION

This document is an environmental impact report (EIR) prepared to evaluate the potential environmental impacts of the Sutter Pointe Specific Plan (Specific Plan), also referred to as the "proposed project." The proposed project includes adoption of the Specific Plan itself and implementation of the associated development proposal.

This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Code of Regulations [CCR] Section 15000 et seq.). As specified in Section 15367 of the State CEQA Guidelines, the public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance. For purposes of the proposed project, the County of Sutter (County) is the lead agency under CEQA.

1.2 SPECIFIC PLAN

1.2.1 AUTHORITY AND REQUIRED CONTENTS

A specific plan is a legislative development plan prepared in accordance with California planning statutes found in Government Code Section 65450 et seq. and consistent with the general plan of the local agency with jurisdiction over the specific plan. California Government Code Section 65451 sets forth the requirements for specific plans as follows:

a. A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:

    1. The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.

    2. The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.

    3. Standards and criteria by which improvements will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.

    4. A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

b. The specific plan shall include a statement of the relationship of the specific plan to the general plan.

1.2.2 RELATIONSHIP OF THE SPECIFIC PLAN TO THE GENERAL PLAN

Pursuant to California Government Code Section 65454, a specific plan must be consistent with the local government's general plan. The Measure M Group (the project applicant), submitted a general plan amendment application in January 2006 that includes proposed amendments to make the County General Plan consistent with the Specific Plan. The Sutter Pointe Specific Plan provides regulations, guidelines, and standards that would be consistent with and would implement the Sutter County General Plan, as proposed for amendment.

1.2.3 PURPOSE AND INTENT

The Sutter Pointe Specific Plan was prepared pursuant to California Government Code, Title 7, Article 8, Section 65450 et seq., which grants local planning agencies the authority to prepare and/or adopt a specific plan for an area covered by a general plan for the purpose of establishing systematic methods for implementing the general plan. The Sutter Pointe Specific Plan provides the direction for the future development of the Sutter Pointe master-planned community. It sets forth a comprehensive set of land use plans, development regulations, design guidelines, infrastructure master planning, and implementation programs designed to produce a project consistent with the goals, objectives, and policies of the County General Plan as proposed for amendment. Specific plans are generally designed to:

- provide a greater level of detail than the traditional zoning ordinance and serve as a tool to tailor development policies and regulations to a specific site;
- provide more specific site development standards to create appropriate land use designations and design criteria that address project-specific issues;
- provide decision makers with the opportunity to comprehensively review a master-planned community in its entirety at the outset and establish a development framework—considerate of land use, circulation, resource protection, infrastructure, and other issues important to local government; and
- provide innovative yet proven backbone infrastructure master planning to ensure optimal implementation of public services and facilities.

1.3 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The project applicant (the Measure M Group), is requesting approval of various discretionary entitlements in support of a specific plan for a mixed-use master-planned development community. The Specific Plan includes a combination of employment-generating uses, retail and supporting services, recreational uses, and a broad range of residential uses and associated infrastructure and roads. The Specific Plan would guide development on an approximately 7,528-acre site, which is part of the 9,500-acre Sutter County Industrial/Commercial Reserve as designated in the County General Plan. Located in Sutter County, the project site lies immediately north of the Sacramento/Sutter County line, west of Natomas Road, and east of Powerline Road (the westernmost portion of the project site) and State Route (SR) 99/70. (See Exhibits 2-1 and 2-2 in Chapter 2, “Project Description.”)

The proposed project includes a maximum of 17,500 residential dwelling units (in three residential categories and one mixed-use category) on approximately 2,900 acres; approximately 49,706,000 square feet of employment-generating uses and nonresidential planned building uses on approximately 3,600 acres; elementary (K–8) and high schools and other community buildings on approximately 1,000 acres; institutional uses; local commercial uses; parks, recreational areas, open space, and detention basins; and major roads.

Off-site roadway and infrastructure facilities are proposed to serve project development and are addressed in this DEIR. These facilities include road widening, extension, and improvements; sewer force mains, pump stations, and monitoring stations; water transmission pipelines, distribution facilities, and pump stations; drainage facilities and pump stations; and electrical, communications facilities/infrastructure, and natural gas transmission lines and extensions.

1.4 PROJECT HISTORY AND PLANNING CONTEXT

1.4.1 SITE HISTORY

Sutter County initiated a comprehensive update of its General Plan in July 1993. The General Plan Technical Update resulted in a revised General Plan that was adopted on December 6, 1994. Upon completion of the update, the County initiated Phase 2 of its general plan update process. This phase, known as the Comprehensive General Plan Revision, focused on developing a 20-year plan with a 100-year vision. A major component of this process was an extensive public participation program.

A 25-member Citizens Advisory Committee was appointed by the County Board of Supervisors both to provide input to the County Planning Commission and Board of Supervisors on the issues that committee members determined should be included in the General Plan and to provide recommendations identifying how those issues should be addressed. A series of study sessions and public meetings were conducted between March 13 and November 20, 1995. The Planning Commission reviewed the issues and the committee's recommendations during a separate series of public meetings and forwarded both sets of recommendations to the County Board of Supervisors for consideration and direction.

Another major component of the Comprehensive General Plan Revision process consisted of developing a preferred land use alternative for the County. The committee provided preliminary input regarding new areas for industrial and commercial development. In subsequent meetings, the County Planning Commission and the Board of Supervisors considered three land use alternatives. Following substantial public input, including requests for land use designation changes from individual property owners, the County Board of Supervisors selected a preferred alternative. This alternative served as the basis for developing the 1996 Sutter County General Plan and corresponding EIR. It was in these documents that the County first applied an urban development designation to the Sutter Pointe Specific Plan area. A 10,500-acre area was designated as Industrial/Commercial Reserve to accommodate employment-related uses. (In 2005, the County reduced the size of the area to 9,500 acres.) To date, because of the lack of necessary infrastructure, with the exception of Sysco Corporation and limited industrial buildings, no substantial employment-generating industry has been developed in south Sutter County. There has been no coordinated infrastructure planning and no ability to finance the substantial infrastructure that would be required to serve development in the area.

1.4.2 MEASURE M

A group of citizens, political leaders, landowners, and developers crafted a strategic method to deliver jobs to Sutter County. They resolved that the only way to bring employers and deliver required infrastructure and public services to south Sutter County was to finance new development with a mix of balanced land uses, including industry, commerce, education, housing, recreation, and open space. It was proposed that this mix was best contained on approximately 7,500 acres and integrated within the Natomas Basin Habitat Conservation Plan (NBHCP). The economic conditions in the region required that all these elements be in place simultaneously to create economic incentives for private funding and investment.

In November 2004, Measure M was put before the voters, and was overwhelmingly approved as a strategic plan for the region. The text of Measure M contained the following requirements for any future development of the area:

- at least 3,600 acres would be provided for commercial and industrial parks to create new jobs in Sutter County as a condition of having residential units approved;
- at least 1,000 acres would be provided for schools, parks, open space, libraries, retail areas, and other community facilities paid for by the development;

- no more than 2,900 acres would be available for residential construction on land protected, at a minimum, from a 100-year flood event;
- all necessary road, bridge, water, drainage, sewer, and other improvements would be paid for by the development; and
- ongoing law enforcement, fire, library, and other public services would be paid for by the development, without reducing current service levels.

1.4.3 PROJECT DESIGN OPPORTUNITIES AND CONSTRAINTS

Several critical factors affecting project development were taken into consideration in the preparation of the proposed land use plan, including constraints and opportunities associated with the following:

- project site boundary;
- significant on-site existing easements (irrigation, drainage, and the Natomas Cross Canal);
- Natomas Basin Conservancy mitigation lands (i.e., habitat preserve areas) located west and south of the project site along the Sacramento River;
- existing on-site employment uses (Sysco Corporation warehousing and distribution center, Holt Tractor facility, A&N Auto Repair, and AR Readymix);
- existing floodplain issues;
- Sacramento International Airport noise issues;
- proximity to downtown Sacramento, Sacramento International Airport, regional planned projects, and SR 99/70 corridor; and
- developable areas (based on factors including size available for employment centers, topography, vegetation, access, and geotechnical conditions).

1.5 PROJECT PURPOSE AND NEED AND PROJECT OBJECTIVES

The proposed project has been formulated to achieve the purpose and objectives of the project, as defined by the project applicant below. State CEQA Guidelines Section 15124(b) requires that the project description contain a clear statement of the project objectives, including the underlying purpose of the project. The statement of objectives is important under CEQA in helping the County select and develop a reasonable range of alternatives to the project for consideration in the EIR. Additionally, the objectives defined below provide a policy foundation for the proposed development plan and the regulations and guidelines of the Specific Plan.

1.5.1 PROJECT PURPOSE AND NEED

The purpose of the Sutter Pointe Specific Plan is to create a mixed-use community through the development of employment-generating land uses and a variety of residential housing types. The proposed project is intended to be a pedestrian-friendly, transit-oriented development that provides a multifaceted and multiphased transit program.

1.5.2 PROJECT OBJECTIVES

Outlined below are the main project objectives defined by the project applicant for the proposed Sutter Pointe Specific Plan project:

- **Objective 1:** Create a major employment center in south Sutter County that serves both Sutter County and the greater Sacramento region and generates tax revenue to Sutter County.
- **Objective 2:** Accommodate projected regional growth in a location adjacent to existing and planned infrastructure, urban services, transportation corridors, and major employment centers.
- **Objective 3:** Provide a complementary and supportive array of land uses that enables development of a community featuring employment centers, homes, shopping, schools, recreation, cultural and worship facilities, and public services.
- **Objective 4:** Provide a range of housing choices for all family types.
- **Objective 5:** Promote a mixed-use community composed of neighborhoods and activity centers.
- **Objective 6:** Provide for development of needed regional service facilities, such as a hospital/medical center and/or community college.
- **Objective 7:** Establish a system of multimodal transportation facilities that connects to the regional transportation system, including pedestrian and bicycle trails and future bus rapid transit.
- **Objective 8:** Create an efficient internal street system that connects residents to employment, commercial and civic centers, schools, and recreational and community facilities.
- **Objective 9:** Locate neighborhood parks adjacent to schools, and establish joint use of park and school sites.
- **Objective 10:** Provide usable recreation facilities that also act as transition zones between employment areas and adjacent residential neighborhoods, including dual-use recreation and drainage facilities.
- **Objective 11:** Comply with the Natomas Basin Habitat Conservation Plan, Sacramento Area Flood Control Agency flood control plans, and other regional resource conservation and safety plans.
- **Objective 12:** Provide connectivity between individual habitat reserves and between reserves and surrounding agricultural lands.
- **Objective 13:** Promote a balance in the type and phasing of land uses that supports a strong tax base and generates financial resources to pay for public services and infrastructure without financial burden to existing Sutter County residents.
- **Objective 14:** Maintain flexibility to adapt and adjust to changing economic and market conditions.
- **Objective 15:** Support incorporation of the Specific Plan area as a city at the optimal time in the future.
- **Objective 16:** Develop a project that complies with the Measure M advisory initiative as approved by Sutter County voters in 2004 (refer to Section 3.1, “Land Use,” for a detailed description of Measure M).

1.6 INTENDED USES AND TYPE OF ENVIRONMENTAL IMPACT REPORT

1.6.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Adoption of a specific plan is considered a "project" subject to the requirements of CEQA. In this case, the proposed Sutter Pointe Specific Plan requires the preparation and consideration of an EIR that describes the potential significant environmental impacts of the proposed project and project alternatives and the means by which significant environmental impacts may be reduced or avoided. Revisions to an adopted specific plan also may require CEQA analysis through a subsequent, supplemental, or tiered EIR or a mitigated negative declaration.

According to the State CEQA Guidelines (14 CCR Section 15064[f][1]), the preparation of an EIR is required whenever implementing a project may result in a significant environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental impacts of a project, identify possible and feasible ways to minimize the significant impacts, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. The information in the EIR can provide decision makers with the insight necessary to guide policy development, thereby ensuring that a specific plan's policies will address and provide the means to reduce or avoid potential impacts on the environment. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

CEQA requires that state and local government agencies consider the environmental impacts of projects over which they have discretionary authority before taking action on those projects. CEQA also requires that each public agency avoid or reduce to less-than-significant levels, wherever feasible, the significant environmental impacts of projects it approves or implements. If implementing a project would result in significant and unavoidable environmental impacts that cannot be feasibly reduced to less-than-significant levels with mitigation or approval of a feasible alternative, the project can still be approved, but the lead agency's decision makers must issue a statement of overriding considerations, which explains in writing the specific economic, social, or other considerations that they believe make those significant impacts acceptable.

This EIR has been prepared in accordance with the requirements of CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (CCR Section 15000 et seq.). Consistent with Section 15168 of the State CEQA Guidelines, a program EIR has been prepared for the entire Specific Plan area (i.e., project site) (see Section 1.6.2, below). A program EIR is often the first tier in the environmental evaluation for large-scale projects and is followed by more specific environmental analyses as elements of the Specific Plan are designed and implemented. This EIR evaluates at a programmatic level all potential environmental impacts of the entire proposed project (implementation of the Sutter Pointe Specific Plan), on- and off-site infrastructure improvements to support project development, and associated actions and entitlements (e.g., Sutter County General Plan amendment, rezone actions, and development agreement).

Subsequent plot plans, tentative subdivision maps, and improvement plans must be consistent with and be within the scope of both the Specific Plan and the County General Plan to take advantage of the CEQA streamlining provisions described below.

1.6.2 PROGRAM-LEVEL ENVIRONMENTAL IMPACT REPORT

This EIR can be characterized either as a program EIR prepared pursuant to State CEQA Guidelines Section 15168 or as a first-tier EIR prepared pursuant to State CEQA Guidelines Section 15152. These labels are complementary, not mutually exclusive. Regardless of its title, the document is intended to act as an analytical superstructure for subsequent, more detailed analyses associated with individual project applications (e.g., for small-lot tentative maps). The County's goal in preparing the current document is to minimize the amount of new

information that would be required in the future at the project level by dealing as comprehensively as possible in this document with cumulative impacts, regional considerations, and similar big-picture issues. The County recognizes that this document does not include the level of detail necessary to qualify as a project EIR.

According to State CEQA Guidelines Section 15168(c)(5), "[a] program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible." Later environmental documents (EIRs, mitigated negative declarations, or negative declarations) can incorporate by reference materials from the program EIR regarding regional influences, secondary impacts, cumulative impacts, broad alternatives, and other factors (State CEQA Guidelines Section 15168[d][2]). These later documents need only focus on new impacts that have not been considered before (State CEQA Guidelines Section 15168[d][3]).

Section 15168(c), entitled "Use with Later Activities," provides, in pertinent part, as follows:

> Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared:
>
> (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
>
> * * *
>
> (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.
>
> (4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

Here, the County anticipates preparing a written checklist similar to the typical initial study whenever landowners on the project site submit applications for site-specific approvals, such as small-lot tentative maps, conditional use permits, or other discretionary entitlements. In some instances (e.g., with respect to agricultural resources; visual resources; cultural resources; geology, soils, and paleontological resources; parks and recreation; air quality; land use; traffic and transportation; and noise issues in connection with Phase 1 and Phase A of the Specific Plan), the County's expectation, at least at present, is that the written checklists will conclude that no further analysis beyond that found in this program EIR will be necessary. Thus, the new analyses for these site-specific actions will focus on issues and impacts regarding which this program EIR lacks detailed site-specific information.

Future site-specific approvals may also be narrowed pursuant to the rules for tiering set forth in State CEQA Guidelines Section 15152. "'[T]iering is a process by which agencies can adopt programs, plans, policies, or ordinances with EIRs focusing on 'the big picture,' and can then use streamlined CEQA review for individual projects that are consistent with such…[first tier decisions] and are…consistent with local agencies' governing general plans and zoning'" (*Koster v. County of San Joaquin* [1996] 47 Cal.App.4th 29, 36). Before deciding to rely in part on a first-tier EIR in connection with a site-specific project, the lead agency must prepare an "initial study or other analysis" to assist it in determining whether the project may cause any significant impacts that were not "adequately addressed" in a prior EIR (State CEQA Guidelines Section 15152[f], Public Resources Code Section 21094[c]). Where this analysis finds such significant impacts, an EIR is required for the later project. In contrast, "[a] negative declaration or mitigated negative declaration shall be required" where there is no substantial evidence that the project may have significant impacts not adequately addressed in the prior EIR or where project revisions accepted by the proponent avoid any such new significant impacts or mitigate them "to a point where clearly" they are not significant.

Section 15152 further provides that, where a first-tier EIR has "adequately addressed" the subject of cumulative impacts, such impacts need not be revisited in second- and third-tier documents. Furthermore, second- and third-tier documents may limit the examination of impacts to those that "were not examined as significant effects" in the prior EIR or "[a]re susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." In general,

> [s]ignificant environmental effects have been "adequately addressed" if the lead agency determines that:
>
> (A) they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental impact report; or
>
> (B) they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

Here, as noted above, the County anticipates preparing a written checklist similar to the typical initial study whenever landowners on the project site submit applications for site-specific approvals, such as small-lot tentative maps, conditional use permits, or other discretionary entitlements. In preparing these analyses, the County will assess, among other things, whether any of the significant environmental impacts identified in this program/first-tier EIR have been "adequately addressed." Thus, the new analyses for these site-specific actions will focus on impacts that cannot be "avoided or mitigated" by mitigation measures that either (i) were adopted in connection with the Specific Plan or (ii) were formulated based on information in this EIR.

Finally, for all portions of the project site for which site-specific zoning would be instituted concurrently or shortly after adoption of the Specific Plan, future environmental review can also be streamlined pursuant to Public Resources Code Section 21083.3 and State CEQA Guidelines Section 15183. These provisions, which are similar but not identical to the tiering provisions, generally limit the scope of necessary environmental review for site-specific approvals following the preparation of an EIR for a "zoning action." For such site-specific approvals, CEQA generally applies only to impacts that are "peculiar to the parcel or to the project" and have not been previously disclosed, except where "substantial new information" shows that previously identified impacts would be more significant than previously assumed. Notably, impacts are considered not to be "peculiar to the parcel or to the project" if they can be substantially mitigated pursuant to previously adopted, uniformly applied development policies or standards. As noted above, the County anticipates that, in assessing the extent to which the Specific Plan EIR has previously addressed significant impacts that might occur with individual projects, the County is likely to conclude that in some instances (e.g., with respect to agricultural resources; visual resources; cultural resources; geology, soils, and paleontological resources; parks and recreation; air quality; land use; traffic and transportation; and noise, issues in connection with Phase 1 of the Specific Plan), no further analysis beyond that found in the program EIR will be necessary.

1.7 SCOPE AND FOCUS OF THE ENVIRONMENTAL IMPACT REPORT

Pursuant to CEQA and the State CEQA Guidelines, the discussion of potential impact on the environment contained in this EIR is focused on those impacts that the County has determined may be potentially significant.

Through review of project baseline (e.g., biology, cultural resources, traffic, water, sewer, dry utilities, drainage) and preliminary project engineering studies (water, sewer, dry utilities, drainage), review of CEQA documents in the nearby areas, knowledge of local and regional issues, site reconnaissance, and the scoping process, it has been concluded that implementation of the proposed project may have significant impacts related to the environmental issues topics listed below, and which have been fully evaluated in this DEIR:

- land use and planning;
- population, employment, and housing;

- transportation and circulation;
- air quality;
- noise and vibration;
- geology, soils, and paleontological resources;
- hydrology and water quality;
- public services;
- water supply;
- public utilities;
- agricultural resources;
- public health and hazards;
- biological resources;
- parks and open space;
- cultural resources;
- visual resources; and
- climate change.

On March 29, 2007, the County issued a notice of preparation (NOP) (Appendix A of this DEIR) to inform agencies and the general public that an EIR was being prepared and invited comments on the scope and content of the document, including input on the range of project alternatives, and participation at a public scoping meeting. The NOP was submitted to the State Clearinghouse (State Clearinghouse No. 2007032157) and distributed to the appropriate state agencies. It was also posted on the County's web site and mailed to applicable federal, state, regional, and local agencies; organizations; and the public. The NOP was circulated for 30 days, as mandated by CEQA. The public comment period for the NOP closed on April 30, 2007. The baseline for assessing the impacts of the proposed project was set at the time the NOP was published (March 29, 2007). (See State CEQA Guidelines Section 15125[a].)

The County held a public scoping meeting to solicit input from the community and public agencies to be considered in project design, alternatives selection, and the scope and content of the EIR. The meeting was held on April 19, 2007, at 5:30 p.m., at the Veterans Memorial Community Building, 1425 Veterans Memorial Circle, in Yuba City, California. Approximately 40 people from the public and private sectors, as well as the general public, attended the meeting.

Appendix B of this DEIR contains a table listing the agencies, organizations, and individuals who commented on the NOP. Copies of the comment letters follow the table in Appendix B. NOP comments have been addressed in the respective technical sections of this DEIR (Chapter 3).

CEQA allows a lead agency to limit a discussion of the environmental impacts in an EIR when the impacts are not considered potentially significant. Pursuant to the CEQA checklist, only the potential for project impacts on mineral resources is not discussed in this DEIR. The project site and off-site improvement areas have not been identified as areas containing known mineral resources that would be of value to the region. Therefore, this topic is not addressed further in this DEIR.

1.8 AGENCY ROLES AND RESPONSIBILITIES

1.8.1 LEAD AGENCY

The County of Sutter, as lead agency for the proposed project under CEQA, has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. In addition to the County's approval and certification of the EIR, the following entitlements are requested from the County for the proposed project:

- approval of a general plan amendment,

- approval of a zoning code and map amendments,
- adoption of the Sutter Pointe Specific Plan,
- adoption of an urban services plan,
- adoption of a public facilities/infrastructure financing plan,
- adoption of a public facilities/infrastructure phasing plan,
- adoption of a county facilities master plan, and
- adoption of a development agreement between the County and the project applicant (including establishment of maintenance districts).

The project applicant is requesting these approvals to accommodate proposed development on lands it controls (i.e., lands owned). However, some approvals would apply to all lands in the Specific Plan area. It is anticipated that the County also would rely on this EIR (at least in part) for approval of other future discretionary entitlements and permits (e.g., large- and small-lot tentative subdivision maps, improvement plans, design review approvals, use permits, establishment of community services/maintenance districts). The County will rely on this DEIR to the degree that it adequately addresses the impacts of future development on the site and to the degree that the future, subsequent development applications are within the scope of the adopted Specific Plan and this EIR.

1.8.2 TRUSTEE AND RESPONSIBLE AGENCIES

Several agencies other than the County have jurisdiction over the implementation of elements of the proposed project, as identified below.

TRUSTEE AGENCY

Under CEQA, a trustee agency is an agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. One trustee agency, the California Department of Fish and Game, meets the definition with respect to resources potentially affected by the proposed project and is therefore considered a trustee agency.

RESPONSIBLE AGENCY

Under CEQA, a responsible agency is any agency other than the lead agency that has legal responsibility for carrying out or approving a project or elements of a project (Public Resources Code Section 21069). Responsible agencies are encouraged to actively participate in the CEQA process of the lead agency, review the CEQA document of the lead agency, and use the document when making decisions on the project. Potential responsible agencies are identified below in Section 1.8.3.

1.8.3 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

The following list identifies permits and other approval actions from federal, state, regional, and local agencies for which this EIR may be used during these agencies' decision-making processes (although, strictly speaking, no federal agency is a responsible agency for CEQA purposes). Additional approval actions may be required depending on the outcome of consultation required in various mitigation measures contained in this EIR. The following actions may be under the purview of regulatory agencies other than the lead agency.

FEDERAL ACTIONS/PERMITS

- **U.S. Army Corps of Engineers, Sacramento District:** Department of the Army permit under Section 404 of the Clean Water Act for discharges of dredged or fill material into waters of the United States, consultation for impacts on cultural resources pursuant to Section 106 of the National Historic Preservation Act, and consultation for impacts on federally listed species pursuant to Section 7 of the Endangered Species Act.

- **U.S. Fish and Wildlife Service:** federal Endangered Species Act consultation and issuance of incidental-take authorization for the take of federally listed endangered and threatened species consistent with NBHCP requirements.

STATE ACTIONS/PERMITS

- **California Department of Fish and Game, Sacramento Valley—Central Sierra Region:** potential California Endangered Species Act consultation and issuance of take authorization (California Fish and Game Code Section 2081), streambed alteration agreement (California Fish and Game Code Section 1602), and protection of raptors (California Fish and Game Code Section 3503.5) consistent with NBHCP requirements.

- **California Department of Public Health:** permit for land application of recycled water.

- **California Department of Transportation:** encroachment permit for construction of facilities that could affect a state highway or right-of-way (improvements to SR 99/70).

- **Central Valley Regional Water Quality Control Board (Region 5):** National Pollutant Discharge Elimination System (NPDES) construction stormwater permit (notice of intent to proceed under general construction permit) for disturbance of more than 1 acre, discharge permit for stormwater, general order for dewatering, and Section 401 Clean Water Act certification or waste discharge requirements.

- **State Historic Preservation Officer:** consultation for impacts on cultural resources pursuant to Section 106 of the National Historic Preservation Act.

REGIONAL AND LOCAL ACTIONS/PERMITS

- **Airport Land Use Commission:** finding of consistency regarding the Sacramento International Airport Comprehensive Land Use Plan.

- **East Nicolaus Joint Union High School District:** approval of new school site and School Facilities Master Plan.

- **Feather River Air Quality Management District:** authority to construct (for devices that emit air pollutants), health risk assessment, and air quality management plan consistency determination.

- **Placer County:** encroachment, grading, and use permits for construction of off-site sewer force main and roadway improvements.

- **Pleasant Grove Joint Union School District:** approval of new school sites and School Facilities Master Plan.

- **Reclamation District 1000:** encroachment permit to work in and adjacent to canals and adjacent to levees.

- **Sacramento County:** encroachment, grading, and use permits for construction of off-site force main; consultation regarding compatibility with Sacramento International Airport Land Use Plan; construction of roadway improvements.

- **Sacramento Regional County Sanitation District (SRCSD):** approval of sewer force main and ultimate connection to the SCRSD system and the Sacramento Regional Wastewater Treatment Plant (SRWTP).

- **Sacramento Local Agency Formation Commission:** approval of sphere of influence amendment and approval of annexation to SRCSD service area.

- **Sutter County:** encroachment, grading, and use permits for construction of on- and off-site project elements.

- **Sutter County Local Agency Formation Commission:** detachment from various special districts, creation of a new County Service Area (CSA), establishment of a sphere of influence coterminous with the boundaries of the project site, possible eventual incorporation of the project site, and approval of connection to SRCSD service.

1.9 ORGANIZATION OF THIS ENVIRONMENTAL IMPACT REPORT

The content and format of this EIR are designed to meet the requirements of CEQA and the State CEQA Guidelines. This EIR is organized into the following chapters so that the reader can easily obtain information about the proposed project and its specific environmental issues:

- The **Executive Summary** presents an overview of the proposed project and alternatives considered; a listing of environmental impacts and mitigation measures and impact conclusions before and after implementation of mitigation; and known areas of controversy.

- **Chapter 1, "Introduction,"** explains the CEQA process; specifies the underlying project purpose and objectives to which the lead agency is responding in considering the proposed project; lists the lead, responsible, and trustee agencies that may have discretionary authority over the proposed project; outlines the organization of the document; and provides information on public participation.

- **Chapter 2, "Project Description,"** presents the proposed project. This chapter describes the project characteristics and components, supporting on- and off-site infrastructure requirements, required entitlements, project phasing, and construction activities.

- **Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures,"** is divided into 17 sections corresponding to the environmental topics listed above. The introduction to Chapter 3 explains the approach to the environmental setting, presents the assumptions used in the environmental impact analysis, and provides definitions of the types of environmental impacts. Each of the remaining sections is devoted to a particular environmental topic area and describes the regulatory setting; describes the baseline, or existing conditions; and then provides an analysis of proposed on- and off-site direct and indirect project impacts, identifies mitigation measures that would avoid or eliminate significant impacts or reduce them to a less-than-significant level, where available and feasible, and identifies the residual impacts of the proposed project after implementation of mitigation.

- **Chapter 4, "Alternatives to the Proposed Project,"** provides an analysis of a reasonable range of alternatives, including the No-Project Alternative; identifies the environmentally superior alternative; and describes other alternatives considered but eliminated from further consideration. This chapter also provides a comparison in matrix form of the proposed project and the alternatives considered.

- **Chapter 5, "Cumulative Impacts,"** identifies the cumulative impacts of implementing the proposed project against a backdrop of past, present, and reasonably foreseeable future projects. It includes a list of cumulative projects/context for the assessment of impacts, discusses the potential cumulative impacts of the projects identified in the list, identifies the proposed project's contribution to significant cumulative impacts, and provides mitigation measures to reduce the proposed project's contribution (where feasible).

- **Chapter 6, "Other CEQA-Required Analyses,"** addresses the growth-inducing impacts, addresses irreversible or irretrievable commitment of resources, and summarizes the significant and unavoidable environmental impacts of the proposed project.

- **Chapter 7, "References,"** provides a bibliography of sources cited in the EIR and identifies the names and affiliations of persons who provided information used in preparing the document. The documents listed in Chapter 7 are hereby incorporated by reference and relevant elements are discussed and summarized throughout this DEIR.

- **Chapter 8, "Report Preparers,"** lists individuals who were involved in preparing the EIR.

- **Technical appendices** contain the background information that supports the EIR. These appendices can be found on the CDs located at the back of this DEIR, including a copy of the proposed Sutter Pointe Specific Plan.

1.10 AVAILABILITY OF THE DRAFT EIR

Copies of the Specific Plan and this DEIR are available through the Sutter County Community Services Department. The County will also circulate the document to public agencies, relevant organizations, and interested individuals.

Comments may be submitted in writing, and should be focused on the adequacy and completeness of the EIR or should address questions about the environmental consequences of project implementation. In this case, "adequacy" is defined as the thoroughness of the EIR in addressing significant environmental effects, identifying mitigation measures for those impacts, and supplying enough information for public officials to make decisions about the merits of the project. To keep the document succinct and useful as a decision-making tool, the State CEQA Guidelines charge that an EIR focus on a project's significant environmental impacts and not address every imaginable less-than-significant effect.

Comments on the DEIR must be made before the close of the public review period and sent or delivered to:

County of Sutter
Community Services Department
1130 Civic Center Boulevard
Yuba City, CA 95993

At the close of the public review period, an FEIR will be prepared that contains all of the comments received by the County during the public review period and responses to those comments. This document will be made available to public agencies and the general public so those parties can review the FEIR before the County certifies it as complete. No action can be taken on the Specific Plan until the FEIR is certified; however, County acceptance of the EIR upon certification does not signal or require approval of the Specific Plan.

1.11 STANDARD TERMINOLOGY

The following standard terminology for elements of the proposed project is used in this DEIR:

- "Specific Plan" refers to the proposed Sutter Pointe Specific Plan.

- "Plan area" refers to the Sutter Pointe Specific Plan area, also known as "project site."

- "Project site" refers to the Sutter Pointe project site or Specific Plan area.

- "Proposed project" or "project" refers to the project as currently proposed, including all development phases and the combined project site and the area on which the related off-site improvements are to be located.

- "Off-site improvements" refers collectively to proposed project elements located outside of the identified approximately 7,528-acre Specific Plan project site.

1.12 ACRONYMS AND OTHER ABBREVIATIONS

The following acronyms and other abbreviations are used in this DEIR:

µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
µmhos/cm	micro-mhos per centimeter
°F	Fahrenheit
AADT	annual average daily traffic
AB	Assembly bill
ADA	Americans with Disabilities Act
ADT	average daily traffic
AEP	annual exceedance probability
afy	acre-feet per year
AG	State Attorney General's
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
ALUC	Airport Land Use Commission
ALUCP	airport land use compatibility plan
American Basin Project	*American Basin Fish Screen and Habitat Improvement Project*
APCO	air pollution control officer
APE	Area of Potential Effect
APEX	aircraft particle emissions experiment
AQAP	Air Quality Attainment Plan
ARB	California Air Resources Board
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
AT&T	American Telephone and Telecommunications, Inc.
ATCM	airborne toxics control measure
BAC	Bollard Acoustical Consultants
BACT	best available control technology
BMP	best management practice
BP	Before Present
BRT	bus rapid transit
BSC	California Building Standards Commission
CA SLIC	Spills-Leaks-Investigations and Cleanups of Hazardous Materials list
CAA	Clean Air Act
CAAQS	California ambient air quality standards
Cal Fire	California Department of Forestry and Fire Protection
CalARP	California Accidental Release Prevention

Cal-EPA	California Environmental Protection Agency
Cal-OSHA	California OSHA
Caltrans	California Department of Transportation
CALUP	Sacramento International Airport Comprehensive Airport Land Use Plan
CALVIN	California Value Integrated Network
CASQA	California Stormwater Quality Association
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCAR	*General Reporting Protocol of the California Climate Action Registry*
CCAT	California Climate Action Team
CCR	California Code of Regulations
CDC	California Department of Conservation
CDC	Centers for Disease Control and Prevention
CDE	California Department of Education
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Society
CH_4	methane
CHABA	Committee of Hearing, Bio Acoustics, and Bio Mechanics
CHP	California Highway Patrol
CHWMP	County's Hazardous Waste Management Plan
CIP	Capital Improvement Program
CIWMA	California Integrated Waste Management Act
CIWMB	California Integrated Waste Management Board
CLOMR	Conditional Letters of Map Revision
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
County	Sutter County
County General Plan	Sutter County General Plan
CPUC	California Public Utilities Commission
CR	Commercial Retail
CRHR	California Register of Historical Resources
CSA	Community Service Area
CSA	County Service Area
CTR	California Toxics Rule
CVFPP	Central Valley Flood Protection Plan
CVP	Central Valley Project

CWA	Clean Water Act
dB	decibel
DEIR	draft environmental impact report
Delta	Sacramento–San Joaquin Delta
DFG	California Department of Fish and Game
DNA	Downtown Natomas Airport
DOG	Department of Oil and Gas
DTSC	California Department of Toxic Substances Control
du/ac	dwelling unit per acre
DWR	California Department of Water Resources
E1	Employment 1
E2	Employment 2
ECB	Existing Conditions Baseline
ECORP	ECORP Consulting, Inc.
EIR	environmental impact report
EIS/EIR	environmental impact statement/environmental impact report
ELF	extremely low frequency
EMF	electric and magnetic field
EPA	U.S. Environmental Protection Agency
EPS	Economic & Planning Systems
ESA	Environmental Site Assessment
ESA	federal Endangered Species Act
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICAN	Federal Interagency Committee on Aviation Noise
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
FRAQMD	Feather River Air Quality Management District
FTA	U.S. Department of Transportation, Federal Transit Administration
FWTP	Fairbairn Water Treatment Plant
GCM	general circulation model
Geocon	Geocon Consultants, Inc.
Geomatrix	Geomatrix Consultants, Inc.
GHG	greenhouse gas
GIS	geographic information systems
GLO	General Land Office
GPA	General Plan Amendment
gpm	gallons per minute

GRH	Guaranteed Ride Home
GSWC	Golden State Water Company
GWh/y	gigawatt-hours per year
GWP	global warming potential
HAP	hazardous air pollutant
HCD	California Department of Housing and Community Development
HCM	*Highway Capacity Manual*
HCP	habitat conservation plan
HOV	high-occupancy vehicle
HRA	health risk assessment
HSC	California Health and Safety Code
Hz	hertz
I-5	Interstate 5
I-80	Interstate 80
ICR	Industrial Commercial Reserve
IDB	Industrial Drainage Basin
IGSM	Integrated Groundwater Surface Water Models
in/sec	inches per second
ISO	Insurance Services Office
ITE	Institute of Transportation Engineers
ITP	incidental take permit
J&S	Jones & Stokes
JPA	Joint Powers Authority
kV	kilovolt
kWh	kilowatt-hour
LAFCO	Local Agency Formation Commission
LAX	Los Angeles International Airport
LCFS	Low Carbon Fuel Standard
L_{dn}	day-night average level
L_{eq}	average, or equivalent, sound level
LIM	Land Inventory and Monitoring
LNWI	Lower Northwest Interceptor
LOMR	Letters of Map Revision
LOS	level of service
LRT	light rail transit
LUST	leaking underground storage tank
M	magnitude
M-2	General Industrial
M&I	municipal and industrial
MACT	maximum available control technology
maf	million acre feet

mcf	million cubic feet
MCL	maximum contaminant level
MEI	Maximally Exposed Individual
mG	milligauss
mg/L	milligrams per liter
mgd	million gallons per day
MIAPS	Master Infrastructure Advance Planning Study
MIT	Massachusetts Institute of Technology
MLD	Most Likely Descendant
MOE	measure of effectiveness
MS4s	Small Municipal Separate Storm Sewer Systems
MTBE	methyl tertiary butyl ether
MTP	Metropolitan Transportation Plan
Multi-Hazard Mitigation Plan	State of California Multi-Hazard Mitigation Plan
MVCD	Mosquito and Vector Control District
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NASA	National Aeronautics and Space Administration
NBC	Natomas Basin Conservancy
NBHCP	Natomas Basin Habitat Conservation Plan
NCC	Natomas Cross Canal
NCIC	California State University, Sacramento
NCMWC	Natomas Central Mutual Water Company
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEIC	Northeast Information Center, California State University, Chico
NESHAP	National Emissions Standards for Hazardous Air Pollutants
ng/L	nanograms per liter
NIEHS	National Institute of Environmental Health Sciences
NMFS	National Oceanic and Atmospheric Administration National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOI	notice of intent
NOP	notice of preparation
North American Subbasin	North American groundwater subbasin
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTR	National Toxics Rule
NTU	Nephelometric Turbidity Unit
NWIC	Northwest Information Center, California State University, Sonoma
OAP	Ozone Attainment Plan

OEHHA	Office of Environmental Health Hazard Assessment
OES	Governor's Office of Emergency Services
OPR	Governor's Office of Planning and Research
OS	Open Space
OSHA	U.S. Department of Labor, Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbons
PCAPCD	Placer County Air Pollution Control District
PCB	polychlorinated biphenyl
PCM	parallel climate model
PCTPA	Placer County Transportation Planning Agency
PCWA	Placer County Water Agency
PEA	Preliminary Endangerment Assessment
PG&E	Pacific Gas and Electric Company
PIER	Public Interest Energy Research
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1969
PPV	peak particle velocities
PR	project report
proposed project	Sutter Pointe Specific Plan
PUC	California Public Utilities Commission
RCRA	Resource Conservation and Recovery Act
RD	Reclamation District
RD 1000	Reclamation District 1000
REC	recognized environmental condition
Reclamation	U.S. Bureau of Reclamation
RHNP	Regional Housing Needs Plan
ROG	reactive organic gas
RWD	report of waste discharge
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SAFCA	Sacramento Area Flood Control Agency
SB	Senate Bill
SCAS	Sacramento County Airport System
SCH	State Clearinghouse
SCS	U.S. Soil Conservation Service
SED	Special Enforcement Detail Team
SEL	single event noise levels
SFNA	Sacramento Federal Ozone Nonattainment Area
SFPD	School Facilities Planning Division
Sheriff's Department	Sutter County Sheriff's Department
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide

SO_X	sulfur oxide
SP	Service Population
Specific Plan	Sutter Pointe Specific Plan
SPRTA	South Placer Regional Transportation Authority
SPSP	Sutter Pointe Specific Plan
SR	State Route
SRCSD	Sacramento Regional County Sanitation District
SRFCP	Sacramento River Flood Control Project
SRWTP	Sacramento Regional Wastewater Treatment Plant
SSCI/C	South Sutter County Industrial/Commercial District
State CEQA Guidelines	California Environmental Quality Act Guidelines
SVAB	Sacramento Valley Air Basin
SWANCC	Solid Waste Agency of Northern Cook County
SWP	State Water Project
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
SWTP	surface water treatment plant
TAC	toxic air contaminant
TAZ	traffic analysis zone
T-BACT	best available control technology for TACs
TCR	Transportation Concept Report
TDF	travel demand forecasting
TDR	transfers of development right
TDS	total dissolved solids
the Plan	Central Valley Flood Protection Plan
TMA	Sutter Pointe Transportation Management Association
TMDL	Total Maximum Daily Load
TNW	traditional navigable waters
tpd	tons per day
TSCA	Toxic Substances Control Act
UAIC	United Auburn Indian Community
UBC	Uniform Building Code
UCMP	University of California, Berkeley Museum of Paleontology
UNWI	Upper Northwest Interceptor
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
V/C	volume-to-capacity

VdB	vibration velocity
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirement
WKA	Wallace-Kuhl & Associates, Inc.
WSA	water supply assessment
WTP	water treatment plant
YSAQMD	Yolo-Solano Air Quality Management District
YSDI	Yuba-Sutter Disposal, Inc.

2 PROJECT DESCRIPTION

2.1 INTRODUCTION

This chapter describes the proposed project (the Sutter Pointe Specific Plan [Specific Plan]), which envisions the creation of an eventual new town in south Sutter County. The proposed project features a diverse mix of land uses, including employment centers, many different housing types, retail shopping villages, recreation amenities, schools, community services, supporting on- and off-site infrastructure, and roadway improvements. Proposed for an approximately 7,528-acre site presently in agricultural and industrial use, the proposed project would be contained within the 9,500-acre Sutter County Industrial-Commercial Reserve, as designated by the adopted Sutter County General Plan (County General Plan). The proposed project would also implement the provisions of voter-approved Measure M, an advisory initiative that identified potential development caps for the project site.

The Measure M Group, as project developer and applicant, is requesting that Sutter County (County) adopt the proposed Sutter Pointe Specific Plan as an implementation tool for the County General Plan and adopt the accompanying Land Use and Development Code as the zoning ordinance applicable to the project site. The Measure M Group also seeks development agreements, general entitlements for the overall project site, and installation and connection of the on- and off-site sewer force mains to the Sacramento Regional County Sanitation District (SRCSD) system. Additional development agreements, entitlements, and project-specific environmental approvals would need to be secured in the future, as described in Chapter 1, "Introduction."

2.2 REGIONAL LOCATION

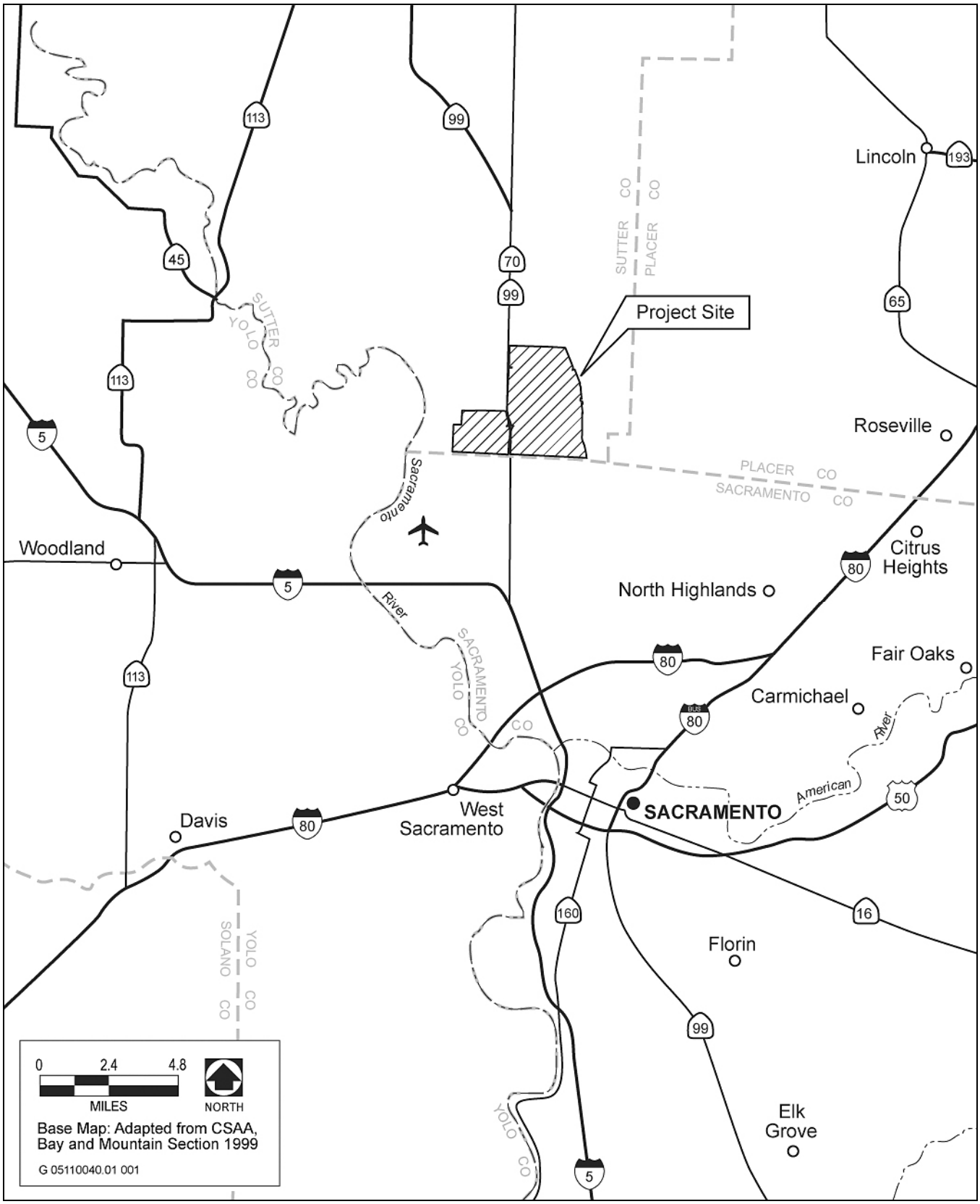
The Sutter Pointe Specific Plan area (referred to hereafter as the project site) encompasses approximately 7,528 acres in south Sutter County, immediately north of the Sutter/Sacramento County line. It is located approximately 12 miles north of downtown Sacramento and 2 miles northeast of Sacramento International Airport. The Sacramento River is situated about 1 mile west of the project site (Exhibit 2-1).

Sutter County lies in the Sacramento Valley, a nearly flat alluvial plain that extends almost 180 miles from the Sacramento–San Joaquin Delta on the south to Redding on the north and from approximately 50 miles from the Sierra Nevada foothills on the east to the Coast Ranges on the west. The Sacramento Valley is an asymmetric structural trough that is filled locally up to 5 miles deep with sediment that has been deposited on a nearly continuous basis since the late Jurassic period (approximately 160 million years ago). Climate in the Sacramento Valley is characterized by warm, dry summers, with an almost complete absence of rain, and mild winters with relatively light rains.

2.3 PROJECT SITE AND VICINITY

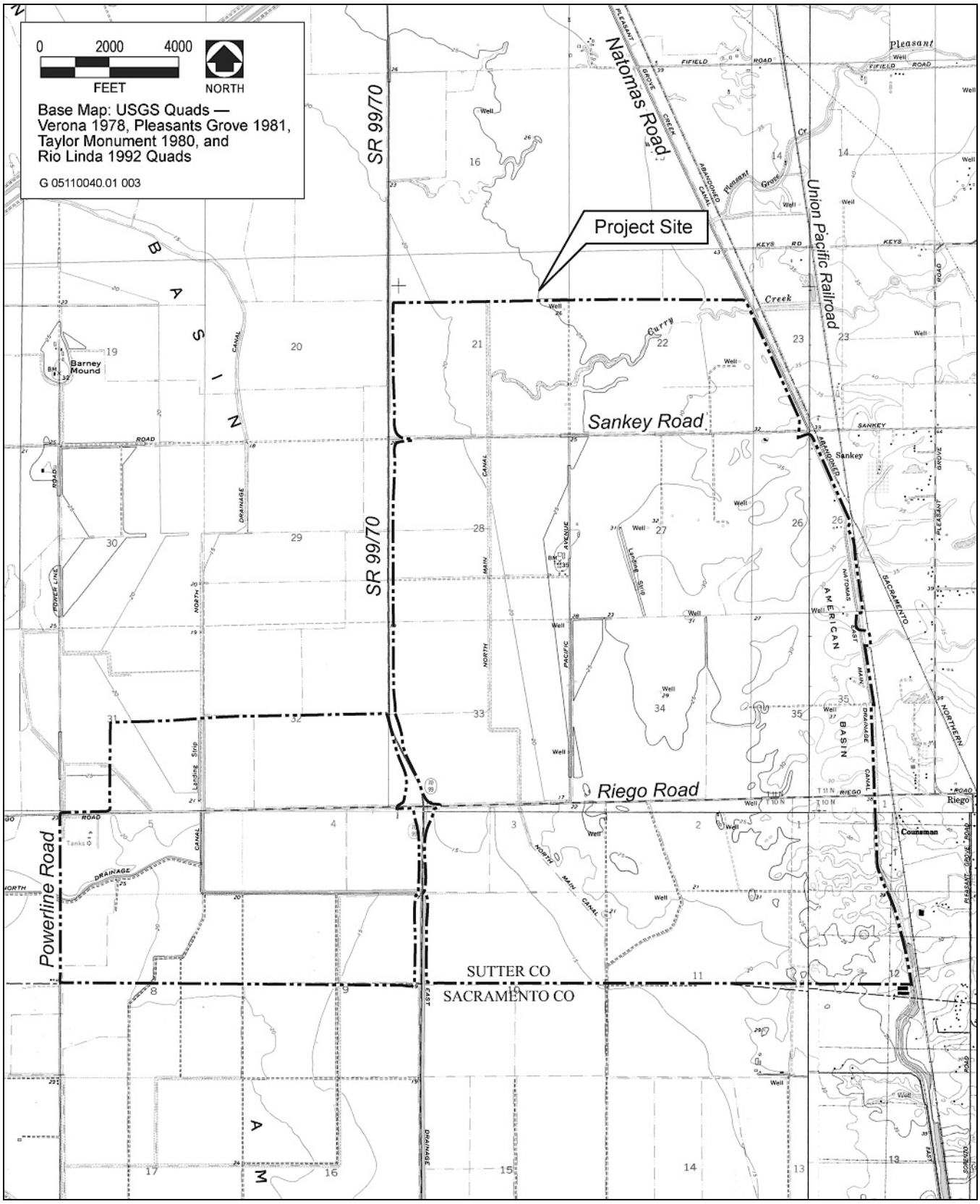
As shown in Exhibit 2-2, the project site is located immediately north of the Sacramento/Sutter County line. It is generally bounded by Natomas Road on the east and Powerline Road on the west. The northern boundary is approximately 4 miles north of the county line. State Route (SR) 99/70 divides the southern portion of the site and serves as the western boundary of the northern portion of the project site. Current uses consist of agriculture and industrial facilities, characterized primarily by rice fields but also a 50-acre Sysco Corporation warehouse and distribution center, a Holt Tractor manufacturing facility, and an approximately 30-acre area occupied by A&N Auto Repair and AR Readymix.

Existing land use around the site is primarily agriculture in unincorporated areas of Sutter, Placer, Sacramento, and Yolo Counties. Sacramento International Airport and the proposed Metro Air Park (an industrial and business park) are located approximately 2 miles southwest of the project site. Nearby planned or approved developments include the Greenbriar Specific Plan project to the southwest and the Placer Vineyards Specific Plan and Rio Linda/Elverta Specific Plan projects to the east. Implementation of the proposed Natomas Joint Vision project, a



Source: Adapted by EDAW in 2007

Regional Location Map **Exhibit 2-1**



Source: Adapted by EDAW in 2006

Project Location Map **Exhibit 2-2**

cooperative ongoing planning effort of the City and County of Sacramento, would result in a future development and conservation plan for the area immediately south of the project site. These projects are discussed further in Chapter 5, "Cumulative Impacts."

The project site is located within the boundaries of the Natomas Basin Habitat Conservation Plan (NBHCP) area. The NBHCP establishes a multispecies conservation program to mitigate the expected loss of habitat values and incidental take of protected species that would result from urban development, operation of irrigation and drainage systems, and rice farming. The goal of the NBHCP is to preserve, restore, and enhance habitat in the Natomas Basin while allowing urban development to proceed according to local adopted land use plans. Designated NBHCP habitat reserve areas are located south and west of the project site, primarily along the Sacramento River, and are managed by the Natomas Basin Conservancy.

Several easements traverse the project site. The Natomas Central Mutual Water Company (NCMWC) and Reclamation District 1000 (RD 1000) hold easements for irrigation and drainage ditches. Most of these easements fall within the private road and canal reservations shown on the maps of Natomas Central, Natomas Counsman, Natomas Goodland, and Canal Reservations. These easements vary in width from 20 to 70 feet and generally follow the existing constructed ditches. The Natomas Cross Canal is located north of the project site. Except for its southwesternmost portion, the project site lies in the existing Federal Emergency Management Agency (FEMA) special flood hazard area, Zone A. The Sacramento Area Flood Control Agency (SAFCA) has proposed a program of levee improvements to improve flood protection in the Natomas Basin, which would benefit the proposed project. Environmental review of the proposed levee improvements is the subject of a separate environmental document that is currently being prepared and may be completed in late 2008.

Primary access through the project site would be via SR 99/70, which is the main north-south transportation route between Yuba City/Marysville and Sacramento. Riego Road is the primary east-west corridor providing access from the Placer County/Roseville area, crossing through the site and connecting to SR 99/70.

2.4 DESCRIPTION OF THE PROPOSED PROJECT

2.4.1 REQUESTED ENTITLEMENTS

The following land use entitlements are requested from Sutter County for the Sutter Pointe Specific Plan. Additional authorizations, approvals, and permits that would be required from other agencies are summarized in Chapter 1, "Introduction."

SUTTER COUNTY

Adoption of the Sutter Pointe Specific Plan requires approval of the following County entitlements for those lands under the control of the Measure M group:

- approval of a general plan amendment,
- approval of a zoning code and map amendments,
- adoption of the Sutter Pointe Specific Plan,
- adoption of an urban services plan,
- adoption of a county facilities master plan,
- adoption of a public facilities/infrastructure financing plan,

- adoption of a public facilities/infrastructure phasing plan, and
- adoption of a development agreement between the County and the project applicant (including establishment of maintenance districts).

Each of these required entitlements and approvals is described in turn below:

- **General Plan Amendment.** Pursuant to California Government Code Section 65454, a specific plan must be consistent with the local government's general plan. The Measure M Group has submitted a general plan amendment application, which includes regulations, guidelines, and standards that would make the specific plan and general plan consistent with one another. This general plan amendment includes a request to modify General Plan Policy 5.A-2 related to provision of parks acreage such that the proposed project would be held to the same standard as the requirements of the Quimby Act (5 acres of parkland per 1,000 residents.) A second general plan amendment includes eliminating the Industrial-Commercial Reserve (ICR) designation defined in the current General Plan. Approximately 7,528 acres of this ICR designation corresponding to the project site would be redesignated as Sutter Pointe Specific Plan in the General Plan. The remaining 1,972 acres of ICR area, located north, east and southeast of the project site, would be redesignated AG-80 and would remain in agricultural production. In addition, the goals and policies presented in Section 9 of the current General Plan with regard to the ICR designation would be replaced with new goals and policies describing the Sutter Pointe Specific Plan. Policy 2.A-1 is proposed to be amended to state that roadways on the project site shall comply with standards set forth in the Sutter Pointe Specific Plan and this EIR, including level of service standards. The General Plan Land Use Diagram, Circulation Diagram, and numerous summary tables would also be updated to incorporate the proposed project. Appendix D includes a policy-by-policy summary of changes that are proposed in the General Plan Amendment. Because there would be no additional physical/environmental effect associated with this redesignation, the issue will not be evaluated further in this EIR.
- **Zoning Amendment.** Most of the undeveloped land on the project site and in the vicinity is zoned General Agricultural (AG) with 80-acre minimum lot sizes. Existing developed properties on the project site are zoned General Industrial (M-2). The project site would be rezoned with a new Specific Plan (SP) zoning district. The Sutter Pointe Land Use and Development Code, an appendix to the Specific Plan, would function as the zoning map and written code for the project site.
- **Sutter Pointe Specific Plan Adoption.** The Specific Plan is intended to provide a comprehensive land use, policy, and regulatory document to govern all future development on the 7,528-acre project site. As described in Chapter 1, "Introduction," the goal of the Specific Plan is to establish a development framework for land use, resource protection, circulation, public utilities and services, design, and implementation. All subsequent entitlements and approvals relating to land or infrastructure on the project site, including but not limited to subdivisions, public works projects, rezones, and conditional use permits, must be consistent with the Specific Plan if the Specific Plan is to be used as the entitling document. With adoption of the Specific Plan, the maximum extent of development at the project site will be determined and cannot be exceeded without amendment of the Specific Plan and a new CEQA analysis. However, development intensity and residential density within individual communities on the project site may be transferred from one development area to another, with County approval, provided that the maximum limits set forth in the Specific Plan are not exceeded. A copy of the proposed Sutter Pointe Specific Plan is provided on a CD in a pocket in the back of this DEIR and is available for review at the Sutter County Community Services Department, 1130 Civic Center Boulevard, Yuba City, CA 95993.
- **Urban Services Plan Adoption.** An urban services plan has been prepared and included as an appendix to the proposed Specific Plan. The urban services plan would be adopted by the County Board of Supervisors concurrently with the Specific Plan. This plan identifies the level of public services expected on the project site and describes the funding methods to be used to provide these services.

- **County Facilities Master Plan Adoption.** The County Facilities Master Plan would be adopted by the County Board of Supervisors before approval of any tentative subdivision map or improvement plan. This plan includes siting, design, construction, and equipment for a corporation yard, fire stations, sheriff's substation, government center, library, and transit centers.

- **Public Facilities/Infrastructure Financing Plan Adoption.** A public facilities/infrastructure financing plan has been prepared and included as an appendix to the proposed Specific Plan. It would be adopted by the County Board of Supervisors concurrently with the Specific Plan. The financing plan defines the specific mechanisms required to fund capital costs of all infrastructure necessary as a result of Specific Plan buildout. It defines funding for the maintenance of new infrastructure and public services needed by the future residents and businesses locating on the project site.

- **Public Facilities/Infrastructure Phasing Plan Adoption.** A public facilities/infrastructure phasing plan would be adopted by the County Board of Supervisors before approval of any tentative subdivision map or improvement plan. The plan would provide specific details regarding the phasing, sizing, alignment and location, cost, and construction timing requirements for each phase of the proposed project.

- **Development Agreement Adoption.** The project applicant(s) intends to enter into development agreements with the County pursuant to California Government Code Section 65864 et seq. at the time of Specific Plan adoption. The agreements would set forth many, if not all, of the obligations of the project applicant(s) to the County and other public agencies with regard to the proposed project, including but not limited to construction, maintenance, and financial responsibilities. The agreement also would set forth the County's other project obligations, including but not limited to processing subsequent entitlement applications, forming financing mechanisms (including Mello-Roos districts), and vesting development entitlements. Pursuant to applicable California Government Code provisions, public hearings with both the County Planning Commission and County Board of Supervisors would be held on the proposed development agreements before the Board of Supervisors takes any action on the Specific Plan. Future County entitlement approvals may include, but would not be limited to, the following approvals:

  - formation of new city limits and sphere of influence pursuant to the Sutter County Local Agency Formation Commission (LAFCO),
  - formation of a community facilities district,
  - detachment of the project site from special purpose districts and formation of a new county service area (CSA),
  - special-use permits,
  - tentative subdivision maps,
  - lot line adjustments,
  - engineering improvement plans,
  - infrastructure and roadway improvement projects,
  - design review, and
  - additional development agreements between the County and project applicant.

OTHER AGENCIES

On- and off-site infrastructure improvements would require additional permits and approvals from and agreements with the following entities:

- Sacramento County Regional Sanitation District,
- Reclamation District 1000,
- Natomas Central Mutual Water Company,
- Central Valley Regional Water Quality Control Board (RWQCB),
- Pleasant Grove Elementary School District,
- East Nicolaus High School District
- Sutter County LAFCO, and
- Sacramento County LAFCO.

Sutter County provides largely rural levels of public service that are not appropriate for the density and scale of the proposed project. Furthermore, the fiscal structure of the proposed project inherently depends on revenues generated by employment and commercial activity to offset the service costs associated with planned residential development. Therefore, the ultimate plan is for the project site to be incorporated as a full-service city at the earliest feasible opportunity. This EIR evaluates environmental impacts associated with buildout of the proposed Specific Plan. Additional CEQA review would be required in the future to evaluate the potential impacts related to incorporation of the project site as a city.

Initial services on the project site would be provided by a CSA or other county or public agency, such as a community services district, which agency is referred to in this document for convenience as a CSA. Areas served by existing dependent special districts on the project site would be detached from the special districts and become part of the CSA. An ultimate service area (sphere of influence) that is coterminous with the boundaries of the project site and the new city limits would be established, and development would be conditioned to provide adequate revenues to achieve service standards.

Upon incorporation, the responsibility for providing certain services may transfer from the CSA to the newly incorporated city. Some services, by state statute, are the exclusive responsibility of a county to provide to both cities and unincorporated areas. These services include, for example, agricultural commissioner, auditor-controller, assessor, courts, jails, and health and social welfare services. Such services would continue to be provided by Sutter County to the Sutter Pointe community.

The Pleasant Grove Elementary School District and the East Nicolaus High School District serve the project area. A School Facilities Master Plan will be submitted to these districts, documenting the location and components of the school facilities which will be provided.

2.4.2 SPECIFIC PLAN LAND USES

The Sutter Pointe Specific Plan (Exhibit 2-3) provides a development framework for a master-planned residential, commercial, and industrial community. The plan promotes a mixture of land uses, a variety of housing densities, energy conservation, telecommuting, live/work opportunities, transit access, walkability, open space corridors, and conservation of valuable sensitive natural resources in the area.

The proposed project would permit a maximum of 17,500 residential units and up to 49.706 million square feet of commercial/industrial space on approximately 7,528 acres. The proposed project would also include parks, schools (six K–8 and one comprehensive high school), a library, a civic center and other civic buildings, and public services, including law enforcement and fire protection. These facilities and services would be paid for by project development, without reducing current service levels, as suggested by Measure M. Similarly, all necessary on- and off-site road, bridge, water, drainage, sewer, and other improvements would be paid for by project

development. The proposed Specific Plan has been designed to achieve the purpose and objectives presented in Chapter 1, "Introduction," of this DEIR.

The project site is located approximately 2 miles northeast of Sacramento International Airport and has been designed to comply with the land use requirements and restrictions of the Sacramento International Airport Comprehensive Land Use Plan. The proposed project has been designed to respond to several growth principles established by the Sacramento Area Council of Governments (SACOG) Sacramento Region Blueprint, to the extent feasible under the restrictions of Measure M and the Natomas Basin HCP. The Blueprint, which was established subsequent to Measure M approval, envisions a large, regional-scale employment center in the same general area as the proposed project, with a similar mix of nearby housing and supporting uses. The proposed project includes the construction of a range of housing types (e.g., high, medium, low density) that would be located close to public transportation systems and connected by a comprehensive network of bicycle and pedestrian trails. The SACOG Blueprint and the relationship of the project to the Blueprint are discussed in Section 3.1, "Land Use."

VILLAGES AND ACTIVITY CENTERS

The proposed project is organized as a system of five villages and five activity centers, geographically dispersed with complementary land use designations allowable in each area. Villages are broad areas generally designated by either employment or residential use. Activity centers feature a mix of uses and serve as focal points for the villages and community at large. Additional information describing the proposed villages and activity centers is included in the Specific Plan.

Employment Villages

Two employment villages are proposed and are designed to create economic growth and jobs, as described below.

South Employment Village

The proposed South Employment Village would be situated west of the Riego Road/SR 99/70 intersection. This village would be designed to provide sizable (up to hundreds of acres) sites for a wide variety of industry, distribution, technology, and service uses.

North Employment Village

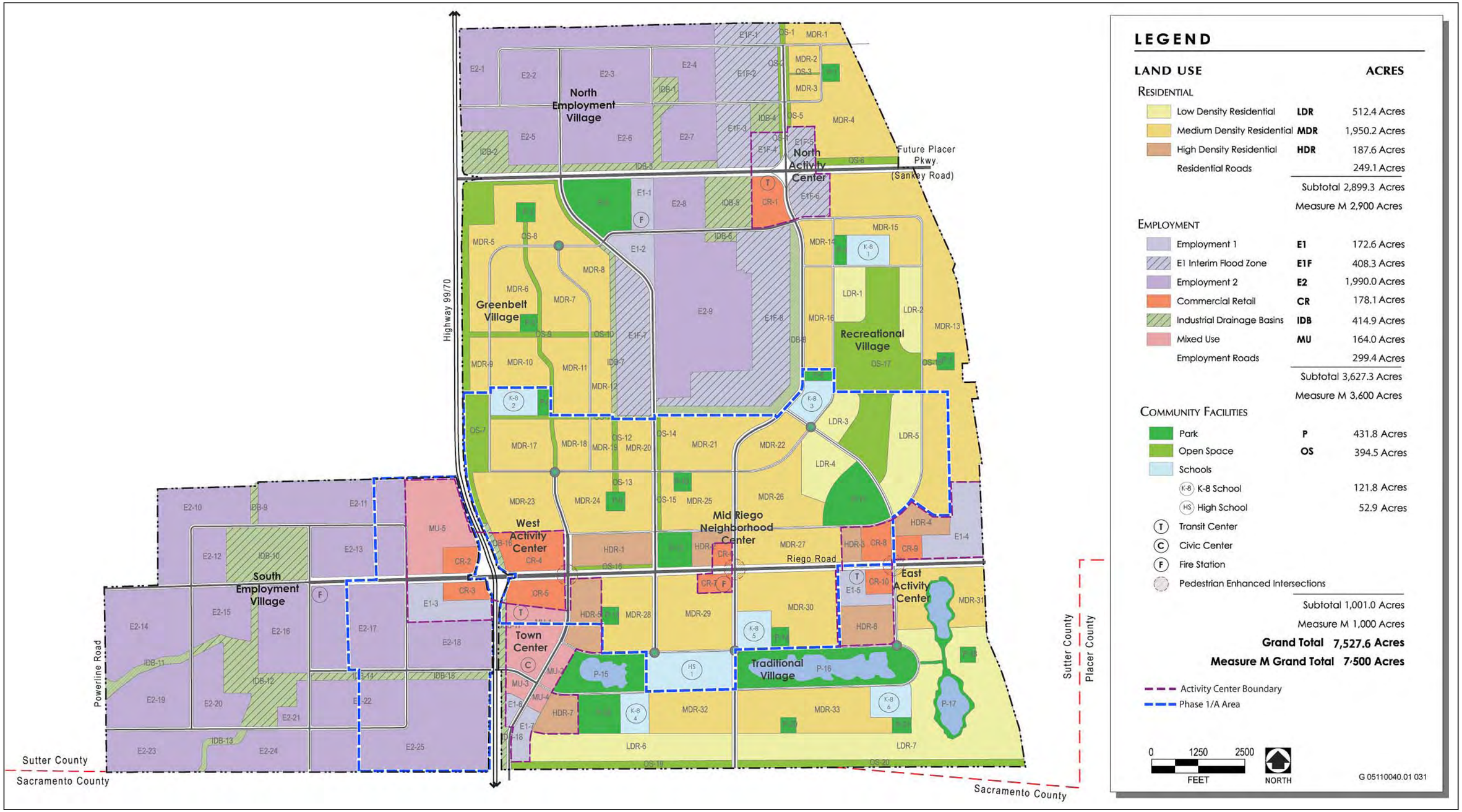
The proposed North Employment Village would be located along Sankey Road, east of SR 99/70. This village also would provide sizable sites (up to hundreds of acres) for industry, distribution, technology, and service uses. The existing 50-acre Sysco Corporation warehousing and distribution center and the Holt Tractor manufacturing facility are two prominent industrial uses that currently exist in the proposed village area. The village incorporates open space lands and drainage basins that would serve as a buffer between industrial and residential development.

Residential Villages

Three residential villages are proposed, as described below.

Greenbelt Village

The proposed Greenbelt Village would be situated east of SR 99/70 between the proposed South and North Employment Villages. The village would be composed of medium- and high-density residences, a K–8 school, a regional park, four neighborhood parks, and a greenbelt system of landscaped trails. The village also may include senior neighborhoods and a senior/community center. High-density residential uses along with regional and local retail/commercial centers border the village at its southern edge. This village would be accessed on the north by Sankey Road, on the south by Riego Road, and on the east by a planned north-south arterial roadway generally aligned with current Pacific Avenue; it would be bounded on the west by SR 99/70.



Source: Data provided by EDAW in 2008

Proposed Land Use Plan **Exhibit 2-3**

Recreational Village

The proposed Recreational Village would be situated within the easterly portion of the project site southeast of the proposed North Employment Village and north of the proposed Traditional Village. This village would be configured around a regional park, and a large open space that could be used for an 18-hole golf course. Five neighborhood parks are also proposed for this village. The village also may include senior neighborhoods and a senior/community center. Low-density housing would surround the regional park and open space. Medium- and high-density housing products, four neighborhood parks, and two K–8 schools would wrap around the regional park, open space, and single-family housing areas. This village also may include a clubhouse.

Traditional Village

The proposed Traditional Village would be located in the southeast portion of the project site, south of Riego Road and east of the proposed South Employment Village. The village would consist of medium- and low-density housing surrounding approximately 160 acres of parks configured around a series of lakes. A high school would be sited within the proposed Traditional Village adjacent to a lakeshore park, encouraging joint use of the school and park's open space and recreational facilities. This village includes three K–8 schools, a high school and community library, five neighborhood parks, one community park, and three lakeshore community parks. The village also may include senior neighborhoods and a senior/community center. The proposed Traditional Village is envisioned to be a traditional neighborhood design that emphasizes small-town grid street patterns and neighborhoods.

Activity Centers

To complement the residential villages, the proposed project establishes five mixed-use activity centers.

West Activity Center

The proposed West Activity Center would consist of land immediately surrounding the Riego Road/SR 99/70 intersection. Commercial areas within this activity center would accommodate region-serving commercial, highway commercial, commercial office, and community commercial uses. This activity center also would provide for mixed-use commercial and residential development northwest of the proposed interchange. The activity center would serve as a buffer between the proposed industrial and warehousing uses west of SR 99/70 and the proposed residential communities east of SR 99/70.

East Activity Center

The proposed East Activity Center would be located along the eastern boundary of the project site, along Riego Road between the Recreational and Traditional Villages. Commercial areas within this activity center would accommodate regional service or institutional uses, such as a campus-oriented community college, a hospital, a medical center, or an office park. Additional neighborhood-serving commercial uses would be located within this activity center to support the adjacent residential villages. Proposed high-density residential uses would surround and support the commercial and employment functions of the center. The center would also include employment areas strategically located to facilitate future development of additional commercial, office, mixed commercial, or residential uses, depending on future demand.

North Activity Center

The proposed North Activity Center would be oriented around a future interchange at Sankey Road and a future north-south arterial in the eastern portion of the project site. This center would provide neighborhood-serving goods and services to the adjacent residential villages. The center would feature retail uses, buffered by employment areas. The center would also include employment areas strategically located to facilitate future

development of additional commercial, office, mixed commercial, or residential uses, depending on future demand.

Town Center

The proposed Town Center would serve as the community's public, institutional, and social center, featuring a variety of residential, commercial, recreational, and public uses. Located immediately southeast of a planned freeway interchange at Riego Road and SR 99/70 (not part of the proposed project), the Town Center would be anchored to the north by region-serving retail uses around the new interchange, to the east by parks and open spaces in the Traditional Village, to the south by agricultural areas and habitat preserves, and to the west by industrial uses in the South Employment Village. The Town Center is intended to be an activity node, providing a pedestrian- and transit-oriented, easily accessible, mixed-use retail core, surrounded and supported by high-density residential and employment uses. It would accommodate transit stops, civic buildings, movie theaters, groceries, cafes, boutique shops, and specialty retail shops. A pedestrian-scale "Main Street" is envisioned to be the heart of the Town Center, supporting local shops, plazas, a movie theater, or similar uses. The Town Center also would include a government center and a transit center.

Mixed-use development that would be permitted in the Town Center includes both vertical mixed-use, consisting of ground-floor commercial uses with residences or offices above, and horizontal mixed use, consisting of commercial and residential development occurring on the same site. Specialty retail uses, including restaurants, are intended to front the adjacent lake and lakeshore park to the east. The Town Center also would feature distinct streetscapes and roadway configurations that support and encourage pedestrian, bicycle, and transit use.

Mid-Riego Neighborhood Center

The proposed Mid-Riego Neighborhood Center would be located at the intersection of the three residential villages along Riego Road. The location is intended to provide for the retail and service needs of immediate neighborhoods within a 1/2- to 1-mile radius. This shopping center would accommodate neighborhood-serving retail uses, such as convenience stores, gas stations, realty offices, cafes, and restaurants.

LAND USE DESIGNATIONS

The proposed on-site land uses and acreages are shown in Table 2-1. Uses permitted in each land use designation are described in Appendix B, *Sutter Pointe Land Use and Development Code,* of the Specific Plan. Land use designations of off-site improvement areas are addressed in Section 3.1, "Land Use."

As shown in Table 2-1, the proposed project would allow for up to 17,500 dwelling units and 49.706 million square feet of nonresidential development on approximately 7,528 acres. These limits are consistent with the provisions of Measure M and are established as maximum development caps within policies in the Specific Plan. Buildout of the project site is anticipated to occur over 20–30 years, depending on market conditions and absorption, and would be split into four development phases, described later in this chapter, to ensure orderly construction.

Table 2-1
Summary of Proposed Project Land Uses

	Land Use	Acres	Dwelling Units			Nonresidential Square Feet		
			Units/ Acre Range	Expected Units/Acre	Units	FAR Range	Expected FAR	Square Feet
Employment Uses	Commercial Retail	178.1	–	–	–	0.2 to 0.35	0.25	1,940,000
	Employment 1	172.6	–	–	–	0.2 to 0.5	0.35	2,632,000
	E1 Interim Flood Zone	408.3	–	–	–	0.2 to 0.5	0.35	6,225,000
	Employment 2	1,990.0	–	–	–	0.4 to 0.6	0.42	36,408,000
	Mixed-Use	164.0	12.1 to 45	18.26	599	0.2 to 1.5	0.35	2,501,000
	Industrial Drainage Basins	414.9	–	–	–	–	–	–
	Employment Village Roads	299.4	–	–	–	–	–	–
Subtotal		**3,627.3**			**599**			**49,706,000**
Residential Uses	Low Density	512.4	2 to 4	2.85	1,461	–	–	–
	Medium Density	1,950	4.1 to 12	6.16	12,014	–	–	–
	High Density	187.6	12.1 to 24	18.26	3,426	–	–	–
	Residential Village Roads	249.1	–	–	–	–	–	–
Subtotal		**2,899.3**			**16,901**			
Public Services	Parks	431.8	–	–	–	–	–	–
	Open Space	394.5	–	–	–	–	–	–
	K–8 Schools	121.8	–	–	–	–	–	–
	High School	52.9	–	–	–	–	–	–
Subtotal		**1,001.0**						
Grand Total		**7,527.6**			**17,500**			**49,706,000**

Note: FAR = floor area ratio.
Source: Data provided by EDAW in 2008

Residential Land Uses

Three residential categories are proposed in the Specific Plan: low-, medium-, and high-density residential. These categories allow for a broad range of housing types and densities, including apartments, condominiums, townhouses, and single-family detached homes on varying lot sizes (Exhibit 2-3). Approximately two-thirds of the planned units would be medium-density residential. Remaining units would be either low- or high-density residential (including units located in the mixed-use areas in the proposed Town Center and west of SR 99/70). Each proposed residential village would be anchored by community facilities, such as schools, parks, and recreational facilities, and connected to an open space and trail system. Local schools and/or neighborhood parks would be located within walking distance of surrounding residences.

Low-Density Residential (2–4 Units per Acre)

The low-density residential land use designation would provide for primarily single-family detached residential development, with some attached and clustered single-family homes. This residential type would comprise approximately 512 acres of the project site, located at the east end of the proposed Traditional Village and adjacent to the proposed regional park and golf course or natural open space area in the proposed Recreational Village. This designation also would provide the ability to incorporate attached and clustered single-family homes. Low-density residential areas also would provide for active adult, community living, and senior housing, provided the overall density range is maintained.

Medium-Density Residential (4.1 to 12 Units per Acre)

The medium-density residential land use designation, planned for approximately 1,950 acres of the project site, would provide for both single-family (detached, attached, clustered, zero lot line) and multifamily residential development. The attached and multifamily types include townhomes, stacked flats, and apartments. The small-lot, single-family units may include clustered attached and detached homes. Within this land use designation, a variety of product types and lot sizes would be encouraged, with no residential village using a single minimum lot size or prescribed housing configuration.

High-Density Residential (12.1 to 24 Units per Acre)

The high-density residential land use designation would comprise approximately 188 acres of the project site. This land use designation would encourage primarily multifamily residential development. Typical housing would be multistory housing and would include condominiums, townhomes, stacked flats, and apartments. High-density residential uses would be located throughout the project site, generally clustered near planned commercial and mixed-use activity centers and along major transportation corridors.

Senior Housing

The proposed project provides for 3,000 senior housing units, to be located throughout the project site. These units would provide additional affordable housing opportunities and smaller living accommodations for seniors. These may be built in blocks of units of age-restricted housing, such as small subdivisions, age-restricted communities, assisted living, and continuing care. The specific locations of senior housing units have not yet been determined. Determination of the location of senior housing units would occur upon filing of tentative subdivision maps for each land use parcel.

Affordable Housing

The proposed project also proposes an affordable housing strategy consistent with Sutter County's Affordable Housing Program Ordinance. Approximately 5% of the planned units (approximately 875 units) would be designated for moderate-, low-, and very low-income households. This housing would include a mix of purchase housing affordable to moderate-income households and rental housing affordable to low- and very low-income households. Consistent with the SACOG regional housing needs assessment for Sutter County, approximately 33% of the affordable units would be available to very low-income residents, 27% to low-income residents, and 40% to moderate-income residents.

The affordable housing goal would be allocated on a pro-rated basis to each residential parcel on the project site to mixed-use, low-density, medium-density, and high-density residential sites. The intent is to distribute affordable units throughout the project site so that each parcel shares in the obligation to provide affordable housing. The owner(s) of each land use parcel would have the ability to transfer the affordable obligation from one parcel to another without amendment to the Specific Plan, provided the owner(s) of the receiving parcel(s) consent and the number of transferred affordable units does not exceed the overall density established for the receiving land use parcel.

Employment-Generating Land Uses

Employment-generating land uses would consist of commercial, office, general industrial, and light industrial activities. These uses are grouped within six land use designations: Employment 1, Employment 1 – Interim Flood Zone, Employment 2, Commercial Retail, Mixed-Use, and Industrial Drainage Basins (Exhibit 2-3). Additionally, proposed industrial drainage basins that serve nonresidential land uses are included in the acreage allocated for industrial and commercial uses under Measure M.

Employment 1 (0.2:1 to 0.5:1 Floor Area Ratio)

The proposed Employment 1 (E1) uses are focused in the three major employment villages. E1 areas are intended for office and light industrial uses and would be used to buffer residential areas from more intensive Employment 2 (E2) uses, described below. This land use designation would cover 173 acres and permit a variety of retail uses, medical facilities, office parks (including research and development uses), related office-supporting commercial uses (such as copy centers, office supplies, cafes, and retail sales and services), and light industrial uses (such as high-tech manufacturing and assembly uses, distribution centers, warehousing, and regional commercial uses). Community facilities, such as transit centers and stops, government buildings, civic centers, colleges/universities, and fire stations, also are allowed in this designation.

The E1 designation also would serve as a holding zone for additional commercial retail or residential development in the future if market conditions warrant additional acreage for these uses. If residential uses are ultimately permitted in E1 areas through a Specific Plan amendment, an equivalent dwelling unit analysis and a subsequent CEQA analysis must be performed to determine whether proposed residential uses are adequately addressed by the commercial and employment assumptions employed in the Specific Plan.

Employment 1 – Interim Flood Zone (0.2:1 to 0.5:1 Floor Area Ratio If Not Used as Flood Zone)

The proposed E1 – Interim Flood Zone (E1F) designation applies to more than 408 acres that would provide a buffer between industrial uses and residential uses. This zone permits drainage, recreational, agricultural, and grazing uses. It allows for flexibility both to provide for interim flood control to contain the floodwaters associated with the Sankey Gap and to allow for changing market conditions over time if alternate flood control measures become feasible. In the future, these areas may provide opportunities for additional E1 permitted uses, consistent with the description above. For this reason, nonresidential square footage associated with such uses is assumed in this EIR. E1F acreage would not be counted toward the balance of employment-generating land uses to residential uses until flood protection requirements are met. All components of the project's infrastructure systems, including roadways and utilities, have been sized for the ultimate development of the E1F designated areas, and all E1F lands are included in the Sutter Pointe Public Facilities Financing Plan.

While alternative approaches have been identified to potentially mitigate the Sankey Gap overflow and eliminate the need for the E1F designation, the ultimate feasibility and timing of these alternatives is not currently known. There are no E1F-designated lands in Phase 1/A of the proposed project; however, such lands do exist in future phases. It is possible that a request to proceed with development of a future phase could be submitted prior to implementation of an alternative resolution of the Sankey Gap overflow. If this were to occur, lands designated as E1F would still be restricted for flood control use, and would not be available for industrial and commercial development consistent with Measure M. To ensure that Measure M requirements are met, the land use plans for future phases will be revised to provide for new E1 land use in an amount equivalent to the acres of E1F lands still encumbered for flood control use within that phase. Any revision to the land use plan will ensure compliance with all of the provisions of Measure M, and may not result in the reduction of school, park, or other public lands. Such revisions will be subject to the discretionary approval of the County and may require amendments to the Specific Plan, infrastructure and service master plans, Public Facilities Financing Plan, development agreements, and additional environmental review.

Employment 2 (0.4:1 to 0.6:1 Floor Area Ratio)

The proposed E2 land use designation would provide for the development of industrial/commercial uses. E2 uses would be located away from proposed residential uses and include heavy industrial uses in addition to E1 uses, described above. The E2 land use designation is spread over an area of 1,990 acres. E2 areas would provide large sites for large-scale industrial campuses, technological parks, distribution centers and warehousing, and higher intensity industrial manufacturing uses.

Commercial Retail (0.2:1 to 0.35:1 Floor Area Ratio)

The proposed Commercial Retail (CR) land use designation is concentrated in three major centers totaling 188 acres. It would accommodate a mix of commercial retail and service uses. CR uses would be located along major circulation routes intended to be both pedestrian and auto oriented and would be easily accessible to adjacent residential neighborhoods.

CR uses would occur exclusively in activity centers distributed throughout the project site. Differences in permitted use types and development standards would be encouraged between each type of center to encourage development of appropriate types and scales of retail, entertainment, and service uses for each center's target market.

Mixed-Use (12.1 to 45 Units per Acre and 0.2:1 to 1.5:1 Floor Area Ratio)

The proposed Mixed-Use (MU) land use designation would encompass an area of 164 acres: approximately 80 acres east of SR 99/70 in the Town Center and approximately 84 acres west of SR 99/70 in the West Activity Center (Exhibit 2-3). The MU land use designation would encourage mixed commercial, residential, office, and civic uses.

Industrial Drainage Basins

The proposed Industrial Drainage Basin (IDB) land use designation would encompass an area of 415 acres. Industrial drainage basins and channels (Exhibit 2-3) would primarily serve the drainage needs of neighboring E1 and E2 land uses. They also may be used as recreational facilities. These facilities would be included within the minimum 3,600-acre commercial and industrial use allocation prescribed by Measure M.

Public Facilities

The proposed project would incorporate 1,001 acres of community facilities, including parks, lakes, open spaces, schools, libraries, transit, and other quasi-public uses and community buildings (Exhibit 2-3).

Parks

The proposed Parks (P) land use designation would apply to 21 parks encompassing 431.8 acres located in the residential villages. The 431.8-acre total includes the surface area of lakes (160.3 acres) as well as developed parks for active recreation (271.5 acres). Developed parks for active recreation consist of two regional parks, two community parks, three lakeshore community parks, and fourteen neighborhood parks, including five of which are joint-use parks adjacent to school sites. These parks would provide additional space for school activities while taking advantage of joint use of play structures, sports courts, ballfields, and gymnasiums for neighborhood park and recreation benefit.

Open Space

The proposed Open Space (OS) land use designation would encompass an area of 395 acres. This designation would provide additional recreational uses to those offered within the Parks designation within open spaces, lakes, greenbelts, trails. A course golf may be constructed, as described below.

Schools

The proposed project provides for six K–8 schools and one high school.

K–8 Schools

Six K–8 school sites would be located in the residential villages (Exhibit 2-3). The school sites are approximately 20 acres each and would be located adjacent to public parks to provide community use of appropriate facilities, such as gymnasiums, libraries, and performing arts centers. These schools would be part of the Pleasant Grove Joint Union School District.

High School

One high school campus site would be located in the Traditional Village, adjacent to two lakeshore community parks (Exhibit 2-3). The site would be approximately 53 acres in size and would serve approximately 2,000 students. The campus would offer joint-use facilities, such as ball fields, gymnasiums, and a performing arts center. A joint-use library serving the high school and the Sutter Pointe community would be located on the high school campus. The proposed comprehensive high school would be part of the East Nicolaus High School District.

Golf Course/Recreational Greenbelt

The proposed land use plan (Exhibit 2-3) provides for a 166-acre area to be used either for an 18-hole golf course or for a similarly sized recreational open space in the Recreational Village. The proposed golf course may include accessory features, such as a clubhouse and other recreational facilities, and would complement the public systems of parks, trails, and open space. If the golf course is not constructed, the area would remain in unstructured open space use with no structures placed on it.

Transit Centers

The proposed project provides sites for three transit centers supporting future transit service in the Town Center, at the North Activity Center, and at the East Activity Center. The Town Center transit center would be approximately 5 acres in size, the North Activity Center transit center would be approximately 3 acres in size, and the East Activity Center transit center would be approximately 3 acres in size.

Civic Center

A civic center facility would be located in the Town Center. It would occupy approximately 6 acres of the 80-acre Town Center mixed-use area.

Corporation Yard

A corporation yard of approximately 4.7 acres would be located in an E1 or E2 area west of SR 99/70 near a proposed water treatment plant facility.

Fire Stations

Three fire stations would serve the project site. One would be located in the South Employment Village west of SR 99/70, one in the North Employment Village south of Sankey Road, and one in the Mid-Riego Neighborhood Center south of Riego Road. The fire stations would be located on approximately 0.5- to 1-acre sites. Additional administration and training facilities could be located at one or more fire stations, thus making the largest site potentially up to 7.5 acres in size. A total of approximately 32,050 square feet of facility space would be provided between the three stations.

VARIATIONS FROM PLANNED LAND USES IN ACTIVITY CENTERS

The proposed project also provides a mechanism that allows for variation from planned land uses and intensities to encourage mixed commercial, office, and residential use within the boundaries of the West, North, and East

Activity Centers (Exhibit 2-3). As an alternative to developing each land parcel according to its planned use and intensity, an applicant may propose to develop the entire activity center as a mixed-use project, provided that the proposed mixed-use project does not exceed the planned number of units or nonresidential square footage identified in the Specific Plan for the activity center, as presented in Table 2-2.

Table 2-2
Development Limits for Variations from Planned Uses in Proposed Activity Centers

	Acres	Residential Units	Nonresidential Square Feet
West Activity Center	217.1	308	2,898,000
North Activity Center	86.4	--	1,205,000
East Activity Center	180.8	1,258	1,535,000

Source: Data provided by EDAW in 2008

Variations from the planned uses and intensities described in the Specific Plan on individual land parcels at these locations would require the applicant to complete and submit a development plan for the activity center, as described in the Sutter Pointe Land Use and Development Code (Appendix B to the Specific Plan). Uses consistent with the planned uses and intensities described in the Specific Plan on individual land use parcels in the East, West, and North Activity Centers would not require completion of a development plan.

2.4.3 PUBLIC UTILITIES AND INFRASTRUCTURE

This section describes the public utilities and infrastructure systems that would be required to support the proposed project in accordance with the policies of the Sutter County General Plan and the provisions of Measure M. It sets forth infrastructure plans for drainage/flood control; potable water; recycled water; sewer; and dry utilities, including electricity, gas, communications, and cable television service. Phasing and financing obligations related to public utilities and infrastructure are outlined in Chapter 11, "Implementation," of the proposed Specific Plan.

The Measure M Group has initiated coordination with the various service providers regarding provision of these services on an as-needed basis. It is the intent of Sutter County that the project site would become an incorporated city at the earliest feasible time in the future. Services that initially would be the responsibility of the County through a county service area (CSA) may be transferred to the new city government upon or shortly after incorporation. Table 2-3 lists the recommended service providers for each type of infrastructure to be provided to the project site.

Table 2-3
Infrastructure Service Providers

Service		Provider		
		Current	Before Incorporation	After Incorporation
Wet Utilities	Drainage (on-site)	Sutter County	CSA/RD 1000	City/RD 1000
	Drainage (off-site)	RD 1000	RD 1000	RD 1000
	Flood control	SAFCA	SAFCA	SAFCA
	Sewer	No current service	CSA/SRCSD	City/SRCSD
	Water (potable)	No current service	CSA	City
	Water (recycled)	No current service	CSA	City

Table 2-3
Infrastructure Service Providers

Service		Provider		
		Current	Before Incorporation	After Incorporation
Dry Utilities	Cable	No current service	Comcast	Comcast
	Electricity and natural gas	PG&E	PG&E	PG&E
	Refuse	Regional Waste Management Authority/ Yuba-Sutter Disposal	Regional Waste Management Authority/ Yuba-Sutter Disposal	Regional Waste Management Authority/ Yuba-Sutter Disposal
	Communications	AT&T	AT&T	AT&T

Notes: CSA = county service area.
PG&E = Pacific Gas and Electric Company.
RD 1000 = Reclamation District 1000.
SAFCA = Sacramento Area Flood Control Agency.
SRCSD = Sacramento Regional County Sanitation District.
Source: Data provided by MacKay & Somps in 2008

Table 2-4 provides descriptions of required off-site infrastructure improvements. All off-site infrastructure needed to support the proposed project is analyzed in this EIR at a program level unless CEQA clearance already has been obtained or in process (Table 2-4).

Table 2-4
Sutter Pointe Specific Plan Project Off-Site Infrastructure Improvements and CEQA Coverage

Improvement	Approved/Existing CEQA Coverage?
Road Improvements	
Powerline Road	No
SR 99/70 widening	No
Parallel roadway right-of-way (west of SR 99/70)	No
Parallel roadway right-of-way (east of SR 99/70)	No
Natomas Levee Road	No
Drainage Improvements	
Off-site Detention Basins	No
RD 1000 channel improvements	No
Water Improvements	
Sutter Pointe raw surface water transmission line	No
Sutter Pointe raw surface water booster pump station	No
NCMWC highline ditch diversion	No
Sutter Pointe raw surface water turnout	No
Sewer Improvements	
Sutter Pointe off-site sewer force mains (two parallel force mains)	No
SRCSD Upper Northwest Interceptor 2	Yes. Project is under construction and anticipated to be complete in 2010.
SRCSD Upper Northwest Interceptor 3	Yes. Project is under construction and anticipated to be complete in 2010.
Future Sutter Pointe off-site sewer force main (third force main)	No

Table 2-4 Sutter Pointe Specific Plan Project Off-Site Infrastructure Improvements and CEQA Coverage	
Improvement	Approved/Existing CEQA Coverage?
Dry Utilities	
Natural gas extension and point of connection	No
Comcast Cable facilities and point of connection	No
AT&T facilities (above ground)	No
Future PG&E electric transmission extension	No

Notes: NCMWC = Natomas Central Mutual Water Company.
PG&E = Pacific Gas and Electric Company.
SRCSD = Sacramento Regional County Sanitation District.

Sources: Data provided by FORMA in 2006, MacKay & Somps in 2008, Fehr and Peers in 2007, Wood Rodgers in 2007; data compiled by EDAW in 2007 and 2008

DRAINAGE

The proposed project provides for creation of a CSA to enable Sutter County to provide drainage maintenance services in certain areas of the project site until the site is incorporated. Upon incorporation, responsibility for drainage maintenance and operation services likely would be transferred to the new city government.

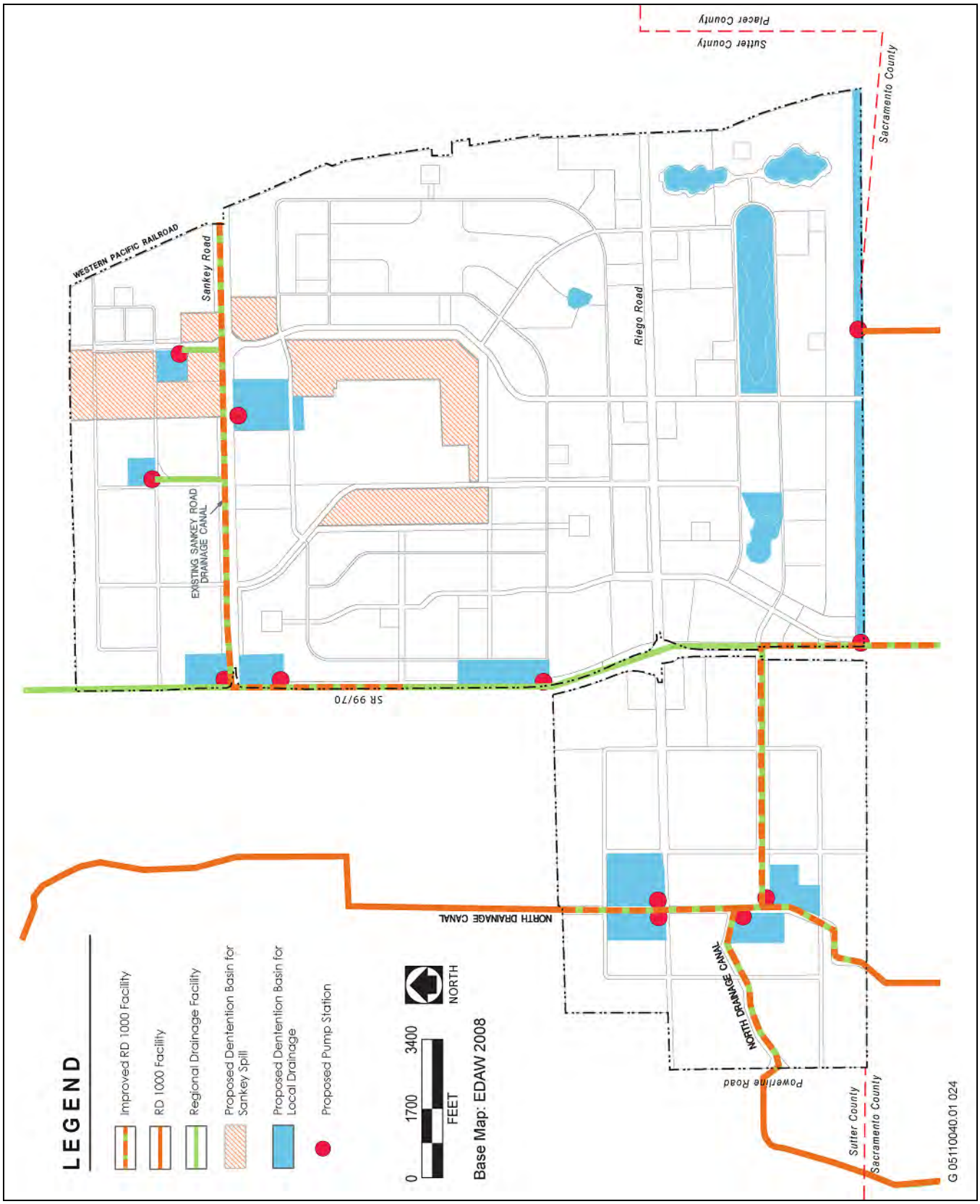
Backbone Drainage Plan

The proposed backbone drainage plan has been established to provide drainage and flood protection to the proposed project. It is intended to satisfy the design criteria of Sutter County, RD 1000, FEMA National Flood Insurance Program requirements, and National Pollutant Discharge Elimination System requirements to receive stormwater from the project site. See Appendix E, "Storm Drain Plan," of the Specific Plan, which incorporates these strategies.

As illustrated in Exhibit 2-4, the proposed project is designed to provide facilities that would maintain stormwater flows originating on the project site during and after buildout, at a level equal to or less than predevelopment flows such that total volume may increase but peak flows would not. Key components of the drainage system would include detention basins, pump stations, drainage pipes, channels, permanent and temporary inlets, and other flood control facilities. Storm drains ranging in size from 24 to 84 inches in diameter would be incorporated in roadways, parks, and open spaces throughout the project site.

All runoff from the proposed project would be conveyed through Sutter County stormwater conveyance facilities under the jurisdiction of the County and would be pumped into and temporarily stored in the RD 1000 system. Ultimately, the runoff would be pumped into the Natomas Cross Canal, Sacramento River, and Natomas East Main Drainage Canal.

As discussed in detail in Section 3.7, "Hydrology and Water Quality," the capacity of the Pleasant Grove Canal, located east-northeast of the project site, is exceeded during a 100-year flow event. The overflow enters the Natomas Basin at the Sankey Gap, a low point in the levee where Sankey Road crosses the Canal, which is the RD 1000 eastern boundary. The Sankey Gap flow travels west along Sankey Road, and comprises the 100-year floodplain north of Riego Road and east of SR 99/70. The cause of the Sankey Gap overflow is a lack of conveyance capacity in the Natomas Cross Canal that would allow runoff from Pleasant Grove Creek and adjacent watersheds to enter the Sacramento River. Additionally, during high stages in the Sacramento River, water backs up in the Cross Canal and ponds in the Pleasant Grove Canal and adjacent areas. The proposed Drainage Master Plan contains three different alternatives (summarized briefly below), all of which were designed to add detention and pumping facilities to provide for both displaced floodplain storage (from the Sankey Gap)



Source: Data provided by Wood Rodgers, Inc. in 2008, adapted by EDAW in 2008

Proposed On-Site Drainage Plan **Exhibit 2-4**

and overland flow conveyance (generated by the proposed project). The differences between the three alternatives primarily relate to the location of flood flow storage intended to control runoff from the Sankey Gap overflow. Under all three alternatives, the majority of the land within the project site would be subject to off-site runoff entering the site. All alternatives would are designed to prevent off-site flooding in the project vicinity by using excavated material from the proposed detention ponds to construct levees or raised ground areas at the perimeter of the project site to elevations that would be above the existing floodplain.

The size and capacity of flood control/drainage facilities would be based on appropriate Sutter County and RD 1000 design criteria. Improvements to attenuate the Sankey Gap flood flows are currently planned on-site, including 408 acres of land set aside as temporary detention basins within the proposed E1F land use designation. Potential alternate locations for the detention storage necessary to attenuate the Sankey Gap overflow are also planned off-site. Two properties located immediately northeast of the project site—the Barosso and the Lutz properties, totaling approximately 300 acres—have been identified as being potentially available to capture the Sankey Gap overflow. This concept involves constructing a levee around the Barosso property and directing flows onto the property via a weir constructed at the elevation of the Sankey Road spill crest. Because the Barosso property currently provides floodplain storage, a second storage location (Lutz property) would need to be configured to replace the storage displaced from the first basin. The Lutz property would be excavated below existing grade, and storm flow that overtops the banks of Currie Creek would be allowed to spill onto the property. Together, these properties would provide storage sufficient for the Sankey Gap overflow while retaining the existing storage provided by the Barosso property.

An additional alternative for detention storage would involve directing the Sankey Gap overflow into a channel flowing westward along the Sankey Road corridor, crossing under Sankey Road and SR 99/70 to be stored at an approximately 800-acre location west of the project site but still within the Natomas Basin. This alternative would require channels with levees on the east side of SR 99/70. The Sankey Gap overflow volume would have to commingle with pumped on-site flows until reaching SR 99/70, where a splitting structure would maintain on-site flows southward while spilling the higher Sankey Gap overflow to a storage area located west of SR 99/70.

The levees protecting the Natomas Basin were found to meet FEMA criteria for 100-year flood protection under a levee evaluation conducted by USACE in 1998. SAFCA recently completed a draft report that updates previous studies and evaluates the flood protection level of the Natomas levee system. Although previous studies of these levees concluded that they provided sufficient protection against 100-year storm events, the new SAFCA draft report concludes that some portions of the levee system would be subject to underseepage and erosion hazards during a 100-year storm event. SAFCA has initiated the preparation of studies and environmental documents that would address specific threats to levee integrity to preserve 100-year flood protection designations. These improvements include raising the levee for certain segments of the levee system, construction of slurry walls, and installation of toe rock and bank vegetation. In the vicinity of the proposed project, these levee improvements consist of the Pleasant Grove Creek Canal, the Natomas East Main Drainage Canal, the Natomas Cross Canal Phase 1B, and the Sacramento River Power Pole Relocations at reaches 1 to 4B. As part of the Natomas Levee Improvement Program, described in detail in Section 3.7 “Hydrology and Water Quality,” SAFCA is proceeding with implementation of necessary levee improvements to correct existing deficiencies within those portions of the levee system in the vicinity of the proposed project, which are anticipated to be constructed within the next 2 to 5 years. With implementation of these improvements proposed by SAFCA it is expected that protection from the 100-year storm event would be provided at the project site. However, the project site is located within a 200-year flood zone as recently designed by the “Best Available Maps” prepared by the California Department of Water Resources. Senate Bill 5 provides that, as of 2015, city and county legislative bodies will be prohibited from approving discretionary development projects and ministerial residential projects unless they can make one of the three following findings with respect to the levels of flood protection at a project site:

- flood management facilities provide level of protection necessary to withstand 200-year flood event;
- the development agreement or other entitlements include conditions that provide protections necessary to withstand 200-year flood event; or

- the local flood management agency has made adequate progress on construction of a flood protection system that shall result in protections necessary to withstand 200-year flood event by 2025.

As discussed in greater detail in Section 3.7, "Hydrology and Water Quality," the County anticipates that SAFCA, through its ongoing efforts to improve the safety and stability of levees in the region, will provide 200-year flood protection for the region (including the project site). In the event SAFCA does not address the 200-year flood protection for the project site pursuant to SB 5, the project applicants propose to implement 200-year flood protection improvements themselves. See Impact 3.7-4 in Section 3.7, "Hydrology and Water Quality," for a detailed discussion of this issue and the proposed improvements.

Off-Site RD 1000 Drainage System Improvements

Off-site improvements identified in the backbone drainage plan consist of widening the East Drainage Channel, which is part of the RD 1000 channel system connecting the proposed project to existing pump stations (Exhibit 2-5). The East Drainage Channel along SR 99/70 is currently 15 feet wide at the bottom and would need to be widened 10 more feet. The side slopes may need to be laid back as well, which would widen it slightly more. However, for the purposes of this project, it is assumed that existing side slopes are adequate. Exhibit 2-5 shows a disturbance corridor plus a 50-foot-wide corridor outside of that for a temporary construction easement. The reach of the channel along the north side of Elverta Road is only 10 feet wide at the bottom and would need to be expanded 15 feet to match the total proposed 25-foot width of the upstream channel along SR 99/70. Both channel reaches would be widened on the side of the channel opposite the road.

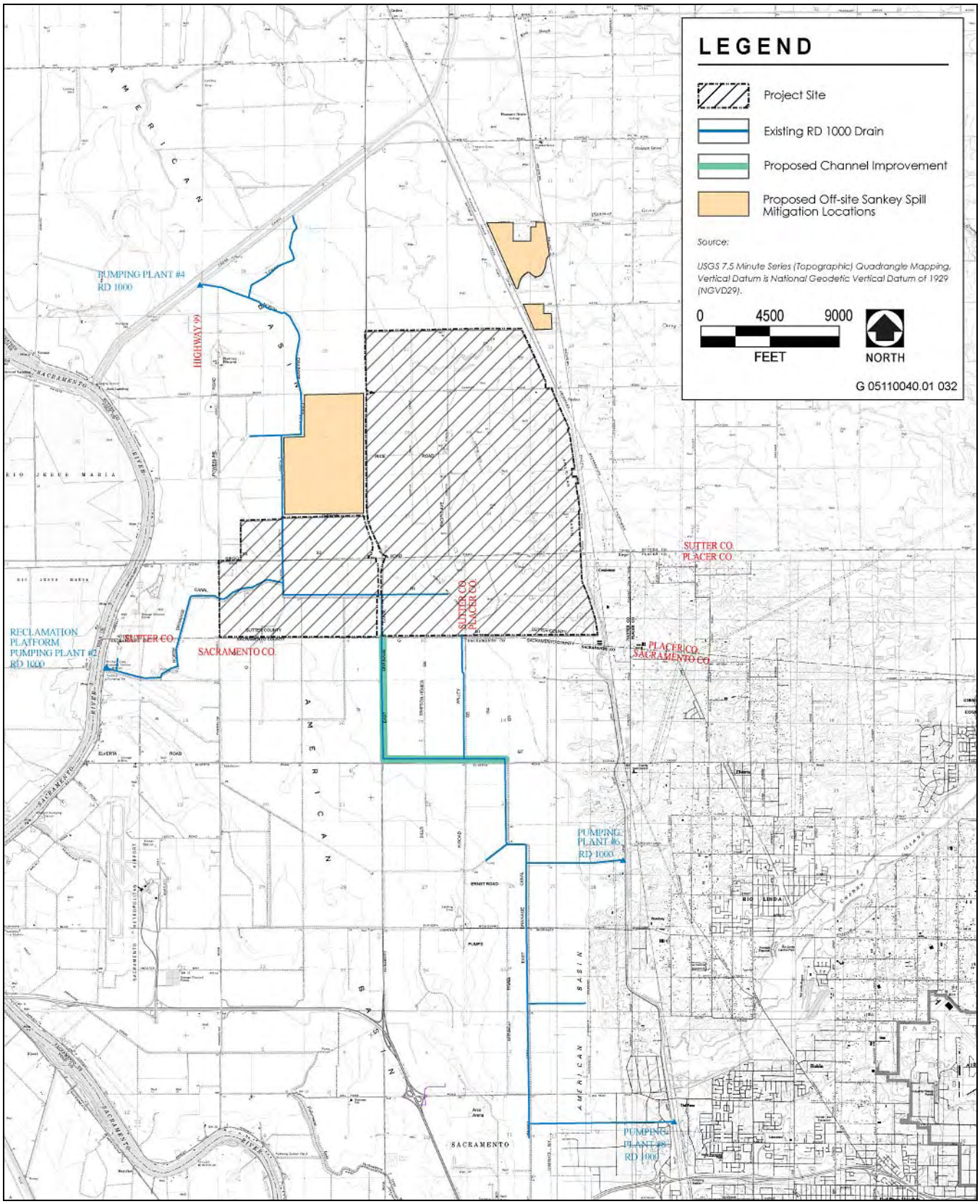
Urban Runoff Management

In any developed area, urban stormwater runoff contains various elements washed from street or parking lot surfaces and from building rooftops. These elements typically include hydrocarbons from street paving, motor oil, detergents from car washing, and other polluting elements from a variety of sources. The primary methods of managing urban runoff to protect surface water resources are controlling stormwater runoff from development, protecting stream courses, and preventing nonpoint source pollution from entering existing surface water. These may be accomplished by using both structural and source controls. Both methods are incorporated in the design of the proposed project.

Structural Controls

The proposed project's storm drainage systems would be designed to direct runoff flows into on-site detention basins outfitted with integrated water quality treatment in the form of wet water quality treatment volume or extended dry detention. The drainage system would include best management practice design features incorporating structural controls consistent with Sutter County requirements. The construction of the features would be the responsibility of the project applicant(s) of all project phases.

In the project site's existing undeveloped condition, the 100-year peak storm flow in the RD 1000 system is attenuated in the flat agricultural lands in the basin and pumped out via RD 1000 pumping facilities. To eliminate any flow increase caused by proposed project development, and any possible erosion related to this increase, stormwater detention facilities would be constructed to maintain peak storm flows at the level existing before development. The proposed drainage system would include 511 acres of detention and water quality basins located throughout the project site, as identified in Exhibit 2-4, varying in size from 10 to 37 acres. The general locations of these basins are identified on the land use plan (Exhibit 2-3) using the IDB and OS land use designations. These locations may be adjusted at tentative subdivision map stage pursuant to subsequent site-specific drainage studies and procedures for land use parcel boundary and acreage adjustments outlined in the Specific Plan. Any future changes, if substantially different from the plan analyzed in this DEIR, would require subsequent CEQA analysis.



Source: Data provided by Wood Rodgers, Inc. in 2008, adapted by EDAW in 2008

Proposed Off-Site Drainage Plan **Exhibit 2-5**

Temporary (during construction) sedimentation basins and devices for controlling stormwater flows and reducing erosion would be constructed by the project applicant(s). It is anticipated that most of these basins would be needed only during construction and before landscaping is established. However, others may be needed permanently to intercept sediments from erodible areas that may be left undisturbed and to prevent high-velocity flows from entering drainages. A plan for the construction of the sedimentation basins and erosion control devices would be submitted by the project applicant(s) of all project phases for approval by Sutter County before grading permits are issued.

In conformance with the federal Clean Water Act and U.S. Environmental Protection Agency (EPA) regulations, the state would require the project applicant(s) of all project phases to prepare a storm water pollution prevention plan (SWPPP). The SWPPP would be prepared and submitted to the approving agency before the start of grading and would identify measures to reduce pollutants and erosion in site runoff.

Source Controls

Source controls typically involve management programs that reduce or eliminate pollutants from entering surface waters (e.g., street sweeping, prevention of illegal dumping). Some programs rely on community education, and some require regulatory, public agency, or private entity implementation. Source control programs proposed on the project site include recycling, street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills and illegal dumping, and effective management of public trash collection areas.

Golf Course Monitoring Program

If a golf course is constructed as part of the proposed project, the operator would develop a monitoring program to assess the nutrient and irrigation needs of the course grasses; provide an irrigation, fertilization, and pesticide application schedule; and conduct sampling of irrigation runoff for the presence of contaminants. The monitoring program would be prepared by a landscape architect and a water quality specialist, with input from the Central Valley RWQCB and the California Department of Fish and Game, as well as Sutter County review and approval before golf course operation.

POTABLE WATER

Presently, there are no public water supply facilities on the project site. Development currently on the site is supported by private wells with limited capacity. Agricultural irrigation is provided primarily by surface water diverted from the Sacramento River by the NCMWC, a private water purveyor, and to a lesser extent from private irrigation wells. It is the intent of the County to maintain the operation of this irrigation system during the development of the proposed project. As the project site is developed over time, irrigation ditches on the site would be removed and the urban water system would be developed to deliver groundwater and surface water to the proposed project. The limited amount of development that currently exists on the project site would be given the opportunity to connect to the public system in lieu of continuing to use private groundwater wells.

It is the intent of Sutter County to provide retail water service for the proposed project through a dependent or independent special district (e.g., a community services district, a CSA, or some other County agency). Sutter County would initially provide groundwater to the early phases of development and would be expected to provide a combination of groundwater and surface water to meet the proposed project's water demands at buildout. Groundwater for the proposed project would be supplied from wells pumping from the Sacramento Valley Groundwater Basin North American Subbasin. Sutter County plans to enter into an agreement with NCMWC to act as the urban wholesale distributor of surface water. The County would then deliver the water at cost (plus processing and delivery costs) to the end users.

Golden State Water Company (GSWC), through its parent company (American States Water Company), entered into an agreement with NCMWC on July 1, 2004 to provide municipal and industrial (M&I) water service within

the NCMWC service area. GSWC is an investor owned, California Public Utilities Commission (PUC) regulated, private water company. GSWC has expressed the intent to be the water service purveyor for the project site and initiated a Master Infrastructure Advance Planning Study (MIAPS) to be prepared (Wood Rodgers April 24, 2006) setting forth its plan to provide ground and surface water to the proposed project. The service plan outlined in the MIAPS is similar to the plan set forth in the water supply master plan (MacKay & Somps 2008), although it is a higher-level planning study compared to the detailed study set forth in the water supply master plan for the proposed project. GSWC has applied to the PUC for permission to serve the proposed project. Sutter County, however, opposes that application. GSWC asserts that its contract with NCMWC authorizes it to be the exclusive M&I purveyor within the Natomas Basin utilizing NCMWC water rights and contractual entitlements under the Settlement Contract with the U.S. Bureau of Reclamation (Bureau of Reclamation); the County asserts that the GSWC/NCMWC contract is not sufficient to assure GSWC's ability to control water supplies because the delivery of water by a mutual water company is appurtenant to the shares, and the shareholders have not pledged their shares to NCMWC or GSWC.

At this time it is uncertain that GSWC will gain the necessary PUC approvals to serve the development. Regardless of the entity that provides the service, though, the same sources of water supply would be used, therefore the analysis of the physical water availability would not change depending on which entity prevails.

Existing Surface Water Supplies Available to the Project Site

On the project site, NCMWC shareholders own 5,009.3 acres of the 7,527.6-acre project site, and this total represents approximately 15.83% of the 31,652 shareholder acres in NCMWC's service area. The remaining 2,518.3 acres are in NCMWC's service area boundary; however, these lands are not owned by NCMWC shareholders. The shareholder and nonshareholder lands on the project site (7,527.6 acres) represent approximately 25% of NCMWC's overall irrigation demand. Under the terms of NCMWC's Bylaws, then, the project area is entitled to receive up to 15.83% of NCMWC's total diversion.

During normal years, NCMWC is permitted to divert up to 120,200 acre-feet per year (afy) under its existing water rights and its recently renewed Settlement Contract with Reclamation. This amount includes 98,200 afy of Base Supply, which can be diverted from April through October, and 22,000 afy of Central Valley Project (CVP) water, which is available during July and August. In critically dry years, NCMWC's Settlement Contract is cut back by 25% from 120,200 afy to a maximum of 90,150 afy. Assuming the proposed project represents 25% of the irrigation demand of NCMWC, the planning area has access to approximately 30,050 afy of surface water during normal years, and approximately 22,538 afy of surface water during critically dry years. However, NCMWC has historically delivered 30,000 afy to shareholder lands on the project site.

NCMWC does not divert surface water from the Sacramento River for use by its shareholders for agricultural irrigation on an acre-foot-by-acre-foot basis. Reclamation records indicate the actual quantity of surface water diverted by NCMWC to all shareholder lands is in the magnitude of 88,000 afy. NCMWC historically has delivered approximately 30,000 afy of surface water in normal years to the project site, or an equivalent of approximately 34.09% of the historic diversions (30,000/88,000 x 100). The difference between the shareholder lands within the project site representing 25% of the NCMWC's irrigation demand and comprising only 15.83% of the shareholder acreage on the project site can be explained by the fact that, among others, some shareholders use more water than others and NCMWC delivers varying quantities of surface water to different shareholder areas. Thus, while the shareholders in the project area have been entitled to receive about 13,926 afy of NCMWC's 88,000 afy in diversions, they have historically been receiving an additional 16,074 afy that were not needed for delivery to other NCMWC shareholders. However, if other NCMWC shareholder increase their demands in the future beyond that supported by existing diversions (88,000 afy) but still within the amounts allowed under the Bureau of Reclamation contract and underlying water rights (120,000 afy), some, if not all, of that increase could be met by increasing diversions under the Bureau of Reclamation contract or the NCMWC water rights without impacting the amount of water that is currently being received by the shareholders in the project area. Thus, since this analysis is based on the project area receiving only 15.83% of 88,000 afy from

NCMWC, it is a conservative approach that likely understates the water that will be available.Focusing on only shares of stock in NCMWC, the shareholders on the project site, who control 15.83% of the company's shares, should have access to NCMWC's water rights pro-rata to their share portion of the Settlement Contract. Under this approach, the shareholder lands on the project site would have access to approximately 13,930 afy of surface water during a normal year and 10,448 afy of surface water during a critically dry year. Table 2-5 summarizes NCMWC's surface water entitlements during normal and critically dry years.

Table 2-5
Surface Water Supplies under the Reclamation Settlement Contract during Normal Years and Critically Dry Years

Approach	Normal Year Supplies (afy)	Critically Dry Year Supplies (afy)
Historical use	30,000	22,500
Historical diversions	22,000	16,500
NCMWC shares	13,930	10,448

Notes: Reclamation = U.S. Bureau of Reclamation; afy = acre-feet per year.
Source: Tully and Young 2008

Regardless of whether NCMWC supplies available to the proposed project are based on historical use (30,000 afy), historical diversions (22,000 afy), or the shareholder's percent ownership of NCMWC's shares (13,930 afy), the shareholder lands on the project site would have a minimum entitlement of 13,930 afy of surface water during normal years and 10,448 afy during critically dry years.

Water Rights Considerations

The State Water Resources Control Board (SWRCB) water right licenses allow the use of water for domestic and M&I purposes with approval from SWRCB. The Base Supply may be diverted from the Sacramento River for irrigation purposes only. Approval by the SWRCB would be necessary before the Base Supply could be used for M&I purposes. Accordingly, for NCMWC to supply water for M&I purposes in the proposed project site, NCMWC would need to obtain approval from the SWRCB to modify the purpose of use to allow M&I service under NCMWC's water right licenses.

The CVP Project Water, by contract, is currently limited to use for irrigation during the growing season (April through October) on the project site. However, the water right permits issued to Reclamation by SWRCB identify M&I as a permitted use. For CVP Project Water to be used for M&I purposes on the project site, discretionary approval by Reclamation would be required.

The Alternate "A" Revised Water Supply Program and the Alternate "B" Winter Diversion Water Supply Program would provide surface water to nonshareholder lands on the project site. Although the surface water supply would be sufficient to meet the equivalent annual water demands of the nonshareholder lands on the project site, these lands are not within the place of use under NCMWC's water right and licenses. Therefore, NCMWC would need discretionary approval by Reclamation and may need approvals from the SWRCB and the California Department of Corporations to modify the place of use of these water rights.

Proposed Project Water Demands and Supplies

In compliance with SB 610, a WSA has been prepared to determine whether the projected available water supplies would meet the project's water demand, in addition to the existing and planned future uses (Appendix C of this DEIR). Water demands under the proposed project at buildout as identified in the WSA are 25,199 afy during normal years and 22,048 afy during single-dry and multiple-dry years.

The project proposes a conjunctive use water supply program that would use both groundwater and surface water to meet the water demands of the proposed project at buildout. Three water supply programs have been identified as options for providing water to the project site:

- Proposed Water Supply Program,
- Alternate "A" Revised Water Supply Program, and
- Alternate "B" Winter Diversion Water Supply Program.

Under all three water supply programs, groundwater would provide water supplies to initial phases of development until surface water entitlements (change in purpose of use from agriculture to M&I) are approved and off-site water facilities (discussed below) are constructed and are online. Development of the surface water element is anticipated to take approximately 5–10 years; it is estimated that surface water would be available to serve the project by 2018. Each of the three potential water supply programs is discussed in detail below, and the amount of groundwater and surface water that would be required under each of these programs is presented in Table 2-6.

Groundwater would be supplied by groundwater pumping from the North American Subbasin. Well fields would be developed for all water supply programs to meet groundwater demands, and a series of raw groundwater transmission pipelines would convey groundwater to centralized on-site groundwater treatment plants. The number of well fields developed and the amount of groundwater pumped from these well fields would vary depending on which of the water supply programs is implemented. Individual well head treatment and/or several decentralized on-site groundwater treatment plants could be used in lieu of a centralized treatment scheme if either of these approaches is more cost effective. (See additional detailed discussion of potential treatment options below under "Groundwater and Surface Water Treatment Facilities.")

Table 2-6
Comparison of Conjunctive Water Supply Programs under the Proposed Water Supply Programs

Water Supply Program	Groundwater	Surface Water
Proposed Water Supply Program	51.9% (13,071 afy)	48.1% (12,128 afy)
Alternate "A" Revised Water Supply Program	37.9% (9,561 afy)	62.1% (15,638 afy)
Alternate "B" Winter Diversion Water Supply Program	26.1% (6,577 afy)	73.9% (18,622 afy) [1]

Notes: afy = acre-feet per year.

[1] The total surface water demand under Alternate B is approximately 18,622 afy in normal years, 13,126 afy of which would be provided under the Settlement Contract and 5,496 afy would be provided by a new winter diversion water right from SWRCB.

Source: Tully & Young 2008

As development on the project site occurs, and as the surface water element is phased in, the groundwater element would transition from a year-round supply to principally a wintertime supply to meet the demands of the proposed project, matching the current diversion patterns wherein the NCMWC surface water diversions occur only during the irrigation season.

Proposed Water Supply Program

Under the Proposed Water Supply Program, groundwater would be used from November through March, and a combination of groundwater and surface water would be used from April through October. The 2,518.3 acres of nonshareholder lands would be completely served by groundwater.

The proposed well fields would serve an estimated 51.9% of the total water needs of the proposed project at buildout. These groundwater supplies would serve Phases 1/A development and a portion of Phases 2/B development (or approximately the first 11 years of development). Under this water supply program, the surface

water supply would be developed to serve the remaining 48.1% of the water demands of the proposed project at buildout.

Alternate "A" Revised Water Supply Program

Under the Alternate "A" Revised Water Supply Program, groundwater would be used from November through March, surface water would be used from April through June, and a combination of groundwater and surface water would be used from July through October. This program also would provide NCMWC surface water supplies to the nonshareholder lands on the project site.

The proposed well fields would serve an estimated 37.9% of the total water needs of the proposed project with groundwater at buildout. Accordingly, these groundwater supplies would serve Phases 1/A development and a portion of Phases 2/B development (approximately the first 11 years of development), at which time the surface water element would be required to provide water supplies to the remaining phases of development. Under this water supply program, the surface water supply would ultimately serve the remaining 62.1% of the water demands of the proposed project at buildout.

Alternate "B" Winter Diversion Water Supply Program

Under the Alternate "B" Winter Diversion Water Supply Program, a combination of groundwater and surface water would serve the proposed project throughout the year. This program also would provide NCMWC surface water supplies to nonshareholder lands on the project site. Additionally, a new winter diversion would be required to provide surface water to the project site year round.

The proposed well field would serve an estimated 26.1% of the total water needs of the proposed project at buildout. Accordingly, these groundwater supplies would serve Phases 1/A development and a portion of Phases 2/B development (approximately the first 11 years of development), at which time the surface water element would be required to provide water supplies to the remaining phases of development. Under this water supply program, surface water supply would be developed to serve the remaining 73.9% of the water demands of the proposed project at buildout.

The substantive difference between the Proposed Water Supply Program and the Alternate "B" Winter Diversion Water Supply Program is the acquisition of a new water right from SWRCB for diversion of 6,000 afy from the Sacramento River during the winter months (October 1 through March 31) for approximately 5,496 afy of surface water during normal years and 4,182 afy of surface water during dry years. Overall, the primary effect of implementing the Alternate "B" Winter Diversion Water Supply Program would be to shift the time of year when diversion takes place rather than shift the overall quantity of diversion from the Sacramento River. All water diversions would not occur during the irrigation season; instead, less water would be diverted at that time of year, and some diversion would occur during the wet season (October through March). This water supply has not yet been obtained and would require that a new license be obtained from SWRCB. If this option were selected by the project applicant, additional CEQA analysis would be required to determine the potential environmental impacts related to obtaining a new license for diversion from SWRCB.

Groundwater and Surface Water Treatment Facilities

Under the proposed project, two centralized on-site groundwater treatment plants and a surface water treatment plant (SWTP) would be constructed to treat raw groundwater and surface water diverted from the Sacramento River. These treatment plants would include an administration/operations building, maintenance buildings, chemical buildings, electrical buildings, and a treated water pump station. These treatment plants would operate continuously at various flow rates with ongoing operations and maintenance activities.

The groundwater element of the Proposed Water Supply Program and Alternate "A" Revised Water Supply Program would include two centralized on-site groundwater treatment plants. The western groundwater treatment

plant would be located in the southwest portion of the project site west of SR 99/70, and the eastern groundwater treatment plant would be located in the central portion of the project site east of SR 99/70. The groundwater element of the Alternate "B" Winter Diversion Water Supply Program would include one centralized groundwater treatment plant, and the location of the treatment plant would depend on the placement of the well field. The capacity of the groundwater treatment plant(s) would vary depending on which of the water supply programs is implemented.

The surface water element of the proposed project would include conveyance of raw water from the Sacramento River through a raw water transmission pipeline to the SWTP. The proposed SWTP would be colocated in a joint treatment plant site that could also contain either the proposed western or eastern groundwater treatment plants. The capacity of the SWTP would vary depending on which of the water supply programs is implemented.

Groundwater Treatment

Groundwater would be treated at the eastern or western groundwater treatment plant or both to meet the regulations of both the California Department of Public Health and EPA. The capacity of the groundwater treatment plants would vary depending on which of the water supply programs would be implemented. Additionally, the capacity of these plants would depend on whether centralized, clustered, or individual well treatment scenarios are determined to be most cost effective. The final decision on which of these scenarios is chosen will be made during final design of the facilities.

The treatment process, however, would be essentially the same for each of these scenarios, with the only substantial difference being one of scale. That is, the centralized approach would concentrate the treatment process into only one or two locations, whereas the clustered and individual well approaches would reduce the size but increase the number of treatment facilities spread throughout the project site.

The treatment process for removing iron, manganese, and arsenic involves the oxidation of the soluble form of each constituent into an insoluble form (precipitates) for subsequent removal by filtration. A typical layout of a groundwater treatment plant is shown in Appendix A, Exhibit 9 of the *Sutter Pointe Specific Plan Water Supply Master Plan* (MacKay & Somps 2008a). Typically, ferric chloride and chlorine are introduced to form the precipitates, which are then conveyed to a filter containing a mixed media usually consisting of graded sands, gravels, and a bed of anthracite. Depending on the contaminant level of manganese, a manganese greensand media is often used.

These filters require backwashing to remove the precipitated constituents after several hours of operation. Treated water from storage would be used to backwash the filters, and this backwash water would be pumped to an on-site containment storage tank. The backwash water would be either sent through the public sewer system or recycled to the filtration system to conserve water. The solids that remain from the treatment process would be disposed of in accordance with standard practices, including discharge to the public sewer system and transportation to and disposal at a landfill. If discharge to the public sewer system is determined to be unacceptable by the local sewer authority, then these solids would be handled in one of two ways:

1. The decanted sludge would be stored in the bottom of the on-site containment storage tank for periodic pumping and trucking to a Class III landfill as a low-water-content sludge (3–4% water content).

2. The low-water-content sludge would be transferred periodically to sludge-drying beds. The dried sludge would be harvested and trucked to a landfill.

These approaches to groundwater treatment are relatively common in the greater Sacramento metropolitan area, especially in areas where these types of constituents are found in the groundwater. Regulatory agencies have accepted these treatment processes because they have reliably produced safe, aesthetically acceptable water supplies that meet the drinking water quality objectives specified in Title 22 of the California Code of Regulations and listed in Table 3.7-1 of Section 3.7, "Hydrology and Water Quality" (MacKay & Somps 2008a).

These treatment plants, depending on their scale, would include an administration/operations building, maintenance buildings, chemical buildings, electrical buildings, and a treated water pump station. Emergency backup power would be provided by an on-site diesel generator. The treatment plants would operate continuously at various flow rates with ongoing operations and maintenance activities.

Surface Water Treatment

Surface water would be treated at the Sutter Pointe SWTP to meet the surface water treatment regulations of both the State of California and EPA (as described in the "Regulatory Background" section of Section 3.7, "Hydrology and Water Quality," and shown in Table 3.7-1). The SWTP would use conventional or advanced filtration technologies that have been successfully used to treat M&I water supplies from the Sacramento River by other urban water users. Regulatory agencies have accepted these processes because they have reliably produced safe, aesthetically acceptable water supplies that meet the drinking water quality objectives specified in Title 22 of the California Code of Regulations (MacKay & Somps 2008a).

The following components typically are used at local water treatment plants that treat surface water diverted from the Sacramento River:

- chemical addition and rapid mixing,
- coagulation/flocculation and clarification,
- filtration, and
- disinfection.

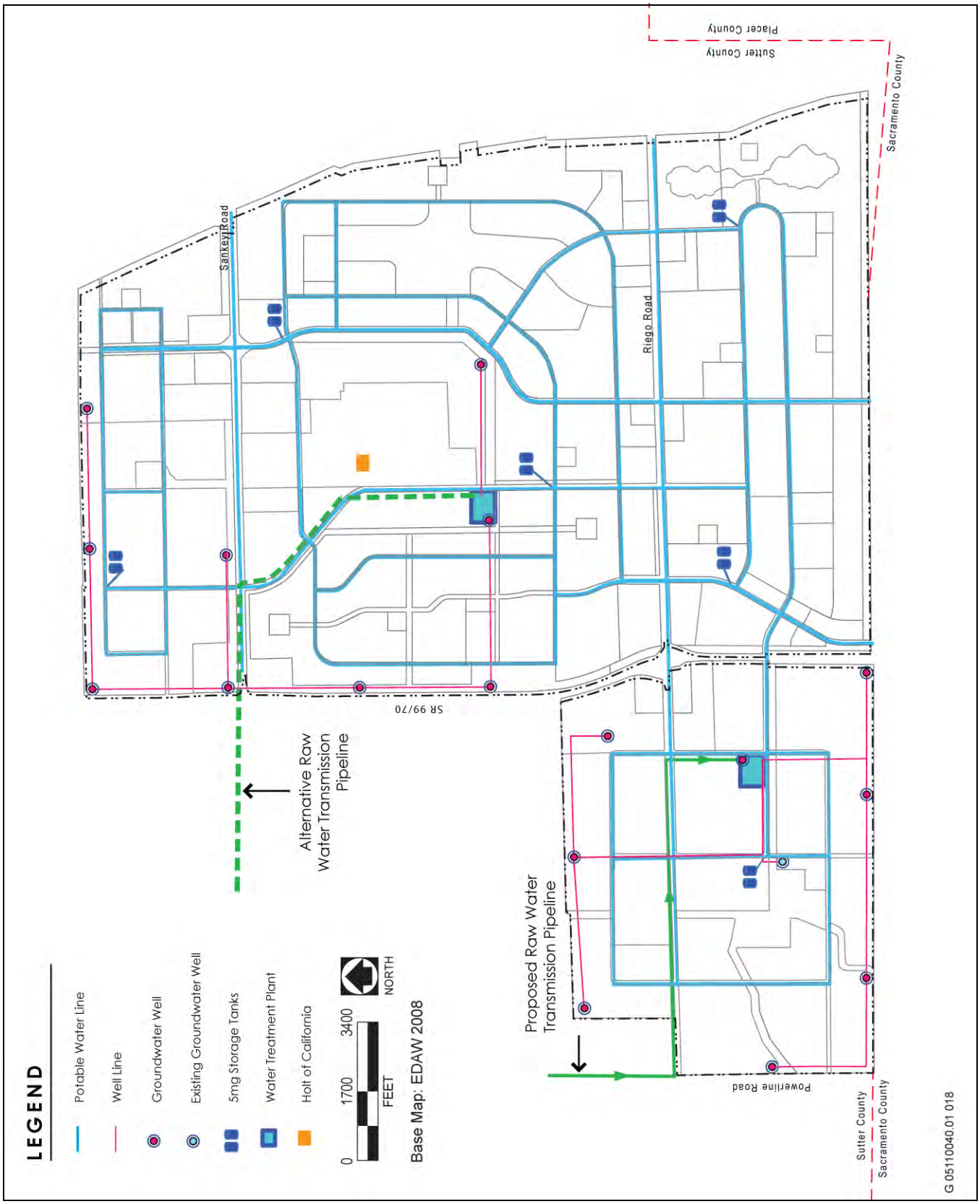
The SWTP facilities would include grit basins, flow splitters, flocculation and sedimentation basins, filters, equalization basins, backwash clarification, and aboveground potable water storage reservoirs. Membrane filtration may also be considered as an alternative to the conventional treatment process. An administration/operations building, a maintenance building, a chemical building, an electrical building, and a treated water pump station would be provided. Emergency backup power would be provided by an on-site diesel generator.

The SWTP would operate continuously at various flow rates during summer with ongoing operations and maintenance activities. Staffing levels and operator qualifications would comply with applicable regulatory requirements.

Waste from the SWTP would include grit from the grit basins, sludge removed from the sedimentation basins, filter backwash water, filter-to-waste water, sampling water, and sludge-drying basin decant water. These wastes would be disposed of in accordance with commonly acceptable practices, including discharge to the public sewer system and transportation to and disposal at a landfill. Surface water diverted from the Sacramento River at the Sacramento River Water Treatment Plant, located at the confluence of the Sacramento and American Rivers, is one of the domestic supplies for the city of Sacramento. The plant uses conventional treatment and disinfection to provide treated water that exceeds current Title 22 drinking water quality standards (Regional Water Authority 2006). The quality of Sacramento River water diverted by the Bennett Pumping Plant through the Natomas Cross Canal for the proposed project would be closely monitored for any changes that may occur as a result of conveyance through the Natomas Cross Canal. Surface water treatment would be adjusted accordingly to meet applicable water quality objectives. Section 3.9, "Water Supply," contains a description of the proposed groundwater and surface water supply and demand for the proposed project.

On-Site Water Conveyance Facilities

A new water system would be constructed and would include transmission and distribution pipelines, aboveground water storage reservoirs, and booster pumps that would deliver treated water to customers on the project site. A preliminary on-site water system has been designed as a looping system following the major street alignments (Exhibit 2-6). The system would consist of 12- to 42-inch-diameter pipes. In addition, the distribution



Source: MacKay & Somps 2008a, adapted by EDAW in 2008

Proposed On-Site Water Plan **Exhibit 2-6**

system would deliver treated water to six storage reservoir sites strategically located throughout the project site. These water storage reservoirs would provide for fire, peak-hour equalization, and emergency storage. At each reservoir site, dual water tanks would be constructed, each having a capacity of approximately 2.5 to 3 million gallons and combined storage totaling 5–6 million gallons. The six water storage reservoirs would provide a total of approximately 34 million gallons of storage.

Wastewater generated by the proposed project would be treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP), which has not implemented a recycled-water program. Although there are no immediate plans to implement a recycled-water supply program at the project site, the proposed project includes installation of "purple pipe" irrigation systems in all open space, parks, and detention basins on the project site. Purple is the color commonly used to identify reclaimed water conveyance facilities. The irrigation system would be connected to the potable-water conveyance facilities and would be designed so that it could be easily converted from a potable-water supply to a recycled-water supply at some future date.

Off-Site Water Conveyance Facilities

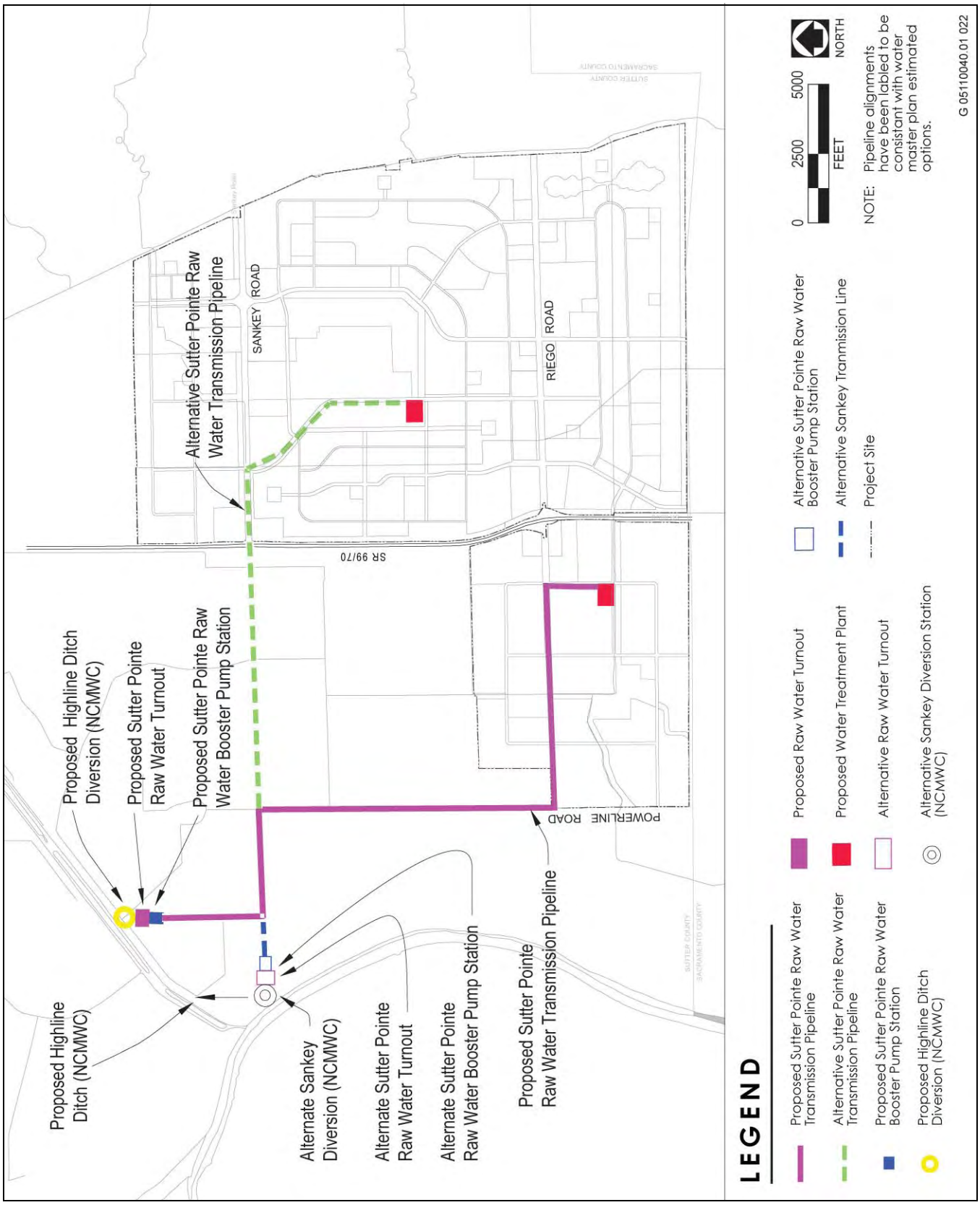
The off-site water conveyance facilities required to implement the surface water element of the proposed project consist of a raw water turnout, a raw water booster pump station, and a raw water transmission pipeline (Exhibit 2-7).

A raw water turnout and booster pump station would be located at the NCMWC's existing Bennett Pumping Plant, which is situated along the south bank of the Natomas Cross Canal approximately 1.2 miles upstream of its confluence with the Sacramento River. The Bennett Pumping Plant may not have the reliability to provide municipal water service to the project site and could require updating to accommodate the demands of the proposed project. Improvements to the existing Bennett Pumping Plant could include a sunken and screened intake structure redundant pumps, backup electrical power, and appropriate controls. These improvements would provide a modern and reliable diversion facility that would replace the existing Bennett Pumping Plant. However, it is possible that the proposed project could be served in the future by the Sankey Diversion facility proposed as a component of the larger American Basin Fish Screen and Habitat Improvement Project (American Basin Project) (discussed below).

Some of the water diverted from the Sacramento River by the Bennett Pumping Plant would be delivered to the proposed raw water booster pump station through a new raw water turnout located on the landside of the levee at the head works of the NCMWC's existing highline ditch system. The capacity of the booster pump station would vary depending on which of the water supply programs is implemented.

The booster pump station would pressurize the flows before discharge into the raw water transmission pipeline. The raw water transmission pipeline would be approximately 42 inches in diameter and would extend from the Bennett Pumping Plant south along a local farm road to Sankey Road. The pipeline would turn east along Sankey Road to Powerline Road and then turn south along Powerline Road to Riego Road. The pipeline would continue east along Riego Road and then south to the proposed SWTP (Exhibit 2-7).

It is expected that the western groundwater treatment plant would be constructed first and that the SWTP would be colocated with this facility; however, the eastern groundwater treatment plant might be constructed before the western facility. If the eastern plant is constructed first, and assuming that the Alternate "B" Winter Diversion Water Supply Program is implemented, it would be preferable to locate the SWTP in a common site adjacent to the eastern groundwater treatment plant. Accordingly, the route of the raw surface water transmission pipeline would differ from the route described above. Instead of turning south on Powerline Road from Sankey Road, the pipeline would continue east along Sankey Road, crossing under SR 99/70, to the realigned Pacific Avenue, where it would head south to the alternate location of the SWTP (Exhibit 2-7).



Source: MacKay & Somps 2008a, adapted by EDAW in 2008

Proposed Off-Site Water Plan **Exhibit 2-7**

Sankey Diversion Facility

The Sankey Diversion facility is part of the larger American Basin Fish Screen and Habitat Improvement Project (American Basin Project). Reclamation (the federal lead agency under NEPA) and California Department of Fish and Game (the State lead agency under CEQA) prepared a DEIS/DEIR (SCH # 2003092006) for the American Basin Project. The public review period was completed on April 28, 2008, and the DEIR/DEIS was certified in July 2008.

The American Basin Project involves the improvement of the NCMWC's water diversion and distribution system. Proposed improvements include the consolidation of the five existing water pumping plants on the Sacramento River and Natomas Cross Canal into two diversion facilities, the removal of one privately owned pump adjacent to the proposed Sankey Diversion facility, the addition of state-of-the-art fish screens to the new diversion facilities, and the modification of the existing system of distribution canals to maintain the current level of irrigation service. The American Basin Project would provide an overall benefit to fisheries inhabiting or making use of segments of the lower Sacramento River adjacent to the Natomas Basin and the Natomas Cross Canal by improving passage conditions for migratory fish species, preventing entrainment of resident and migratory fish species in unscreened water diversions, and improving aquatic and riparian conditions by elimination of diversions through consolidation.

The proposed Sankey Diversion facility would be constructed near Sankey Road, approximately 0.25 mile downstream of the confluence of the Sacramento River with the Natomas Cross Canal. After the diversion facility is completed, the Bennett Pumping Plant would be abandoned. If NCMWC is successful in gaining the necessary entitlements, permits, and funding, construction of the new diversion facility could begin as early as spring 2009. If construction begins in spring 2009, the facility could be completed and ready for operation in fall 2010. This timeline suggests that the Sankey Diversion facility would potentially be operational in time for delivery of surface water to the project site. Although the Bennett Pumping Plant may require improvements, the plant would be capable of serving the proposed project if the Sankey Diversion facility is delayed or not constructed.

If the Sankey Diversion facility is constructed, the raw water turnout and raw water booster pump station described above would be located at the site of the proposed Sankey Diversion facility. The route of the raw water transmission pipeline would vary slightly from that described above. The pipeline route would extend from the proposed Sankey Diversion facility east along Sankey Road to the point where the pipeline would have been extended from the local farm road south to Sankey Road from the Bennett Pumping Plant. The remainder of the raw water transmission pipeline route would be identical to that described above (Exhibit 2-7).

SANITARY SEWER

The project site is not currently served by any municipal wastewater collection and treatment systems. Implementing the proposed project would require construction of on-site and off-site wastewater collection and conveyance facilities. Sutter County would own, operate, and maintain the local and trunk sanitary sewer collection service through a CSA. The County would be required to develop the necessary regulatory framework to provide sewer service and the appropriate rate and fee structure to cover the costs of operation and maintenance of the system. Additionally, it is proposed that the County develop the organizational structure, management, and technical staff and the equipment necessary to operate and maintain the system. After incorporation of the project site, the sewer collection and conveyance system would be transferred to the new city government.

The SRCSD would provide off-site interceptor conveyance and sanitary sewer treatment at the SRWTP. Currently, the project site is not within the SRCSD's service area. Before SRCSD could provide wastewater service to the project, Sutter County LAFCO would need to approve connection to SRCSD service, and Sacramento County LAFCO would need to amend the sphere of influence for SRCSD to include the project site in anticipation of a later "change of organization" as defined by statute. Sutter County is currently negotiating an agreement with SRCSD to provide sewer service to the project site. A Principles of Agreement between Sutter

County and SRCSD is expected in early 2009. This agreement would define the general terms through which wastewater service would be provided to the proposed project by SRCSD, summarize the maximum wastewater flow rates generated by the proposed project, identify wastewater conveyance and storage facilities to be constructed by the project applicant(s), and establish fees to be paid to SRCSD for wastewater service. The Principals of Agreement do not commit the County to approval of the project, but they provide for a means for wastewater disposal in the event that the proposed project is approved. Approval of this agreement is required before wastewater flows generated by the proposed project could be conveyed and treated at the SRWTP. In addition, the proposed project would require a wastewater services agreement, which would act as a binding contract between Sutter County and SRCSD, and an operations agreement, which would identify the specific wastewater facilities required, and would define the operation of these facilities, before SRCSD would provide sewer service to the project site.

A sanitary sewer system consisting of gravity sewer lines ranging in size from 8 inches to 48 inches in diameter with maximum depths of approximately 30 feet and lift stations would be constructed to collect the sewer flows generated on the project site and convey them to a proposed central pump station near the intersection of SR 99/70 and Riego Road (Exhibit 2-8). Peak wet-weather sewer flows generated on the project site would need to be stored for subsequent discharge during nonpeak periods. Storage could be provided on the project site in either an aboveground or an underground 3.9-million-gallon storage tank at the central pump station. The storage tank would temporarily store the incoming wastewater during wet weather when flows are higher than the Upper Northwest Interceptor (UNWI) conveyance capacity, and the stored wastewater would later be pumped back through the central pump station when capacity became available in the UNWI.

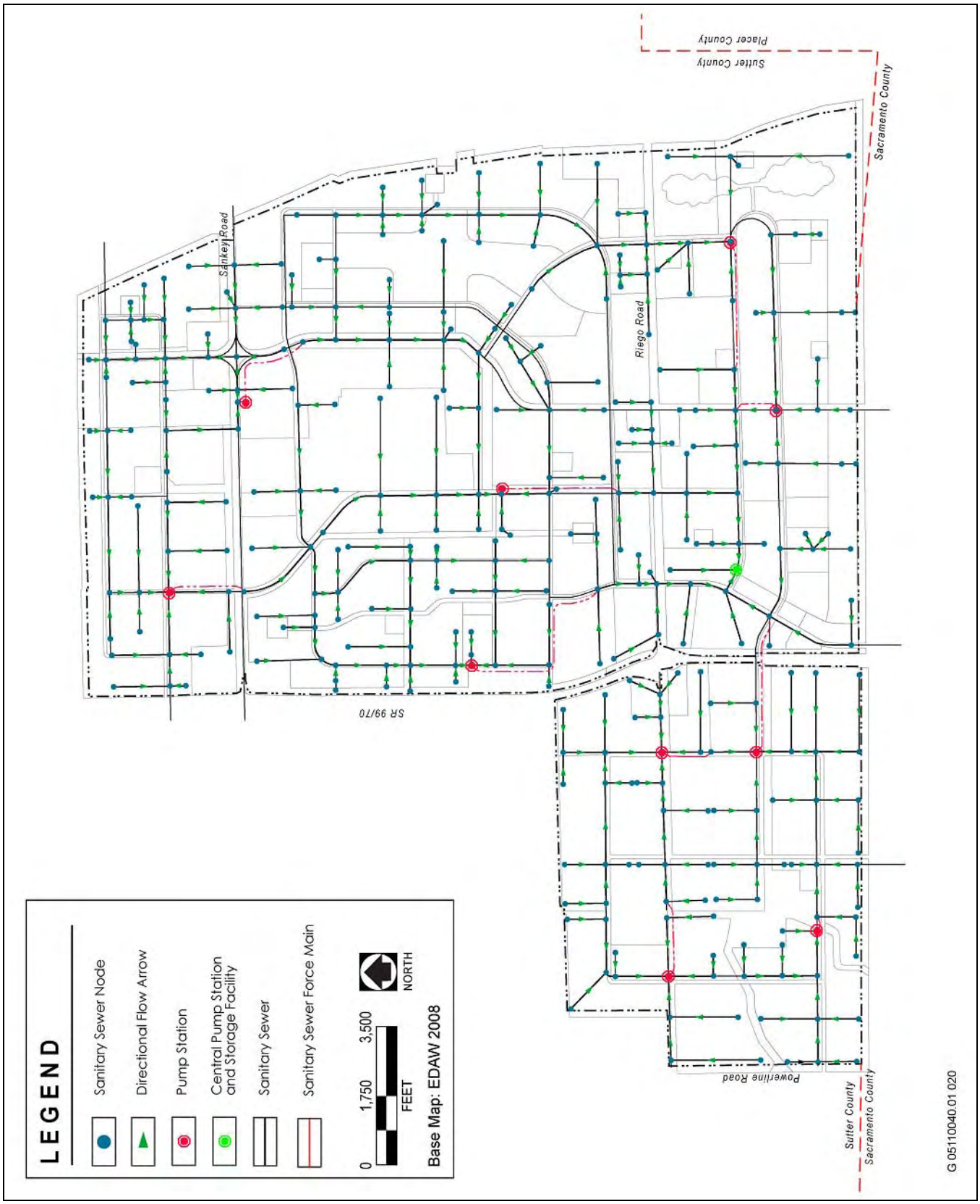
Flows from the central pump station on the project site would be pumped through a set of force mains. Initially, two parallel force mains (12 inches and 18 inches in diameter) would be installed underground and would convey sewer system flows from the project site east along Riego Road, south along Pleasant Grove Road, east along Rio Linda Boulevard, east along U Street a short distance to West Second Street, south along West Second Street to M Street, west along M Street to West Sixth Street, and then south along West Sixth Street to a point of connection with SRCSD's UNWI 3 (currently under construction) at Elkhorn Boulevard and West Sixth Street in Rio Linda. These two force mains would provide sufficient capacity for the development of Phase 1 of the proposed project. To serve development for the remaining portions of the project site, a third force main would be constructed. This 24-inch-diameter force main would generally follow the same route of the dual force mains from the central pump station to the UNWI 3. All three of the proposed force mains would be operated and maintained by Sutter County; no expansion of SRCSD facilities outside of Sacramento County is proposed as part of the project. From this point, flows would be conveyed through the existing Lower Northwest Interceptor (LNWI) to the SRWTP south of the community of Freeport, and treated effluent would ultimately be discharged into the Sacramento River (Exhibit 2-9).

The SRCSD's LNWI was completed in late 2006 and placed in service. The lower reaches of UNWI (Reaches 1 and 2) will be complete and operational by winter 2010. Reaches 3 and 4 of the UNWI are scheduled for completion in early 2009. Reaches 1 and 2 of the UNWI will extend the interceptor to the intersection of Natomas Boulevard and Bridgecross Drive. Reaches 3 and 4 of the UNWI will then extend the interceptor north along Natomas Boulevard to Elkhorn Boulevard, and then east along Elkhorn Boulevard into Rio Linda.

Given the normal timing to gain land use and environmental entitlement and permits, the first phases of construction and, therefore, the need for sewer service on the project site, would occur in 2010. The UNWI would be online in time to serve the sewer flows generated by Phase 1 of the proposed project. (See Appendix D, "Sewer Service Plan," of the Specific Plan.)

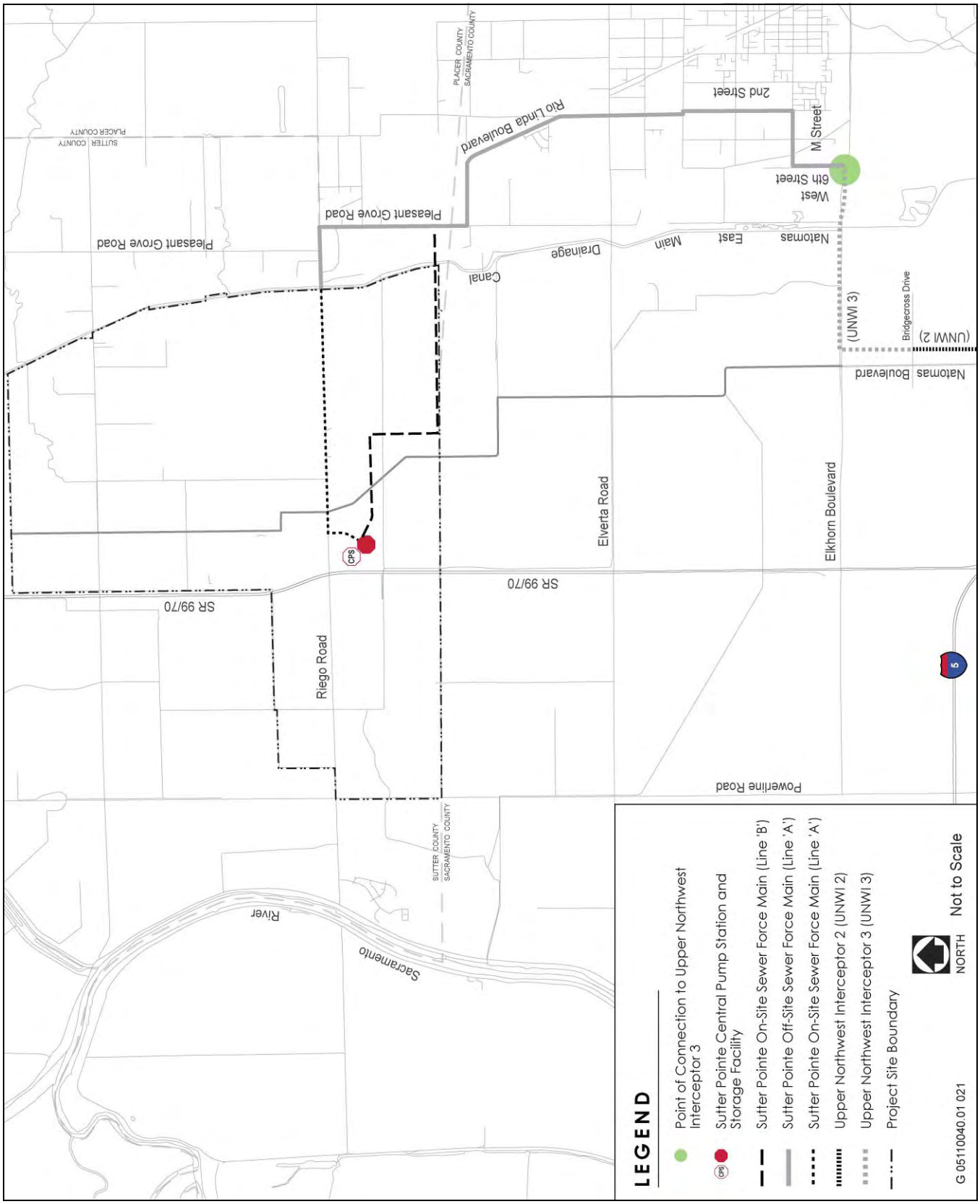
Alternate Sewer Systems

Other options have been developed to the sewer system described above that may be implemented as a means of providing sewer service to the proposed project. Each option is described briefly below.



Source: MacKay & Somps 2008b, adapted by EDAW in 2008

Proposed On-Site Sewer Plan **Exhibit 2-8**



Source: MacKay & Somps 2008b, adapted by EDAW in 2008

Proposed Off-Site Sewer Plan **Exhibit 2-9**

On-Site Alignment

From the central pumping plant, wastewater flows would be conveyed through parallel force mains north to Riego Road, then east along Riego Road to the eastern limits of the project site. An alternate alignment for the on-site portion of the force mains would follow the street system east and south from the central pump station to the southern boundary of the project site and then continue east along the southern boundary to the southeastern corner of the project site (Exhibit 2-8).

Off-Site Alignment

The alternate alignment for the off-site portion of the sewer force mains would connect to the on-site alternate force main alignment at the southeastern corner of the project site, then continue east in a boring under the Natomas Levee and Natomas East Main Drainage Canal and across the southern edge of an agricultural field to a point of intersection with Pleasant Grove Road (Exhibit 2-9). At this point, the force main alignment would turn south along Pleasant Grove Road, which becomes Sorento Road as it enters Sacramento County, and continue to the point of connection with UNWI 3 along the route described previously. The force mains would terminate at the point of connection with UNWI 3 near the corner of West Sixth Street and Elkhorn Boulevard.

Industrial Wastewater Discharges

The proposed project would allow the development of approximately 3,627 acres of commercial and industrial land uses. Within these land uses, numerous industrial users would seek to discharge their wastewater flows to the public sewer system. Unlike domestic flows generated by residential and commercial users, industrial users often generate sewer flows characterized by high pollutant concentrations and other unusual characteristics. Accordingly, it is proposed that Sutter County adopt an industrial waste discharge permitting process, modeled after the one used by Sacramento County, to control the discharge of industrial wastes into the public sewer system.

In addition to wastes from industrial users, wastes from the proposed surface and groundwater treatment plant(s) would be discharged to the public sewer system, with the exception of arsenic removal byproducts. Arsenic-laden treatment byproducts from the groundwater treatment plant(s) would be separately collected, stored, and disposed of in accordance with the requirements of Waste Discharge Requirement permit from the Central Valley RWQCB, and would not be discharged to the public sewer system. Industrial waste discharge by individual users would be subject to additional environmental review and permitting separate from the proposed project.

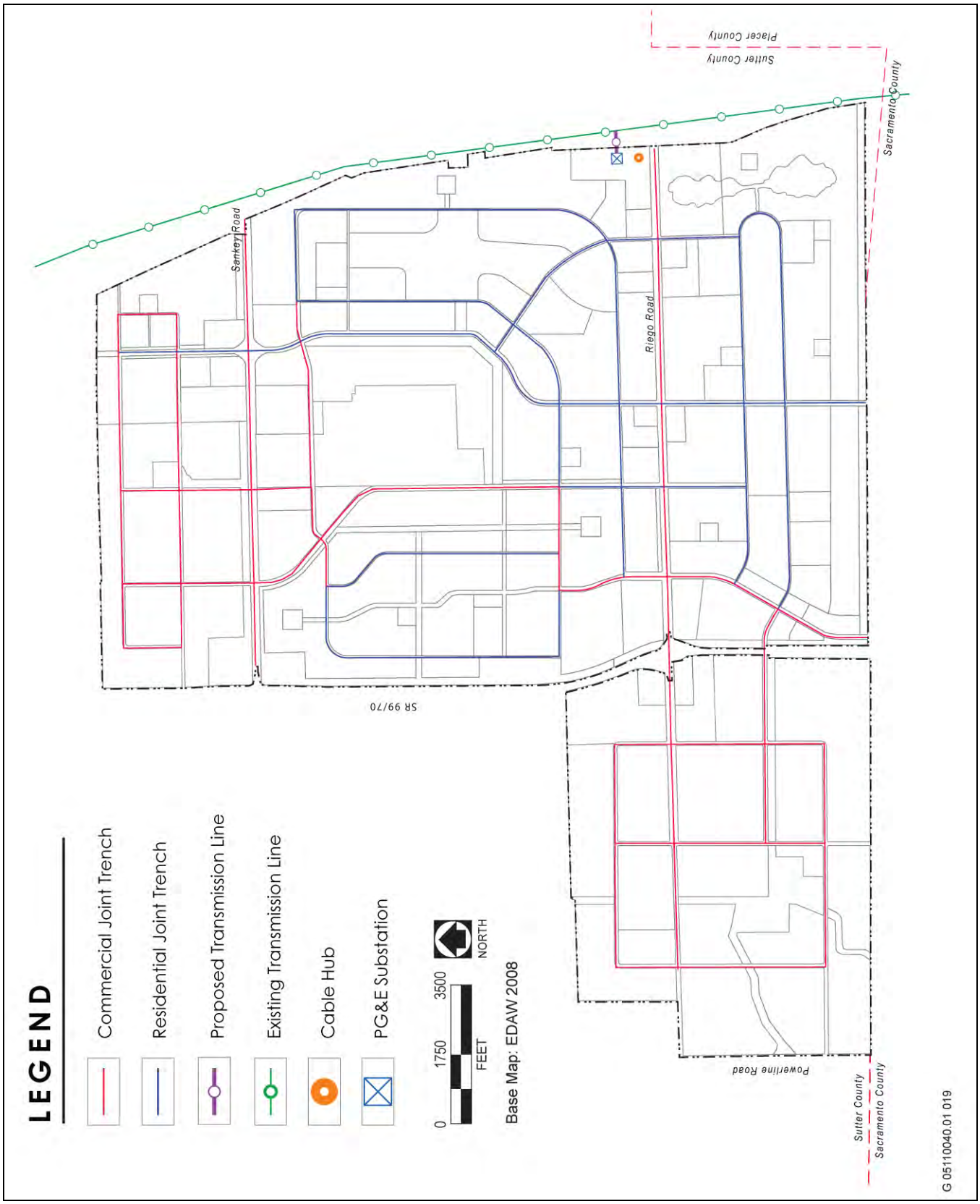
DRY UTILITIES

Extensive on- and off-site dry utilities, including electricity, natural gas, communications, and cable television, would be required to serve the proposed project. Currently, the provision of dry utilities to the project site is not sufficient to support urban development. Electrical, natural gas, communications, and cable television facilities would be extended into the project site to provide utility service to the proposed new development. Dry utility facilities that would be required to serve the proposed project are shown in Exhibits 2-10 and 2-11.

Electricity

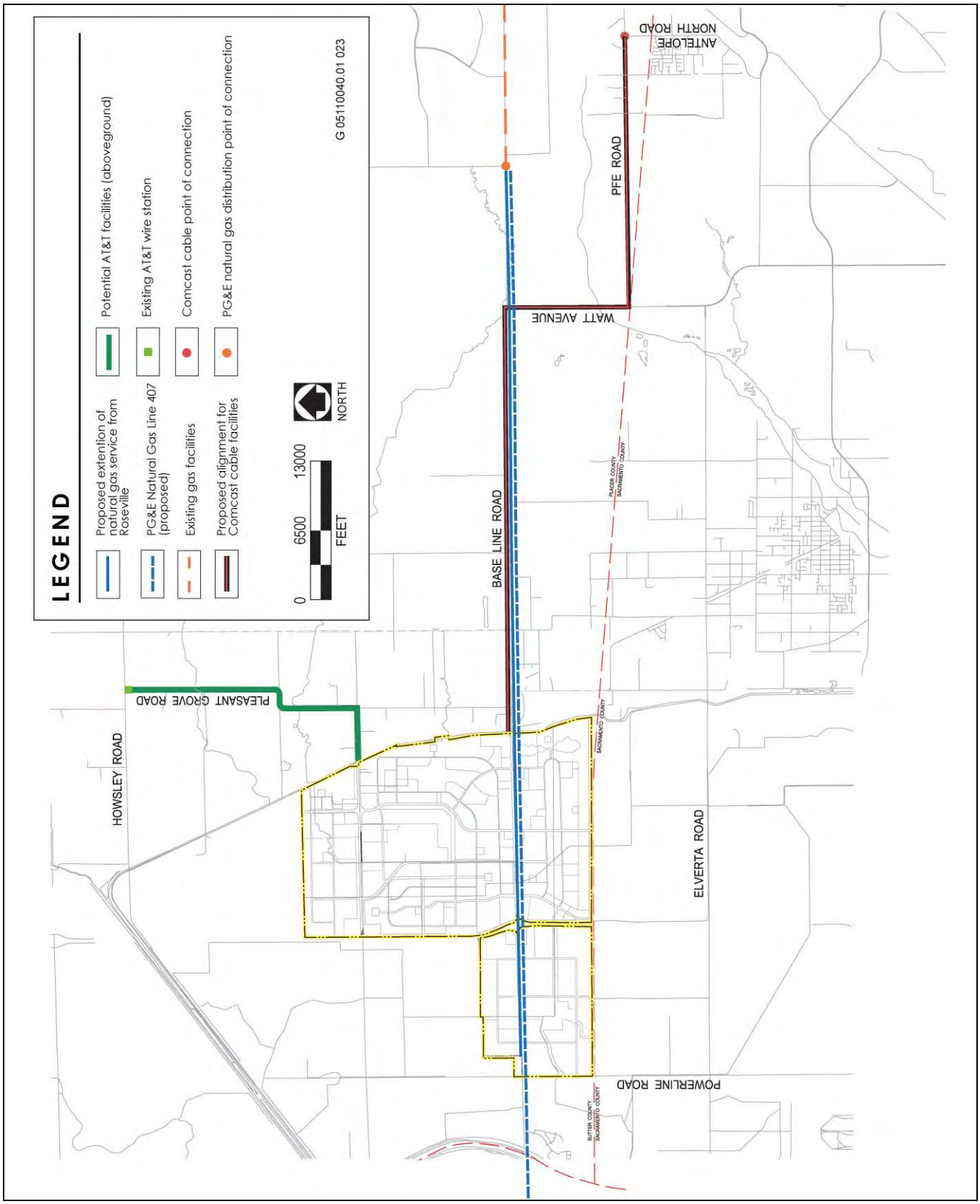
Pacific Gas and Electric Company (PG&E) is the local purveyor of electricity on the project site and in the vicinity. PG&E has a major 115-kilovolt (kV) overhead transmission line abutting the eastern boundary of the project site. On the project site, PG&E serves the few existing scattered homes and businesses, as well as the various existing agricultural customers. For the most part, the facilities on the project site are not suitable to support the proposed development.

PG&E proposes to construct a primary community substation along the eastern border of the project site, just north of Riego Road. The substation would connect to the existing 115-kv transmission line abutting the eastern boundary of the site. A drop from the existing overhead line to the new substation would be constructed. The substation site would require an area approximately 350 feet by 400 feet in size. This facility would be located as



Source: MacKay & Somps 2008c, adapted by EDAW in 2008

Proposed On-Site Dry Utilities Plan **Exhibit 2-10**



Source: Data provided by MacKay & Somps 2007, adapted by EDAW in 2008

Proposed Off-Site Dry Utilities Plan **Exhibit 2-11**

a permitted use in an area designated for E1 land use. PG&E would landscape the exterior 50 feet of this site on all four sides to soften the appearance. From the substation site, underground electrical service would then be extended into the new community through a series of underground trunk feeder lines. Generally, the feeder lines would follow the proposed roadway alignments out into the community to strategically positioned underground vaults, from which underground primary lines would extend throughout the community to transformer sites that would then provide secondary power to the various residential, commercial, and industrial users As part of the project approval process, the project applicant would coordinate with and meet the requirements of PG&E regarding the extension and locations of on-site infrastructure.

Natural Gas

PG&E is the local purveyor of natural gas in the vicinity of the project site, and PG&E would extend lines and construct facilities to serve the site. The nearest gas service is approximately 2 miles southeast of the project site, in the northern portion of the community of Rio Linda. PG&E's facility in this location, however, does not have the capacity to serve the project site. PG&E proposes to extend natural gas service west along Riego Road (Base Line Road in Placer County) from Roseville to serve the project site. The proposed alignment of this new transmission is along the north side of Riego Road through the entire project site. The applicant has indicated that PG&E intends to extend natural gas service onto the project site through an underground distribution system. As part of the project approval process, the project applicant would coordinate with and meet the requirements of PG&E regarding the extension and locations of on-site infrastructure.

Alternatively, if timing allows, PG&E proposes to serve this development from the new Line 407 East pipeline, which is proposed as part of PG&E's Line 406/407 Project. A notice of preparation (State Clearinghouse number 2007062091) for the project was prepared by the California State Lands Commission (the lead agency under CEQA) and circulated for public review in June 2007. It is anticipated that a DEIR for the project will be released in late 2008. The pipeline project is anticipated to be constructed in 2009 and 2010.

Communications

AT&T is the local telephone service purveyor in the vicinity of the project site. It does not currently have service capability on the project site to support urban development, and AT&T would extend lines and construct facilities to serve the project site. AT&T intends to upgrade an existing exchange building in Pleasant Grove near the intersection of Howsley and Pleasant Grove Roads approximately 5 miles northeast of the project site and to extend fiber optics, wire telephone, and other digital services to the site via overhead pole lines. After the facilities reach the project site, all would be underground, although temporary aerial facilities may be used on an interim basis. As part of the project approval process, the project applicant(s) would coordinate with and meet the requirements of AT&T regarding the extension and locations of on-site infrastructure.

Cable Television

Comcast is the local cable television purveyor under an existing franchise agreement with Sutter County. Comcast does not have any facilities on the project site. The nearest facilities are located approximately 8 miles away, in the southern portion of Placer County, at the intersection of North Antelope and PFE Roads. Comcast intends to extend service to the project site via overhead pole lines west along PFE Road, north along Watt Avenue, and west along Base Line and Riego Roads to the eastern boundary of the project site. Comcast would construct a small hub station on the north side of Riego Road just inside the eastern boundary of the project site. This facility would be located as a permitted use within an area designated for E1 land use. The cable signal would be split at this point and distributed through the joint trench system to be constructed in the new development. Additionally, Comcast would need to boost capacity in its existing plant facilities in northern Sacramento County and western Placer County to serve development on the project site. These improvements are anticipated to be equipment modifications in existing facilities, not physical enlargement of existing or development of new facility sites.

On the project site, Comcast facilities would be underground, although temporary aerial facilities may be used on an interim basis. As part of the project approval process, the project applicant(s) would coordinate with and meet the requirements of Comcast regarding the extension and locations of on-site infrastructure. Under an existing franchise agreement with Sutter County, Comcast is responsible for paying all the costs associated with the extension of facilities to provide cable service in areas in Sutter County.

SOLID WASTE MANAGEMENT

Solid waste management for Sutter County, including the project site, is conducted under a joint powers agreement with Yuba County and the Cities of Live Oak, Marysville, Wheatland, and Yuba City and the City of Gridley in Butte County. The agreement jointly addresses the provision of waste management services, including the planning for the future provision of waste management services, and forms the Regional Waste Management Authority (previously the Bi-County Authority).

The Regional Waste Management Authority works in conjunction with Yuba-Sutter Disposal, Inc. (YSDI) to provide for the collection, recycling, and disposal of municipal solid waste in Sutter County. YSDI provides residential and commercial garbage collection, debris box service, green waste collection, and recycling services to the residents of Beale Air Force Base, Live Oak, Marysville, Yuba City, Wheatland, and the unincorporated areas of Yuba and Sutter Counties. Solid waste collected is hauled to the YSDI Integrated Waste Recovery Facility for sorting and recycling. Unrecyclable solid waste is disposed of at the Ostrom Road Sanitary Landfill, located at 5900 Ostrom Road near Wheatland and approximately 5 miles east of SR 65 adjacent to the southern boundary of Beale Air Force Base.

The Regional Waste Management Authority, through its service contract with YSDI, would provide solid waste disposal services to the project site. Project residents and businesses would pay user fees for collection and disposal services. The project site would be subject to a mandatory collection ordinance. The proposed project also provides locations in E1 and E2 land use designations suitable for facilities necessary to support the collection, disposal, and recycling of solid waste. Such facilities may include a material recovery or recycling facility, a solid waste transfer facility, a composting facility, and a household hazardous waste collection facility. Sites for such facilities have not been determined at this time and would be subject to separate environmental review.

2.4.4 PUBLIC SERVICES

This section describes the public services needed to support the proposed project: fire protection, law enforcement, schools, and public libraries.

FIRE PROTECTION

Sutter County Fire Services provides fire protection, fire suppression, emergency medical, and hazardous materials management services to the project site. The County would continue to provide fire services for the proposed project through a dependent or independent special district (a CSA or some other county agency). Fire services may be provided by the new city government upon incorporation. Approximately 32,050 square feet of fire protection facilities are proposed, including space to support at least 61 safety personnel, 15 nonsafety personnel, and 23 vehicles. Three fire station sites are proposed on the project site: one west of SR 99/70 in the South Employment Village, one south of Sankey Road in the North Employment Village, and one south of Riego Road in the Mid-Riego Neighborhood Center. Timing of construction and staffing of each fire station would be completed in a manner that maintains Sutter County Fire Services response standards. Additional training and administration facilities could be located at one or more fire stations, thus making the largest site up to 7.5 acres. Stations located in adjacent portions of the county would provide interim and secondary response.

LAW ENFORCEMENT

The Sutter County Sheriff Department provides law enforcement services to the project site. The sheriff's department would provide law enforcement services for the proposed project through a CSA. These services may be provided by the new city government upon incorporation. Approximately 24,000 square feet of law enforcement facilities are proposed in the government center, including space to support at least 52 uniformed personnel, 29 support staff members, and 45 vehicles.

SCHOOLS

The proposed project's residential areas are located within the boundaries of the Pleasant Grove Joint Union School District (grades K–8) and the East Nicolaus High School District (grades 9–12).

Six K–8 school sites have been proposed on the project site (Exhibit 2-3). Each school would be built on a site of approximately 20 acres located adjacent to public parks. The sites would have public roadways on a minimum of two sides to allow for traffic dispersion before and after school hours and to provide clear separation of parent and school bus traffic. Each school is planned to accommodate approximately 1,050 students at buildout. A conceptual plan for K–8 schools is presented in Chapter 8, "Community Facilities," of the Specific Plan.

The proposed high school would be built on a 53-acre site between two lakeshore community parks in the Traditional Village. The approximately 2,000-student-capacity high school would provide community use facilities and dual-function school facilities. A joint-use athletic complex and multipurpose building would be located immediately adjacent to the school's parking area and would be available for community events. A joint-use community library facility would be provided at the high school campus. Other joint-use facilities may include an aquatic center, ball fields, and a stadium, as well as tennis and basketball courts. A conceptual plan for the high school is presented in Chapter 8, "Community Facilities," of the Specific Plan.

PUBLIC LIBRARY

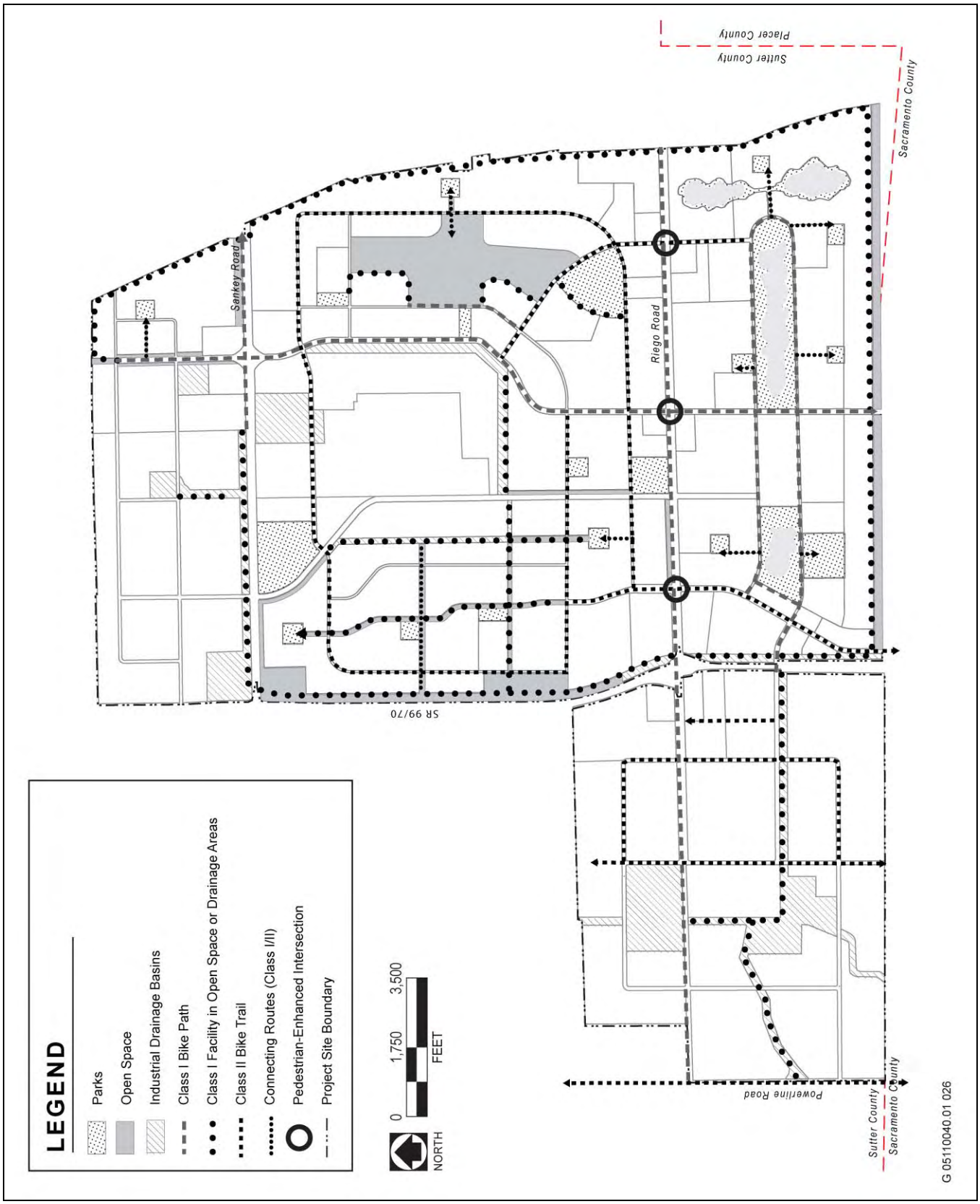
Sutter County would provide library services to the proposed project. The County operates a public library system that includes the main branch library in Yuba City and existing branch libraries in Live Oak, Rio Oso, Pleasant Grove, and Sutter. The Pleasant Grove branch library, located approximately 2 miles north of the project site, at the existing Pleasant Grove Elementary School, would be the closest library facility and would provide the most convenient service to the proposed project.

The project site would be served by a joint-use community library facility located on the high school campus. The library would be approximately 24,000 square feet and would provide space for approximately 200,000 volumes and 15 full-time equivalent employees.

2.4.5 PARKS, RECREATION, AND OPEN SPACE

A parks and trails system is proposed for the project site and is shown in Exhibits 2-12 and 2-14. The proposed project would include approximately 271.5 acres of parks developed for active recreation. The proposed project includes parks intended to support organized league play with lighted fields and permanent seating facilities as well as leveled field areas that accommodate organized sports or unstructured free play.

Supplementing these park facilities, the proposed site would have approximately 394.5 acres of land designated for Open Space, including a 166.4-acre open space area that may support a future golf course, and 228.1 acres of drainage basins and channels, greenbelts and trail corridors, and open space buffers between industrial and residential areas or between the project site and agricultural areas and habitat preserves. A portion of the proposed drainage basins and channels may be used for unstructured recreational purposes except when required for stormwater storage and conveyance. Additionally, the proposed project would include Class I bicycle trails



Source: Data provided by EDAW in 2008

Proposed Parks and Trails System **Exhibit 2-12**

located adjacent to drainage basins or within roadway rights-of-way, and joint use of school facilities. Together, the proposed park and open space facilities would support both passive and active recreation.

Proposed park and recreational uses are described further below.

REGIONAL PARKS

The proposed project provides sites for two regional parks totaling 96.8 acres. One 50-acre regional park would be located south of Sankey Road in the Greenbelt Village. A 46.8-acre regional park would be located north of the East Activity Center in the Recreational Village. Regional park areas are designed to feature active sports and would have multiple sport-specific fields and would cater to regional recreational facility needs. Recreational fields in the regional parks would feature nighttime lighting.

COMMUNITY PARKS

The proposed project provides sites for two community parks, totaling approximately 46.6 acres, and three lakeshore community parks, totaling approximately 55.1 acres, not including approximately 160.3 acres occupied by lakes. One community park and the three lakeshore community parks are located contiguous to one another, forming the central feature of the Traditional Village. The proposed high school is located between two of the lakeshore community parks. The remaining 19.6-acre community park is located on the north side of Riego Road in the Greenbelt Village. These parks would be designed to serve proposed project residents, featuring active and passive recreation areas, lakes, and park-themed local commercial uses. Recreational fields in community parks may feature nighttime lighting.

NEIGHBORHOOD PARKS

The proposed project provides sites for 14 neighborhood parks offering recreational opportunities for local neighborhoods. Wherever possible, neighborhood parks are co-located adjacent to schools in order to maximize opportunity for joint use of school and park facilities. Neighborhood parks may include such facilities as hard courts for basketball and other sports, play structures, and leveled fields either through joint-use arrangements with the school district or as stand-alone facilities.

GOLF COURSE/RECREATIONAL OPEN SPACE

The proposed project would include an open space area of approximately 166.4 acres located in the Recreational Village. If left undeveloped, this area would be kept in a natural state, suitable for trails and other passive recreation uses. If developed, it may contain an 18-hole golf course or other similar recreational facilities, to complement the public systems of parks and trails.

TRAILS NETWORK

A communitywide network of trails and pathways is proposed to provide linkages between land uses. When completed, the on-site trail system would provide access to the entire planned regional trail system in and adjoining the project site. Specific siting of trail facilities would be set forth in a parks and recreation master plan, in compliance with the proposed Specific Plan and before approval of tentative subdivision map(s).

RECREATIONAL FACILITIES

Sutter County provides recreation services to the project site. The County would continue to provide recreation services for the proposed project through a CSA. Proposed recreation facilities to be provided by the new city government upon incorporation would include a clubhouse and community center in the government center and other recreation facilities distributed among the regional, community, and neighborhood parks. The proposed

project includes a sports complex and teen center, which would be located in the community park in the Traditional Village, near the proposed high school, and adjacent to a proposed K–8 school. Skate parks and other similar recreational features also may be located in neighborhood parks throughout the project site.

LAKES

Several lakes are proposed in the design of the lakeshore community park located in the Traditional Village. These lakeshore park areas may feature boating and fishing opportunities, lakeside promenades, or trails while also addressing stormwater detention needs.

OPEN SPACE

Open space and recreation greenbelt areas are planned in the design of the Greenbelt Village and adjoining the proposed lakes in the Traditional Village. The proposed project is designed to integrate the development areas with open space areas.

STORMWATER DETENTION BASINS AND CHANNELS

A network of stormwater basins and channels is included in the proposed project that protects the project site from flooding during storm events by conveying or storing stormwater flows. Joint-use detention/park facilities would require site-specific designs to be coordinated with the County during conceptual and final design to ensure that the facilities meet both water quality/detention and park needs while minimizing maintenance requirements. Acreages in each drainage basin that could accommodate recreational use would be refined as part of a parks and recreation master plan in compliance with the proposed Specific Plan and before approval of tentative subdivision map(s).

2.4.6 TRANSPORTATION AND CIRCULATION

The proposed project would include a hierarchy of new on-site roadways, a pedestrian and bikeway network, and public transit. Mobility objectives for the proposed project include ensuring connectivity between uses, providing linkages to existing regional systems, and creating a safe and efficient transportation network.

REGIONAL ACCESS

Regional north-south access to the project site would be provided via SR 99/70 and Powerline Road. Riego Road and Sankey Road (future Placer Parkway) would provide east-west regional connectivity. Additional travel lanes on SR 99/70 and/or additional parallel roadways needed to mitigate transportation impacts and provide regional north-south travel options are addressed in Section 3.3, “Transportation and Circulation.”

Access to the proposed villages and activity centers would be as follows:

- South Employment Village via SR 99/70, Riego Road, and Powerline Road;
- North Employment Village via Sankey Road (future Placer Parkway);
- Traditional Village via Riego Road and a proposed north-south arterial road on the project site;
- Greenbelt Village via Riego Road and a proposed north-south arterial road on the project site;
- Recreational Village via a proposed north-south arterial road on the project site connecting Riego Road and Sankey Road (future Placer Parkway);

- Town Center via a proposed north-south arterial road on the project site extending south from Riego Road;
- West Activity Center via SR 99/70 and Riego Road;
- North Activity Center via Sankey Road (future Placer Parkway) and a proposed north-south arterial road on the project site; and
- East Activity Center via Riego Road and a proposed north-south arterial road on the project site.

ROADWAYS

The proposed project involves construction of the following new roadways and roadway improvements on the project site, as shown in Exhibit 2-13:

- proposed east-west arterial roadways along the current Sankey Road and Riego Road alignments;
- proposed north-south arterial roadways along the current Powerline Road alignment, adjacent to the proposed Town Center, along the current Pacific Avenue alignment, and connecting the North and East Activity Centers;
- proposed expansion and/or realignment of Natomas Levee Road;
- a proposed grade-separated crossing over SR 99/70, south of Riego Road connecting the South Employment Village to the Town Center and Traditional Village;
- a proposed grade-separated crossing over future Placer Parkway west of the current Pacific Avenue alignment connecting the North Employment Village with the remainder of the project site; and
- a proposed system of Class I and II bikeways.

Several classifications of roadways would provide service to the proposed project. The various types of roadway classifications are illustrated in Exhibit 2-13. Their proposed dimensions are presented in Table 2-7 and illustrated in Chapter 6, "Transportation and Circulation," of the Specific Plan.

Table 2-7
Proposed Roadway Types

Roadway Type	Section [a]	Right-of-Way Width	Pavement Width	Travel Lanes	Bicycle Facility	Pedestrian Facility
Residential minor street	Alt. 1	42 feet	32 feet	2	NA	5-foot sidewalks
	Alt. 2	52 feet	32 feet	2	NA	5-foot sidewalks
	Alt. 3	68 feet	32 feet	2	NA	8-foot sidewalks
Public and private alley	NA	22 feet	22 feet	2	NA	NA
Residential collector	A-A	60 feet	40 feet	2	NA	5-foot sidewalks
	B-B	90 feet	64 feet	4	5-foot bike lanes	5-foot sidewalks
	A1-A1	55 feet	40 feet	2	12-foot multiuse trail	5-foot sidewalk
	A2-A2	70 feet	50 feet	2	5-foot bike lanes	5-foot sidewalks
Industrial minor street	N/A	60 feet	50 feet	2	NA	5-foot sidewalks
Industrial collector	C-C	63 feet	43 feet	2	NA	5-foot sidewalks
	C1-C1	60 feet	40 feet	2	5-foot bike lanes	5-foot sidewalks
	D-D	85 feet	65 feet	3	5-foot bike lanes	5-foot sidewalks
	E-E	105 feet	71 feet	4	12-foot multiuse trail	6-foot sidewalk

Table 2-7
Proposed Roadway Types

Roadway Type	Section [a]	Right-of-Way Width	Pavement Width	Travel Lanes	Bicycle Facility	Pedestrian Facility
Town Center arterial	G-G	123 feet	93 feet	4	5-foot bike lanes	15-foot sidewalks
	G1-G1	109 feet	93 feet	4	5-foot bike lanes	8-foot sidewalks
	H-H	147 feet	117 feet	6	5-foot bike lanes	15-foot sidewalks
Divided arterial	F-F	107 feet	79 feet	4	5-foot bike lanes	6-foot sidewalks
	F1-F1	103 feet	69 feet	4	12-foot multiuse trail	6-foot sidewalk
	I-I	145 feet	113 feet	6	12-foot multiuse trail	6-foot sidewalk
	J-J	169 feet	137 feet	8	12-foot multiuse trail	6-foot sidewalk

Note: NA = not applicable.

[a] See Specific Plan Exhibits 6.3 through 6.13 for illustrative cross sections of each roadway type.

Source: Data provided by EDAW in 2008

PEDESTRIAN AND BICYCLE FACILITIES

The following types of pedestrian and bicycle facilities are incorporated in the proposed project, as shown in Exhibit 2-14:

- Multiuse trails (Class I bike paths) – These trails would consist of 12-foot-wide, multiuse trails that would be buffered from the street by an 8-foot-wide parkway. Class I bike paths are proposed both within roadway rights-of-way and adjacent to drainage culverts and greenbelts throughout the project site.

- Pedestrian sidewalks and Class II bike lanes – These 5-foot-wide bikeways would be located on streets with pedestrian sidewalks that are buffered from the bikeways by an 8-foot-wide parkway.

- Pedestrian-enhanced intersections – Three pedestrian-enhanced intersections are proposed along Riego Road east of SR 99/70. These intersections would be designed in a manner that facilitates pedestrian movement, incorporating enhanced crosswalks, crosswalk refuges, signage, and other means of enhancing safety, particularly for north-south pedestrian movements across Riego Road. Specific enhancements to be incorporated at these intersections are identified in the Specific Plan and will be incorporated into roadway design and construction.

PUBLIC TRANSPORTATION

The proposed project includes a transit system composed of commuter, fixed route, and dial-a-ride services. Appendix H, "Transit Master Plan," of the proposed Specific Plan describes proposed routes, service standards, and financing. Through the preservation of right-of-way along SR 99/70, Riego Road, and future Placer Parkway, the project would support the extension of the Downtown Natomas Airport (DNA) light rail transit (LRT) line, and/or bus rapid transit (BRT). The distance between the future DNA station in the northern portion of North Natomas and an extension to the project site would be a minimum of approximately 6 miles.

Express Bus Service

Initially, express commuter buses would stop at the Sutter Pointe Transit Center located off SR 99/70 in the proposed Town Center, picking up residents in the morning peak period and taking them to job locations in the greater downtown Sacramento area with a return service in the afternoon peak period. Commuter service would begin when 50 riders have been identified at one fixed location (e.g., service to downtown Sacramento). Express bus service would be provided through Yuba-Sutter Transit. Destinations outside Sacramento, such as employment centers in Placer County, may be provided by another transit operator or private service.

Regional Transit Service

Regional transit service would be provided, creating linkages both north-south and east-west via LRT, BRT, and/or express bus. An extension of the DNA light rail line would connect proposed project riders with the Capital Corridor trains (providing service from the San Francisco Bay Area to Auburn); Sacramento RT light rail lines to Folsom, south Sacramento, and the northeast line (Watt Avenue); and 13 suburban bus operators via the Sacramento Regional Intermodal Station. Regional service would be provided by LRT via north-south service to downtown Sacramento, Sacramento International Airport, Los Rios Community College North Natomas campus, ARCO Arena, and activity centers along the DNA light rail route.

East-west regional service to southwest Placer County would be provided via BRT service or express bus. BRT is a premium bus service with large, easily identified vehicles with stations that would allow rapid boarding capability (often low-floor vehicles).

In addition, right-of-way would be reserved in the Town Center to allow for efficient BRT or LRT connections to the proposed Town Center Transit Center.

Local Transit Service

Local transit service is also proposed. Basic bus service consisting of two shuttle buses providing a.m./p.m. peak service and midday school support service would be provided in the first phase of the proposed project, expanding up to eight shuttle buses by project buildout. Services would include transit routes with both origins and destinations on the project site and possibly those with one trip ending elsewhere in Sutter County, such as Yuba City and Marysville, or in Placer or Sacramento County. Proposed industrial and office uses on the west side of SR 99/70 would be connected with homes on the east side of SR 99/70. Other routes would connect residents with jobs and shopping at proposed retail locations throughout the project site. Local service also would provide public transit to schools and medical facilities. These services would be operated and managed by a transportation management agency established to serve the project site.

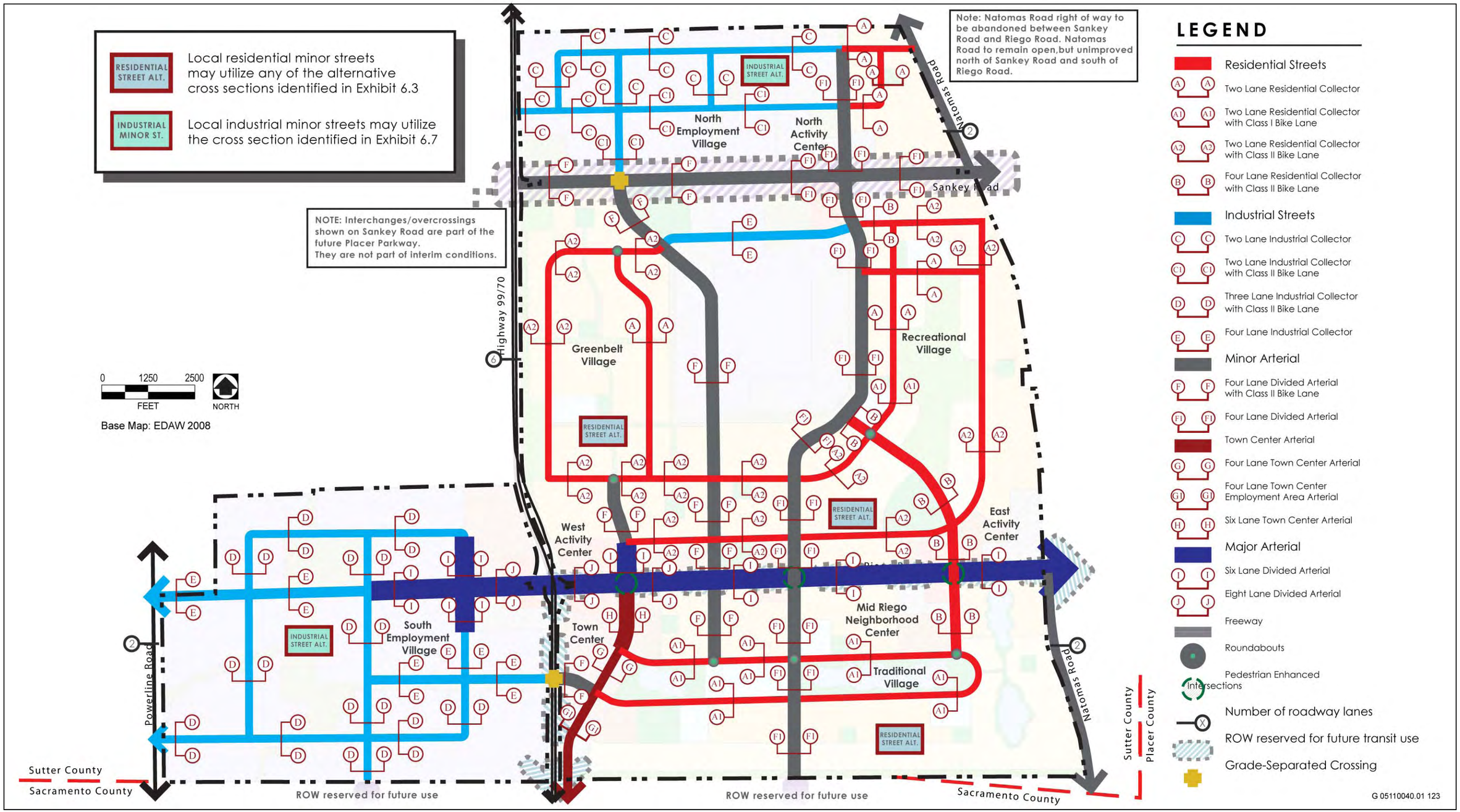
Specialized Service

Specialized service on the project site would take many forms, from shuttles designed to serve a particular cluster of trip generators, such as a school, shopping center, or medical facility, to demand-responsive or paratransit-type services. Vehicle types would vary depending on demand levels, from full-size buses to smaller 15- to 20-passenger shuttle vehicles.

Transit-Supporting Infrastructure

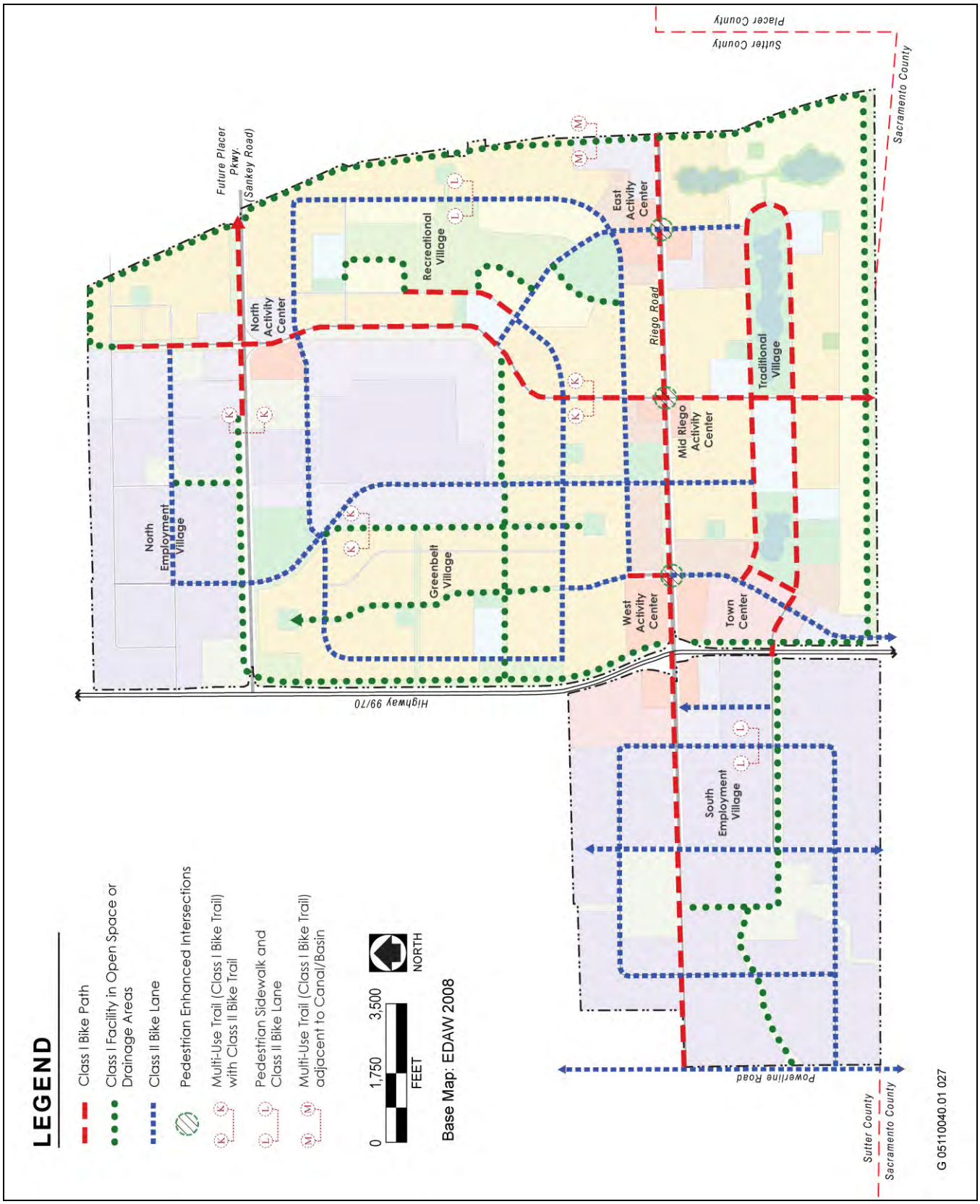
The proposed project's transit system is designed to meet the regional and local mobility needs of project residents and employees. Successful operation and high use of the transit system relies on the following system of supporting infrastructure, which is included in the proposed project:

- covered and lighted shelters and/or benches at all proposed transit stops,
- shaded pathways from employment areas to transit stops/shelters,
- minimized distances between transit stops and commercial/office activity locations,
- three proposed transit centers (Town Center, East Activity Center, North Activity Center),
- bike lockers and frame locking racks at each transit center, and
- park-and-ride lots at each transit center.



Source: Data provided by Fehr & Peers in 2007, adapted by EDAW in 2007

Proposed Master Roadways Plan **Exhibit 2-13**



Source: Data provided by Fehr & Peers in 2007, adapted by EDAW in 2007

Proposed Bikeway and Trails Plan **Exhibit 2-14**

TRUCK ROUTING

Truck traffic would be permitted on all arterial and collector roadways. However, to promote through movement of trucks, truck routes are proposed on freeways and arterial roadways, including SR 99/70, Riego Road, Sankey Road (future Placer Parkway), Powerline Road, and Pacific Avenue.

ROUNDABOUTS AND TRAFFIC CONTROL

Roundabouts are proposed at various locations in the Greenbelt and Traditional Villages. Potential configurations for roundabouts at locations where two-lane streets intersect one another, as well as locations where a two-lane street intersects a four-lane street, are provided in Section 6, "Transportation and Circulation," of the proposed Specific Plan. Actual design of roundabouts on the project site would be required to occur at the tentative subdivision map stage, in compliance with the proposed Specific Plan.

Intersection traffic control, grade-separated crossings, and freeway interchanges needed to support project development are shown in Exhibit 2-15. Future freeway interchanges are proposed for Riego Road and SR 99/70, SR 99/70 and Sankey Road (future Placer Parkway), and Sankey Road (future Placer Parkway) and the new north/south arterial serving the Northern Employment Village and the Recreational Village. Traffic signal control is proposed at most of the arterial-arterial and arterial-collector intersections, with a minimum intersection spacing of 1,300 feet, except for intersections adjacent to the interchange proposed for SR 99/70 and Riego Road, where a minimum spacing of 1,500 feet is recommended.

2.4.7 PHASES OF DEVELOPMENT

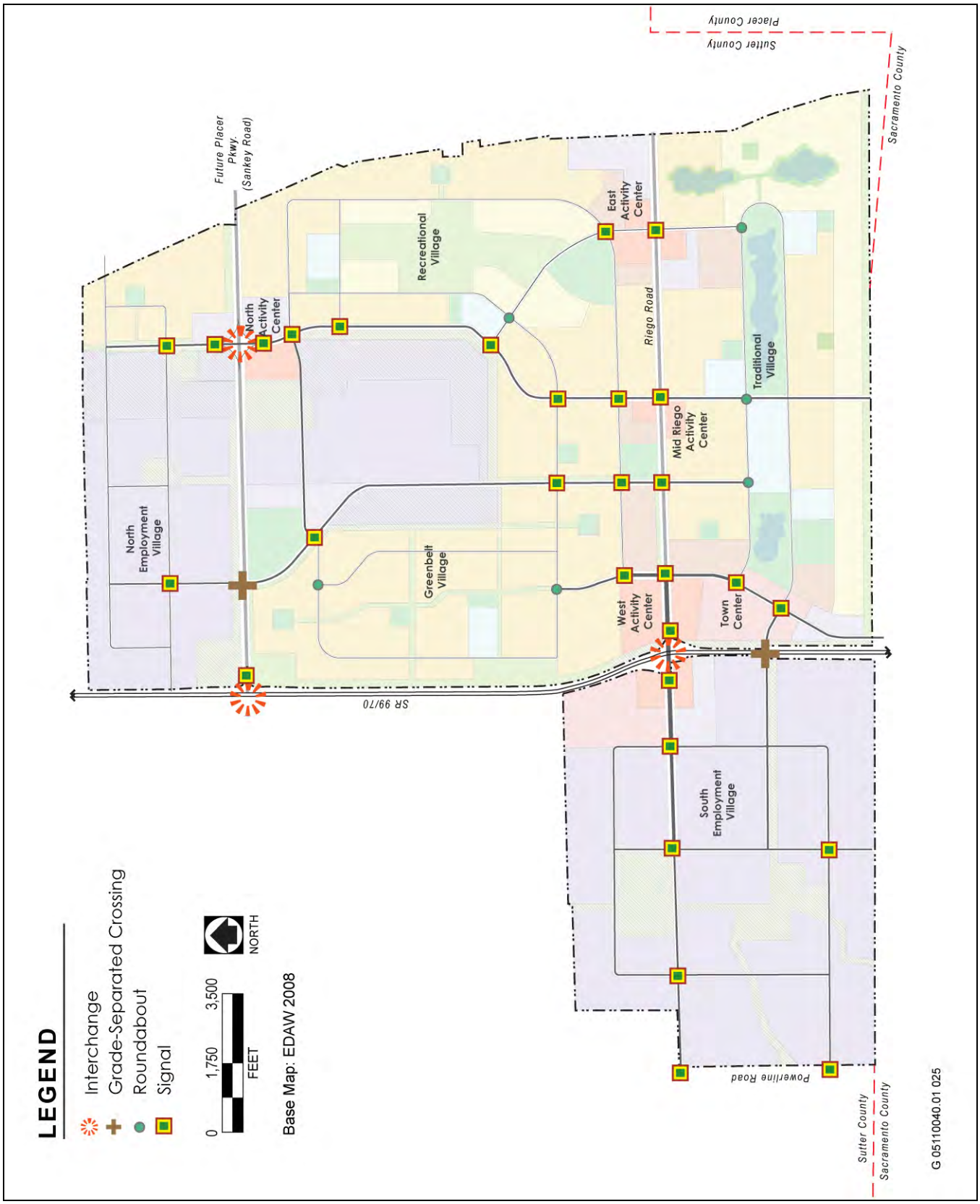
The project site would be developed in four phases of construction and ultimately be built out in 20–30 years, depending on market conditions and absorption, as well as the ability to secure permits and other regulatory approvals.

For the purposes of phasing, the proposed project has been split into two parts: (1) a mixed-use residential community, consisting of the Greenbelt Village, Traditional Village, Recreational Village, East Activity Center, North Activity Center, and mixed-use Town Center and (2) the employment villages, consisting of the South Employment Village and North Employment Village.

The proposed Specific Plan outlines four distinct phases for the residential mixed-use community components (Phases 1–4) and the employment villages (Phases A–D), coupled with the timely construction of infrastructure and public facilities needed to support each development phase. Exhibit 2-16 displays these phases graphically on a project site map. Table 2-8 shows the breakdown of combinations of land uses that are associated with each phase (e.g., number of residential dwelling units, amount of retail space, acres of parks). Phasing could be adjusted to allow portions of the project to be built out-of-sequence upon County approval of a Phasing Study describing the proposed changes and documenting their consistency with the project objectives and Measure M.

The phases are structured to ensure that planned infrastructure improvements and public facilities in each phase can support the associated development and that, in turn, the development in each phase develops in an orderly fashion and can support the costs of the required improvements (see Chapter 11, "Implementation," of the Specific Plan).

The residential mixed-use community would develop at a relatively even rate, estimated to be approximately 18–20 years. This rate would allow for financing of the infrastructure to serve the entire area. The employment villages would build out at a slower and more unpredictable rate, probably over 30+ years. The sequence and timing of development would be influenced by the economy, the rate of growth of other regional projects, and changes in regional infrastructure and public facility conditions and needs.



Source: Data provided by Fehr & Peers in 2007, adapted by EDAW in 2008

Proposed Traffic Control Plan **Exhibit 2-15**

The residential mixed-use community and the employment villages would be allowed to develop separate and apart from each other based on market conditions. Measure M recommends that "large commercial and industrial parks would be developed and marketed in the initial phases of the community to attract new employers to the County." Infrastructure would be provided to each phase of the employment villages as infrastructure is provided to each phase of the residential mixed-use community, subject to approval of a financing plan. This approach would allow fulfillment of the Measure M recommendation because infrastructure for the next phase of each community would then be built as demand requires it. Appendix E, "Urban Services Plan," of the proposed Specific Plan also identifies the community services that are required to serve each phase as new development occurs.

PROPOSED PHASE 1 AND PHASE A DEVELOPMENT LAND USES AND SUPPORTING ROADWAY AND INFRASTRUCTURE IMPROVEMENTS

Phase 1 and Phase A of the proposed project consist of the land uses and supporting infrastructure described below and shown in Table 2-8 and Exhibit 2-16 as Phase 1 of the residential mixed-use community and Phase A of the employment villages. Development Phase 1 and Phase A, composed of approximately 2,289 acres of the project site, is anticipated to be built out over approximately 7 years (2010–2017).

Mixed-Use Residential Community

Phase 1 of mixed-use residential development would be built on approximately 1,544 acres of land in the central core of the project site, encompassing portions of the proposed Traditional Village, Greenbelt Village, Recreational Village, West Activity Center, Town Center, and East Activity Center and the entirety of the Mid-Riego Neighborhood Center. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary approvals and permits:

- low-density residential housing (345 dwelling units on 121 acres);
- medium-density residential housing (5,389 dwelling units on 875 acres);
- high-density residential housing (1,668 dwelling units on 91 acres);
- commercial retail (1,108,000 square feet on 102 acres);
- mixed-use residential/commercial/civic land uses (60 dwelling units and 252,000 square feet of nonresidential uses on 17 acres);
- three K–8 schools (61 acres);
- one high school (53 acres);
- one regional park, one community park, and six neighborhood parks (46.1 acres);
- other open space (115.8 acres); and
- two fire stations, including associated administrative, communications, logistics, and training facilities for the fire department.

Employment Villages

Phase A of development for the employment villages would comprise 547 acres of land in the South Employment Village adjacent to the central core of the project site. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary approvals:

Table 2-8
Proposed Land Use Summary by Phase

Mixed-Use Residential Community

Land Use	Use	Phase 1			Phase 2			Phase 3			Phase 4			Total		
		Acres	DU	Nonres SF	Acres	DU	Nonres SF	Acres	DU	Nonres SF	Acres	DU	Nonres SF	Acres	DU	Nonres SF
LDR	Low-Density Residential	121.0	345	-	316.3	901	-	-	-	-	75.5	215	-	512.8	1,461	-
MDR	Medium-Density Residential	874.8	5,389	-	491.9	3,030	-	331.3	2,041	-	252.3	1,554	-	1,950.3	12,014	-
HDR	High-Density Residential	91.4	1,668	-	14.5	265	-	57.8	1,055	-	24.0	438	-	187.7	3,426	-
E1	Employment 1	-	-	-	-	-	-	72.3	-	1,103,000	22.0	-	335,000	94.3	-	1,438,000
CR	Commercial Retail	101.9	-	1,108,000	-	-	-	21.8	-	238,000	26.5	-	289,000	150.2	-	1,635,000
MU	Mixed-Use	16.5	60	252,000	63.3	231	964,000	-	-	-	-	-	-	79.8	291	1,216,000
E1F	Detention - Interim	-	-	-	-	-	-	-	-	-	43.7	-	668,000	43.7	-	668,000
IDB	Detention - Permanent	9.6	-	-	6.9	-	-	-	-	-	6.3	-	-	22.8	-	-
P	Parks	99.4	-	-	181.8	-	-	67.0	-	-	83.6	-	-	431.8	-	-
OS	Open Space	115.8	-	-	183.5	-	-	51.4	-	-	44.1	-	-	394.8	-	-
K-8	K–8 Schools	61.1	-	-	20.9	-	-	21.0	-	-	18.7	-	-	121.7	-	-
HS	High School	52.9	-	-	-	-	-	-	-	-	-	-	-	52.9	-	-
Subtotal Mixed-Use Residential Community		*1,544.4*	*7,462*	*1,360,000*	*1,272.2*	*4,427*	*964,000*	*622.6*	*3,096*	*1,341,000*	*603.7*	*2,207*	*1,292,000*	*4,042.9*	*17,192*	*4,957,000*

Employment Villages

Land Use	Use	Phase A			Phase B			Phase C			Phase D			Total		
		Acres	DU	Nonres SF	Acres	DU	Nonres SF	Acres	DU	Nonres SF	Acres	DU	Nonres SF	Acres	DU	Nonres SF
MU	Mixed-Use	84.3	308	1,285,000	-	-	-	-	-	-	-	-	-	84.3	308	1,285,000
E1	Employment 1	38.4	-	585,000	21.0	-	320,000	18.9	-	289,000	-	-	-	78.3	-	1,194,000
E2	Employment 2	380.3	-	6,957,000	611.4	-	11,185,000	506.2	-	9,257,000	492.6	-	9,009,000	1,990.5	-	36,408,000
CR	Commercial Retail	28.0	-	305,000	-	-	-	-	-	-	-	-	-	28.0	-	305,000
E1F	Detention - Interim	-	-	-	138.3	-	2,109,000	97.3	-	1,484,000	128.5	-	1,964,000	364.1	-	5,557,000
IDB	Detention - Permanent	15.7	-	-	141.6	-	-	145.0	-	-	89.2	-	-	391.5	-	-
Subtotal Employment Villages		*546.7*	*308*	*9,132,000*	*912.3*	*-*	*13,614,000*	*767.4*	*-*	*11,030,000*	*710.3*	*-*	*10,973,000*	*2,936.7*	*308*	*44,749,000*
Roads and Rights-of-Way		*197.9*	*-*	*-*	*114.7*	*-*	*-*	*107.4*	*-*	*-*	*128.0*	*-*	*-*	*548.0*	*-*	*-*
Specific Plan Total		2,289.0	7,770	10,492,000	2,299.2	4,427	14,578,000	1,497.4	3,096	12,371,000	1,442.0	2,207	12,265,000	7,527.6	17,500	49,706,000

Sources: Data provided by MacKay & Somps and adapted by EDAW in 2008
Notes: DU = dwelling units, Nonres SF = nonresidential square feet.

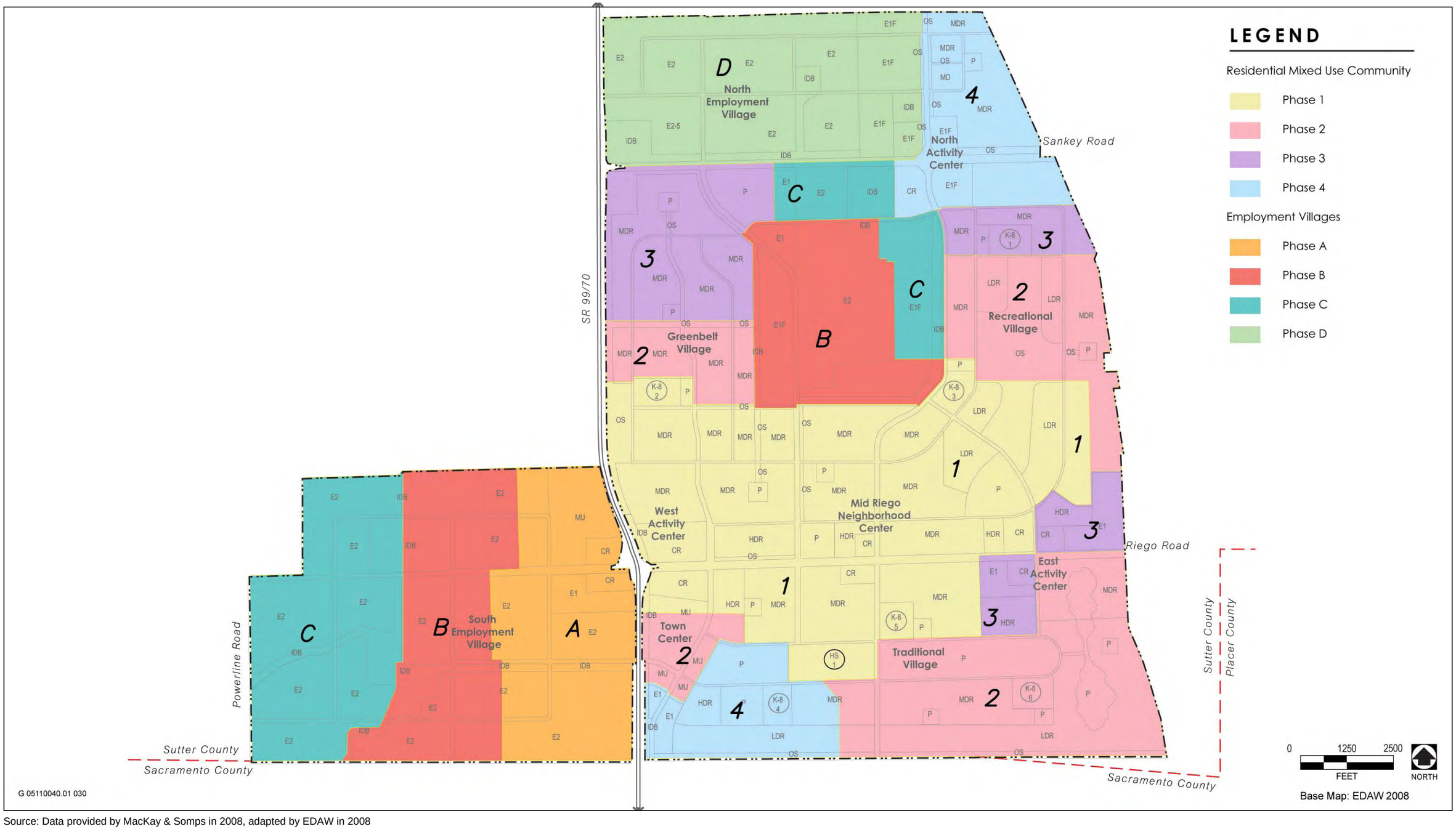
- mixed-use residential/commercial/civic land uses (308 dwelling units and 1,285,000 square feet of nonresidential uses on 84 acres),
- Employment 1 land uses (585,000 square feet on 38 acres),
- Employment 2 land uses (6,957,000 square feet on 380 acres), and
- commercial retail space (305,000 square feet on 28 acres).

Roadway and Infrastructure Improvements

Supporting roadway and infrastructure improvements in Phase 1 would include:

- new roadways and rights-of-way (198 acres);
- permanent runoff detention basins (25 acres);
- storm drain pipes;
- manholes;
- inlets (permanent and temporary);
- outlet structures;
- water quality treatment basins;
- groundwater well field and treatment system (includes two well fields, raw water transmission pipelines, and two treatment plants);
- two sewer force mains;
- on-site sanitary sewer pipelines and pump stations;
- potable water distribution system and storage tanks;
- relocation of the NCMWC irrigation canal;
- interim runoff detention basins (408 acres, which would result in an additional 6,225,000 square feet of E1 use if not required for the Sankey Gap overflow);
- Sankey Gap overflow improvements;
- improvements to RD 1000 facilities (off-site); and
- dry utilities (e.g., electricity, natural gas, communications, fiber optics, and cable television).

Phases 2–4 and Phases B-C would be developed after Phase 1 and Phase A are completed and would encompass lands on the remaining approximately 5,238 acres of the project site.



Source: Data provided by MacKay & Somps in 2008, adapted by EDAW in 2008

Proposed Development Phasing Plan Map **Exhibit 2-16**

PROPOSED PHASE 2 AND PHASE B LAND USES AND SUPPORTING ROADWAYS AND INFRASTRUCTURE IMPROVEMENTS

Mixed-Use Residential Community

Phase 2 of mixed-use residential development would be built on approximately 1,194 acres of land in the southeastern portion of the Traditional Village and portions of the Greenbelt and Recreational Villages surrounding the existing Holt and Sysco properties located south of Sankey Road. Proposed construction of this development phase would consist of the following improvements, assuming timely receipt of all necessary subsequent CEQA clearance, approvals, and permits:

- low-density residential housing (901 dwelling units on 316 acres),
- medium-density residential housing (3,030 dwelling units on 492 acres),
- high-density residential housing (265 dwelling units on 15 acres),
- mixed-use residential/commercial/civic land uses (231 dwelling units and 964,000 square feet of nonresidential uses on 84 acres),
- one K–8 school (21 acres),
- four neighborhood parks (13 acres),
- two lakeshore community parks,
- three lakes (132.2 acres), and
- other open space (184.0 acres).

Employment Villages

Phase B of development for the employment villages would comprise approximately 912 acres expanding on the previous employment village phases. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary subsequent CEQA clearance, approvals, and permits:

- Employment 1 land uses (320,000 square feet on 21 acres) and
- Employment 2 land uses (11,185,000 square feet on 507 acres).

Supporting Roadway and Infrastructure Improvements

Supporting roadway and infrastructure improvements in Phase 2 would include:

- new roadways and rights-of-way (115 acres),
- permanent runoff detention basins (142 acres),
- storm drain pipes,
- manholes,
- inlets (permanent and temporary),

- surface water facilities (includes surface water treatment plant, aboveground water storage reservoirs, booster pumps, and transmission and distribution pipelines),
- a third sewer force main,
- on-site sanitary sewer pipelines and pump stations,
- potable water distribution system and storage tanks,
- raw water turnout facilities from NCMWC,
- raw water pump station,
- relocation of the NCMWC irrigation canal,
- wastewater storage tank, and
- one fire station.

PROPOSED PHASE 3 AND PHASE C LAND USES AND SUPPORTING ROADWAYS AND INFRASTRUCTURE IMPROVEMENTS

Mixed-Use Residential Community

Phase 3 of mixed-use residential development would be built on approximately 885 acres of land in the north half of the Greenbelt Village, in the northern portion of the proposed Recreation Village, and in the East Activity Center. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary subsequent CEQA clearance, approvals, and permits:

- medium-density residential housing (2,041 dwelling units on 331 acres),
- high-density residential housing (1,055 dwelling units on 58 acres),
- Employment 1 land uses (1,103,000 square feet of nonresidential uses on 72 acres),
- commercial retail (238,000 square feet of nonresidential uses on 22 acres),
- one K–8 school (21 acres),
- one regional park and three neighborhood parks (61 acres), and
- other open space (51.4 acres).

Employment Villages

Phase C of development for employment villages would comprise approximately 786 acres, expanding on the previous employment village phases. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary subsequent CEQA clearance, approvals, and permits:

- Employment 1 land uses (289,000 square feet on 19 acres) and
- Employment 2 land uses (9,257,000 square feet on 506 acres).

Supporting Roadway and Infrastructure Improvements

Supporting roadway and infrastructure improvements in Phase 3 would include:

- new roadways and rights-of-way (107 acres),
- permanent runoff detention basins (145 acres),
- on-site sanitary sewer pipelines and pump stations;

- potable water distribution system and storage tanks,
- relocation of the NCMWC irrigation canal,
- storm drain pipes,
- manholes,
- inlets (permanent and temporary), and
- outlet structures.

PROPOSED PHASE 4 AND PHASE D LAND USES AND SUPPORTING ROADWAY AND INFRASTRUCTURE IMPROVEMENTS

Mixed-Use Residential Community

Phase 4 of mixed-use residential development would be built on approximately 682 acres of land in the northeast corner of the project site, encompassing the northern portion of the Recreational Village and the North Activity Center, as well as the remainder of the Traditional Village and Town Center. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary subsequent CEQA clearance, approvals, and permits:

- low-density residential housing (215 dwelling units on 76 acres),
- medium-density residential housing (1,554 dwelling units on 252 acres),
- high-density residential housing (438 dwelling units on 24 acres),
- Employment 1 land uses (335,000 square feet of nonresidential uses on 22 acres),
- commercial retail (289,000 square feet of nonresidential uses on 27 acres),
- one K–8 school (19 acres),
- one community park and one neighborhood park (32.0 acres),
- one lakeshore community park (23.5 acres), and
- other open space (44.1 acres).

Employment Villages

Phase D of development would comprise the remaining approximately 710 acres in the North Employment Village north of Sankey Road. Proposed construction of this phase would consist of the following improvements, assuming timely receipt of all necessary subsequent CEQA clearance, approvals, and permits:

- Employment 2 land uses (9,009,000 square feet on 493 acres).

Supporting Roadway and Infrastructure Improvements

Supporting roadway and infrastructure improvements in Phase 4 would include:

- new roadways and rights-of-way (128 acres),
- permanent runoff detention basins (116 acres),
- on-site sanitary sewer pipelines and pump stations,
- potable water distribution system and storage tanks,
- relocation of the NCMWC irrigation canal,
- storm drain pipes,
- manholes,
- inlets (permanent and temporary), and
- outlet structures.

2.5 CONSTRUCTION ACTIVITIES

2.5.1 CONSTRUCTION STAGING AREAS

Construction activities would be required for project-related on-site and off-site improvements, including new buildings, roadways, parks and open space, utility relocations and installations, and on- and off-site infrastructure. On the construction sites, areas would be protected from disturbance where feasible to preserve specimen trees, native vegetation, drainages, and other sensitive resources. Staging areas would be established during each phase of project construction. These fenced staging areas would be used for storage of vehicles, equipment, materials, fuels, lubricants, and solvents. The staging areas would be identified in the improvement plans and located as far as practical from protected resources in the area. All staging areas would be sited in disturbed areas.

2.5.2 EARTHMOVING FOR DRAINAGE FACILITIES

Most of the drainage facilities to be constructed would require substantial earth movement consistent with heavy construction practices, particularly the excavation of detention ponds. In general, drainage design for the interior watersheds on the project site would require reshaping the existing ground to provide proper gravity drainage to each detention basin, which would involve raising some of the more distant portions of each watershed and lowering areas closer to the detention area. Ground would be raised to prevent runoff from outside floodplains from entering the project site in an uncontrolled manner, particularly along the site's southern boundary. Flood control improvements, both on and off the project site, would require construction of raised earthen berms. However, ground adjacent to RD 1000 drainage channels would be raised as constructible areas to enhance containment in these channels without creating traditional berms or embankments.

Proposed storm drains and drainage inlets/manholes would be excavated before, but in conjunction with, roadway improvements for the proposed project. For all detention basin excavation, large earth-moving equipment, such as graders and scrapers, would be used. Where trenching would be more efficient, such as with pipe installation, traditional excavators and backhoes would be used to remove existing trench material. Displaced materials would be replaced with bedding, which could be either imported or screened from trench spoils, depending on soil conditions.

The construction process for deeper excavation likely would include dewatering practices to temporarily lower the shallow water table for safe and efficient excavation to take place, particularly in lower lying areas, such as immediately east and west of SR 99/70. Any dewatering could require specific and appropriate permitting for discharge/disposal, which would be handled through state and local authorities on a case-by-case basis. Each detention basin would be outfitted with permanent water quality treatment in the form of a wet pond. In addition, at each detention basin, a pump station would be constructed (simultaneously) that would include reinforced cast-in-place concrete structures with trash racks and operational pump motors, which could be shielded for noise control, if necessary. Each detention basin could be constructed before development to allow for permanent stormwater treatment and detention to serve both the construction and postconstruction phases of development.

Off-site drainage improvements would include deepening and widening of different portions of RD 1000's existing drainage system, both on and off the project site. Construction might be accomplished by dewatering the channels and excavating in the dry areas; however, it is likely, given RD 1000's continuous operation, that this excavation could take place under wet conditions. Given the construction industry's improved ability to excavate accurately in the wet and the general need to keep all system channels active year-round, the use of wet excavation is likely.

3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

3.0.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

SECTION CONTENTS

Chapter 3 of this DEIR contains a discussion of the environmental setting (i.e., existing conditions) at the time the notice of preparation (NOP) was published (March 29, 2007), thresholds above which an impact is considered significant, environmental impacts and mitigation measures, and level of significance after implementation of mitigation. Issues evaluated in these sections consist of a full range of potential environmental topics originally identified for review in the NOP. Sections 3.1 through 3.17 of this DEIR are each organized into the following major components:

- **Regulatory Background:** This subsection presents the applicable regulatory framework and describes pertinent federal, state, regional, and local laws and regulations that may apply to the proposed project. It also presents an evaluation of the proposed project's consistency with general plan policies for Sutter County, as well as the policies of Placer and Sacramento Counties, where relevant.

- **Environmental Setting:** This subsection presents the existing regional and local environmental conditions relevant to the consideration of the impacts of the proposed project, at the time of publication of the NOP.

- **Analysis Methodology:** This subsection describes the methods, process, procedures, and/or assumptions used to formulate and conduct the impact analysis.

- **Thresholds of Significance:** This subsection presents the criteria used to define significant impacts on the environment. The criteria are expressed as thresholds above which the proposed project would have a significant impact. Thresholds may be quantitative or qualitative; they may be based on agency or professional standards or on legislative or regulatory requirements that are relevant to the impact analysis. Generally, however, thresholds of significance are derived from Appendix G of the State CEQA Guidelines, as amended.

- **Impact Analysis and Mitigation Measures:** This analysis examines the impacts that would occur with development of the approximately 7,528-acre project site and the off-site elements. Where data were available to the County, an additional detailed analysis of environmental impacts associated with the Phase 1 and Phase A development areas is also included. Impacts and mitigation measures are numbered sequentially in each section. For instance, impacts in Section 3.13, "Biological Resources," are numbered Impact 3.13-1, Impact 3.13-2, Impact 3.13-3, and so on. An impact statement precedes the discussion of each impact and provides a summary of the impact. The discussion that follows the impact statement presents substantial evidence to support the level of significance conclusions.

  Following each discussion of a significant or potentially significant impact, feasible mitigation measures are provided where applicable to reduce the significant or potentially significant impacts of the proposed project to less-than-significant levels. Section 15370 of the State CEQA Guidelines defines mitigation as:

  - avoiding the impact altogether by not taking a certain action or parts of an action;

  - minimizing impacts by limiting the degree of magnitude of the action and its implementation;

  - rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

- reducing or eliminating the impact over time by preservation and maintenance operation during the life of the action; and

- compensating for the impacts by replacing or providing substitute resources or environments.

The mitigation measures are registered numerically, corresponding to the impacts being addressed. For example, Mitigation Measure 3.13-3 corresponds with Impact 3.13-3.

- **Residual Significant Impacts:** This subsection describes which impacts would remain significant following application of mitigation measures. For each impact, either the impact would be reduced to a level below the significance threshold (reduced to a less-than-significant level) or applicable feasible mitigation is not available or is insufficient to fully reduce the impact to a less-than-significant level. When an impact cannot be reduced to a less-than-significant level, it is called a significant and unavoidable impact on the physical environment. If significant and unavoidable impacts remain, an agency may approve a project if it finds, pursuant to Section 21081 of the Public Resources Code, (i) that the agency has approved all feasible mitigation measures; (ii) that any alternative that would reduce the severity of the significant unavoidable impacts is infeasible; and (iii) that the overriding economic, social, or other benefits of a project outweigh the significant impacts.

3.0.2 TERMINOLOGY USED TO DESCRIBE IMPACTS

IMPACT LEVELS

The DEIR uses the following terminology to denote the significance of environmental impacts of the proposed project:

- **No impact** indicates that the construction, operation, and maintenance of the proposed project would not have any direct or indirect impacts on the environment. It means that no change from existing conditions would result. This impact level does not need mitigation.

- A **less-than-significant impact** does not involve a substantial or potentially substantial adverse change in the physical environment. This impact level does not require mitigation, even if applicable measures are available, under CEQA.

- A **significant impact** is defined by CEQA Section 21068 as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project." Levels of significance can vary by project, based on the setting and the nature of the change in the existing physical condition. Under CEQA, feasible mitigation measures or alternatives to the proposed project must be provided, where applicable, to reduce the magnitude of significant impacts.

- A **potentially significant impact** is one that, if it were to occur, would be considered a significant impact as described above; however, the occurrence of the impact cannot be immediately determined with certainty. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact. Therefore, under CEQA, feasible mitigation measures or alternatives to the proposed project must be provided, where necessary and applicable, to reduce the magnitude of potentially significant impacts.

- A **significant and unavoidable impact** is a substantial or potentially substantial adverse impact on the environment that could not be reduced to a less-than-significant level even with implementation of any applicable feasible mitigation. Under CEQA, a project with significant and unavoidable impacts could proceed, but the lead agency would be required (i) to conclude in findings that there are no feasible means of substantially lessening or avoiding the significant impact in accordance with State CEQA Guidelines Section 15091(a)(3) and (ii) to prepare a statement of overriding considerations, in accordance with State CEQA

Guidelines Section 15093, explaining why the lead agency would proceed with a project in spite of the potential for significant impacts.

- A **beneficial impact** is a positive change or improvement in the environment and for which no mitigation measures are required.

IMPACT MECHANISMS

Mechanisms that could cause impacts are discussed for each issue area. General categories of impact mechanisms are construction of the proposed project and activities related to future operations, as described in Chapter 2, "Project Description."

The environmental analysis focuses on the baseline at the time the NOP was published. If the proposed project is approved, site work could begin as early as spring 2010, with full buildout over 20–30 years, depending on the timing of environmental and regulatory permits and other approvals and market conditions. Project-related impacts are categorized as follows, pursuant to CEQA, to describe the intensity or duration of the impact:

- A **temporary impact** would occur only during construction. The environmental analysis addresses the following potentially significant temporary impacts: direct impacts associated with construction at the project site, direct impacts associated with site development and required on- and off-site improvements, and indirect construction impacts associated with fill and wetland construction activities and construction traffic.

- A **short-term or temporary impact** would last from the time construction ceases to within 3 years following construction.

- A **long-term impact** would last longer than 3 years following construction. In some cases, a long-term impact could be considered a permanent impact.

- A **direct impact** is an impact that would be caused by an action and would occur at the same time and place as the action.

- An **indirect impact** is an impact that would be caused by an action but would occur later in time, or at another location, yet is reasonably foreseeable in the future.

- A **residual impac**t refers to an impact that would remain after all feasible mitigation has been implemented.

The following terms are also used in the impact analysis:

- A **cumulative impact** is a project impact that is cumulatively considerable (and thus significant) when combined with impacts from other past, present, and reasonably foreseeable future projects. A proposed project's incremental impacts are not "cumulatively considerable" solely because other projects would have a significant cumulative impact; rather, the proposed project would also need to contribute considerably to worsening these impacts.

- "Construction" applies to activities associated with ground disturbance, grading and site preparation work, and construction of new structures and infrastructure, as well as demolition of any existing structures.

- "Preproject conditions" refers to conditions before construction.

In accordance with Public Resources Code Section 21081.6(a), the County Board of Supervisors, if it approves the proposed project, will adopt a mitigation monitoring and reporting program (MMRP) at the time that it certifies the EIR. The purpose of an MMRP prepared under CEQA is to ensure that the mitigation measures adopted as part of project approval will be complied with during construction and implementation of the proposed

project. The MMRP will identify each of the mitigation measures and describe the party responsible for monitoring, the timeframe for implementation, and the program for monitoring compliance.

The County Board of Supervisors will also be required to adopt findings identifying each significant impact of the project and the extent to which feasible mitigation measures have been adopted (Public Resources Code Section 21081). Where there are no feasible mitigation measures available to reduce a significant impact to a less-than-significant level, the County will also be required to adopt a "statement of overriding considerations" explaining in writing the specific economic, social, or other considerations that they believe make those significant effects acceptable.

3.1 LAND USE

This section describes the existing land uses on and adjacent to the project site and off-site improvement areas. It also addresses the relationship between the proposed project and existing state, regional, and local planning goals and policies related to land uses. Potential environmental impacts associated with agricultural land uses are addressed in Section 3.11, "Agricultural Resources."

3.1.1 REGULATORY BACKGROUND

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to land use are applicable to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

State Planning and Zoning Laws

Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area. The general plan is a long-range document that typically addresses the physical character of an area over a 20-year period. Finally, although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

The State Zoning Law (Government Code Section 65800 et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific district, are required to be consistent with the general plan and any applicable specific plans. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure that the land uses designated in the general plan would also be allowable by the zoning ordinance (Government Code Section 65860[c]).

A Specific Plan is another planning device that governs a smaller land area than the general plan, but must be consistent with the overarching general plan. Specifically, it implements the general plan in a particular geographic area. (Gov. Code, § 65450.) Generally, it describes the distribution, location, and extent of the land uses and the associated infrastructure, as well as standards governing future development. The specific plan must include a statement of the relationship between it and the general plan. (Gov. Code, § 65451, subd. (b).) A County's conclusion that a specific plan is consistent with its general plan "carries a strong presumption of regularity." (*Napa Citizens for Honest Government v. County of Napa Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 357.)

Local Agency Formation Commissions

The local agency formation commission (LAFCO) is charged with applying the policies and provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act (reorganized and amended by legislation enacted in 2000) to its decisions regarding annexations, incorporations, reorganizations, and other changes in government organization.

LAFCOs are intralocal agencies that were created by state legislation to ensure that changes in governmental organization occur in a manner that provides efficient and good-quality services and preserves open space land

resources. In 1963, the California Legislature established LAFCOs in each county and gave them regulatory authority over local agency boundary changes. In the 1970s, the legislature recognized the connection between decisions concerning governmental organization and the issues of urban sprawl and loss of prime agricultural land. In response to these concerns, LAFCOs were charged with implementing changes in governmental organization in a manner that preserves agricultural and open space land resources, as well as provides the delivery of services. In 2000, the Cortese-Knox-Hertzberg Act was further amended as a result of Assembly Bill 2838.

The general policies of LAFCOs include:

- encourage planned, well-ordered, efficient urban development patterns;
- encourage the logical formation and determination of boundaries;
- ensure that affected populations receive efficient governmental services; and
- guide development away from open space and prime agricultural land uses unless such actions would not promote planned orderly and efficient development.

For the proposed project, the Sacramento County LAFCO and Sutter County LAFCO oversee the establishment or revision of boundaries for local municipalities and independent special districts for Sacramento County and Sutter County, respectively (see discussion below under "Regional and Local Plans, Policies, Regulations, and Ordinances").

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Regional

Sacramento Area Council of Governments' Sacramento Region Blueprint

The Sacramento Area Council of Governments (SACOG) is a regional organization that provides a variety of planning functions over its six-county region (Sacramento, Yolo, Placer, Sutter, Yuba, and El Dorado Counties). SACOG's primary functions are to provide transportation planning and funding for the region and to study and support resolution of regional issues. In 2002, SACOG initiated what is now known as the Sacramento Region Blueprint (Blueprint) process after computer modeling of the region showed that current growth patterns and transportation investment priorities would result in significant increases in congestion over the next 50 years, as well as significant consumption of privately held natural and agricultural land. The goal of the process was to determine whether alternatives to current and planned transportation and land use patterns could be established to improve the region's long-term travel patterns and air quality, as well as retain substantially more open space. The Blueprint is the product of a 3-year public-involvement effort and is intended to guide land use and transportation choices in the region over the next 50 years. During this 50-year period, the region's population is projected to grow from 2 million to more than 3.8 million, jobs are projected to increase from 921,000 to 1.9 million, and housing units are projected to increase from 713,000 to 1.5 million.

The starting point for the Blueprint process was the "Base Case Scenario," which shows how the region would develop through the year 2050 if growth patterns of the recent past continue. Under the Base Case Scenario, growth would continue outward into largely rural areas and on the fringes of current development. The model predicted that the average resident living in a version of a future typical of the Base Case Scenario in 2050 would probably live in a single-family house on a fairly large lot in a subdivision with similar houses. This resident would commute a longer distance to work than is typical today; trips to work and commercial areas would be lengthy and slow because of significant increases in congestion.

In December 2004, the SACOG Board of Directors adopted the Preferred Blueprint Scenario, a vision for growth that promotes compact, mixed-use development and more transit choices as an alternative to low-density

development. It includes a greater range of housing products, reinvestment in already developed areas, protection of natural-resource areas from urbanization, and more transportation choices. Residents living in a future developed area consistent with the Preferred Blueprint Scenario in 2050 probably would live in a home on a smaller lot, in a neighborhood with some larger houses and some attached row houses, apartments, and condominiums. Residents would drive to work, but the trip would likely be shorter than present conditions, and the time needed to get there would be about the same as it is now. It is anticipated that residents may sometimes use public transportation (e.g., train or bus). Most of their shopping and entertainment trips would still be via the automobile, but the distances would be shorter. Some of these shopping trips might be via walking or biking down the block a short distance to a village or town center that contains neighborhood stores with housing units built on top of them, as well as a small park or plaza.

The Sacramento Region Blueprint depicts a way for the region to grow through the year 2050 generally consistent with seven principles of "smart growth." These principles are summarized below and include a comparison of development projected under Base Case Scenario to development projected under the Preferred Blueprint Scenario (SACOG and Valley Vision 2004):

- **Transportation Choices:** Developments should be designed to encourage people to sometimes walk, ride bicycles, ride the bus, ride light rail, take the train, or carpool. Use of Blueprint growth concepts for land use and right-of-way design would encourage use of these modes of travel and the remaining auto trips would be, on average, shorter. In the Base Case Scenario, 2% of new housing and 5% of new jobs would be located within walking distance of 15-minute bus or train service, the number of vehicle miles traveled per day per household would be 47.2 miles, and the total time devoted to travel per household per day would be 81 minutes. The Preferred Blueprint Scenario reduces the number of trips taken by car by about 10%. These trips are shifted to transit, walking, or biking. In the Preferred Blueprint Scenario, 38% of new homes and 41% of new jobs would be located within walking distance of 15-minute bus or train service, the number of vehicle miles traveled per day per household would be 34.9 miles, and the total time devoted to travel per household per day would be 67 minutes. With the Preferred Blueprint Scenario, per capita, there would be 14% less carbon dioxide and particulates produced by car exhaust compared to the Base Case Scenario.

- **Mixed-Use Developments:** Building homes and shops, entertainment, office, and light industrial uses near each other can encourage active, vital neighborhoods. This mixture of uses can be either in a vertical arrangement (mixed in one building) or horizontal (with a combination of uses in close proximity). These types of projects function as local activity centers where people would tend to walk or bike to destinations. Separated land uses, on the other hand, lead to the need to travel more by auto because of the distance between uses. Under the Base Case Scenario, 26% of people would live in communities with a good, or balanced, mix of land uses by 2050. In the Preferred Blueprint Scenario, 53% of people would live in balanced communities.

- **Compact Development:** Creating environments that are more compactly built and use space in an efficient but aesthetic manner can encourage more walking, biking, and public-transit use and shorten auto trips. Under the Base Case Scenario, by 2050, new development would require the consumption of an additional 661 square miles of land. Under the Preferred Blueprint Scenario, 304 square miles of new land would be required for new development.

- **Housing Choice and Diversity:** Providing a variety of places where people can live—apartments, condominiums, townhouses, and single-family detached homes on varying lot sizes—creates opportunities for the variety of people who need them: families, singles, seniors, and people with special needs. This issue is of special concern for people with very low, low, and moderate incomes. By providing a diversity of housing options, more people would have a choice.

- **Use of Existing Assets:** In urbanized areas, development on infill or vacant lands, intensification of the use of underutilized parcels, or redevelopment can make better use of existing public infrastructure. This can also include rehabilitation and reuse of historic buildings; denser clustering of buildings in suburban office parks;

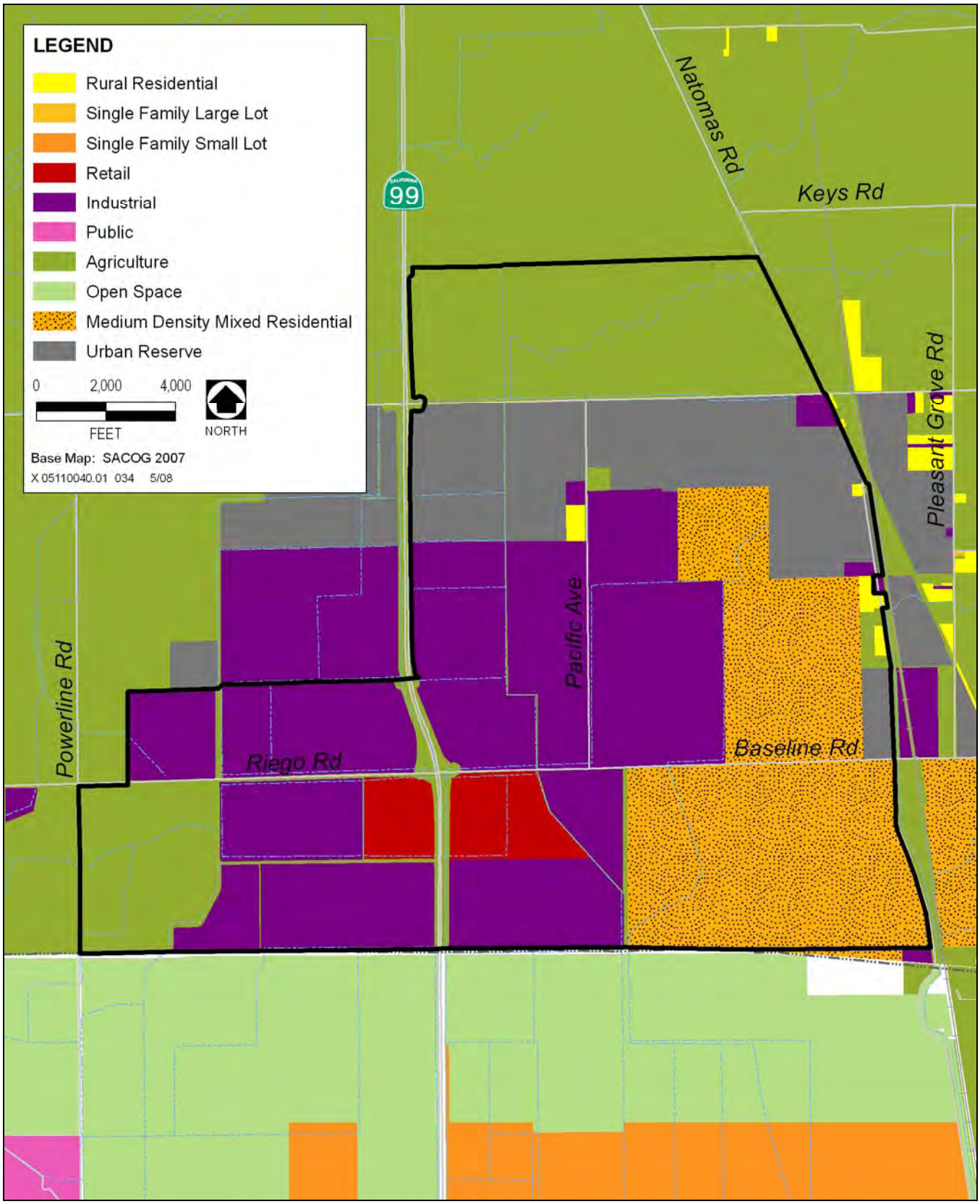
and joint use of existing public facilities, such as schools and parking garages. Under the Base Case Scenario, all new development would be on vacant land. Under the Preferred Blueprint Scenario, it is suggested that 13% of all new housing and 10% of all new jobs would occur through reinvestment.

- **Quality Design:** The design details of any land use development—such as the relationship to the street, setbacks, placement of garages, sidewalks, landscaping, the aesthetics of building design, and the design of the public rights-of-way—are factors that can influence the attractiveness of living in a compact development and facilitate the ease of walking and biking to work or neighborhood services. Good site and architectural design is an important factor in creating a sense of community and a sense of place. Under the Base Case Scenario, 34% of people would live in pedestrian-friendly neighborhoods. Under the Preferred Blueprint Scenario, in 2050, pedestrian-friendly neighborhoods would rise to 69%.

- **Natural Resources Conservation:** This principle encourages the incorporation of public-use open space (such as parks, town squares, trails, and greenbelts) within development projects, above state requirements; it also encourages wildlife and plant habitat preservation, agricultural preservation, and promotion of environmentally friendly practices, such as energy-efficient design, water conservation and stormwater management, and planting of shade trees. Under the Base Case Scenario, 166 square miles of agricultural land would be converted into urban uses. Under the Preferred Blueprint Scenario, 102 square miles of agricultural land would be converted to urban uses. When the Preferred Blueprint Scenario was developed, the authors included a calculated, predetermined "preservation factor" that was intended to account for a certain amount of land that could be set aside in the future to preserve natural resources. However, the Preferred Blueprint Scenario did not attempt to map specific areas that could potentially be set aside as preserves. The only "preserve" areas that were mapped were those already designated as such that were in existence at the time the Preferred Blueprint Scenario was created.

The Preferred Blueprint Scenario predicts long-term environmental benefits from undertaking a realistic long-term planning process; these benefits are intended to minimize the extent of the inevitable physical expansion of the overall regional urban areas. In summary, if the Preferred Blueprint Scenario were followed throughout the SACOG region, it would result in more mixed-use communities; provide a greater number of small-lot, single-family detached homes; develop a greater number of attached homes; reinvest in existing business and residential areas; and create more pedestrian-friendly neighborhoods. The results of implementing these principles would be the protection of natural resources (because less land would be required for urban uses) and less agricultural land conversion. In addition, the Preferred Blueprint Scenario predicts less time devoted to travel, fewer car trips, and fewer single-occupancy vehicle miles traveled to work and local businesses compared with development under the Base Case. The reduction in traffic would improve air quality in the region by reducing carbon monoxide and particulate matter produced by car exhaust.

The Blueprint process received broad support from most of its member agencies; however, the Blueprint is advisory and therefore does not establish land use restrictions. SACOG has no land use authority. Although it is only advisory, the Blueprint provides policy guidance in the Sacramento region for long-term regional land use and transportation planning. A number of jurisdictions either are adopting the Blueprint concepts or are considering and encouraging projects consistent with the Blueprint. Although not establishing "buildout targets," the SACOG Blueprint Preferred Scenario anticipates 40,000 households and 60,000 jobs in Sutter County between 2000 and 2050. With regard to the proposed project, The SACOG Blueprint preferred scenario envisions a large regional-scale employment center with nearby residential development and a mix of supporting uses to accommodate at least 20,000 jobs and 8,500 households, with an additional urban reserve for future growth. The total land are proposed for development under the Blueprint is 7,420 acres, which is similar to the 7,528-acre proposed project site (Exhibit 3.1-1). The general configuration of the development footprint is also similar between the Blueprint and the proposed project. However, the proposed project was configured in a slightly different manner to conform to the Natomas Basin HCP. Although the employment and residential capacities of the proposed project exceed those of the Blueprint, the project would include the same general mix of uses and



Source: Adapted by EDAW in 2008

SACOG Blueprint Preferred Scenario for South Sutter **Exhibit 3.1-1**

would incorporate numerous design features that reflect the smart growth principles established by the Blueprint plan (see the discussion of Impact 3.1-4, below).

Sacramento International Airport Master Plan

The Sacramento International Airport Master Plan (Sacramento County Airport System 2007) was adopted by the Sacramento County Board of Supervisors in August 2007. This plan represents the first full-scale master planning effort for the airport since the mid-1970s. The master plan includes an evaluation of current conditions; definition of objectives, obstacles, and alternatives; an extensive public involvement program; and an implementation plan. The master plan is intended to guide airport development for at least the next 20 years. Among the future plans for the airport described in the master plan are the following (Sacramento County Department of Environmental Review and Assessment 2007):

- extension of the east runway (i.e., the runway closest to the project site) from the current 8,600 feet to 11,000 feet to accommodate nonstop transcontinental flights;
- construction of a new, 8,600-foot-long north-south runway 1,200 feet west of the current west runway;
- construction of additional taxiways;
- replacement of the existing Terminal B;
- construction of a new concourse from the replacement Terminal B, with a capacity of 23 contiguous gates;
- improvement of off-airport roadway access to the airport, including extension of Elkhorn Boulevard to the airport, where it would connect to the airport road system;
- extension of the proposed Downtown-Natomas-Airport light rail line to the airport, with a light rail stop at one of the airport terminals; and
- construction of new airport support facilities, such as a new air traffic control tower.

Sacramento International Airport Comprehensive Airport Land Use Plan

The 2002 *California Airport Land Use Planning Handbook* (California Department of Transportation 2002) is the guiding document for establishing, preparing, and modifying local airport land use compatibility plans (ALUCPs) (formerly known as comprehensive airport land use plans [CLUPs]) and their policies and procedures. ALUCP policies are intended to increase the awareness of residents, in any future residential communities that are approved, of their possible exposure to aircraft operations; to limit the potential for conflict between the airport and adjacent communities; and to protect future airport development and aircraft operations. SACOG serves as the Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo, and Yuba Counties. It is responsible for developing and maintaining ALUCPs to protect public health and safety and ensure compatible land uses in the areas around each airport.

The *Sacramento International Airport (Formerly Sacramento Metropolitan Airport) Comprehensive Land Use Plan* (CLUP) was adopted by the Sacramento County Board of Supervisors in October 1984 and amended in January 1994. The CLUP establishes planning boundaries for the airport and defines compatible types and patterns of future land use. The purpose of the CLUP is to provide the Sacramento International Airport land area with compatibility guidelines for height, noise, and safety. The current Sacramento International Airport CLUP is more than 11 years old; in the time since publication of the CLUP, the level of growth in the region and expansion of operations at the airport has indicated the need for an update to the plan. (Sacramento Airport Land Use Commission 1994.)

The Sacramento International Airport CLUP describes safety compatibility standards for public use airports, which include the Clear Zone, which is near the runway and is the most restrictive; the Approach-Departure Zone, which is located under the takeoff and landing slopes and is less restrictive; and the Overflight Zone, which is the area overflown by aircraft during the normal traffic pattern and is the least restrictive (Exhibit 3.1-2). New land uses proposed in any of these zones must comply with the standards identified by the CLUP.

In addition, the CLUP prohibits new residential development and school uses in those areas subject to noise levels of 65 decibels (dB) community noise equivalent level (CNEL) or above. Development in areas between the 60- and 65-dB CNEL are subject to an aircraft noise evaluation and implementation of recommended noise reduction measures (Exhibit 3.1-2).

Natomas Basin Habitat Conservation Plan

The 2003 Natomas Basin Habitat Conservation Plan (NBHCP) (City of Sacramento 2003) was prepared by the City of Sacramento, Sutter County, and the Natomas Basin Conservancy (NBC). It was developed to promote biological conservation in conjunction with economic and urban development in the Natomas Basin. The NBHCP establishes a multispecies conservation program to minimize and mitigate the expected loss of habitat values and incidental take of "covered species" that could result from urban development and operation and maintenance of irrigation and drainage systems. The NBHCP authorizes take associated with 17,500 acres of urban development in southern Sutter County and in the city of Sacramento and Sacramento County (i.e., 8,050 acres for the city of Sacramento, 7,467 acres for Sutter County, and 1,983 acres of Metro Air Park in Sacramento County). For additional details regarding the NBHCP, see Section 3.13, "Biological Resources."

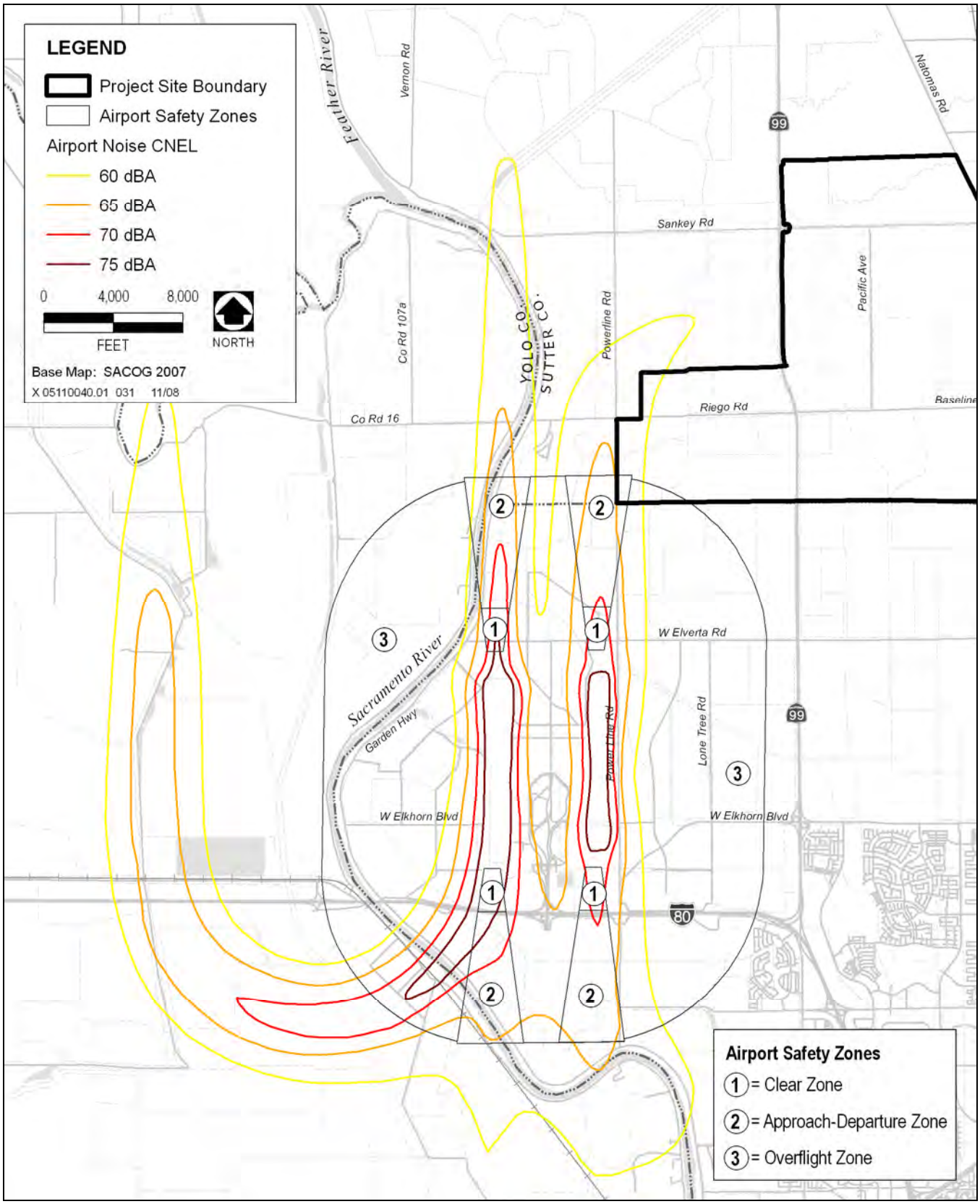
Local

The project site is located in unincorporated Sutter County. The proposed off-site elements of the proposed project would extend into Placer and Sacramento Counties and are related to the provision of utilities to the project site. All off-site improvements would be constructed within existing roadway rights-of-way in Placer and Sacramento Counties. Sutter County LAFCO would need to approve connection to Sacramento Regional County Sanitation District (SRCSD) service, and Sacramento County LAFCO would need to approve expansion of SRCSD's sphere of influence to include the project site in anticipation of a later "change of organization" as defined in statute. The proposed project would also require a wastewater services agreement, which would act as a binding contract between Sutter County and SRCSD, and an operations agreement, which would identify the specific wastewater facilities required, and would define the operation of these facilities. No additional Placer or Sacramento County plans, policies, regulations, and ordinances are applicable to the proposed project. Sutter County plans, policies, regulations, and ordinances are presented below.

Sutter County Local Agency Formation Commission

The proposed project would require approval by the Sutter County LAFCO of a reorganization for detachment from its existing County Service Area (CSA) and creation of a new CSA, establishment of a sphere of influence coterminous with the boundaries of the project site, and possible eventual incorporation of the project site. LAFCOs must, by law, create municipal-service reviews and update spheres of influence for each independent local governmental jurisdiction within their countywide jurisdiction. To comply with CEQA, the Sutter County LAFCO would consider the following factors:

- land area, land use, topography, natural boundaries, and drainage basins;
- population, population density, proximity to other populated areas, per capita assessed valuation;
- the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas, during the next 10 years;



Source: Adapted by EDAW 2008

Sacramento International Airport Overflight Zone and Noise Contours **Exhibit 3.1-2**

- the effect of the proposed action and of alternative actions, on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the County;
- the need for organized community services, including timely availability of water supplies adequate for projected needs;
- conformity with appropriate city or county general and specific plans;
- the "sphere of influence" of any local agency that may be applicable to the proposal being reviewed;
- the effect of the proposal on maintaining the physical and economic integrity of agricultural lands;
- the conformity of the proposal and its anticipated effects with adopted LAFCO policies on providing planned, orderly, efficient patterns of urban development; and
- the ability of the newly formed or annexing agency to provide the services that are identified in the application, and consideration of whether the revenues for those services will be sufficient.

To comply with CEQA, Sutter County LAFCO would take one or more of the following actions:

- approve the requested determinations (at its discretion) without changes if environmental impacts are insignificant,
- require an applicant to modify a project,
- deny the proposal because of unacceptable adverse environmental impacts, or
- approve the project despite its significant effects by making findings of overriding concern.

Measure M

A group of concerned citizens, political leaders, landowners, and developers crafted a strategic method to deliver jobs to Sutter County. To bring employers and deliver required infrastructure and public services to south Sutter County, new development would have to be financed with a mix of balanced land uses, including industry, commerce, education, housing, recreation, and open space. Measure M proposed that this mix be contained on 7,500 acres of the original 10,500-acre Sutter County "Industrial-Commercial Reserve" area (in 2005, the County reduced the size of the Industrial-Commercial Reserve to 9,500 acres) and integrated within the NBHCP. The economic conditions in the region require that all these elements be in place simultaneously to create economic incentives for private funding and investment.

In November 2004, Measure M, an advisory measure regarding a proposed strategic plan for the south Sutter County area, was put before county voters and approved. Measure M stated that project site development would be located in the Sutter County Industrial-Commercial Reserve and subject to the advisory development caps established by Measure M. Under Measure M, development would adhere to the following requirements:

- at least 3,600 acres would be provided for commercial and industrial parks to create new jobs in Sutter County as a condition of having residential units approved;
- at least 1,000 acres would be provided for schools, parks, open space, libraries, retail areas, and other community facilities paid for by the development;
- no more than 2,900 acres would be available for residential construction on land protected, at a minimum, from a 100-year flood event;

- all necessary road, bridge, water, drainage, sewer and other improvements would be paid for by the development; and

- ongoing law enforcement, fire, library, and other public services would be paid for by the development, without reducing current service levels.

Sutter County General Plan

The Sutter County General Plan (County General Plan) (Sutter County 1996), adopted in 1996 and most recently amended on December 19, 2006, includes goals, objectives, and policies for the unincorporated areas of the county. The broad purpose of the County General Plan is to express policies that will guide decisions on future growth, development, and conservation of resources in a manner consistent with the goals and quality of life desired by the county's residents.

As shown in Exhibit 3.1-3, the County General Plan designates the project site as Industrial/Commercial Reserve (I/C). Lands south of the project site are located outside of Sutter County, in the unincorporated area of Sacramento County, and are governed by the Sacramento County General Plan. Lands north, east, and west of the project site are designated Agriculture, 80-acre minimum parcel size (AG-80). Descriptions of these land use designations provided in the County General Plan are provided below:

- The **Industrial/Commercial Reserve (I/C)** designation, which allows large-scale industrial and commercial development in south Sutter County, applies to approximately 9,500 acres, approximately 7,500 acres of which are intended to be developed as the Sutter Pointe Specific Plan.

- The **Agriculture, 80-acre minimum parcel size (AG-80)** designation identifies land for the production of food and fiber, including areas of prime agricultural soils, and other productive and potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses, or where potential conflicts can be mitigated. Typical land uses allowed include crop production; orchards; grazing; pasture and rangeland; resource extraction activities; and facilities that directly support agricultural operations, such as agricultural products processing; and necessary public utility and safety facilities.

Sutter County General Plan Goals and Policies

The following goals and policies from the Sutter County General Plan (Sutter County 1996) regarding land use are applicable to the proposed project.

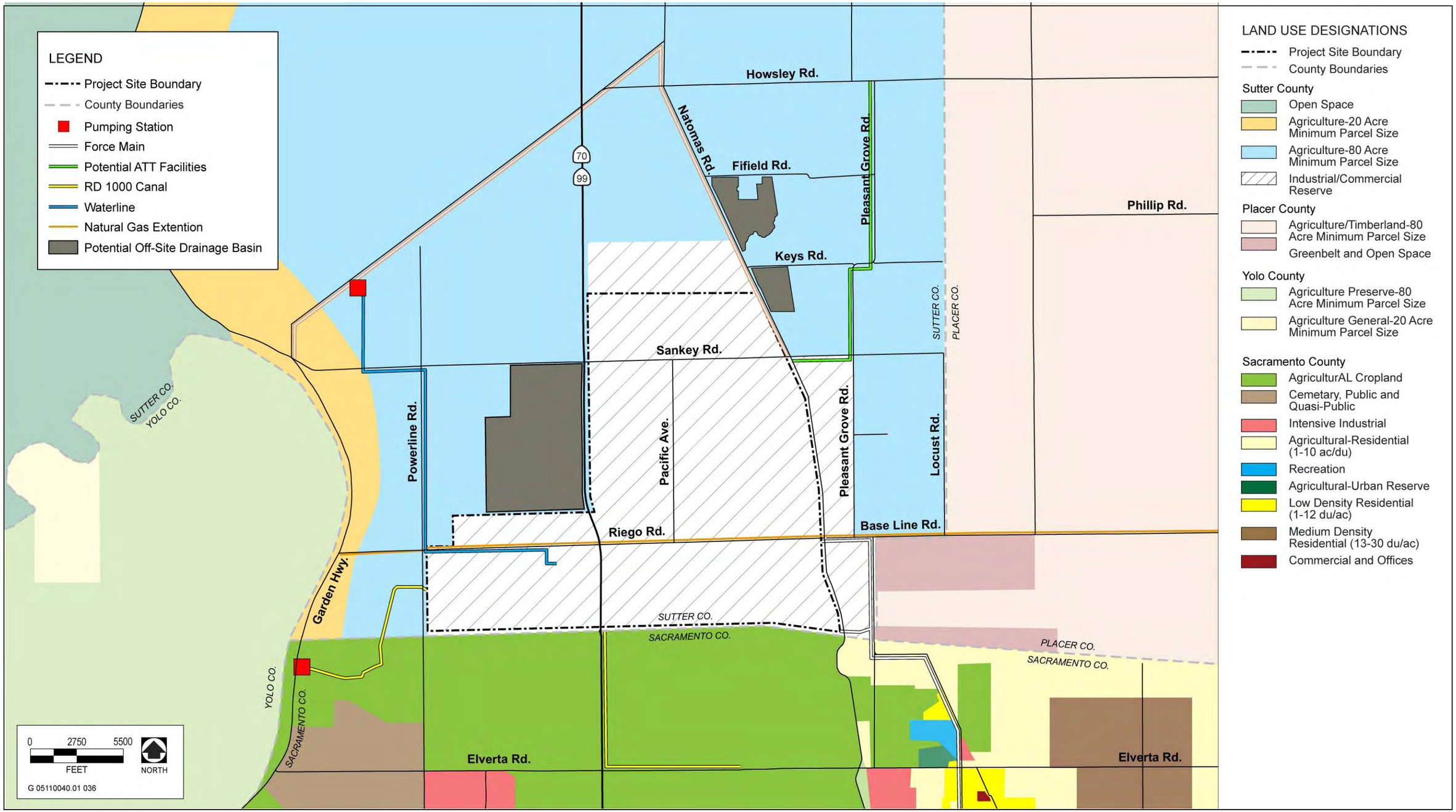
Land Use Element

- **GOAL 1.A:** To promote the efficient use of lands within the County to preserve and enhance the quality of life for existing and future residents of Sutter County.

    - **Policy 1.A-4:** The County shall ensure that the Zoning Code and Zoning Map for the County remain consistent with the General Plan.

- **GOAL 1.C:** To eliminate the random location of new residential development.

    - **Policy 1.C-4:** All new residential development shall conform to density ranges of the applicable land use designation(s).



Source: Adapted by EDAW in 2008

Adopted County General Plan Land Use Designations **Exhibit 3.1-3**

- **GOAL 1.D:** To designate adequate commercial and industrial land to provide convenient and valuable business areas and employment opportunities within Sutter County.

  - **Policy 1.D-1:** The County shall designate specific areas suitable for commercial and industrial development and reserve such lands in a range of parcel sizes to accommodate a variety of commercial and industrial uses.

- **GOAL 1.E:** To reduce the potential for conflicts between industrial land uses and surrounding uses which are sensitive to the impacts of industrial development.

  - **Policy 1.E-1:** New development that may be incompatible with adjacent uses shall be required to provide buffer zones consistent with County standards to reduce anticipated conflicts with existing and future land uses.

  - **Policy 1.E-2:** The County shall maintain, where feasible, areas for expansion around existing industrial development and shall generally discourage the re-designation of industrial lands to uses not compatible with industrial development unless it is demonstrated that such changes will not impact existing or planned future development.

  - **Policy 1.E-3:** The County encourages industrial uses to be developed in contiguous or generally consolidated areas to reduce the potential for conflicts with surrounding uses.

Rural Communities and Area Plans Element

- **GOAL 9.C:** To facilitate well planned large scale industrial and commercial development in South Sutter County.

  - **Policy 9.C-1:** The County shall establish an I-C Reserve designation in the South County and will allow up to 3,500 acres of non-residential development consistent with the goals and policies of the General Plan and mitigation measures of the General Plan EIR. Any project proposed within the I-C Reserve which does not cumulatively or individually exceed the 3,500 acre threshold, and which demonstrates consistency with all other elements of the General Plan, may be processed as consistent with the General Plan and will not require a General Plan Amendment (GPA). Projects that individually or cumulatively exceed the 3,500 acre threshold shall require a GPA and conduct an appropriate environmental analysis.

  - **Policy 9.C-2:** The County shall strive to maintain development ratios within the I-C Reserve of 85% to 15% split of Industrial to Commercial land use. Specialty commercial-recreational oriented uses, examples of which include, but are not limited to, racing facilities, amusement parks, or other outdoor recreational oriented uses are deemed to be appropriate uses within the I-C Reserve area and are not subject to the above ratios.

  - **Policy 9.C-3:** The County shall require that infrastructure planning be done in a coordinated fashion and project proponents must demonstrate how the development provides sufficient facilities to meet County standards and that the development of the project will not adversely impact future developers in the area.

  - **Policy 9.C-5:** The County shall consider development applications in the I-C Reserve area and base its decisions on, but not limited to, information contained in the following:

    1. A completed Rezone application identifying all proposed uses on the site.

    2. A Design Review application complying with established design and development standards.

3. Findings that the project is consistent with applicable General Plan policies and the General Plan EIR mitigation measures.

4. Findings that the infrastructure is adequately provided for within the project boundaries and is properly coordinated with adjacent lands.

- **Policy 9.C-6:** The County should encourage contiguous development patterns within the I-C Reserve as a priority.

Sutter County General Plan Update

In 2007, the Sutter County began a work program to update the 1996 general plan. If the update of the general plan were to be completed and adopted before County approval of the proposed project, the goals and policies of the general plan update would apply to the development of the proposed project. Thus far, the County has completed a number of public meetings related to the update. In February 2008, the County released the General Plan Update Technical Background Report (Sutter County 2008), which is available on the County's Web site. The technical background report includes an assessment of the current conditions, including the County's land use, economy, housing, and circulation systems. This information will be used as the basis for the development of the updated general plan, as well as preparation of the DEIR for the plan. The County is currently preparing a DEIR for the general plan update that is anticipated to be released for public review in late 2009. After the DEIR is released, it will be available for a 45-day public comment period.

Sutter County Zoning Code

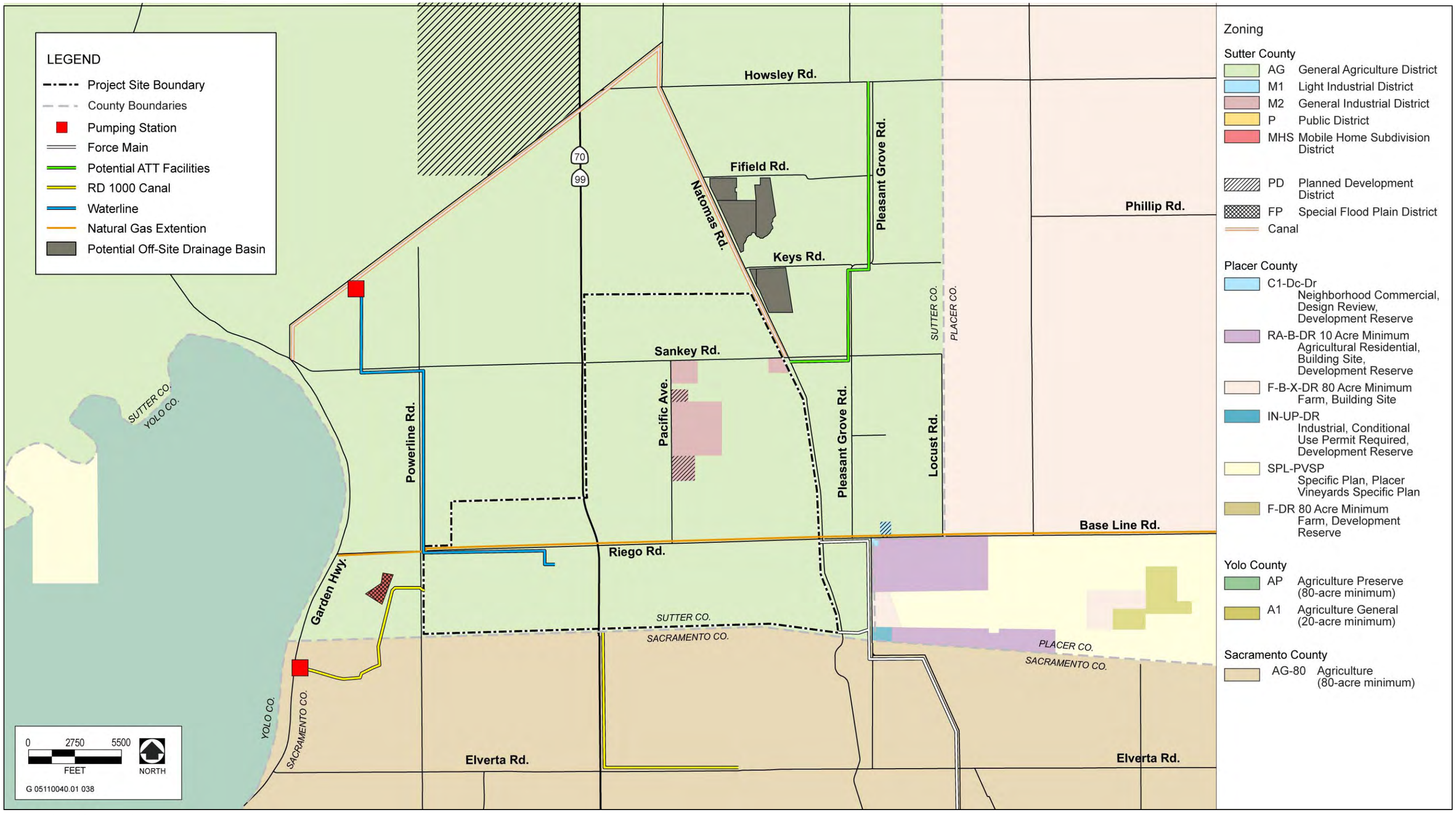
The Sutter County Zoning Code (Sutter County 2007) has been adopted to protect and promote the public health, safety, and general welfare of the community and to implement the Sutter County General Plan goals, policies, and objectives and to guide the future growth of the county. As of February 2007, the Sutter County Zoning Code provides for a total of 28 zoning districts: 24 base districts and four special "combining districts." The four special combining districts are not used by themselves, but when they are used in combination with other zoning districts, they can provide specific additional uses and/or requirements.

As shown in Exhibit 3.1-4, the majority of the project site is zoned General Agricultural (AG). The Holt Tractor Manufacturing facility, located on Pacific Avenue, and the A&N Auto Repair and AR Readymix, located on Sankey Road, are zoned General Industrial (M2). The Sysco Corporation warehousing and distribution facility is zoned General Industrial-Planned Development District (M2-PD). In addition, the County Zoning Code establishes a South Sutter County Industrial/Commercial District (SSCI/C) to implement the Industrial/Commercial Reserve (I/C) area established within the General Plan.

Lands north, east, and west of the project site are zoned General Agricultural (AG). Lands south of the project site are located within unincorporated Sacramento County and are governed by the Sacramento County zoning ordinance. Descriptions of each zoning district provided in the Sutter County zoning ordinance are provided below:

- The **General Agricultural District (AG)** was established to provide areas for general farming, low-density uses, open spaces, and, by use permit, limited retail service uses approved by the Planning Commission. It is intended that this classification may be applied to rural communities where the predominance of land use is of a general agricultural nature; however, the needs of the agricultural community may require the location of retail, commercial, and service establishments. This zoning district is compatible with the Agriculture, 80-acre minimum parcel size (AG-80) and the Industrial/Commercial Reserve (I/C) land use designations.

- The **General Industrial District (M2)** was established to provide areas for a full range of industrial, manufacturing, and related uses to expand the economic base, and to provide employment opportunities. Because of potential high-intensity operational characteristics and features, this district should be located away from residential neighborhoods and other potentially sensitive uses.



Source: Adapted by EDAW in 2008

Adopted Zoning Districts **Exhibit 3.1-4**

- The **Planned Development Combining District (PD)** was established to encourage creative and more efficient approaches to the use of land through lot design; provide open space; encourage a mixture of land uses and/or densities, adjustment of setbacks, or other means to create a better environment; and/or allow development whose type or design require special consideration to ensure compatibility with adjacent land use.

- The **South Sutter County Industrial/Commercial District (SSCI/C)** is intended to allow large-scale industrial and commercial development in south Sutter County because of the area's proximity to major transportation corridors, metropolitan areas, and the Sacramento International Airport. The establishment of this district is also intended to provide for the general welfare and increase the economic base and employment opportunities. This district is compatible with the Industrial/Commercial Reserve (I/C) General Plan land use designation and General Agricultural (AG) zoning district.

Sacramento Local Agency Formation Commission

Sacramento County LAFCO would need to approve expansion of SRCSD's sphere of influence to include the project site in anticipation of a later "change of organization" as defined by statute. The proposed project would also require a wastewater services agreement, which would act as a binding contract between Sutter County and SRCSD, and an operations agreement, which would identify the specific wastewater facilities required, and would define the operation of these facilities. LAFCOs must, by law, create municipal-service reviews and update spheres of influence for each independent local governmental jurisdiction within their countywide jurisdiction. The Sacramento LAFCO has adopted the following policies and guidelines for approval of boundary adjustments:

- consider favorably proposals that result in the provision of urban services in densely developed and populated areas;

- consider favorably proposals that will provide urban services in areas with high growth potential rather than in areas with limited potential for future growth; and

- assess the environmental consequences of its [LAFCO's] actions and decisions (required by CEQA), and take actions to avoid or minimize a project's adverse environmental impacts if feasible, or approve a project despite significant effects because it finds overriding considerations exist.

These actions are summarized above in the discussion of the Sutter County LAFCO.

3.1.2 ENVIRONMENTAL SETTING

ON-SITE

The project site encompasses approximately 7,528 acres in south Sutter County, immediately north of the Sutter/Sacramento County line. It is located approximately 12 miles north of downtown Sacramento and 2 miles northeast of the Sacramento International Airport. The Sacramento River is situated about 1 mile west of the project site (see Exhibit 2-1 in Chapter 2, "Project Description"). The project site is generally bounded by Natomas Road on the east and Powerline Road on the west. The northern boundary is approximately 4 miles north of the county line. State Route (SR) 99/70 divides the southern portion of the site and serves as the western boundary of the northern portion of the site (see Exhibit 2-2 in Chapter 2, "Project Description").

The project site is located within the 9,500-acre "Sutter County Industrial-Commercial Reserve" designated in the Sutter County General Plan and within the boundaries of the NBHCP area. Currently, the project site consists predominantly of agriculture with limited industrial facilities. The project site is primarily in rice production, but portions are used for other agriculture uses, predominantly irrigated and nonirrigated crops. Rural residences and associated agricultural outbuildings are located on the eastern boundary of the project site south of Sankey Road and

west of Natomas Road. These existing residences would not be removed as part of development of the proposed project.

Existing industrial uses on the project site consist of the 30-acre A&N Auto Repair and AR Readymix, located on Sankey Road in the northeast corner of the project site, and the 50-acre Sysco Corporation warehousing and distribution center and the Holt Tractor Manufacturing facility, both located on Pacific Avenue in the central portion of the project site. These industrial uses would remain part of the site.

Several easements traverse the project site. The Natomas Mutual Water Company and Reclamation District 1000 hold easements for irrigation and drainage ditches, most of which fall within the private road and canal reservations.

Primary access through the project site would be via SR 99/70, which is the main north-south transportation route between Yuba City/Marysville and Sacramento. Riego Road is the primary east-west corridor providing access from the Placer County/Roseville area, crossing through the site and connecting to SR 99/70.

ADJACENT LAND USES

Existing land uses immediately adjacent to and surrounding the site are agricultural interspersed with low-density rural residential uses in an unincorporated area regulated by Sutter County. Land uses north of the project site are characterized primarily by rice fields with other agricultural uses, including wheat, alfalfa, row crops, and pastureland.

The Sacramento County line forms the southern boundary of the project site, and land uses in this area are characterized primarily by agricultural uses. The Sacramento International Airport and Metro Air Park (an industrial and business park) are located in unincorporated Sacramento County approximately 1.5 miles from the southwest corner of the project site.

The Natomas East Main Drainage Canal runs parallel to the eastern border of the project site and 0.5 mile south of Sankey Road. Natomas Road also runs parallel to the entire length of the eastern border of the project site.

The Sacramento River runs roughly north-to-south as close as 1 mile west of the project site. The Natomas Cross Canal is located northwest of the project site and west of SR 99/70. Designated NBHCP habitat reserve areas are located south and west of SR 99/70, mostly along the Sacramento River. This area is predominantly farmland.

Nearby planned or approved developments include the proposed Greenbriar Specific Plan project to the southwest and the proposed Placer Vineyards Specific Plan and Rio Linda/Elverta Specific Plan projects to the east (see Exhibit 2-3 in Chapter 2, “Project Description”). These developments have converted predominantly agricultural areas to an urban setting. Typical land uses include single-family homes, commercial areas, and parks and open space. Implementation of the proposed Natomas Joint Vision project, a cooperative ongoing planning effort of the City and County of Sacramento, would result in a vision and future development and conservation plan for the area immediately south of the project site.

OFF-SITE IMPROVEMENT AREAS

The off-site elements of the proposed project would extend from the project site in Sutter County into unincorporated areas of Placer and Sacramento Counties in predominantly existing road rights-of-way.

Existing land uses immediately adjacent to off-site elements are agricultural interspersed with low-density rural residential and industrial uses. Rice is the primary type of agricultural product grown in the vicinity of the off-site elements, with other agricultural uses, including wheat, alfalfa, row crops, and pastureland. The majority of these rural residential uses are in the vicinity of the proposed sewer force main alignment southeast of the project site.

3.1.3 IMPACTS AND MITIGATION MEASURES

ANALYSIS METHODOLOGY

Evaluation of potential land use impacts of the proposed project was based on a review of the adopted planning documents pertaining to the project site, including the Sutter County General Plan and zoning ordinance, the Sutter County general plan background report, the SACOG Region Blueprint, the Sacramento International Airport Master Plan, the Sacramento International Airport CLUP, and the NBHCP; field review; and consultation with appropriate agencies.

The off-site elements of the proposed project would extend into Placer and Sacramento Counties and are related to the provision of utilities and roadway capacity to the project site. All off-site improvements would be constructed within existing roadway rights-of-way in Placer and Sacramento Counties. Therefore, these elements would not be inconsistent with existing County land use designations or zoning or conflict with other land use plans, policies, regulations, and ordinances. The consistency of the proposed project with the adopted Sutter County General Plan is presented in Appendix D of this DEIR.

Specific impacts associated with other resource and issue areas are addressed in each technical section of this DEIR as appropriate. These technical sections provide a detailed analysis of other relevant environmental effects resulting from implementation of the proposed project.

THRESHOLDS OF SIGNIFICANCE

For the purpose of this analysis, the following applicable thresholds of significance have been used to determine whether implementing the proposed project would result in a significant impact. These thresholds of significance are based on Appendix G of the State CEQA Guidelines. A land use impact is considered significant if implementation of the proposed project would do any of the following:

- physically divide an established community;
- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or
- conflict with any applicable habitat conservation plan or natural community conservation plan.

IMPACT ANALYSIS

The land use planning and zoning authority of local jurisdictions in California is set forth in the state's planning laws. The proposed project is located in the unincorporated area of Sutter County, and the County has planning jurisdiction over the proposed project. It should be noted that any inconsistencies with the County land use designations and zoning code is a land use regulation issue rather than a physical environmental consequence of the proposed project and would not be considered a significant effect under CEQA.

The project site is designated by the County General Plan as Industrial/Commercial Reserve (I/C). The Industrial/Commercial Reserve (I/C) designation, which allows large-scale industrial and commercial development in south Sutter County, applies to approximately 9,500 acres, approximately 7,528 acres of which are intended to be developed as the Sutter Pointe Specific Plan (Exhibit 3.1-3). Pursuant to California Government Code Section 65454, a specific plan must be consistent with the local government's general plan. Development of the proposed project would require approval of a general plan amendment by the County, and the Measure M Group has submitted a general plan amendment application, which includes regulations, guidelines, and standards that would make the specific plan and general plan consistent with one another. Exhibit 2-4 shows

the proposed specific plan land use designations, and Table 3.1-1 summarizes definitions and permitted uses within the land use designations.

According to the County Zoning Map, most of the undeveloped land on the project site is zoned General Agricultural (AG), and existing developed properties on the project site are zoned General Industrial (M-2) (Exhibit 3.1-4). In addition, the South Sutter County Industrial/Commercial District (SSCI/C) would implement that portion of the Sutter County General Plan relating to the Industrial/Commercial Reserve (I/C) area. The General Agricultural District (AG) was established to provide areas for general farming, low-density uses, open spaces, and, by use permit, limited retail service uses. This zoning district is compatible with the Industrial/Commercial Reserve (I/C) land use designation. The General Industrial District (M2) was established to provide areas for a full range of industrial, manufacturing, and related uses to expand the economic base, as well as employment opportunities. The South Sutter County Industrial/Commercial District (SSCI/C) is intended to allow large-scale industrial and commercial development in south Sutter County and is also intended to provide for the general welfare and increase the economic base and employment opportunities. This district is compatible with the Industrial/Commercial Reserve (I/C) General Plan land use designation and General Agricultural District (AG).

The proposed project land use diagram would be combined with the Sutter Pointe Land Use and Development Code, an appendix to the Specific Plan, to function as the zoning map and text for the project site. The project site would be rezoned with a new "Specific Plan" (SP) zoning district. Subsequent plot plans and tentative subdivision maps would be rezoned consistent with the zoning designations shown in Exhibit 3.1-5. Uses permitted in each land use and zoning designation are described in Appendix B, "Sutter Pointe Land Use and Development Code," of the Specific Plan. Table 3.1-1 summarizes definitions and permitted uses within each zoning designation.

The Land Use and Development Code replaces the Sutter County Zoning Code and would serve as the zoning regulations governing development, improvements, and construction on the project site in the period between adoption of the Specific Plan and incorporation of the Sutter Pointe community. Upon incorporation, the new city would be required to prepare a general plan and implementing zoning ordinance, pursuant to California Government Code requirements.

Implementing the proposed project would not physically divide an established community. Approximately 20 rural residences and mobile homes and associated agricultural outbuildings are located on the eastern boundary of the project site south of Sankey Road and west of Natomas Road. These residences are not formally or informally known as a community. Therefore, implementing the proposed project would not physically divide an established community and this issue is not evaluated further in this DEIR.

Consistency with the NBHCP is evaluated in Section 3.13, "Biological Resources" of this DEIR.

A second General Plan Amendment is part of the proposed project. This amendment would change the land use designation for the balance of the Industrial/Commercial Reserve area (north of the project site; illustrated in Exhibit 3.1-3) to Agriculture-80 Acre Minimum Lot Size. This proposed designation would match existing land uses and parcel sizes in this area. Since no change from existing land use would occur with this change, the proposed amendment would not result in any physical environmental impact. This issue is not analyzed further in this DEIR.

LEGEND

- LDR Low Density Residential
- MDR Medium Density Residential
- HDR High Density Residential
- RC Regional Commercial
- CC Community Commercial
- NC Neighborhood Commercial
- MU Mixed Use
- E1 Employment 1
- E2 Employment 2
- P Parks
- OS Open Space
- IDB Industrial Drainage Basins

Combining Districts

- FP Special Floodplain Combining District
- PD Planned Development Combining District

- K-8 School
- High School

Highway 99/70

Future Placer Pkwy. (Sankey Road)

Riego Road

Powerline Road

Sutter County

Sacramento County

Placer County

0 1250 2500 FEET

NORTH

G 05110040.01 097

Source: Adapted by EDAW in 2008

Proposed Zoning Districts **Exhibit 3.1-5**

Table 3.1-1
Sutter Pointe Specific Plan Proposed Land Use and Zoning Designations

Proposed Land Use Designation	Proposed Zoning Designation	Specific Plan Definition	Proposed Project Uses
Low Density Residential	LDR	Densities of 2–4 du/ac. The low-density residential land use designation would provide for primarily single-family detached residential development, with some attached and clustered single-family homes located at the east end of the Traditional Village and adjacent to the proposed regional park and golf course or natural open space area in the Recreational Village. This designation also would provide the ability to incorporate attached and clustered single-family homes.	Single-family detached residential development, with some attached and clustered single-family homes; active adult, community living, and senior housing, provided the overall density range is maintained.
Medium Density Residential	MDR	Densities of 4.1 to 12 du/ac. The medium-density residential land use designation would provide for both single-family and multifamily residential development. Within this land use designation, a variety of product types and lot sizes would be encouraged, with no residential village using a single minimum lot size or prescribed housing configuration.	Single-family (detached, attached, clustered, zero lot line) residential development and multifamily residential development, including townhomes, stacked flats, and apartments. The small-lot, single-family units may include clustered attached and detached homes.
High Density Residential	HDR	Densities of 12.1 to 24 du/ac. The high-density residential land use designation would encourage primarily multifamily residential development. High-density residential uses would be located throughout the project site, generally clustered near planned commercial and mixed-use activity centers and along major transportation corridors.	Multifamily residential development including condominiums, townhomes, stacked flats, and apartments.
Employment 1	E1	0.2:1 to 0.5:1 FAR. This land use designation would include three major employment villages. It is intended for office and light industrial uses and would be used to buffer residential areas from more intensive E2 uses.	Retail uses, medical facilities, office parks (including research and development uses); related office-supporting commercial uses (such as copy centers, office supplies, cafes, and retail sales and services); light industrial uses (such as high-tech manufacturing and assembly uses, distribution centers, warehousing, and regional commercial uses); and community facilities, such as transit centers and stops, government buildings, civic centers, colleges/universities, and fire stations.

Table 3.1-1
Sutter Pointe Specific Plan Proposed Land Use and Zoning Designations

Proposed Land Use Designation	Proposed Zoning Designation	Specific Plan Definition	Proposed Project Uses
Employment 1 Special Flood Plain Combining District	E1-FP	0.2:1 to 0.5:1 FAR if not used as flood zone. This land use would provide a buffer between industrial uses and residential uses, provide flood control to contain the floodwaters associated with the Sankey Gap, and allow for changing market conditions over time if alternate flood control measures become feasible.	Drainage, recreational, agricultural, and grazing uses; possible opportunities for additional E1 permitted uses, consistent with the description above.
Employment 2	E2	0.4:1 to 0.6:1 FAR. This land use designation would provide for the development of industrial/commercial uses. E2 uses would be located away from proposed residential uses and include heavy industrial uses in addition to E1 uses.	Large sites for large-scale industrial campuses, technological parks, distribution centers and warehousing, and higher intensity industrial manufacturing uses.
Commercial Retail	RC (Regional Commercial), CC (Community Commercial), NC (Neighborhood Commercial)	0.2:1 to 0.35:1 FAR. This land use designation would accommodate a mix of commercial retail and service uses along major circulation routes, intended to be both pedestrian and auto oriented, and would be easily accessible to adjacent residential neighborhoods. Commercial Retail uses occur exclusively within activity centers (regional centers, village centers, and neighborhood centers). Differences in permitted use types and development standards are encouraged between each type of center to encourage development of appropriate types and scales.	Large-scale retail stores, grocery stores, professional offices, restaurants, movie theaters, transit stops, and government and civic buildings.
Industrial Drainage Basin	IDB	The industrial drainage basins would primarily serve the drainage needs of neighboring E1 and E2 land uses.	Drainage basins, recreational facilities for surrounding residents.
Mixed Use	MU	12.1 to 45 du/ac and 0.2:1 to 1.5:1 FAR. This land use designation would encourage mixed commercial, residential, office, and civic uses.	Ground floor commercial uses with residences or offices above, horizontal mixed use consisting of commercial and residential development occurring side-by-side on the same site; large-scale retail stores, grocery stores, professional offices, restaurants, movie theaters, transit stops, and government and civic buildings.

Table 3.1-1
Sutter Pointe Specific Plan Proposed Land Use and Zoning Designations

Proposed Land Use Designation	Proposed Zoning Designation	Specific Plan Definition	Proposed Project Uses
Mixed Use-Planned Development Combining District	MU-PD	12.1 to 45 du/ac and 0.2:1 to 1.5:1 FAR. A Planned Development is a distinct category of conditional use. It is intended to encourage the efficient use of land and resources, promoting greater efficiency in public and utility services and encouraging innovation in the planning and building of all types of development. The intent of using a Planned Development process is to ensure that all of the desired uses are accommodated and the overall design objectives achieved as individual projects are approved and constructed.	Ground floor commercial uses with residences or offices above, horizontal mixed use consisting of commercial and residential development occurring side-by-side on the same site; and large-scale retail stores, grocery stores, professional offices, restaurants, movie theaters, transit stops, and government and civic buildings.
Parks	P	The Parks land use designation includes two regional parks and five community parks.	Active sports and recreation, open spaces, lakes, greenbelts, trails, and a potential golf course.
Open Space	OS	The Open Space land use designation would provide additional recreational uses to those offered within the Parks designation	
Schools	K–8, HS	Six K–8 school sites would be located in the residential villages located adjacent to a public park wherever feasible. These schools would be part of the Pleasant Grove Joint Union School District. One high school campus site would be located in the Traditional Village, adjacent to two community parks, and would be part of the East Nicolaus High School District.	K–8 school with appropriate facilities, such as gymnasiums, libraries, and performing arts centers; high school with joint-use facilities, such as ball fields, gymnasiums, libraries, an aquatic center, and a performing arts center.

Source: Data compiled by EDAW in 2008
Notes: du/ac = dwelling unit per acre; FAR = floor area ratio.

Program-Level Impacts and Mitigation Measures

IMPACT 3.1-1 Consistency with Sutter County LAFCO Guidelines. *The proposed project would require approval by the Sutter County LAFCO of a reorganization for detachment of its existing CSA and creation of a new CSA, establishment of a sphere of influence coterminous with the boundaries of the project site, and possible eventual incorporation of the project site.*

On-Site Elements

LAFCO is charged with applying the policies and provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act (California Government Code Section 56000 et seq.) to its decisions regarding annexations, incorporations, reorganizations, and other changes in government organization. This act establishes the process through which a local agency boundary change is made and associated planning authority is transferred from one local agency to another. Generally, LAFCO is responsible for determining whether an annexation is consistent with the LAFCO objectives and policies of ensuring planned, logical, and orderly patterns of urban growth; avoiding premature conversion of farmland; and ensuring that services would be available to new development within proposed annexation areas.

Implementation of the proposed project would require approval by the Sutter County LAFCO of a reorganization for detachment from its existing CSA and creation of a new CSA, establishment of a sphere of influence coterminous with the boundaries of the project site, and possible eventual incorporation of the project site. Sutter County LAFCO would need to conduct proceedings to consider if these actions are consistent with LAFCO guidelines.

Implementing the proposed project would result in the conversion of Important Farmland to nonagricultural uses. However, the County General Plan designates the project site as Industrial/Commercial Reserve (I/C). The decision to urbanize the project site and convert it from agriculture was made with adoption of the existing General Plan in 1996. The proposed project's effect on agricultural resources and resultant agricultural land conversion is addressed in Section 3.11, "Agricultural Resources."

In addition to the proposed project, other nearby planned or approved developments, including the Metro Air Park and Greenbriar Specific Plan to the southwest and the Placer Vineyards Specific Plan and Rio Linda/Elverta Specific Plan to the east, have converted or have been approved to convert predominantly agriculture areas to urban uses. These planned and approved projects are separated by some distance from the site by agricultural uses (see Exhibit 2-3 in Chapter 2, "Project Description"); therefore, the development of the proposed project would not be a logical extension of existing and planned urban development. However, the proposed project would result in a more orderly and efficient pattern of growth as compared to development under the existing General Plan, which would allow 3,500 acres of uncontiguous industrial development spread out in any fashion over a 10,000-acre area. The project site has been identified in the Sutter County General Plan as an area planned for urban development. The project site is also designated as an area targeted for new urban growth in south Sutter County in the Sacramento Region Blueprint (see Impact 3.1-4 below). The proposed project would develop residential, commercial, and industrial land uses that are part of an overall economic development strategy to bring additional jobs to this area. Jobs generated by the proposed project are anticipated to be filled by residents from within the project site.

The project site is entirely within the boundaries of the NBHCP as an area that may be developed for urban uses. The proposed project has the potential to offer a greater variety of mixed-use areas and a greater range of housing choices based on its larger number of units and takes full advantage of the development potential authorized by the NBHCP.

Initial services on the project site would be provided by a CSA. The area is served by a CSA. The project site would be detached from the existing CSA and become part of its own specific CSA. An ultimate service area (sphere of influence) that is coterminous with the boundaries of the project site would be established, and

development would be conditioned to provide adequate revenues to achieve service standards established in the Specific Plan.

The Measure M Group has initiated coordination with the various service providers regarding provision of utilities and public services on an as-needed basis. The proposed project provides for creation of a CSA to enable Sutter County to provide drainage/flood control, potable water, reclaimed water, and on-site sewer services. The County would provide fire services, law enforcement services, and recreation services for the proposed project through a dependent or independent special district (a CSA or some other county agency). Upon incorporation, responsibility for drainage maintenance and operation services, sewer service, water service, and fire, law enforcement, and recreation services may transfer to the new city government. Some services, by state statute, are the exclusive responsibility of a county to provide to both cities and unincorporated areas. These services include, for example, agricultural commissioner, auditor-controller, assessor, courts, jails, and health and social welfare services. Such services would continue to be provided by Sutter County to the Sutter Pointe community.

Because development of the proposed project would result in a more orderly and efficient pattern of growth as compared to development under the current General Plan, and because the proposed project would provide adequate utilities and public services and revenues to achieve service standards, this **direct** impact is **less than significant**. **No indirect** impacts would occur. (Refer to Sections 3.8, "Public Services," 3.9, "Water Supply," 3.10, "Public Utilities," and "3.11, "Agricultural Resources," for analysis of physical impacts on the environment associated with these services.)

Off-Site Elements

The proposed off-site infrastructure elements are related to the provision of utilities to the project site and would not result in land uses that would require approval by LAFCO, such as changes in government organization, annexation to a local agency, or reorganization of a service provider's boundaries. They would not involve construction of new housing or commercial and industrial land uses, and these elements would not lead to an increase in residents or employees in the area. Implementing the off-site elements would not result in actions that would require approval of the Sutter County LAFCO. Therefore, implementing these elements would have **no direct** or **indirect** impacts.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.1-2 Consistency with Sutter County LAFCO and Sacramento LAFCO Guidelines for Service to the Project Site by SRCSD. *Extension of the SRCSD sphere of influence to the project site would require approval by Sacramento LAFCO before SRCSD could provide wastewater service to the proposed project.*

On-Site Elements

As stated above in the discussion of Impact 3.1-1, LAFCO is responsible for determining whether an extension of the SRCSD sphere of influence to serve the project site in anticipation of a later "change of organization" as defined by statute is consistent with the LAFCO objectives and policies of ensuring the logical and orderly patterns of urban growth, avoiding premature conversion of farmland, and ensuring that services would be available to new development in the areas.

For the proposed project, the Sutter County LAFCO and Sacramento LAFCO would oversee the establishment or revision of boundaries for local municipalities and independent special districts, such as SRCSD. The project site is not currently located in SRCSD's service area. Before SRCSD could serve the proposed project, Sacramento LAFCO would need to conduct proceedings to consider an amendment to the sphere of influence based on consistency with LAFCO guidelines, and either annexation of the territory into SRCSD's service area, or a

wastewater services agreement and operations agreement (which would act as a binding contract between Sutter County and SRCSD, as well as defining facilities and operation). The SRCSD would provide off-site interceptor conveyance and sanitary sewer treatment at the SRWTP. Currently, the project site is not within the SRCSD's service area. Sutter County LAFCO would need to approve connection to SRCSD service, and Sacramento County LAFCO would need to approve expansion of SRCSD's sphere of influence to include the project site before SRCSD could provide wastewater service to the proposed project. Sutter County is currently negotiating an agreement with SRCSD to provide sewer service to the project site. A Principles of Agreement between Sutter County and SRCSD is expected in late 2008. This agreement would define the general terms through which wastewater service would be provided to the proposed project by SRCSD, summarize the maximum wastewater flow rates generated by the proposed project, identify wastewater conveyance and storage facilities to be constructed by the project applicant(s), and establish fees to be paid to SRCSD for wastewater service. The Principals of Agreement do not commit the County to approval of the project, but they provide for a means for wastewater disposal in the event that the proposed project is approved. Approval of this agreement is required before wastewater flows generated by the proposed project could be conveyed and treated at the SRWTP. In addition, the proposed project would require a wastewater services agreement, which would act as a binding contract between Sutter County and SRCSD, and an operations agreement, which would identify the specific wastewater facilities required, and would define the operation of these facilities, before SRCSD would provide sewer service to the project site.

As stated above, development of the proposed project would result in a more orderly and efficient pattern of growth. Therefore, implementation of the proposed project would generally be consistent with the Cortese-Knox-Hertzberg Act and the County LAFCO Guidelines, and this **direct** impact is **less than significant**. **No indirect** impacts would occur. (Refer to Sections 3.9, Water Supply," and 3.10, "Public Utilities," for impacts associated with the physical impacts on the environmental from provision of wastewater service.)

Off-Site Elements

The proposed off-site infrastructure elements are related to the provision of utilities to the project site, and would not include land uses that require connection to SRCSD for provision of service. They would not involve construction of new housing or commercial and industrial land uses, and these elements would not lead to an increase in residents or employees in the area. Implementing the off-site elements would not result in actions that would require approval of the Sutter County LAFCO or Sacramento LAFCO. Therefore, implementing these elements would have **no direct** or **indirect** impacts.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.1-3 **Compatibility with the Sacramento International Airport Comprehensive Airport Land Use Plan.** *The Sacramento International Airport CLUP defines compatible land uses within airport safety zones and prohibits new residential development in those areas subject to noise levels of 65-db CNEL or above.*

On-Site Elements

The Sacramento International Airport is located in unincorporated Sacramento County approximately 1.5 miles from the southwest corner of the project site. The State Aeronautics Act requires each county to establish an Airport Land Use Commission to regulate land use around airports, in order to protect public safety and ensure that land uses near airports do not interfere with aviation operations. The California Supreme Court also recently characterized airport Land Use Plans as carrying significant, binding regulatory consequences for local government land use decision making. (*Muzzy Ranch Co. v. Solano County Airport Land Use Commission* (2007) 41 Cal.4th 372.) In certain circumstances, however, local governments have the ability to override the decisions of the Airport Land Use Commission. The Sacramento International Airport CLUP establishes planning

boundaries for the airport and defines compatibility guidelines for height, noise, and safety and patterns of future land use. New land uses proposed in any of these zones must comply with the standards identified by the Sacramento International Airport CLUP unless the governing body of a local agency (e.g., a Board of Supervisors) overrides an adverse determination of consistency by an airport land use commission – here SACOG – by a super-majority (2/3) vote pursuant to Public Utilities Code section 21676. In addition, the CLUP prohibits new residential development and school uses in those areas subject to noise levels of 65-dB CNEL or above. Development in areas between the 60- and 65-dB CNEL are subject to an aircraft noise evaluation and implementation of recommended noise reduction measures.

The western and southwestern portion of the project site east of Powerline Road and south of Riego Road would be located in the Overflight Zone and within the 60- and 65-dB CNEL noise contour (see Exhibit 3.1-2). This portion of the project site is designated as Employment-2 (E2) and would provide large sites for large-scale industrial campuses, technological parks, distribution centers and warehousing, and higher intensity industrial manufacturing uses. These land uses are considered compatible uses in the Overflight Zone according to the CLUP. All proposed E2 land uses within the 60- and 65-dB CNEL noise contour are compatible with the CLUP. No residential or school uses would be located within any airport safety zones or in those areas subject to noise levels of 65-dB CNEL or above. The proposed project would require a finding of consistency by the ALUC regarding the Sacramento International Airport CLUP. Because the proposed project would not conflict with the Sacramento International Airport CLUP, this **direct** impact is **less than significant**. **No indirect** impacts would occur. (Refer to Section 3.5, "Noise," for further discussion of physical noise impacts on the environment related to the Sacramento International Airport CLUP.)

Off-Site Elements

The proposed off-site infrastructure elements are related to the provision of utilities to the project site. They would not involve construction of new housing or commercial and industrial land uses, and these elements would not lead to an increase in residents or employees in the area. Implementing the off-site elements would not result in land uses that would conflict with the Sacramento International Airport CLUP. Therefore, implementing these elements would have **no direct** or **indirect** impacts.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.1-4 **Conflict with the SACOG Sacramento Region Blueprint.** *Implementation of the proposed project would differ somewhat from the SACOG Sacramento Region Preferred Blueprint Scenario.*

On-Site Elements

The Sacramento Region Blueprint is advisory and therefore does not establish land use restrictions on the County. SACOG has no land use authority. SACOG makes clear that the land use designations presented on the Blueprint Preferred Scenario are conceptual and reflect general land use locations in a local area. Although it is only advisory, the Blueprint provides policy guidance in the Sacramento region for long-term regional land use and transportation planning that would potentially result in the protection of natural resources (because less land would be required for urban uses), less conversion of agricultural land, and reduction in traffic that would improve air quality in the region.

The project site is generally the same size and largely overlaps the development footprint proposed for the area in the SACOG Blueprint preferred scenario. The 7,528-acre project site is slightly larger than the 7,420-acre footprint in the Blueprint and is in a slightly different configuration so that the entire project site can be developed in a manner consistent with the NBHCP. The Blueprint scenario included development on lands not covered by the NBHCP. Given that the Blueprint is a conceptual scenario developed at a regional scale, it can be inferred that

the project site and project development generally are what has been identified in the Blueprint for South Sutter County. This area is identified as a large regional-scale employment center complimented by a significant amount of nearby housing and other supporting uses. The most significant change in the Blueprint's preferred scenario from the Base Case scenario was incorporating housing into an area that had previously been planned exclusively for commercial and industrial uses in order to create a more balanced and complete community, similar to the proposed project. The Blueprint's land use designation for the project area is illustrated in Exhibit 3.1-1. The proposed project is the only large area targeted for new growth in South Sutter County.

The proposed project would include a greater density of residential development and exceed the job projections identified in the Blueprint for the south Sutter County area. The Blueprint identifies approximately 20,000 jobs and 8,500 residential units in south Sutter County, resulting in a jobs/housing index of 2.4 by 2050. The proposed project accommodates approximately 58,000 jobs and 17,500 units, resulting in a jobs/housing index of 3.3 at buildout. The additional employment and higher jobs/housing index are part of an overall economic development strategy to bring additional jobs to this area, consistent with the intent and outcomes of Measure M. Higher-intensity development is generally supported by the Blueprint. In addition, the proposed project reflects the concept of smart growth, consistent with the SACOG Blueprint. These features are summarized below:

- **Transportation Choices:** The proposed project includes public transportation and regional transit right-of-way and stations along Riego Road and Sankey Road (future Placer Parkway), and a comprehensive network of pedestrian and bicycle trails that provide connections between neighborhoods and other destinations such as parks, schools, commercial activity centers, and employment.

- **Mixed-Use Development:** A mixed-use Town Center is proposed that would accommodate civic, residential, and commercial functions. Five additional multiuse activity centers are proposed. Provisions to allow mixed uses within three of these centers are incorporated within the proposed Specific Plan.

- **Compact Development:** Activity centers composed of higher density residential and mixed-use development are proposed near transportation nodes (regional transit stations) and commercial/employment centers.

- **Housing Choice and Diversity:** A variety of housing types are proposed to better serve the economic diversity of local homebuyers, including apartments, condominiums, single-family detached and attached products, and senior/active adult housing products.

- **Use of Existing Assets***:* Land uses are linked to existing transportation patterns, and the Phase 1 development area is centered around a proposed interchange at Riego Road and SR 99/70, which is being addressed in a separate CEQA document by the California Department of Transportation.

- **Quality Design:** The proposed project is intended to provide a variety of high-quality neighborhood and town center designs, appropriate to the scale and use of residential areas, employment districts, and activity centers. Recreational uses and parks are proposed throughout the community and integrated within its design.

- **Natural Resource Conservation:** Sutter Pointe is located on land previously identified in the Sutter County General Plan for industrial/commercial development, and planned as Authorized Development in the NBHCP.

Although the proposed project would include a greater density of residential development and exceed the jobs projections identified in the Blueprint for south Sutter County, the project fulfills the principles of smart growth identified in the Blueprint. The greater density and intensity of uses in the proposed project (relative to the Preferred Blueprint Scenario) would allow for a system of multimodal transportation that includes more frequent and varied transit connections. The proposed project has the potential to offer a greater variety of mixed-use areas and a greater range of housing choices based on its larger number of units and takes full advantage of the development potential authorized by the NBHCP. Therefore, this **direct** impact is **less than significant**. **No indirect** impacts would occur. (See Sections 3.1 through 3.17 of this DEIR for an evaluation of the physical impacts on the environment associated with development of the proposed project.)

Off-Site Elements

The proposed off-site infrastructure elements are related to the provision of utilities to the project site. They would not involve construction of new housing or commercial and industrial land uses, and these elements would not lead to an increase in residents or employees in the area. Implementing the off-site elements would not result in land uses that would conflict with the SACOG Sacramento Region Blueprint. Therefore, implementing these elements would have **no direct** or **indirect** impacts.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.1-5 Consistency with Measure M. *Implementation of the proposed project would include development of residential uses, commercial/industrial uses, supporting public facilities and services, and infrastructure improvements consistent with the recommendations of Measure M.*

On-Site Elements

The project site would be located within the Sutter County Industrial-Commercial Reserve and would be subject to the advisory development caps established by Measure M. The proposed project would permit a maximum of 17,500 residential units and up to 49.7 million square feet of commercial/industrial space on approximately 7,528 acres. These limits are consistent with the provisions of Measure M and are established as advisory maximum development caps within specific plan land use policy. Rounding out the proposed project would be supporting facilities and services, including parks, schools, a library, a civic center, and other civic buildings, and public services, including law enforcement and fire protection. These facilities and services would be paid for by the proposed project development, without reducing current service levels, as recommended by Measure M. Similarly, all necessary road, bridge, water, drainage, sewer, and other improvements would be paid for by proposed project development.

The proposed project phases and financing plan are structured to ensure that planned infrastructure improvements and public facilities in each phase can support the associated development and that, in turn, the development in each phase can support the costs of the required improvements.

Measure M suggests that "large commercial and industrial parks would be developed and marketed in the initial phases of the community to attract new employers to the County." To meet this requirement, the proposed project would allow the residential mixed-use community and the employment villages to develop separate and apart from each other based upon market conditions. Infrastructure would be provided to each phase of the employment villages as infrastructure is provided to each phase of the residential mixed-use community. This would allow job-generating and residential land uses to be constructed concurrently should the market support such development. This would allow fulfillment of the Measure M recommendations, as infrastructure for each phase of each community would be built as demand requires it.

Because the proposed project would include development of residential and nonresidential uses and supporting infrastructure consistent with the recommendations of Measure M, this **direct** impact is **less than significant**. **No indirect** impacts would occur.

Off-Site Elements

The proposed off-site infrastructure elements are related to the provision of utilities to the project site. They would not involve construction of new housing or commercial and industrial land uses, and these elements would not lead to an increase in residents or employees in the area. Implementing the off-site elements would not result

in land uses that would conflict with the recommendations of Measure M. Therefore, implementing these elements would have **no direct** or **indirect** impacts.

Mitigation Measures

No mitigation measures are required.

Additional Detailed Analysis of On-Site Elements – Impacts and Mitigation Measures

IMPACT 3.1-6 Consistency with Sutter County LAFCO Guidelines. *Development of Phase 1 and Phase A would require approval by the Sutter County LAFCO of a reorganization for detachment of its existing CSA and creation of a new CSA, establishment of a sphere of influence coterminous with the boundaries of the project site, and possible eventual incorporation of the project site.*

Impacts would be the same under Phase 1 and Phase A as under the program (entire project site) level analysis. Refer to Impact 3.1-1 for further discussion of this impact.

IMPACT 3.1-7 Consistency with Sutter County LAFCO and Sacramento LAFCO Guidelines for Service to Attachment the Project Site by SRCSD. *Extension of the SRCSD service area sphere of influence to include Phase 1 and Phase A would require approval by Sacramento LAFCO before SRCSD could provide wastewater service to the proposed project.*

Impacts would be the same under Phase 1 and Phase A as under the program (entire project site) level analysis. Refer to Impact 3.1-2 for further discussion of this impact.

IMPACT 3.1-8 Compatibility with the Sacramento International Airport Comprehensive Airport Land Use Plan. *The Sacramento International Airport CLUP defines compatible land uses within airport safety zones and prohibits new residential development in those areas subject to noise levels of 65-dB CNEL or above.*

Impacts would be the same under Phase 1 and Phase A as under the program (entire project site) level analysis. Refer to Impact 3.1-3 for further discussion of this impact.

IMPACT 3.1-9 Conflict with the SACOG Sacramento Region Blueprint. *Implementation of Phase 1 and Phase A would differ somewhat from the SACOG Sacramento Region Preferred Blueprint Scenario.*

Impacts would be the same under Phase 1 and Phase A as under the program (entire project site) level analysis. Refer to Impact 3.1-4 for further discussion of this impact.

IMPACT 3.1-10 Consistency with Measure M. *Implementation of Phase 1 and Phase A would include development of residential uses, commercial/industrial uses, supporting public facilities and services, and infrastructure improvements consistent with the recommendations of Measure M.*

Impacts would be the same under Phase 1 and Phase A as under the program (entire project site) level analysis. Refer to Impact 3.1-5 for further discussion of this impact.

3.1.4 RESIDUAL SIGNIFICANT IMPACTS

Impacts associated with land use are less than significant. Therefore, there would be no residual significant impacts.

3.2 POPULATION, HOUSING, AND EMPLOYMENT

This section documents the existing population, employment, and housing conditions in Sutter County and presents estimates of changes to those conditions that could be created with implementation of the proposed project. This section also characterizes the population, employment, and housing changes that could trigger adverse physical effects in the county or the region. Regional job/housing ratios are addressed in Chapter 5, "Cumulative Impacts."

3.2.1 REGULATORY BACKGROUND

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to population, housing, and employment are applicable to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

A Regional Housing Needs Plan (RHNP) is mandated by the State of California (Government Code Section 65584) for regions to address housing issues and needs based on future growth projections for the area. The RHNP is developed by the Sacramento Area Council of Governments (SACOG) and allocates to cities and counties their "fair share" of the region's projected housing needs based on household income groupings over the planning period for each specific jurisdiction's housing element.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

The project site is located in unincorporated Sutter County. The off-site elements of the proposed project would extend into Placer and Sacramento Counties and are related to the provision of supporting roadways and infrastructure to the project site. They would not involve construction of new housing or development of new employment opportunities in Placer or Sacramento County. For this reason, only adopted Sutter County plans, policies, regulations, and ordinances are presented in this section.

Sutter County General Plan

The following goals and policies from the Sutter County General Plan (Sutter County 1996) regarding population, housing, and employment are applicable to the proposed project.

Economic Development Element

- **GOAL 1.I:** To preserve and promote a healthy and diverse economy to serve the needs of Sutter County residents.

    - **Policy 1.I-1:** The County shall work to preserve and expand business and employment opportunities within Sutter County.

    - **Policy 1.I-4:** Economic development efforts should attempt to diversify the County's economic base while encouraging retention and expansion of existing businesses and industries.

Housing Element

- **GOAL 2:** Encourage the adequate supply of various housing types at various densities to meet the needs of all income groups and insure that housing opportunities are open to all without regard to race, color, age, sex, religion, national origin, family status or physical handicap.

- **Objective 2A:** Provide an adequate housing supply with a balanced inventory of dwelling types and densities at all economic levels to meet the needs of present and future residents of Sutter County.

- **Objective 2B:** Provide an increase in assisted housing for low-income families.

- **Objective 2E:** Promote equal housing opportunity for all residents of Sutter County.

- **Objective 2F:** Provide opportunities to develop a balanced regional housing inventory.

    - **Policy 2.1:** All Sutter County residential development projects meeting the criteria of Chapter 1600 of the Sutter County Ordinance Code [Sutter County Affordable Housing Ordinance] will be required to assist in meeting the regional housing needs. Submittals shall show how the development project is assisting to meet the County's regional fair share need for affordable housing to lower-income households.

    - **Policy 2.11:** The County shall continue to support actions to fulfill its fair share of regional housing needs for the area.

Sutter County Affordable Housing Program Ordinance

The Sutter County Affordable Housing Program Ordinance (Chapter 1600, Section 1225) applies to every for-sale residential development project of 10 or more dwelling units (single-family detached or attached units or a combination) and requires set aside of 5% of the units for sale at an affordable price to moderate- and low-income households. It establishes the following provisions:

- Affordable housing units to the extent feasible shall be constructed on-site and include a mix of unit sizes within the development as approved by the Community Services Director or his/her designee. However, the requirement to construct on-site may be satisfied by constructing rental units. Affordable units shall not be unreasonably clustered together in any building, complex, or area of the development.

- Affordable units shall be compatible in appearance to market rate units on the exterior and shall comply with applicable development standards.

- Affordable housing shall be available to households earning not greater than 120% of County median annual income adjusted for family size. The maximum sale price shall be determined by the Housing Authority on an annual basis.

- Issuance of certificates of occupancy for affordable units shall occur concurrently with those for market rate units and shall be issued in proportion to the total number of market rate certificates issues.

- All for-sale units shall be maintained affordable for a period of 5 years from the date of the initial sale with deed restrictions in effect on all affordable units and enforced by the Housing Authority.

The program also establishes in-lieu fees, land dedication, density bonuses or credits, priority processing of applications, reductions of design and development standards, and technical and financial assistance programs.

The Affordable Housing Program Ordinance requires the project applicant to comply with the ordinance at the time of application submittal (e.g., tentative map, rezoning, general plan amendment, specific plan, development agreement, and use permits) to the County. The project application must identify on a site plan for the project the number of market rate units proposed, the number of each type of affordable unit proposed, and the location of each type of affordable unit in the proposed development.

3.2.2 ENVIRONMENTAL SETTING

The off-site elements of the proposed project are related to the provision of utilities to the project site. Because the off-site elements of the proposed project would not involve construction of new housing or development of new employment opportunities beyond temporary construction jobs, they are not discussed further in this section.

POPULATION

From 1990 to 2000, the population of Sutter County increased from 64,415 to 78,930, or 22.5% (U.S. Census Bureau 2000). As of January 1, 2007, the population of Sutter County was estimated to be 93,919 (California Department of Finance 2007a). Population growth in Sutter County is projected to continue; however, estimates of the future population as forecast by different planning processes used by the County vary depending on the assumptions used in those projections.

The County General Plan, prepared in 1996, projected that the total population of the county would be approximately 116,000 people by 2015. Projections in the plan were based on SACOG's estimated population projections from 1995 through 2015. These projections assume that more than 83% of all new population increases would occur in the Yuba City Urban Area, that more than 9% would occur in the city of Live Oak, and that the remainder would occur uniformly throughout the rest of the unincorporated county area. The projections also assumed that no growth to either city would occur through annexation. The SACOG estimates were based on extrapolations of historic growth trends and did not account for some of the specific projects currently planned in the county (Sutter County 1996).

The County adopted an updated General Plan Housing Element for the 2002–2007 planning period that evaluated current population, employment, and housing conditions in Sutter County. Population and housing projections in the housing element are based on existing land use policies as adopted and included in the County General Plan. The County has generally based population data in the housing element on 1990 and 2000 U.S. Census Bureau data; however, several other data sets were also used, including the March 15, 2001, projection series developed by SACOG, the 1999 Sutter County Housing Condition Survey, and various reports produced by the California Department of Finance and the Employment Development Department. The housing element estimates that the total population resulting from planned residential growth in the county would be approximately 109,820 people by 2015, which would be approximately 15,901 more people than the 2007 population (93,919) of Sutter County (Sutter County 2004).

EMPLOYMENT

Employment growth is one of the primary determinants of housing demand. Working-age individuals often choose a place to live based on employment prospects in the local area. Therefore, employment trends are an important indicator of housing demand. The rate of employment growth, and the types of jobs most likely to be created, would determine how much housing would be needed by type and cost. For example, an economy based on seasonal tourism will generate different housing needs for local workers than an economy based on government, education, research, and technology. The following discussion provides the historical, current, and future employment conditions in Sutter County. The anticipated trend in the jobs/housing index is provided in Chapter 5, "Cumulative Impacts."

Historically, agriculturally related employment accounted for a substantial portion of the jobs in Sutter County. Since 1990, the percentage of jobs in agriculture has decreased by approximately 10%. Offsetting the loss of agricultural jobs has been steady growth in the number of jobs related to education, health services, financial activities, and professional and business services. From 1990 to 2000, the number of jobs in Sutter County increased from 26,359 to 30,980, or 17.5%. Of the total employment in 2000, 46.1% was in education, health services, financial activities, and professional and business services; 32.8% was in farming, construction, mining

and natural resources, manufacturing, transportation, and public utilities; 16.4% was in wholesale and retail trades; and 4.7% was in other services (U.S. Census Bureau 2000).

As discussed above, the proposed project would be located in the 9,500-acre Sutter County Industrial-Commercial Reserve. This area was designated in the 1996 County General Plan as Industrial-Commercial Reserve to accommodate employment-related uses. Measure M outlines a strategic method to deliver jobs to Sutter County and requires that at least 3,600 acres of the Industrial-Commercial Reserve be provided for commercial and industrial parks to create new jobs as a condition of having residential units approved. Measure M estimated that development of this area would generate more than 55,000 jobs over a 20- to 30-year period (Sutter County 2004). To date, because of the lack of necessary infrastructure, no substantial employment-generating industry has located in south Sutter County.

Existing On-Site Industrial Uses

Existing industrial uses on the project site consist of the Sysco Corporation warehousing and distribution center, the Holt Tractor Manufacturing facility, A&N Auto Repair, and AR Readymix, all of which would remain part of the site and have been incorporated into the proposed Specific Plan. The 50-acre Sysco Corporation warehousing and distribution center, located at 7062 Pacific Avenue, employs approximately 500 people (Manta 2007a). The Sysco Corporation supplies more than 10,000 food and related products, such as fresh and frozen meats and vegetables, cleaning supplies, and healthcare and medical supplies, and distributes them throughout northern California, southern Oregon, and western Nevada (Sysco Corporation 2007).

The Holt Tractor Manufacturing facility, located at 7310 Pacific Avenue, employs approximately 155 people (Manta 2007b). It sells and services a wide variety of agricultural, earthmoving, and materials-handling equipment, including large and small construction tractors, agricultural equipment, forklifts, racking systems, power generators, and on-highway truck engines (Holt of California 2007).

A&N Auto Repair and AR Readymix together occupy approximately 30 acres and are both located at 3131 Sankey Road. A&N Auto Repair employs approximately four people and provides general automotive repair services. AR Readymix employs approximately four people, with services including wholesale brick and stone manufacturing, as well as ready-mix concrete. (Manta 2007c.)

HOUSING

Sutter County, as reflected in the 2000 U.S. Census Bureau, is a community with a low vacancy rate and relatively large households (currently 2.95 people per household). The U.S. Census Bureau reports that the number of housing units in the county increased from 24,163 in 1990 to 27,033 in 2000 (U.S. Census Bureau 2000). The county's housing growth rate was approximately 11.9%, with the supply and composition of housing changing little in this 10-year period. The number of housing units as of January 1, 2007, is estimated to be 33,069 (California Department of Finance 2007b). Similar to the housing price pullback experienced nationwide, median home prices in the county declined by 8.2% during a recent 1-year period (April 2006 to April 2007), from $319,000 to $293,000 (Nguyen 2007).

The relative ability of a community to meet the demands for local housing is analyzed using a "vacancy rate," which establishes the relationship between housing supply and demand. If the demand for housing units is greater than the available supply, then the vacancy rate is low and the price of housing will most likely increase at a higher rate than an area where supply and demand are more in balance (the current national pricing trends notwithstanding). According to the California Department of Housing and Community Development (HCD) (2000), a housing vacancy rate of 5% is considered normal. Vacancy rates below 5% indicate a housing shortage in a community. The U.S. Census Bureau reports that Sutter County had a vacancy rate of 1.5% for owner-occupied units and 4.8% for rental units in 2000. These vacancy rates indicate that the county experienced a tight housing market and a housing shortage. As of 2005, Sutter County had a vacancy rate of 2.3% for owner-

occupied units and 7.0% for rental units (U.S. Census Bureau 2005). The changes in vacancy rates between 2000 and 2005 indicate an increasing availability in housing in the county. The number of housing units in Sutter County is anticipated to continue increasing with the approval of development plans and the construction of new and proposed residential projects.

Measure M, an advisory measure approved by voters in 2004, allocates up to 2,900 acres for residential construction with a maximum of 17,500 residential units. Under Measure M, these residential units would be located in south Sutter County on 7,500 acres within the 10,500-acre Sutter County "Industrial-Commercial Reserve" area (in 2005, the County reduced the size of the area to 9,500 acres) and integrated with the Natomas Basin Habitat Conservation Plan. The proposed project proposes to amend the General Plan designation of Industrial-Commercial Reserve to be consistent with the land uses of Measure M.

Regional Housing Needs Plan

For its most recent RHNP, which was adopted on February 21, 2008, SACOG took into consideration several factors: market demand for housing; type and tenure of housing supply; employment opportunities; commuting patterns; availability of suitable residential sites and public facilities; loss of assisted multifamily units; avoiding further concentration of lower income households; and special housing needs. Table 3.2-1 shows Sutter County's allocation of regional housing needs for the 2006–2013 planning period.

SACOG anticipates that 5,678 housing units (including existing units) would be required for Sutter County during the current planning period (2006–2013) to meet regional housing needs. Table 3.2-1 shows the distribution of housing needs by income level for Sutter County.

Table 3.2-1
Sutter County Regional Housing Needs Allocation for 2006–2013

Income Grouping	Projected Housing Units (2013)	Percent of Affordable Housing Need
Very low	1,125	19.8
Low	880	15.5
Moderate	1,316	23.2
Above moderate	2,357	41.5
Total	**5,678**	**100**

Source: SACOG 2008

3.2.3 IMPACTS AND MITIGATION MEASURES

ANALYSIS METHODOLOGY

The examination of population and housing conditions in this section is based on information obtained from review of available population and housing projections, including those included in the County General Plan (1996) and the Housing Element of the County General Plan (2004) and projections made by the U.S. Census Bureau (2000, 2005), the California Department of Finance (2007a, 2007b), and other sources. Population projections for the proposed project were calculated by Economic and Planning Systems (EPS) using estimated household sizes of 2.93 for low density, 2.77 for medium density, and 2.30 for high density and mixed-use residential units. These household sizes are derived from 2000 U.S. Census Bureau figures for Sutter County (EPS 2007).

The proposed project includes new housing and businesses that would result in direct increases in population at the project site in Sutter County over the 20- to 30-year buildout period. It is anticipated that the residential land

uses would develop at a relatively even rate, estimated to be approximately 18–20 years. Approximately 5% of the planned units would be designated for moderate-, low-, and very low-income households. This housing would include a mix of purchase housing affordable to moderate-income households and rental housing affordable to low- and very low-income households. This analysis assumes that development of the proposed project would generate the following numbers of residents and housing units:

- The proposed project would involve development of 1,461 low-density units, 12,014 medium-density units, 3,426 high-density residential units, and 599 units in the mixed-use land use designation, for a total of 17,500 new housing units. These residential units are estimated to generate 46,818 new residents in Sutter County. Approximately 5% of the planned units (875 units) would be designated for affordable housing, and approximately 3,000 of the planned units would be designated for senior housing.

- Phase 1 of the proposed project would involve development 345 low-density units, 5,389 medium-density units, 1,668 high-density residential units, and 368 units in the mixed-use land use designation for a total of 7,770 new housing units. These residential units would generate an estimated 21,621 new residents in Sutter County. Approximately 5% of the planned units (373 units) would be designated for affordable housing. Development Phase 1 is anticipated to be built out over approximately 7 years (2010–2017).

In addition, the proposed project would allow the development of approximately 3,627 acres of commercial and industrial land uses on the project site. The square footage of the commercial and industrial land uses for the proposed project was calculated by Economic & Planning Systems (EPS) using acreages for proposed employment land uses and average floor area ratios related to those uses. EPS estimates that implementation of the proposed project is expected to generate up to 49.706 million square feet of commercial/industrial space.

Specific indirect impacts associated with increased population and housing, such as traffic congestion, air quality degradation, noise generation, and increased demand for public services and utilities, are addressed in each technical section of this DEIR as appropriate. These technical sections provide a detailed analysis of other relevant environmental effects of the proposed project; therefore, indirect impacts are not discussed further in this section.

Infrastructure necessary to serve the project site would extend into Placer and Sacramento Counties. The on- and off-site elements of the proposed project related to the provision of utilities to the project site and roadway improvements would not involve construction of new housing or development of new employment opportunities in Placer or Sacramento County beyond temporary construction jobs. There is no housing proposed by the project along the routes of these infrastructure improvements, and further, these areas are not designated for urban development (see Chapter 6, “Other CEQA-Required Analyses”). Therefore, there would be no direct increases in population in these counties. Indirect impacts related to the potential that the off-site infrastructure improvements could induce additional population growth are addressed in Chapter 5, “Cumulative Impacts,” and Chapter 6, “Other CEQA-Required Analyses.”

THRESHOLDS OF SIGNIFICANCE

For the purpose of this analysis, the following applicable thresholds of significance have been used to determine whether implementing the proposed project would result in a significant impact. These thresholds of significance are based on Appendix G of the State CEQA Guidelines and professional judgment. A population, employment, and housing impact is considered significant if implementation of the proposed project would do any of the following:

- induce substantial population growth in an area, either directly (by proposed new homes and businesses) or indirectly (through the extension of roads or other infrastructure);

- generate a substantial demand for new housing, the construction of which could cause significant environmental impacts;

- displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere; or

- result in employment or housing conditions inconsistent with Sutter County's affordable housing goals, policies, or objectives in the General Plan to the extent that any such inconsistency will foreseeably result in adverse changes in the physical environment.

Although CEQA is concerned only with physical environmental effects related to population, employment, and housing issues, the County, in preparing this DEIR, has nevertheless included, for purposes of full disclosure, a discussion of how well the proposed project would satisfy General Plan affordable housing policies even though noncompliance would not translate into physical environmental effects.

IMPACT ANALYSIS

Approximately 20 rural residences and mobile homes and associated agricultural outbuildings are currently located on the eastern boundary of the project site south of Sankey Road and west of Natomas Road. These residences would not be removed as part of development of the proposed project. Therefore, implementing the proposed project would not displace substantial numbers of existing people or housing and necessitate the construction of replacement housing elsewhere. This issue area is not evaluated further in this DEIR.

For a discussion of project consistency with Measure M, see Section 3.1, "Land Use," of this DEIR,

Program-Level Impacts and Mitigation Measures

IMPACT 3.2-1 Temporary Increase in Employment and Subsequent Housing Demand during Construction. *Implementation of the proposed project would generate a temporary increase in employment and subsequent housing demand in Sutter County from construction jobs.*

On-Site and Off-Site Elements

It is anticipated that all project development phases and off-site elements would generate a temporary increase in employment and subsequent housing demand in Sutter County from construction jobs. Project construction activities would occur at intervals throughout the planning horizon of the proposed project, and the site would ultimately be built out in 20–30 years. The proposed project would be developed in four distinct phases for the residential mixed-use community components (Phases 1–4) and four phases for the employment villages (Phases A–D). Subsequent phases of development would be coupled with the construction of on- and off-site roadway and infrastructure needed to support each phase. Each development phase would likely be constructed as several small projects that would be ongoing throughout the phase. For example, roads and utilities, a housing development, and a commercial center, as well as supporting off-site improvements, could all be constructed simultaneously within each phase. It is estimated, based on prior analyses of similar projects, that the proposed project would generate approximately 500 construction jobs during the peak construction period. A greater number of construction workers would be employed during peak construction periods (determined by market demand and overall economic conditions), whereas fewer construction workers would be employed during nonpeak periods.

Construction workers serving the proposed project can be expected to come from Sutter County itself and from nearby communities in Placer and Sacramento Counties. According to the most current labor data available from the U.S. Census Bureau (2005), 3,442 residents in Sutter County, 17,851 residents in Placer County, and 37,223 residents in Sacramento County are employed in the construction industry. These existing numbers of residents who are employed in the construction industry would be sufficient to meet the demand for construction workers

that would be generated by the proposed project. Because these workers live in or near Sutter County, neither substantial population growth nor an increase in housing demand in the region is anticipated as a result of these jobs. Furthermore, if construction workers from outside the region were employed at the project site, the temporary nature of the work supports the conclusion that these workers would not change their residence to work at the site; therefore, substantial permanent relocation of these workers to the area is not anticipated. For these reasons, implementing the proposed project would not be expected to generate the need for substantial additional housing in Sutter County during construction. Because of these conditions, the temporary increase in population growth and housing demand associated with project construction is a **direct, less-than-significant** impact. **No indirect** impacts would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.2-2 Permanent Increase in Population Growth. *Implementation of the proposed project would result in the development of new residential dwelling units, which would cause a direct long-term increase in population.*

On-Site Elements

Implementation of the proposed project would directly induce population growth in Sutter County through the construction of new homes and businesses. It is anticipated that the residential land uses would develop at a relatively even rate, estimated to be approximately 18–20 years. Development of the project site would generate approximately 46,818 new residents in Sutter County during this time frame (Table 3.2-2).

Table 3.2-2
Projected Increase in Population Growth for the Project Site

Residential Use	Acres	Units	Residents [1]
Low density	512.4	1,461	4,281
Medium density	1,950	12,014	33,279
High density	187.6	3,426	7,880
Mixed-use[2]	--	599	1,378
Total	**2,650**	**17,500**	**46,818**

[1] Based on EPS estimated household sizes of 2.93 for low density, 2.77 for medium density, and 2.30 for high density and mixed-use units.
[2] Mixed use housing units are included in the employment uses in the mixed-use land use acreage.
Source: EPS 2007

The time frame for buildout of the proposed project (18–20 years) extends beyond the time frame of population projections from planned residential growth in the County General Plan (2015); therefore, the projections in the general plan could not be used for this analysis of impacts on population generated by the proposed project. The project-related estimated increases in population (46,818 new residents) could be potentially greater than the increases in population from the planned residential growth in the county. Therefore, development of the proposed project could potentially generate population growth exceeding projections for Sutter County as a whole.

Because it cannot be determined whether the proposed project would generate population growth that exceeds estimates for Sutter County under the County General Plan, implementation of the proposed project could potentially result in unplanned population growth in the area. Population growth by itself is not considered a significant environmental impact. However, development of housing, infrastructure, and facilities and services to

serve this growth can have significant environmental impacts through land conversions, commitment of resources, and other mechanisms. Indirect impacts associated with the development needed to accommodate increased population are evaluated in the appropriate sections of this DEIR. Potential inconsistencies with local planning documents that may lead to significant environmental impacts are also evaluated in each technical section of this DEIR. However, inconsistencies solely between planned and anticipated population growth as described here would not cause significant environmental effects. Therefore, in this context, this **direct** impact is **less than significant**. (See Sections 3.3 through 3.17 of this DEIR for an evaluation of the indirect physical impacts on the environment associated with development of the proposed project.)

Off-Site Elements

Construction of the off-site elements would not involve construction of new housing or development of new employment opportunities in Sutter, Placer, or Sacramento Counties. Therefore, there would be no direct long-term increases in population in these counties from construction of this on- and off-site infrastructure. Indirect impacts related to the potential that infrastructure improvements could induce additional long-term population growth are addressed in Chapter 5, "Cumulative Impacts," and Chapter 6, "Other CEQA-Required Analyses." Because there would be no direct impact related to long-term increases in population growth from on- and off-site infrastructure, this **direct** impact is **less than significant**. (See Sections 3.3 through 3.17 of this DEIR for an evaluation of the indirect physical impacts on the environment associated with development of the proposed project.)

Mitigation Measures

No mitigation measures are required.

IMPACT 3.2-3 **Consistency with Sutter County Affordable Housing Goals and Policies.** *Implementation of the proposed project would include development of an affordable housing strategy consistent with the adopted Sutter County General Plan Housing Element and Sutter County's Affordable Housing Program Ordinance.*

On-Site Elements

The County General Plan Housing Element addresses the provision of affordable housing to ensure that housing opportunities are provided to very low- and low-income households, large families, senior citizens, farmworkers, and others with special needs. The County's Affordable Housing Program Ordinance provides more specific guidance regarding the provision of affordable housing in the county. The affordable housing program applies to residential development projects consisting of 10 or more dwelling units and requires the project to set aside of 5% of the units for sale at a price affordable to moderate- and low-income households. These affordable housing units are to be constructed on-site, include a mix of unit sizes located throughout the development, be compatible in appearance to market rate units on the exterior, and comply with applicable development standards.

The project proposes an affordable housing strategy consistent with the Sutter County General Plan Housing Element and the Affordable Housing Program Ordinance. Approximately 5% of the planned units (875 units) would be designated for moderate-, low-, and very low-income households. These units would include a mix of purchase housing affordable to moderate-income households and rental housing affordable to low- and very low-income households.

Consistent with the County's housing element policies supporting provision of affordable housing by target income groups, approximately 33% of the affordable units would be available to very low-income residents, 27% to low-income residents, and 40% to moderate-income residents.

The affordable housing would be allocated on a pro-rated basis to each residential parcel on the project site to mixed-use, low-density, medium-density and high-density residential sites. The intent is to distribute affordable units

throughout the project site so that each parcel shares in the obligation to provide affordable housing. The owner(s) of each land use parcel would have the ability to transfer the affordable obligation from one parcel to another without amendment to the specific plan, provided the owner(s) of the receiving parcel(s) consent and the number of transferred affordable units does not exceed the overall density established for the receiving land use parcel.

In addition to the required 875 units, the project applicant(s) propose to develop 3,000 senior housing units that would be located throughout the project site. These units would provide additional affordable housing opportunities and smaller living accommodations for seniors. The units may be built in blocks of age-restricted housing, such as small subdivisions, age-restricted communities, assisted living housing, and continuing care housing. The specific locations of senior housing units have not yet been determined. The location of senior housing units would be determined when the tentative subdivision maps for each land use parcel are filed.

The proposed project would involve development of affordable housing consistent with the County's housing element policies and affordable housing program ordinance; therefore, this **direct** impact is **less than significant**. (The indirect physical impacts on the environment associated with construction of the proposed project are evaluated in Sections 3.1 through 3.17 of this DEIR.)

Off-Site Elements

Some of the infrastructure necessary to serve the project site would be located off-site and would extend into Placer and Sacramento Counties. It is assumed that off-site elements of the proposed project related to the provision of roadways and utilities to the project site would not involve construction of new housing in Placer or Sacramento County. Therefore, the construction of these elements would not be required to comply with the other counties' housing element policies and affordable housing program ordinances. This **direct** impact is **less than significant**. **No indirect** impacts would occur.

Mitigation Measures

No mitigation measures are required.

Additional Detailed Analysis of On-Site Elements – Impacts and Mitigation Measures

IMPACT 3.2-4 Temporary Increase in Employment and Subsequent Housing Demand during Construction. *Implementation of Phase 1 and Phase A would generate a temporary increase in employment and subsequent housing demand in Sutter County from construction jobs.*

Impacts would be the same under Phase 1 and Phase A as under the program (entire project site) level analysis. Refer to Impact 3.2-1 for further discussion of this impact.

IMPACT 3.2-5 Permanent Increase in Population Growth. *Implementation of Phase 1 and Phase A would result in the development of new residential dwelling units, which would cause a direct increase in population.*

Implementation of Phase 1 and Phase A of the proposed project would directly induce population growth in Sutter County through the construction of new homes and businesses and the creation of new jobs. Development of Phase 1 and Phase A would generate approximately 21,621 new residents in Sutter County (Table 3.2-3). The time frame for development of Phase 1 and Phase A is estimated to be 2010–2017.

The time frame for buildout of Phase 1 and Phase A extends beyond the population projections from planned residential growth in the County General Plan (2015). As of January 1, 2007, the population of Sutter County was estimated to be 93,919 people. The County General Plan estimates that the population in Sutter County would be approximately 109,820 persons by 2015, which would be approximately 15,901 more people than the 2007 population (93,919). Estimated project-related increases in population under Phase 1 (21,621) would be

approximately 5,720 (approximately 36%) more people than the increases in population that estimated from planned residential growth through 2015 (15,901). Therefore, development of Phase 1 could potentially generate population growth exceeding projections for the county as a whole as estimated in the County General Plan.

Table 3.2-3
Projected Increase in Population Growth for the Phase 1 and Phase A Development Areas (Combined)

Residential Use	Acres	Units	Residents [1]
Low density	121	345	1,011
Medium density	875	5,389	14,928
High density	91	1,668	3,836
Mixed-use[2]	0	368	846
Total	**1,087**	**7,770**	**21,621**

[1] Based on EPS estimated household sizes of 2.93 for low density, 2.77 for medium density, and 2.30 for high density and mixed-use units.
[2] Mixed use housing units are included in the employment uses in the mixed-use land use acreage.
Source: EPS 2007

As stated previously, population growth by itself is not considered a significant environmental impact. Development of housing, infrastructure, and facilities and services to serve this growth can have significant environmental impacts through land conversions, commitment of resources, and other mechanisms. Direct impacts associated with the development needed to accommodate increased population are evaluated in the appropriate sections of this DEIR. Potential inconsistencies with local planning documents that may lead to significant environmental impacts are also evaluated in each technical section of this DEIR. However, inconsistencies solely between planned and anticipated population growth as described here would not cause significant environmental effects. Therefore, in this context, this **direct** impact is **less than significant**. (See Sections 3.3 through 3.17 of this DEIR for an evaluation of the indirect physical impacts on the environment associated with development of the proposed project.)

Mitigation Measures

No mitigation measures are required.

IMPACT 3.2-6 **Consistency with Sutter County Affordable Housing Goals and Policies.** *Implementation of Phase 1 and Phase A would include development of an affordable housing strategy consistent with the adopted Sutter County General Plan Housing Element and Sutter County's Affordable Housing Program Ordinance.*

The County General Plan Housing Element addresses the provision of affordable housing. The County's Affordable Housing Program Ordinance provides more specific guidance regarding the provision of affordable housing in the county.

Phase 1 and Phase A of the project propose an affordable housing strategy consistent with the Sutter County General Plan Housing Element and the Affordable Housing Program Ordinance. Approximately 5% of the planned units (373 units) would be designated for moderate-, low-, and very low-income households. These units would include a mix of purchase housing affordable to moderate-income households and rental housing affordable to low- and very low-income households.

Consistent with the County's housing element policies supporting provision of affordable housing by target income groups, approximately 33% of the affordable units in the Phase 1 development area would be available to very low-income residents, 27% to low-income residents, and 40% to moderate-income residents. The affordable housing would be allocated as described above.

Phase 1 and Phase A of the proposed project would involve development of affordable housing consistent with the County's housing element policies and affordable housing program ordinance; therefore, this **direct** impact is **less than significant**. (See Sections 3.3 through 3.17 of this DEIR for an evaluation of the indirect physical impacts on the environment associated with development of the proposed project.)

Mitigation Measures

No mitigation measures are required.

3.2.4 RESIDUAL SIGNIFICANT IMPACTS

All impacts associated with population growth, housing, and employment demand are considered less than significant. Therefore, there would be no residual significant impacts.

3.3 TRANSPORTATION AND CIRCULATION

This section of the EIR was prepared by Fehr & Peers

This section of the EIR describes potential impacts on the public transportation system that would result from the implementation of the Sutter Pointe Specific Plan (SPSP). The impact analysis examines the roadway, transit, bicycle, and pedestrian components of the overall transportation system.

This section is divided into four main subsections.

- Regulatory Background – This subsection provides the context for the evaluation of traffic operating conditions based on federal, state, regional, and local plans, policies, regulations, and laws.
- Environmental Setting – This subsection includes a brief description of the project and a discussion of the physical transportation setting for the project area.
- Impacts and Mitigation Measures – This subsection describes the methods of analysis and the thresholds of significance for the evaluation of potential project impacts on public transportation facilities and services. The subsection concludes with an identification of project-specific and cumulative impacts on the transportation system and recommended mitigation measures.
- Alternatives Evaluation – This subsection describes how the impacts may qualitatively differ for the proposed project alternatives.

3.3.1 REGULATORY BACKGROUND

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Federal regulations do not apply to regional roadways.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

The following State regulations are applicable to freeway facilities.

California Department of Transportation

Guide for the Preparation of Traffic Impact Studies

California Department of Transportation's (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (December 2002) includes the following, which is applicable to freeway facilities.

- Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness (MOE) should be maintained.

State Route 99 Transportation Concept Report

A Transportation Concept Report (TCR) assesses a highway's current and future operating conditions and uses that and other information to establish a 20-year Route Concept for each segment of the route. A Route Concept is comprised of a Concept level of service (LOS) and a description of the Concept Facility. The TCR then determines the nature and extent of improvements to attain the Route Concept. The Concept LOS applies to State highway intersections, interchange ramp terminal intersections, freeway segments, and freeway ramp junctions or weaving sections.

Caltrans' *State Route 99 Transportation Concept Report* (May 2004) includes the following, which is applicable to freeway facilities.

- Concept level of service (LOS) reflects the minimum level or quality of operations that is appropriate for each route segment, and is considered to be reasonably attainable within the 20-year planning period (i.e., out to year 2024). Caltrans also uses the Concept LOS as the CEQA level of significance threshold when evaluating the impacts of local development and projects. A significant impact is identified if a specific local development plan or project results in a LOS on the highway segment or intersection that is below the Concept LOS, and must be mitigated.

The Concept LOS for SR 99 north of Interstate 5 (I-5) to the SR 70/99 interchange is E. The project site is located along this segment.

Interstate 5 Transportation Concept Report, Caltrans District 3

The Concept LOS for I-5 between Interstate 80 (I-80) and the Sacramento/Yolo County Line is E. The junction of SR 99 and I-5 is located within this segment of I-5 and is the area of I-5 that would be most affected by project traffic. (Caltrans 1997.)

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Sutter County

Sutter County General Plan

The Sutter County General Plan (adopted December 6, 1994) includes the following policies applicable to transportation and circulation.

- **Policy 3.A.1:** The County shall plan, design, and regulate roadways in accordance with the functional classification system and circulation diagram, as shown in Part I of this document. The County shall require that road rights-of-way be wide enough to accommodate all necessary road improvements to handle forecasted travel volume(s) at or above adopted service level standards.

- **Policy 3.A.2:** All streets and roadways shall be dedicated and improved to the roadway design standards as generally defined in Part I of this policy document and the roadway design standards maintained by the Public Works Department. Exceptions may be necessary but should be kept to a minimum and shall be permitted only upon determination by the Public Works Director and Community Services Director that safe and adequate public access and circulation are preserved by such exceptions.

- **Policy 3.A.4:** The County shall strive to develop and manage its roadway system to maintain a minimum level of service D (LOS D).

- **Policy 3.A.6:** The County shall require all new development projects to analyze their contribution to increased traffic and to implement improvements necessary to address the increase.

- **Policy 3.A.7:** The County shall assess fees on new development sufficient to cover the costs of the project's impact on the local and regional transportation system.

- **Policy 3.B.1:** The County shall work with the Yuba-Sutter Transit Authority to plan and implement additional and improved transit services within the County.

- **Policy 3.C.1:** The County shall work towards developing a comprehensive and safe system of bicycle routes that will serve both commuter and recreational cyclists.

Placer County

Placer County General Plan

Placer County has established minimum acceptable LOS thresholds for roadways and intersections in the Placer County General Plan.

- **Policy 3.A.7:** The County shall develop and maintain its roadways system to maintain the following minimum levels of service (LOS).

    a. LOS "C" on rural roadways, except within one-half mile of state highways, where the standard shall be LOS "D."

    b. LOS "C" on urban/suburban roadways except within one-half mile of state highways, where the standard shall be LOS "D."

The County may allow exceptions to these LOS standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exceptions to the standards, the County shall consider the following factors:

- the number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard,

- the ability of the required improvement to significantly reduce peak hour delay and improve traffic operations,

- the right-of-way needs and the physical impacts on surrounding properties,

- the visual aesthetics of the required improvement and its impact on community identity and character,

- environmental impacts including air quality and noise impacts,

- construction and right-of-way acquisition costs,

- the impacts on general safety,

- the impacts of the required construction phasing and traffic maintenance,

- the impacts on quality of life as perceived by residents, and

- other environmental, social, or economic factors on which the County may base findings to allow standards to be exceeded.

Exceptions to the standards will be allowed only after all feasible measures and options are explored, including alternative forms of transportation.

A recent amendment to the General Plan (Placer County Resolution 2005-149, June 28, 2005), allows an additional exception for community plans or specific plans. These plans can establish their own LOS thresholds within the plan boundaries. The Placer Vineyard Specific Plan established LOS D or better conditions for the plan area and its boundaries. Consequently, LOS D applies to Baseline Road (Pleasant Grove Road [south] to Walerga Road) and Watt Avenue (Baseline Road to Dyer Lane) in Placer County. These roadways provided direct access to the Placer Vineyards Specific Plan along it's frontage. This applicability of using these LOS thresholds was confirmed with Placer County Department of Transportation staff (personal communication with Andrew Gaber, Placer County Department of Transportation).

Placer Parkway



The concept of Placer Parkway was depicted as a plan line in the 1994 Placer County General Plan and was also studied as part of preliminary planning documents in 2000 and 2001 that were adopted by the Placer County Transportation Planning Agency (PCTPA) and SACOG. Placer Parkway is identified in the 2027 Placer County Regional Transportation Plan as an unfunded project and is proposed as a regional transportation project that would connect rapidly growing areas of western Placer County at SR 65 to planned development in the SPSP at SR 70/99.

The South Placer Regional Transportation Authority (SPRTA), which is overseen by PCTPA, is a Joint Powers Authority (JPA) comprised of the Cities of Lincoln, Rocklin, Roseville and the County of Placer. SPRTA was formed for the purpose of implementing a Regional Transportation and Air Quality Mitigation Fee to fund specified regional transportation projects, including Placer Parkway. PCTPA is currently overseeing the Placer Parkway Corridor Preservation Project, which includes the following two phases. The first phase was a corridor feasibility study and the second phase, which is ongoing, is the completion of environmental analysis for corridor and right-of-way preservation.

At this time, the Tier 1 EIS/EIR is being prepared and no preferred or recommended corridor alignment exists for Placer Parkway. The selected corridor would contain the roadway, including the median, travel lanes, shoulder, associated access ramps, and a no-development buffer zone. The following image shows the two Placer Parkway Tier 1 EIR/EIS alignment alternatives in the SPSP area:

The anticipated schedule for the Placer Parkway Corridor Preservation Project includes the Draft Tier 1 EIS/EIR, which was released for public review on July 2, 2007 and completion of the Final Tier 1 EIS/EIR by summer 2009. Once the preferred corridor is determined, including Federal and State clearances, acquisition will begin to preserve right-of-way for the preferred Placer Parkway alignment. Currently, PCTPA is collecting a portion of the funds for construction of Placer Parkway through SPRTA. However, full funding for Placer Parkway has not yet been identified. Without new funding sources, the Parkway would not be constructed by 2025.

Sacramento County General Plan

The Sacramento County General Plan (adopted December 15, 1993) includes the following policy applicable to transportation and circulation.

- **Policy CI-22:** Sacramento County shall apply the following Level of Service (LOS) standards for planning roads in the unincorporated area:

    - Rural collectors: LOS D
    - Urban area roads: LOS E

Sacramento County's Traffic Impact Analysis Guidelines

Sacramento County's Traffic Impact Analysis Guidelines (July 2004) define rural and urban areas, stating the following under Section F (Acceptable Levels of Service):

> The County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. The urban areas are those areas within the Urban Services Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.

All of the Sacramento County study locations for the transportation impact analysis are within the Urban Services Boundary; therefore, LOS E is the minimum acceptable LOS for the purposes of this study.

LOS criteria by jurisdiction are summarized below.

Jurisdiction	LOS Criteria
Sutter County	D
Placer County	C
Placer County (Adjacent to Placer Vineyards)	D
Sacramento County	E
Caltrans Facilities (SR 99 and I-5)	E

3.3.2 ENVIRONMENTAL SETTING

The SPSP area (the plan area) encompasses approximately 7,500 acres in southern unincorporated Sutter County, north of Sacramento County, west of Placer County, and contains the following vehicle trip–generating land uses.

Land Use	Quantity (Acres)
Low Density Residential (LDR)	512.4
Medium Density Residential (MDR)	1,950.0
High Density Residential (HDR)	187.6
Commercial Retail	178.1
Mixed Use	164.0
Employment 1	172.6
Employment 2	1,990.0
Employment 1 (Interim Flood Zone)	408.3
Parks	431.8
K–8 schools (six Schools)	121.8
High school (one School)	52.9

The remainder of the physical setting describes the existing transportation system components near the plan area, including regional roadways, public transit, and non-motorized transportation. The term "existing" refers to field conditions as of May 2007, which is generally consistent with the date the NOP was issued (March 29, 2007)

REGIONAL ROADWAYS

The transportation system in south Sutter County is focused around the roadway network. Most travel in the county is done in automobiles because the low-density development patterns have limited the feasibility of facilities or services related to transit, bicycle, or pedestrian use. According to the 2000 U.S. Census, approximately 93% of all working County residents traveled from home to work by automobile. Although automobile travel is the primary function for the roadway network, the network also serves, where allowed, trucks, buses, bicycles, and pedestrians.

The regional roadway network in south Sutter County includes freeways, highways, and arterials. The study area including study intersections are shown in Exhibit 3.3-1. The study area was developed consistent with the Pub. Resources Code, § 21092.4(b), including analysis locations requested in NOP comments, and consultation with affected agencies and jurisdictions like Caltrans, Placer County, City of Roseville, and Sacramento County. Exhibit 3.3-2 shows the existing number of lanes on study area roadways. This information is relevant in the subsequent discussion of the traffic operations analysis for the selected study area roadway segments.

State Highways

The following state highways extend through the study area.

- SR 70/99 – SR 70/99 is a north-south state route that connects the core of the Sacramento region with the cities of Marysville (by SR 70) and Yuba City (by SR 99). SR 70/99 is a four-lane divided freeway from I-5 to Elkhorn Boulevard, where it transitions to a four-lane divided expressway. Access to I-5 is provided by a freeway-to-freeway interchange. The highway includes a grade-separated interchange at Elkhorn Boulevard, at-grade traffic signal controlled intersections at Elverta Road and Riego Road, and an at-grade side-street stop-controlled intersection at Sankey Road.

- I-5 – I-5 is Northern California's major north-south freeway connecting the Sacramento region with Oregon, Washington, and Canada to the north and Southern California and Mexico to the south. Within the region, I-5 serves as a major commute route to Yolo County and the northern Sacramento Valley and Downtown Sacramento. It also serves interstate and interregional travel by truck, recreational travel, and tourist travel. Within the study area, I-5 is a six- to eight-lane freeway that extends from Airport Boulevard to approximately Arena Boulevard. South of Arena Boulevard, I-5 is ten lanes. The most direct route from I-5 to the plan area is by SR 70/99 approximately five miles south of the project.

Major County Roads

Major county roads are also part of the regional roadway system and typically provide direct access to the project, SR 70/99, as well as land uses in the surrounding communities. Although most of these roadways are within Sutter County, some are outside the county but within the study area. These key regional roadways are described below.

- **Sankey Road** is an east-west rural collector east of SR 70/99 to Pleasant Grove Road and is a dirt road to the west. Sankey Road intersects SR 70/99 with an at-grade side-street stop-controlled intersection. Sankey Road has an at-grade crossing of the Union Pacific Railroad where it crosses between Natomas Road and Pleasant Grove Road.

- **Riego Road/Baseline Road** is an east-west rural arterial road that links SR 70/99 with the City of Roseville. Riego Road is two lanes through the project with an at-grade traffic signal controlled intersection at SR 70/99.

Riego Road becomes Baseline Road at the Sutter County/Placer County line near the Pleasant Grove Road intersection. Baseline Road intersects Watt Avenue and extends east to the City of Roseville. Riego Road has an at-grade crossing of the Union Pacific Railroad where it crosses between Natomas Road and Pleasant Grove Road (N). Riego Road is designated STAA (Surface Transportation Assistance Act, 1992) truck terminal access route between SR 70/99 and Pacific Avenue.

- **Fiddyment Road** is a two-lane north-south rural arterial that extends north from Baseline Road along the western boundary of the City of Roseville to Moore Road, southwest of the City of Lincoln.

- **Walerga Road** is a two-lane rural arterial that extends from Baseline Road south to Roseville Road in Sacramento County. It provides access between western Placer County and the Antelope area of Sacramento County. In Placer County, Walerga Road currently operates unacceptably at LOS D.

- **Power Line Road** is a north-south two-lane road that functions as a rural collector, although it is not defined in the Sutter County General Plan. Power Line Road runs from just north of Riego Road south into Sacramento County and has a two-lane grade-separated overcrossing of I-5. Power Line Road has stop-controlled intersections at Riego Road and Elverta Road.

- **Pacific Avenue** is a north-south two-lane road that functions as a rural collector, although it is not defined in the Sutter County General Plan. Pacific Avenue connects Sankey Road and Riego Road and serves industrial and warehousing land uses.

- **Natomas Road** is a north-south narrow two-lane road that functions as a rural collector, although it is not defined in the Sutter County General Plan. Natomas Road is constructed on a levee and becomes E. Levee Road at the Sutter County/Placer County line, where it extends south and connects to Elverta Road and Elkhorn Boulevard with stop-controlled intersections. The City of Sacramento has closed E. Levee Road south of Elkhorn Boulevard.

- **Watt Avenue** is a north-south arterial that extends from its northern terminus at Baseline Road south through the core of Sacramento County to the City of Elk Grove. Watt Avenue has a grade-separated interchange with I-80.

- **Elverta Road** is a two-lane east-west arterial from Garden Highway to Watt Avenue. Segments of Elverta Road (east of E. Levee Road) have been widened along improved frontages but have not been striped. Elverta Road intersects SR 70/99 at an at-grade traffic signal controlled intersection. The three-mile segment of Elverta Road between SR 70/99 and E. Levee Road has high access control. Elverta Road serves primarily residential land uses.

- **Elkhorn Boulevard** is an east-west roadway continuing from Power Line Road west of SR 70/99 and extending east into Sacramento County through the Rio Linda and Antelope communities to I-80, where it becomes Greenback Lane. Elkhorn Boulevard is a two-lane roadway within the study area and serves the residential uses in the City of Sacramento and commute trips between Sacramento County and SR 70/99.

Union Pacific Railroad

Union Pacific Railroad operates a single-track rail line that crosses Baseline Road and Sankey Road between Natomas Road and Pleasant Grove Road (N). The crossings are at-grade with flashing-light signals and automatic gates. The railroad line serves primarily freight trains and carries between five and ten million gross tons annually according to the *California State Rail Plan 2005-2006 to 2015-16* (Caltrans 2005). In addition, the Amtrak Coast Starlight, which provides daily passenger service between Los Angeles and Seattle, travels through the study area once in the morning (before 6:30 a.m.) and once in the evening (after 12:00 a.m.). Excluding passenger trains, an average of 24 trains per day pass through the crossing, *Riego Road Conceptual Improvement Study* (Dowling Associates, Inc. 2007).

Traffic Operations Analysis

Existing traffic operations were analyzed under 2007 conditions based on field-collected data that included traffic counts, geometrics, and traffic controls. The analysis includes intersections, roadway segments, and freeway mainline segments, and ramp junctions. Appendix E of this DEIR contains detailed technical calculations.

Traffic volumes were collected for all study roadway segments, intersections, and ramp junctions in May 2007. Daily roadway segment counts were conducted on mid-week days and are shown in Exhibit 3.3-3. Intersection and ramp junction counts were conducted during the a.m. (7:00–9:00) and p.m. (4:00–6:00) peak periods on mid-week days. Exhibits 3.3-4A and 3.3-4B show the a.m. and p.m. peak-hour intersection traffic volumes, while Exhibit 3.3-5 shows the a.m. and p.m. peak-hour freeway volumes. No unusual circumstances occurred during data collection and the counts are representative of average weekday travel in the study area. The following summarizes existing traffic operations on the study roadways, intersections, and freeway mainline segments and ramp junctions.

Roadway Segments

The operations analysis for roadway segments requires the functional classification and number of travel lanes. This information is contained in Exhibit 3.3-2 for the study roadway segments. Functional classification is a description of the roadway physical features related to its use, operation, and design. Within the study area, the analysis locations are either freeway segments, arterial roadway segments, or collector roadway segments. Arterial segments can have multiple classifications based on the level of access control (refer to Table 3.3-4). Access control affects capacity and LOS by limiting the interference of turning movements from side streets or driveways.

Based on field observations, high access control was used for segments on Watt Avenue and Elverta Road. Other arterials were classified as moderate access control. Table 3.3-1 and Exhibit 3.3-3 present the existing conditions analysis for roadway segments.

Table 3.3-1
Roadway LOS – Existing Conditions

Roadway Segment	Jurisdiction	Existing Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS
1. Sankey Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	200	0.01	C
2. Sankey Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	1,400	0.07	C
3. Sankey Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	1,100	0.05	C
3a. Sankey Rd. – Pacific Ave. to Road C	Sutter Co.	-	-	-	-
3b. Sankey Rd. – Road C to Pleasant Grove Rd. (N)	Sutter Co.	-	-	-	-
4. Sankey Rd. – Pleasant Grove Rd. (N) to Locust Rd.	Sutter Co.	2R	1,500	0.07	C
5. Riego Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	800	0.04	C
5a. Riego Rd. – Power Line Rd. to Road U	Sutter Co.	-	-	-	-
5b. Riego Rd. – Road U to Road R	Sutter Co.	-	-	-	-
5c. Riego Rd. – Road R to Road S	Sutter Co.	-	-	-	-
5d. Riego Rd. – Road S to SR 70/SR 99	Sutter Co.	-	-	-	-
6. Riego Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	9,600	0.46	D

Table 3.3-1
Roadway LOS – Existing Conditions

Roadway Segment	Jurisdiction	Existing Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS
6a. Riego Rd. – SR 70/SR 99 to Road A	Sutter Co.	-	-	-	-
6b. Riego Rd. – Road A to Pacific Ave.	Sutter Co.	-	-	-	-
7. Riego Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	8,100	0.39	D
7a. Riego Rd. – Pacific Ave. to Road C	Sutter Co.		-	-	-
7b. Riego Rd. – Road C to Road D	Sutter Co.		-	-	-
7c. Riego Rd. – Road D to Pleasant Grove Rd. (N)	Sutter Co.		-	-	-
8. Riego Rd. – Pleasant Grove Rd. (N) to Pleasant Grove Rd. (S)	Sutter Co.	2R	10,700	0.51	D
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	10,600	0.59	A
10. Baseline Rd. – Locust Rd. to Brewer Rd.	Placer Co.	2M	12,100	0.67	B
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	2M	11,200	0.62	B
12. Baseline Rd. – Watt Ave. to Fiddyment Dr.	Placer Co.	2M	12,600	0.70	B
13. Elverta Rd. – Power Line Rd. to SR 70/SR 99	Sacramento Co.	2H	1,000	0.05	A
14. Elverta Rd. – SR 70/SR 99 to East Levee Rd.	Sacramento Co.	2H	6,100	0.31	A
15. Elverta Rd. – East Levee Rd. to Sorento Rd.	Sacramento Co.	2M	7,900	0.44	A
16. Elverta Rd. – Sorento Rd. to 16th St.	Sacramento Co.	2M	8,700	0.48	A
17. Elverta Rd. – 16th St. to Watt Ave.	Sacramento Co.	2M	15,400	0.86	D
18. Power Line Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C
19. Power Line Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	300	0.01	C
20. Power Line Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	300	0.02	A
21. Power Line Rd. – Elverta Rd. to Elkhorn Blvd.	Sacramento Co.	2RS	400	0.02	A
22. Pacific Ave. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	900	0.04	C
22a. Pacific Ave. – Sankey Rd. to Road K	Sutter Co.	-	-	-	-
22b. Pacific Ave. – Road K to Road J	Sutter Co.	-	-	-	-
22c. Pacific Ave. – Road J to Riego Rd.	Sutter Co.	-	-	-	-
23. Natomas Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C
24. Natomas Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	700	0.03	C
25. East Levee Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	700	0.04	A
26. Pleasant Grove Rd. (N) – Sankey Rd to Riego Rd.	Sutter Co.	2R	1,700	0.08	C
27. Pleasant Grove Rd. (S) – Riego Rd. to Sacramento County Line	Sutter Co.	2R	1,800	0.09	C
28. Sorento Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	1,800	0.10	A
29. Locust Rd. – Sankey Rd. to Baseline Rd.	Placer Co.	2M	1,500	0.08	A

Table 3.3-1 Roadway LOS – Existing Conditions					
Roadway Segment	Jurisdiction	Existing Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS
30. Brewer Rd. – Phillip Rd. to Baseline Rd.	Placer Co.	2M	600	0.03	A
31. Palladay Rd. – Baseline Rd. to Sacramento County Line	Placer Co.	2M	200	0.01	A
32. Palladay Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	200	0.01	A
33. 16th St. – Kasser Rd. to Elverta Rd.	Sacramento Co.	2RS	600	0.03	A
34. Watt Ave. – Baseline Rd. to PFE Rd.	Placer Co.	2H	7,100	0.36	A
35. Watt Ave. – PFE Rd. to Elverta Rd.	Sacramento Co.	5M	10,100	0.22	A
36. Walerga Rd. – Baseline Rd. to PFE Rd.	Placer Co.	2M	14,900	0.83	D
37. Elkhorn Blvd. – SR 70/SR 99 to Northborough Dr.	Sacramento Co.	2M	13,900	0.77	C
38. Elkhorn Blvd. – Northborough Dr. to Natomas Blvd.	Sacramento Co.	2M	11,800	0.66	B
39. Elkhorn Blvd. – Natomas Blvd. to Sageview Dr.	Sacramento Co.	2M	14,500	0.81	D
40. Elkhorn Blvd. – Sageview Dr. to East Levee Rd.	Sacramento Co.	2M	14,700	0.82	D
41. I-5 – SR 70/SR 99 to Del Paso Rd.	Sacramento Co.	6F	103,000	0.81	D
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	127,000	1.00	F
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	139,000	0.82	D
44. Sunset Blvd. (West) – East of Brewer Rd.	Placer Co.	2RH	1,900	0.08	A
45. E. Catlett Rd. – East of Brewer Rd.	Placer Co.	2RH	1,000	0.04	A
46. Moore Rd. – East of Brewer Rd.	Placer Co.	2RH	1,000	0.04	A

Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Source: Fehr & Peers, 2008

The results indicate that two of the 43 study roadway segments operate at an unacceptable LOS based on the minimum LOS thresholds established by local jurisdictions. Traffic operations are unacceptable on Walerga Road from Baseline Road to PFE Road and on I-5 from Del Paso Road to Arena Boulevard.

Intersections

Existing peak hour traffic volumes shown in Exhibits 3.3-4A and 3.3-4B were used to calculate intersection LOS. Table 3.3-2 summarizes the LOS results.

Table 3.3-2
Intersection LOS – Existing Conditions

Intersections	Jurisdiction	Control	Existing			
			AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
1. Sankey Rd./Power Line Rd.	Sutter Co.	Side-Street Stop	9	A	9	A
2. Sankey Rd./SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	37	E
3. Sankey Rd./Pacific Ave.	Sutter Co.	Side-Street Stop	10	A	9	A
4. Riego Rd./Power Line Rd.	Sutter Co.	All-Way Stop	7	A	7	A
5. Riego Rd./SR 70/SR 99	Sutter Co.	Signal	66	E	23	C
6. Riego Rd./Pacific Ave.	Sutter Co.	Side-Street Stop	16	C	14	B
7. Riego Rd./Natomas Rd.	Sutter Co.	All-Way Stop	33	D	23	C
8. Riego Rd./Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	31	D
9. Riego Rd./Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	42	E
10. Baseline Rd./Locust Rd.	Placer Co.	All-Way Stop	>50	F	43	E
11. Baseline Rd./Brewer Rd.	Placer Co.	Side-Street Stop	24	C	22	C
12. Baseline Rd./Watt Ave.	Placer Co.	Signal	12	B	19	B
13. Baseline Rd./Walerga Rd.	Placer Co.	Signal	36	D[3]	63	E[3]
14. Elverta Rd./Power Line Rd.	Sacramento Co.	All-Way Stop	8	A	7	A
15. Elverta Rd./SR 70/SR 99	Sacramento Co.	Signal	>80 (1.07)	F (F)	30 (0.91)	C (E)
16. Elverta Rd./East Levee Rd.	Sacramento Co.	All-Way Stop	19	C	31	D
17. Elverta Rd./Sorento Rd.	Sacramento Co.	Side-Street Stop	13	B	14	B
18. Elverta Rd./Palladay Rd.	Sacramento Co.	Side-Street Stop	13	B	15	C
19. Elverta Rd./16th St.	Sacramento Co.	Side-Street Stop	20	C	20	C
20. Elverta Rd./Watt Avenue	Sacramento Co.	Signal	30 (0.48)	C (A)	28 (0.54)	C (A)
21. Elkhorn Blvd./SR 70/SR 99 SB Ramps	Sacramento Co.	Side-Street Stop	9	A	9	A
22. Elkhorn Blvd./SR 70/SR 99 NB Ramps	Sacramento Co.	Side-Street Stop	12	B	>50	F
23. Elkhorn Blvd./Natomas Blvd.	Sacramento Co.	Signal	12 (0.51)	B (A)	13 (0.69)	B (B)
24. Elkhorn Blvd./East Levee Rd.	Sacramento Co.	Side-Street Stop	24	C	23	C

Note:
[1] For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
[2] V/C and LOS based on Circular 212 procedure. Applies only to Sacramento County signalized intersections.
[3] Field observations showed that not all peak demand flows were served and that actual operations are worse.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Source: Fehr & Peers, 2008

As shown in Table 3.3-2, eight of the 24 study intersections operate worse than the minimum LOS threshold established by local jurisdictions and Caltrans. The Walerga Road/Baseline Road intersection operations analysis did not accurately match field conditions because of high levels of congestion and the limitations of the methodology to fully reflect these conditions. Peak hour demand exceeds capacity at the Walerga Road/Fiddyment Road/Baseline Road intersection. This was observed based on queue lengths for some movements that increased in length over the hour. The queue on southbound Fiddyment Road was long enough to extend through the Fiddyment Road/Pleasant Grove Boulevard intersection. The intersection analysis relies primarily on counted traffic volumes as traffic flow inputs; however, this information alone does not always provide sufficient information to determine LOS when extended queues form as a result of peak hour demand flows exceeding peak hour intersection capacity. Therefore, this intersection should be considered to operate worse than the results in Table 3.3-2 and could generally be characterized as having LOS F conditions.

Freeway Facilities

Existing peak hour traffic volumes shown in Exhibits 3.3-5 were used to calculate SR 70/99 and I-5 freeway facility LOS. The results are summarized in Table 3.3-3 under existing conditions.

Table 3.3-3
Freeway Mainline, Merge, Diverge, Weave LOS – Existing Conditions

Freeway Facility	Type	a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]
1. NB SR 70/99 North of Sankey Road	Mainline	8.5	A	16.3	B
2. NB SR 70/99 between Sankey Road and Riego Road	Mainline	8.4	A	15.8	B
3. NB SR 70/99 between Riego Road and Elverta Road	Mainline	1.7	A	4.6	A
4. NB SR 70/99 between Elverta Road and Elkhorn Boulevard	Mainline	10.9	A	25.1	C
5. NB SR 70/99 at Elkhorn Boulevard slip on-ramp	Merge	13.3	B	27.7	C
6. NB SR 70/99 at Elkhorn Boulevard loop on-ramp	Merge	11.4	B	25.8	C
7. NB SR 70/99 at Elkhorn Boulevard off-ramp	Diverge	16.4	B	39.3	E
8. NB SR 70/99 between I-5 Interchange and Elkhorn Boulevard	Mainline	12.5	B	36.6	E
9. NB I-5 between SR 70/99 and Airport Boulevard	Mainline	27.9	D	22.3	C
10. NB I-5 to NB SR 70/99 off-ramp	Major Diverge	14.1	B	22.1	C
11. NB I-5 between Del Paso Road and SR 70/99 Interchange	Mainline	19.9	C	33.4	D
12. NB 1-5 at Del Paso Road on-ramp	Merge	22.4	C	32.8	D
13. SB SR 70/99 North of Sankey Road	Mainline	19.3	C	8.2	A
14. SB SR 70/99 between Sankey Road and Riego Road	Mainline	18.4	C	8.1	A
15. SB SR 70/99 between Riego Road and Elverta Road	Mainline	4.6	A	2.1	A
16. SB SR 70/99 between Elverta Road and Elkhorn Boulevard	Mainline	26.4	D	10.8	A
17. SB SR 70/99 at Elkhorn Boulevard off-ramp	Diverge	31.8	D	14.5	B
18. SB SR 70/99 at Elkhorn Boulevard loop on-ramp	Merge	34.9	D	15.3	B
19. SB SR 70/99 at Elkhorn Boulevard slip on-ramp	Merge	24.9	D	15.0	B
20. SB SR 70/99 between I-5 Interchange and Elkhorn Boulevard	Mainline	36.1	E	13.1	B
21. SB SR 70/99 to NB I-5 off-ramp	Diverge	27.4	C	5.4	A

Table 3.3-3
Freeway Mainline, Merge, Diverge, Weave LOS – Existing Conditions

Freeway Facility	Type	a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]
22. SB SR 70/99 to NB I-5 on-ramp	Merge	22.7	C	18.4	B
23. SB SR 70/99 to SB I-5 on-ramp	Weave	N/A[3]	E	N/A[3]	C
24. SB I-5 between SR 70/99 Interchange and Del Paso Road					
25. SB I-5 at Del Paso Road off-ramp	Diverge	23.9	C	15.4	B
26. SB I-5 between Airport Boulevard and SR 70/99 Interchange	Mainline	21.4	C	24.3	C
27. SB I-5 to NB SR 70/99 off-ramp	Diverge	14.7	B	17.9	B
28. SB I-5 to NB SR 70/99 on-ramp	Merge	8.4	A	29.0	D

Notes: Shading indicates that the freeway facility operates unacceptably based on the significance criteria.
[1] Density reported in passenger cars per mile per lane.
[2] Level of Service based on *Highway Capacity Manual* (Transportation Research Board, 2000).
[3] Weaving section analyzed using the Leisch Method, LOS not based on density.
Source: Fehr & Peers 2008

As shown in Table 3.3-3, the weave section between the SB SR 70/99 to SB I-5 on-ramp and the SB slip off-ramp to Del Paso Road and the segment of SB SR 70/99 between I-5 and Elkhorn Boulevard operate at LOS E in the a.m. peak hour. In the p.m. peak hour, the segment of NB SR 70/99 between I-5 and Elkhorn Boulevard and the NB slip off-ramp to Elkhorn Boulevard operate at LOS E. While analysis of the weave section between the SB SR 70/99 to SB I-5 on-ramp and the SB slip off-ramp to Del Paso Road as on isolated facility show LOS E, this weave section frequently causes vehicle queues during the a.m. peak hour that can extend onto the SR 70/99 to I-5 connector ramp, which would indicate LOS F operations.

The freeway mainline segments north of Elkhorn Boulevard operate at LOS D or better during both peak hours, which are representative of conditions midway between Elkhorn Boulevard and Elverta Road, Elverta Road and Riego Road, and Riego Road and Sankey Road. However, the at-grade signalized intersections at Elverta Road and Riego Road operate at LOS F and E, respectively, which is more representative of conditions experienced by drivers.

PUBLIC TRANSIT

Public transit in Sutter County is provided by Yuba-Sutter Transit, which consist of the following services.

- Local Routes – provides regular urban fixed route service (Monday through Saturday) to Yuba City, Marysville, Linda, and Olivehurst.

- Sacramento Commuter (Highway 99 & 70) Express – provides frequent commute-hour service between Marysville/Yuba City (six locations) and Downtown Sacramento (eight locations). Service is provided Monday through Friday with nine buses, six serving the SR 99 corridor and three serving the SR 70 corridor. Scheduled service along the SR 99 corridor departs the Yuba County Government Center at 5:20 a.m., 5:35 a.m., 6:10 a.m., 6:25 a.m., and 6:25 a.m. Along SR 99, the Commuter Express stops at the Walton Terminal (Sam's Club) and Bogue Park & Ride (Bogue Road and SR 99). Scheduled service along the SR 70 corridor departs the Yuba County Government Center at 5:30 a.m., 5:50 a.m., and 6:35 a.m. Along SR 70, the Commuter Express stops at the North Beale Road Transit Center (South) and East Nicolaus (Perozzi's). The following eight stops are served in downtown Sacramento between 6:25 a.m. and 8:00 a.m.:

    - J & 4th Street
    - J & 8th Street

- J & 11th Street
- 15th & K Street
- 15th & N Street
- P & 13th Street
- P & 9th Street
- P & 5th Street

In the evening, departures from downtown Sacramento begin at 3:45 p.m. (at the J & 4th stop) and end at 5:30 p.m. (at the P & 5th stop). Arrivals in Yuba/Sutter Counties begin at 4:45 p.m. (at the Bogue Park & Ride) and end at 6:45 p.m. (at the North Beale Road Transit Center [north]). In the evening on the SR 70 corridor, passengers can request service to the East Nicolaus and Walton Terminal stops.

The Sacramento Commuter Express is well utilized and is operating near capacity. As currently operated, it will not provide service from Sacramento to the proposed project.

- Midday Express Schedule – provides midday express service between Marysville/Yuba City and Downtown Sacramento. Three express buses are provided Monday through Friday. Buses depart Marysville/Yuba City at 7:55 a.m., 11:00 a.m., and 1:00 p.m. with return arrivals at 10:00 a.m., 1:30 p.m., and 3:30 p.m.

- Rural Routes – provides service from selected rural communities and Marysville/Yuba City. The Live Oak Route provides one round trip Monday, Wednesday, and Friday. The Foothills Route provides two round trips Tuesday, Wednesday, and Thursday. The Wheatland Route provides two round trips Tuesday and Thursday.

- Dial-A-Ride – provides curb-to-curb service to seniors and persons with qualifying disabilities in a service area that generally includes the Marysville/Yuba City urban area. Dial-A-Ride also serves as Yuba-Sutter Transit's complementary paratransit service under the Americans with Disabilities Act (ADA). The paratransit service area is the same as Dial-A-Ride but also extends three-quarters of a mile beyond the urban fixed-routes that serve Marysville/Yuba City.

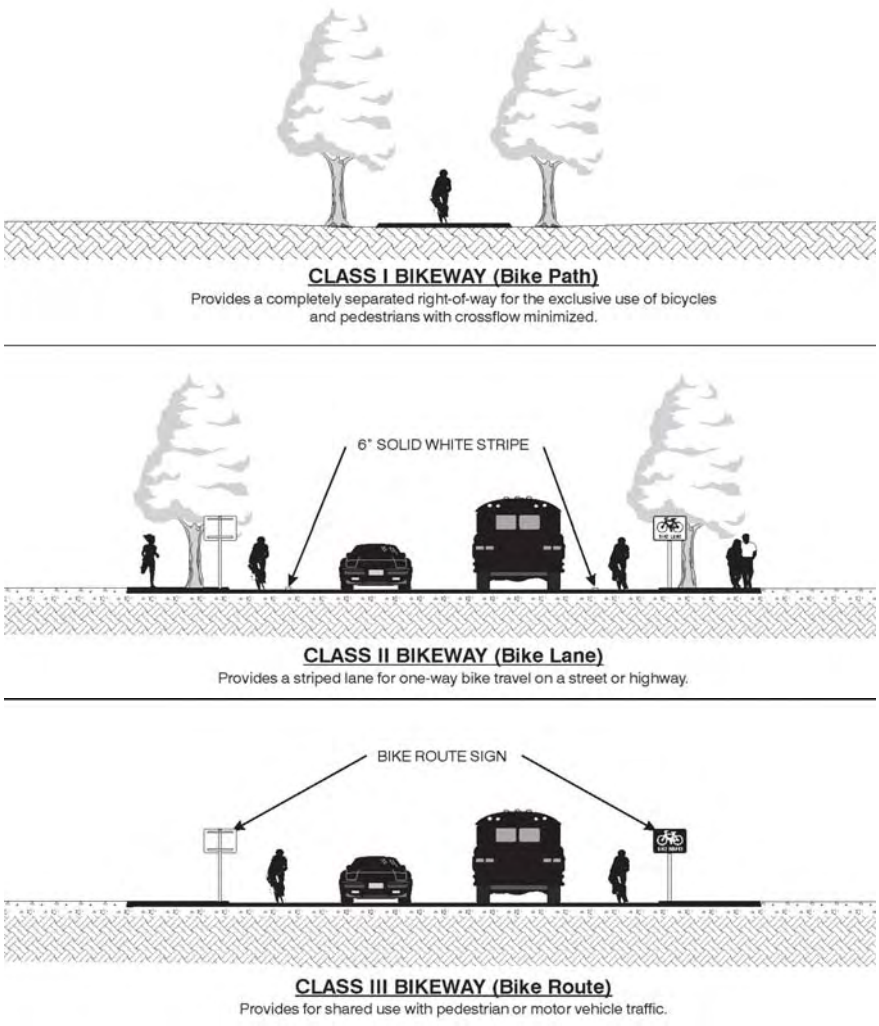
In general, public transit is not provided in the plan area. This is because of several factors, including the low-density land uses in south Sutter County. Only about 1% of workers residing in Sutter County used public transportation for the commute trip to work, according to the 2000 U.S. Census. This is less than the national average of 4.7% and the Sacramento region average of 1.8%.

NON-MOTORIZED TRANSPORTATION

Non-motorized transportation facilities include on-street and off-street facilities that are generally classified as Class I, Class II, or Class III.

The study area includes limited Class I, Class II, and Class III bicycle facilities. The nearest Class II bike lanes are located on the north side of Baseline Road west of Fiddyment Road and on Watt Avenue in Sacramento County along improved frontages. Pedestrian facilities are generally limited to sidewalks along improved frontages. The signalized intersections on SR 70/99 at Riego Road and Elverta Road have pedestrian crosswalks on the north, east, and west legs.

Bicycles and other forms of non-motorized transportation represent about 2.2% of commute trips to work in Sutter County (U.S. Census 2000).



3.3.3 IMPACTS AND MITIGATION MEASURES

This subsection describes the potential transportation impacts of the proposed project and recommended mitigation measures. To set the basis for determining significant impacts that require mitigation, the discussion below begins with an explanation of the impact analysis methodology and results. Next, is a listing of the various significance criteria used in the transportation analysis, followed by the specific impact statements and corresponding mitigation measures.

ANALYSIS METHODOLOGY

Roadway Network Analysis Methodology

The operational characteristics of the roadway network are described using the term LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The LOS grades are generally defined as follows.

- LOS A represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver.

- LOS B has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.

- LOS C has stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.

- LOS D represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.

- LOS E represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult, with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.

- LOS F is used to define forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

For this study, roadway segments, intersections, and freeway mainline and ramp junctions were analyzed to determine LOS. Roadway segments were analyzed by comparing the average daily traffic volume to daily volume thresholds specific to each jurisdiction in the study area. The use of daily traffic volumes for the analysis of roadway segments is the preferred methodology for the analysis of roadway segment operations in Sutter County, Placer County, and Sacramento County. Table 3.3-4 displays the daily volume thresholds for various roadway facility types in Sutter County, Placer County, and Sacramento County. These thresholds are used as guidelines to identify the need for new or upgraded facilities based on daily traffic volumes. Although the daily volume thresholds are different between the jurisdictions, the consistent methodology generally provides an apples-to-apples comparison.

Intersections were analyzed using three methodologies. Signalized intersections were analyzed using procedures contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board 2000). The HCM methodology estimates the delay experienced by vehicles traveling through the intersection and determines LOS for varying ranges of delay. HCM methodologies were applied to traffic signal controlled intersections in Sutter County, Placer County, and Sacramento County. Signalized intersections in Sacramento County were also analyzed using procedures contained in Circular Number 212 (Circular 212), Interim Materials on Highway Capacity (Transportation Research Board 1985). The Circular 212 procedures estimate the volume-to-capacity (V/C) ratio for each intersection to determine LOS, as shown in Table 6.12-2. This methodology is used for isolated signalized intersections that are not influenced by the traffic operations of adjacent intersections (i.e., closely spaced intersections) or high levels of congestion. Circular 212 is the methodology preferred by Sacramento County. Table 3.3-5 shows the delay ranges for each LOS value for both signal controlled methodologies.

Signalized intersection delay is calculated using the SYNCHRO 6.0 software. In addition to delay, SYNCHRO provides queue length estimates for each turning movement. For closely spaced intersections or congested locations, the queue length estimates are used to better understand traffic operating conditions and whether queuing extends between intersections. If this occurs, traffic operations may be worse than reported by conventional analysis techniques that don't consider queuing.

Table 3.3-4
LOS Criteria – Roadway Segments[1]

Facility Type	Number of Lanes & Classification	Daily Volume Threshold				
		LOS A	LOS B	LOS C	LOS D	LOS E
Sutter County						
Freeway	4 (4FS)	-	-	65,000	78,500	84,400
	6 (6FS)	-	-	97,500	117,800	126,700
Rural Roadway	2 (2R)	-	-	7,200	12,200	20,800
Urban Arterial[2]	2 (2U)	-	-	13,170	14,800	16,460
	3 (3U)	-	-	17,520	19,700	21,900
	4 (4U)	-	-	26,340	29,640	32,930
	6 (6U)	-	-	39,510	44,460	49,395
	8 (8U)	-	-	52,680	59,280	65,860
Expressway[3]	4 (4E)	-	-	38,900	47,400	51,600
	6 (6E)	-	-	58,350	71,100	77,400
	8 (8E)	-	-	77,800	94,800	103,200
Placer County/Sacramento County						
Freeway	4 (4F)	28,000	43,200	61,600	74,400	80,000
	6 (6F)	42,000	64,800	92,400	111,600	120,000
	8 (8F)	56,000	86,400	123,200	148,800	160,000
	10 (10F)	70,000	108,000	154,000	186,000	200,000
Rural Roadway[4]	2 (2RS)	2,200	4,300	7,100	12,200	20,000
Rural 2-lane Highway – Level Terrain	2 (2RH)	3,000	5,900	9,600	15,500	25,000
Arterial – High Access Control[5]	2 (2H)	12,000	14,000	16,000	18,000	20,000
	4 (4H)	24,000	28,000	32,000	36,000	40,000
	6 (6H)	36,000	42,000	48,000	54,000	60,000
Arterial – Moderate Access Control[6]	2 (2M)	10,800	12,600	14,400	16,200	18,000
	4 (4M)	21,600	25,200	28,800	32,400	36,000
	5 (5M)	27,000	31,500	36,000	40,500	45,000
	6 (6M)	32,400	37,800	43,200	48,600	54,000
Arterial – Low Access Control[7]	2 (2L)	9,000	10,500	12,000	13,740/ 13,5008	15,000
	4 (4L)	18,000	21,000	24,000	27,480/ 27,0008	30,000
	6 (6L)	27,000	31,500	36,000	41,220/ 40,5008	45,000

Notes:
[1] Both number of lanes and daily volume thresholds are two-way totals.
[2] Urban Arterial thresholds extrapolated for six and eight-lane facilities.
[3] Expressway thresholds extrapolated for six and eight-lane facilities.
[4] Rural roadway applies to Sacramento County.
[5] High access control roads generally have no driveways and speeds of 35 to 50 mph.
[6] Medium access control roads generally have limited driveways and speeds of 30 to 35 mph.
[7] Low access control roads generally have frequent driveways and speeds of 25 to 35 mph.
[8] LOS D threshold for low access control arterial in Placer County/Sacramento County, respectively.

Source: Sutter County General Plan, 1996
Placer County General Plan, 1994
Sacramento County Traffic Impact Analysis Guidelines, 2004
Fehr & Peers, 2008

Table 3.3-5 Signal Controlled Intersection LOS Criteria for HCM & Circular 212			
LOS	Control Delay (sec/veh)[1]	V/C Ratio	General Description
A	≤ 10	< 0.60	Little to no congestion or delays.
B	> 10 – 20	0.61 – 0.70	Limited congestion. Short delays.
C	> 20 – 35	0.71 – 0.80	Some congestion with average delays.
D	> 35 – 55	0.81 – 0.90	Significant congestion and delays.
E	> 55 – 80	0.91 – 1.00	Severe congestion and delays.
F	> 80	> 1.00	Total breakdown with extreme delays.

Notes:
[1] Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay and is measured for the overall intersection.
Source: *Highway Capacity Manual* (Transportation Research Board 2000), *Circular Number 212, Interim Materials on Highway Capacity* (Transportation Research Board 1980*),* Fehr & Peers 2008

The HCM is also the basis for unsignalized intersection analysis. Unsignalized intersections include stop sign, yield, and roundabout controlled intersections. LOS for these types of intersections is based on control delay similar to the HCM methodology for signalized intersections. Table 3.3-6 shows the specific delay ranges and corresponding LOS thresholds.

Table 3.3-6 Unsignalized Intersection LOS Criteria for HCM		
LOS	Control Delay (sec/veh)[1]	General Description
A	≤ 10.0	Little to no delay for controlled movements.
B	> 10 – 15	Some delay for controlled movements.
C	> 15 – 25	Moderate delay for controlled movements.
D	> 25 – 35	Significant delay for controlled movements.
E	> 35 - 50	Severe delay and congestion.
F	> 50	Total breakdown with extreme delays.

Notes:
[1] Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay and is measured for the worst turning movement.
Source: *Highway Capacity Manual* (Transportation Research Board 2000) and Fehr & Peers 2008

Freeway mainline segments and ramp junctions were analyzed using HCM procedures. Ramp junctions are the key connection points between interchange ramps and the freeway mainline. The HCM defines LOS for mainline segments and ramp junctions based on the density of freeway traffic in the ramp junction influence area, as shown in Table 3.3-7.

Table 3.3-7 Freeway Mainline and Ramp Junction LOS Criteria for HCM		
LOS	Mainline Density (passenger cars/mile/lane)	Ramp Junction Density (passenger cars/mile/lane)
A	≤ 11	≤ 10.0
B	> 11 – 18	> 10 – 20
C	> 18 – 26	> 20 – 28
D	> 26 – 35	> 28 – 35
E	> 35 – 45	> 35 – 43[1]
F	Demand exceeds capacity	

Notes :
[1] The HCM 2000 does not define maximum density for ramp junctions under LOS E. Fehr & Peers uses the maximum density of 43 identified for weaving sections in the HCM 2000.
Source: *Highway Capacity Manual* (Transportation Research Board 2000) and Fehr & Peers 2008

Methods of Analysis

The analysis used to identify potential transportation impacts is described below, including methodology, assumptions, and results. The impact analysis for the roadway network was based on traffic operations analysis for roadway segments, intersections, and ramp junctions based on the methodology described above. The impact analysis for public transit and non-motorized transportation was based on an evaluation of the project's consistency with existing and planned facilities and services as well as the transit and non-motorized policies of Sutter County. The impact analysis was conducted for the following scenarios:

- Existing Plus Phase 1 Conditions,
- Existing Plus Project Buildout Conditions,
- Cumulative No Project Conditions,
- Cumulative Plus Phase 1 (without Placer Parkway) Conditions,
- Cumulative Plus Project Buildout (without Placer Parkway) Conditions,
- Cumulative Plus Project Buildout (with Placer Parkway) Conditions, and
- Super Cumulative Conditions.

The super-cumulative scenario is included for informational purposes to provide reviewers with a context for future transportation conditions beyond year 2035. Development beyond the next 25 years is somewhat speculative, in comparison to the nearer term. The super-cumulative conditions scenario includes build-out of currently known land use development projects, including proposed, approved, and projects in early consideration stages (in the case of the Natomas Joint Vision Area), and potential projects contemplated but not in approved general plans.

The following discussion outlines the development of travel demand forecasting, outlines analysis steps for each scenario, and concludes with the analysis findings and detailed impact statements and recommended mitigation measures.

Traffic Forecasts

For the SPSP, daily and a.m. and p.m. peak hour traffic volume forecast for the scenarios listed above were developed using a modified version of SACOG's SACMET regional travel demand forecasting (TDF) model, which was released in February 2007. The TDF model is used to develop travel demand forecasts. The forecasts are then analyzed using the operations analysis tools like SYNCHRO 6.0. The modifications included creating a 'sub-area version' of this model that still retains the entire model but is calibrated and validated with the specific project study area of southern Sutter County, southern Placer County, and northern Sacramento County. The initial model lacked sufficient detail and was not fully calibrated for the project study area.

After modifying the model, it was able to accurately replicate base year conditions and respond in the appropriate direction and magnitude when changes were made to input variables like the roadway network. Table 3.3-8 summarizes the model validation based on the thresholds contained in the *Model Validation and Reasonableness Checking Manual* (TMIP/FHWA 1997) and *Travel Forecasting Guidelines* (Caltrans 1992). The validation included Riego Road, Baseline Road, Elverta Road, SR 70/SR 99, and Watt Avenue. These guidelines are used to determine whether a model is acceptable for forecasting future year traffic volumes. As shown in Table 3.3-8, the sub-area model passed all validation tests. It also passed dynamic validation tests focused on the model's sensitivity to input changes.

Table 3.3-8 Static Validation Summary for Study Area Roadways				
Validation Item	Criteria for Acceptance	Model Results		
		Daily	a.m. Peak Hour	p.m. Peak Hour
Percent of Links Within Caltrans Deviation Allowance	At Least 75%	94%	88%	81%
Correlation Coefficient	At Least 0.88	0.99	0.97	0.99
Percent Root Mean Squared Error	Below 30%	17%	28%	29%
Source: Fehr & Peers 2008				

As outlined above, the sub-area model was used to forecast traffic volumes for each analysis scenario. The SPSP model incorporates the following features:

- 2035 land use forecasts in Sutter County and Yuba County with 2025 land use forecasts in the remainder of the SACMET planning area, including Sacramento County, Placer County, and Southern Sutter County (excluding Sutter Pointe), except for neighboring growth areas in Placer County and Sacramento County near the study area. Table 3.3-9 summarizes these land use inputs.

- Additional roadway network and traffic analysis zone (TAZ) detail in neighboring growth areas in Placer County and Sutter County, like Placer Vineyards, Elverta, Metro Air Park, and Greenbriar. Table 3.3-10 lists the major cumulative roadway network improvements that were input to the model. The study area roadway network including the major roadway improvements listed in Table 3.3-10 plus new roadways that would be constructed as part of the development associated with the Placer Vineyards, Elverta, Metro Air Park, and Greenbriar are show on exhibits in the cumulative conditions analysis section. While the alignment and number of lanes for some roadways are still subject to change, it reflects the best available information at the time of analysis.

- Additional roadway network and TAZ detail in the SPSP.

- Roadway network consistent with the 2006 MTP and roadway improvements consistent with development levels in neighboring growth areas.

- Updated retail trip generation rates within Sutter Pointe to match trip generation rates documented in *Trip Generation* (Institute of Transportation Engineers 2003) in magnitude and directionality (in the a.m. and p.m. peak hours).

- Verified trip generation rates for high-cube distribution land uses in the SPSP based on regionally valid trip rates.

Table 3.3-9 Year 2035 Land Use Projections – Cumulative Conditions					
Jurisdiction	Growth Area	Households	Employment		College Enrollment
			Retail	Non-Retail	
Sutter County	Sutter Pointe (Build-out)	17,500	8,791	48,860	-
	Phase 1	7,771	4,941	9,491	-
Placer County	Placer Vineyards	14,132	5,113	5,021	-
	Regional University	4,387	91	-	6,000
	Sierra Vista	10,275	4,666	1,098	-
	Placer Ranch	6,729	912	18,862	25,000

Table 3.3-9 Year 2035 Land Use Projections – Cumulative Conditions					
Jurisdiction	Growth Area	Households	Employment		College Enrollment
			Retail	Non-Retail	
Sacramento County	Elverta	4,950	326	324	-
	Greenbriar	3,473	655	150	-
	Metro Air Park	-	673	14,969	-
Source: Fehr & Peers 2008					

For the cumulative scenarios, the land use forecasts used for the for the SPSP analysis more closely match the General Plans currently in place in the region. Many jurisdictions are considering modifying/amending their general plans to consider higher density development that is consistent with SACOG's Blueprint land use planning framework.

The roadway network capacity expansion projects in Table 3.3-10 are limited to only those that have full funding identified and are therefore reasonably foreseeable. The sources for these improvements are the list of Tier 1 improvement projects contained in the 2006 MTP (Sacramento Area Council of Governments, 2006 and transportation improvements that are conditioned to be built by approved development projects. (e.g., the Placer Vineyards Specific Plan financing agreement). Tier 1 MTP improvements are those expected to be constructed by 2027 based on reasonably assured funding sources.

With the recent passage of Proposition 1B, $19.1 million was appropriated for the construction of an interchange at the SR 70/SR 99/Riego Road interchange. A supplemental project report (PR) and environmental document has been completed for the project. Sutter County has entered into a cooperative agreement (Cooperative Agreement No. 03-0374) with the State of California (through Caltrans) for local-share funding of the interchange improvement. Since local-share funding for the interim interchange will come from the Sutter Pointe Specific Plan (i.e., through Sutter County), the interim interchange is not assumed constructed under "no project" or "existing plus project" conditions.

Table 3.3-10 Study Area Planned Roadway Improvements by Year 2035		
Roadway	Improvement	Source
Baseline Road	Widen from 2 to 4 lanes, Sutter County Line (Locust Road) to Watt Avenue	MTP
Baseline Road	Widen from 2 to 6 lanes, Watt Avenue to Fiddyment Road	MTP
Baseline Road	Widen from 2 to 4 lanes, Fiddyment Road to Brady Lane	MTP
Baseline Road	Widen from 4 to 6 lanes, Sutter County Line (Locust Road) to Watt Ave	Placer Vineyards
Watt Avenue	Widen from 2 to 4 lanes, Baseline Road to Sacramento County line	MTP
Watt Avenue	Widen from 4 to 6 lanes, Baseline Road to Sacramento County line	Placer Vineyards
Watt Avenue	Widen from 4 to 6 lanes, Antelope Road to Don Julio Boulevard	MTP
Elverta Road	Widen from 2 to 4 lanes, Rio Linda Boulevard to Watt Avenue including 6-lane Dry Creek bridge	MTP
Elverta Road[1]	Widen from 4 to 6 lanes, 28th Street to Watt Avenue	Elverta
SR 70/SR 99/Elverta Road	Construct Interchange	MTP
Elkhorn Boulevard	Widen from 2 to 6 lanes, SR 70/SR 99 to City limits	MTP
SR 70/SR 99/Elkhorn Boulevard Interchange	Expand interchange to accommodate the widening of Elkhorn Boulevard from 2 to 6 lanes	MTP

Table 3.3-10
Study Area Planned Roadway Improvements by Year 2035

Roadway	Improvement	Source
Elkhorn Boulevard	In Sacramento County, widen from 2 to 4 lanes from Rio Linda Boulevard to SR 70/SR 99 including new bridge over NEMDC	MTP
I-5/Metro Air Parkway Interchange	Construct new interchange on I-5 at Metro Air Parkway	MTP
Metro Air Pkwy.[2]	Construct 4-lane Metro Air Parkway from I-5 to Elverta Road.	MTP/Metro

Notes:
[1] Widening of Elverta Road only assumed to extend to Sorento Road, consistent with mitigation identified in Elverta Specific Plan.
[2] Metro Air Parkway assumed 4 lanes (I-5 to Elkhorn Boulevard) and 2 lanes (Elkhorn Boulevard to Elverta Road) consistent with development level assumed in Metro Air Park.
Source: Fehr & Peers 2008

While this list of projects affects numerous roadways through the study area, the cumulative roadway network does not contain all of the capacity expansion projects that would be necessary to maintain the LOS thresholds established in local or State policies. Funding limitations are substantial, and many of the most significant regional roadway projects are not included in the cumulative network.

One significant regional project is Placer Parkway. Because of funding constraints, the cumulative conditions analysis analyzes the impacts of the Project without and with Placer Parkway. Placer Parkway is a regional transportation project that would connect rapidly growing areas of western Placer County at SR 65 to planned development through or in the SPSP at SR 70/99. The concept of Placer Parkway was depicted as a plan line in the 1994 Placer County General Plan and was also studied as part of preliminary planning documents in 2000 and 2001 that were adopted by PCTPA and SACOG. Placer Parkway is identified in the 2027 Placer County Regional Transportation Plan as an unfunded project.

SPRTA, which is overseen by PCTPA, is a JPA comprised of the Cities of Lincoln, Rocklin, Roseville and the County of Placer. SPRTA was formed for the purpose of implementing a Regional Transportation and Air Quality Mitigation Fee to fund specified regional transportation projects, including Placer Parkway. PCTPA is currently overseeing the Placer Parkway Corridor Preservation Project, which includes the following two phases.

- Phase 1 included identification of feasible corridor alignment alternatives. As part of this phase, several public information, technical advisory committee, study advisor committee, public advisory committee, and informational briefing meetings were conducted to determine the potential alternative alignments.

- Phase 2 includes completing the Tier 1 Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to meet CEQA and NEPA requirements. The intent of the Tier 1 EIS/EIR is to select a preferred corridor and reserve right-of-way for the planned roadway. A subsequent Tier 2 EIR/EIS would evaluate Placer Parkway in detail, including construction and operation of the planned roadway.

At this time, the Tier 1 EIS/EIR is being prepared and no preferred or recommended corridor alignment exists for Placer Parkway. The selected corridor would contain the roadway, including the median, travel lanes, shoulder, associated access ramps, and a no-development buffer zone. In the SPSP, the Placer Parkway Tier 1 EIR/EIS includes the following two alignment alternatives:

- Alternative 1 – is proposed at on-half mile north of Riego Road and would connect to SR 70/SR 99 with a high-speed, freeway-to-freeway interchange, which would require a braided-ramp interchange design with the planned SR 70/SR 99/Riego Road interchange to eliminate weaving conditions between the interchanges because of their close spacing. Additional roadway network and TAZ detail in the SPSP. This alternative includes two local-access interchange serving the SPSP.

- Alternative 2 – is proposed at Sankey Road and would connect to SR 70/SR 99 with a high-speed, freeway-to-freeway interchange. This alternative includes one local-access interchange serving the SPSP.

Both alternatives include 500 feet of right-of-way reservation and a grade-separated crossing of the Union Pacific Railroad east of the SPSP area to accommodate a four- to six-lane project. The proposed SPSP includes the 500-foot right-of-way reservation for Alternative 2 but not for Alternative 1.

The anticipated schedule for the Placer Parkway Corridor Preservation Project includes the Draft Tier 1 EIS/EIR, which was released for public review on July 2, 2007 and completion of the Final Tier 1 EIS/EIR by summer 2009. Once the preferred corridor is determined, including Federal and State clearances, acquisition will begin to preserve right-of-way for the preferred Placer Parkway alignment. Currently, PCTPA is collecting a portion of the funds for construction of Placer Parkway through SPRTA. However, full funding for Placer Parkway has not yet been identified. Without new funding sources, the Parkway would not be constructed by 2025. Consequently, this analysis includes equal-level analysis of cumulative conditions with and without the Placer Parkway (i.e., Alternative 2).

Phase 1 and Project Land Use Inputs

Tables 3.3-11 and 3.3-12 summarize the SPSP land use inputs by TAZ corresponding to the TAZ boundaries show on Exhibits 3.3-6 for Phase 1 and the Project, respectively.

The SPSP land use summarized in Table 3.3-11 and Table 3.3-12 and the SPSP plan-area roadway networks shown on Exhibit 3.3-7 for Phase 1 and the Project, respectively were added to the base year and cumulative year traffic models to develop traffic volume forecasts under existing and cumulative conditions for the scenarios outlined above.

Table 3.3-11
SPSP Land Use Summary by TAZ – Phase 1

TAZ	Households		Employment						K-12 School Enrollment
				Non-Retail Employment					
	Low and Medium Density	High Density	Retail	Office	Medical	Manufacturing & Other	Education	Total	
1400	-	-		-	-		-	-	-
1401	-	-		-	-		-	-	-
1402	-	-		-	-		-	-	-
1403	-	-		-	-		-	-	-
1404	-	-	63	777	41	2,432	-	3,250	-
1405	-	-	26	322	17	1,009	-	1,348	-
1406	-	-	8	97	5	302	-	404	-
1407	-	-	8	95	5	298	-	398	-
1408	-	-		357	24	1,140	-	1,521	-
1409	-	-		-	-		-	-	-
1410	-	60		300	26	35	18	379	-
1411	-	-	844	18	9	18	-	45	-
1412	-	756		-	-		-	-	-
1413	498	-		11	11	11	-	33	-
1414	-	-		-	-		51	51	1,020
1415	603	-		-	-		56	56	1,120

Table 3.3-11
SPSP Land Use Summary by TAZ – Phase 1

TAZ	Households		Employment						K-12 School Enrollment
			Retail	Non-Retail Employment					
	Low and Medium Density	High Density		Office	Medical	Manufacturing & Other	Education	Total	
1416	-	-		-	-		-	-	-
1417	-	-		-	-		-	-	-
1418	-	-		-	-		-	-	-
1419	-	-		-	-		-	-	-
1420	582	-		-	-		-	-	-
1421	494	-		-	-		-	-	-
1422	373	-		-	-		-	-	-
1423	498	-		-	-		-	-	-
1424	-	-		-	-		-	-	-
1425	-	-		-	-		-	-	-
1426	296	-		-	-		56	56	1,120
1427	769	-		-	-		-	-	-
1428	-	-		-	-		56	56	1,120
1429	-	-		-	-		-	-	-
1430	-	-		-	-		-	-	-
1431	-	-		-	-		-	-	-
1432	-	-		-	-		-	-	-
1433	-	-		-	-		-	-	-
1434	-	-		-	-		-	-	-
1435	-	-		-	-		-	-	-
1436	-	-		-	-		-	-	-
1437	-	-		-	-		-	-	-
1527	-	-		-	-		-	-	-
1528	-	308		1,665	110	38	-	1,813	-
1529	355	427		-	-		-	-	-
1530	363	203		19	19	19	-	57	-
1531	-	283		8	8	8	-	24	-
1532	452	-		-	-		-	-	-
1533	451	-		-	-		-	-	-
1534	-	-		-	-		-	-	-
1535	-	-		-	-		-	-	-
1536	-	-		-	-		-	-	-
1537	-	-		-	-		-	-	-
1538-1558	Unused								
1559	-		1,909					-	
1560	-		583					-	
1561	-		844					-	
1562	-							-	
1563	-		133					-	

Table 3.3-11
SPSP Land Use Summary by TAZ – Phase 1

TAZ	Households		Employment						K-12 School Enrollment
				Non-Retail Employment					
	Low and Medium Density	High Density	Retail	Office	Medical	Manufacturing & Other	Education	Total	
1564	-		194					-	
1565	-							-	
1566	-		329					-	
1567	-							-	
Total	5,734	2,036	4,941	3,669	275	5,310	237	9,491	4,380

Source: Fehr & Peers 2008

Table 3.3-12
SPSP Land Use Summary by TAZ – Project Buildout

TAZ	Households		Employment						K-12 School Enrollment
				Non-Retail Employment					
	Low and Medium Density	High Density	Retail	Office	Medical	Manufacturing & Other	Education	Total	
1400	-	-	38	476	25	1,490	-	1,991	-
1401	-	-	34	425	22	1,330	-	1,777	-
1402	-	-	46	574	30	1,797	-	2,401	-
1403	-	-	41	511	27	1,599	-	2,137	-
1404	-	-	85	1,048	55	3,283	-	4,386	-
1405	-	-	65	808	43	2,528	-	3,379	-
1406	-	-	25	306	16	958	-	1,280	-
1407	-	-	34	425	22	1,331	-	1,778	-
1408	-	-		357	24	1,140	-	1,521	-
1409	-	490	433	297	22	204	17	540	-
1410	-	240		1,162	88	106	70	1,426	-
1411	-	-	845	18	9	18	-	45	-
1412	-	756	-	-	-	-	-	-	-
1413	500	-		11	11	11	-	33	-
1414	604	-	-	-	-	-	183	183	3,650
1415	603	-	-	-	-	-	64	64	1,280
1416	797	-	-	-	-	-	-	-	-
1417	904	-	-	-	-	-	64	64	1,280
1418	-	654		980	72	72	61	1,185	-
1419	-	400		2,310	155	155	144	2,764	-
1420	582	-	-	-	-	-	-	-	-
1421	494	-	-	-	-	-	-	-	-
1422	373	-	-	-	-	-	-	-	-
1423	1,315	-	-	-	-	-	-	-	-
1424	764	-	200	64	5	222	64	355	1,280

Table 3.3-12
SPSP Land Use Summary by TAZ – Project Buildout

TAZ	Households		Employment						K-12 School Enrollment
				Non-Retail Employment					
	Low and Medium Density	High Density	Retail	Office	Medical	Manufacturing & Other	Education	Total	
1425	496	-	-	-	-	-	-	-	-
1426	295	-	-	-	-	-	64	64	1,280
1427	769	-	-	-	-	-	-	-	-
1428	376	-	-	-	-	-	64	64	1,280
1429	600	-	-	-	-	-	-	-	-
1430	640	-	-	-	-	-	-	-	-
1431	-	-	20	241	13	756	-	1,010	-
1432	-	-	121	1,495	79	4,682	-	6,256	-
1433	-	-		12	6	12	-	30	-
1434	-	-	49	612	32	1,915	-	2,559	-
1435	-	-	82	1,010	53	3,163	-	4,226	-
1436	-	-	396	325	21	1,061	-	1,407	-
1437	963	-	125	40	3	139	-	182	-
1527	-	-	16	204	11	638	-	853	-
1528	-	308		1,665	110	38	-	1,813	-
1529	355	692	-	-	-	-	-	-	-
1530	363	204		19	19	19	-	57	-
1531	-	283		8	8	8	-	24	-
1532	452	-	-	-	-	-	-	-	-
1533	451	-	-	-	-	-	-	-	-
1534	461	-	-	-	-	-	-	-	-
1535	-	-	22	271	14	850	-	1,135	-
1536	319	-	-	-	-	-	-	-	-
1537	-	-	36	447	24	1,400	-	1,871	-
1538-1558	Unused								
1559	-		1,907			-			
1560	-		583			-			
1561	-		1,777			-			
1562	-		549			-			
1563	-		132			-			
1564	-		194			-			
1565	-		262			-			
1566	-		329			-			
1567	-		345			-			
Total	**13,476**	**4,024**	**8,791**	**16,121**	**1,019**	**30,925**	**795**	**48,860**	**10,050**

Source: Fehr & Peers 2008

Trip Generation Estimate

After the changes described above were completed, the TDF model was run for each analysis scenario. The TDF model accounts for the interaction of land uses in the project and in the region. For example, by design mixed land use designations have a mix of residential, employment, and shopping uses that may result in some trips being made by non automobile modes (i.e., walk and bike trips) or result in shorter trips and reduced vehicle miles traveled (VMT). Table 3.3-13 summarizes daily vehicle trip generation and VMT for Phase 1 and the Project. The VMT shown in Table 3.3-13 is the total VMT for the project and was determined using network-based calculations and is a direct input for mobile source emissions in the air quality and greenhouse gas analysis. In addition, the VMT estimates are based on long-term travel patterns and do not account for changing driver behavior in response to higher travel costs. Most recently the increase in fuel prices have resulted in a decrease in fuel consumption and a corresponding decrease in VMT; however, it is too early to know the long-term implications of this trend.

Table 3.3-14 compares the trip generation from the SPSP modified SACMT TDF model to trip generation based on published sources. The trip generation rates identified in Table 3.3-14 are average rates for the land use categories referenced.

As shown in Table 3.3-14, the total trip ends and total trips estimated using trip generation rates are comparable to the trip generation from the SPSP modified SACMT TDF model and are will within the range of potential trip generation rates for each land use category.

Table 3.3-13
Vehicle Trip Generation and VMT Summary

Development		Total Vehicle Trips[1]			Daily VMT[4]
		Daily	a.m.	p.m.	
Phase 1	Total Trip Ends	172,400			1,301,000
	Total Trips[2]	128,400			
	External Trips[3]	84,500			
Specific Plan Build-out	Total Trip Ends	491,500	31,500	45,700	3,347,000
	Total Trips[2]	343,900	22,900	31,500	
	External Trips[3]	196,200	14,200	17,300	

Notes:
[1] Trip summary based on the SPSP Modified SACMET TDF model.
[2] Total vehicle trips assigned to the traffic model roadway network. Does not include trips internal to a TAZ.
[3] Total external vehicle trips.
[4] VMT estimate from SPSP Modified SACMET TDF model based on a select zone analysis.
Source: Fehr & Peers 2008

Table 3.3-14
Vehicle Trip Generation Comparison to Published Rates (Specific Plan Build-out)

Specific Plan Buildout Land Use		Units	Trip Ends per Unit			Trip Ends		
Model Input	Land Use Category		Daily	a.m.	p.m.	Daily	a.m.	p.m.
LDR	Single-Family Dwelling Units (ITE 210)	1,461 DU[1]	9.57	0.75	1.01	13,980	1,100	1,480
MDR	Multi-Family Dwelling Units (ITE 221)	9,015 DU	9.57	0.75	1.01	86,250	6,760	9,100
	Active Adult (ITE 251)	3,000 DU	3.71	0.20	0.26	11,130	600	780

Table 3.3-14
Vehicle Trip Generation Comparison to Published Rates (Specific Plan Build-out)

Specific Plan Buildout Land Use		Units	Trip Ends per Unit			Trip Ends		
Model Input	Land Use Category		Daily	a.m.	p.m.	Daily	a.m.	p.m.
HDR	Low-Rise Apartment (ITE 221)	4,024 DU	6.59	0.46	0.58	26,520	1,850	2,330
Retail	Retail (ITE 820)	8,791 EMP[2]	17.00	0.40	1.50	149,450	3,520	13,190
Office	Office (ITE 710)	16,121 EMP	3.32	0.48	0.46	53,520	7,740	7,420
Medical	Medical-Dental Office (ITE 720)	1,019 EMP	8.91	0.53	1.06	9,080	540	1,080
Manufacturing & Other	Light & Heavy Warehousing[3]	30,925 EMP	4.19	0.18	0.15	129,420	5,630	4,580
Education	Office (ITE 710)	795 EMP	3.32	0.48	0.46	2,640	380	370
K–12 Enrollment	Elementary School (ITE 520)	10,050 Students	1.29	0.42	0.28	12,960	4,220	2,810
					Total Trip Ends	495,000	32,300	43,100
					Total Trips[4]	346,200	22,600	30,100

Notes:
[1] DU – Dwelling Unit
[2] EMP – Employment
[3] Trip generation from *Truck Trip Generation Study, City of Fontana, County of San Bernardino, State of California*, August 2003. Average of recommended trip generation rates for light and heavy warehousing used.
[4] Total trips calculated by dividing total trip ends by percent of trips remaining in SPSP (Total Trip Ends/1.43)
Source: Fehr & Peers 2008

In reviewing the traffic volume forecasts, different scenarios such as cumulative no project versus cumulative plus project should be treated as different "snapshots" of the future. When changing land uses or roadway networks between future scenarios, the model produces a new set of forecasts reflecting different trip distribution and trip assignment results based on the changed input. This capability of the model recognizes that travel patterns under existing conditions or 20 or more years in the future would likely be different if a significant roadway link is excluded or a major new land-use development is added. Under this approach, the project's traffic is not added to a fixed amount of traffic under the no project scenario. Therefore, the project may contribute traffic to many roadways under the existing and cumulative plus project scenarios, but may not necessarily result in higher volumes on a roadway segment when compared to the no project scenarios, and therefore not cause an impact. This is addressed in more detail in the impact and mitigation section.

The following summarizes the general trip distribution with Phase 1 and Specific Plan build (without and with Placer Parkway).

Scenario	**Direction (To/From)**				
	North	**South**	**East**	**West**	**Total**
Phase 1	10%	67%	22%	1%	100%
Specific Plan Build-out	16%	57%	20%	7%	100%
Specific Plan Build-out (With Placer Parkway)	11%	54%	31%	4%	100%

As shown, Placer Parkway will result in an increase in the distribution of project trips to/from the east by about 11%, which is expected with the increased accessibility that Placer Parkway creates to/from the east. Traffic in the SPSP (between Placer Parkway/Sankey Road and Riego Road) will increase on the north/south arterials by about 24% with Placer Parkway.

The resulting existing and cumulative traffic volume forecasts are presented below.

- *Existing Plus Phase 1 Conditions* – Exhibits 3.3-8 through 3.3-10 display the existing "plus phase 1" daily and peak hour traffic volumes for the study area roadway segments, intersections, and freeway facilities.

- *Existing Plus Project Conditions* – Exhibits 3.3-11 through 3.3-13 display the existing "plus project" daily and peak hour traffic volumes for the study area roadway segments, intersections, and freeway facilities.

- *Cumulative No Project Conditions* – Exhibits 3.3-14 through 3.3-17 display the cumulative "no project" daily and peak hour traffic volumes for the study area roadway segments, intersections, and freeway facilities.

- *Cumulative Plus Phase 1 Conditions* – Exhibits 3.3-18 through 3.3-20 display the cumulative "plus phase 1" daily and peak hour traffic volumes for the study area roadway segments, intersections, and freeway facilities.

- *Cumulative Plus Project Conditions* – Exhibits 3.3-21 through 3.3-23 display the cumulative "plus project" daily and peak hour traffic volumes for the study area roadway segments, intersections, and freeway facilities.

- *Cumulative Plus Project (With Placer Parkway) Conditions* – Exhibits 3.3-24 through 3.3-26 display the cumulative "plus project" (With Placer Parkway) daily and peak hour traffic volumes for the study area roadway segments, intersections, and freeway facilities.

Existing Scenario Traffic Operations Analysis

Impacts to the roadway network under existing conditions with Phase 1 and the Project were analyzed for typical weekday conditions. Traffic operations analysis for existing plus project conditions used the same methodology described for existing conditions.

In addition to the roadways shown on Exhibit 3.3-2, the following infrastructure improvements were assumed for the analysis of project analysis of Phase 1 and the Project since they are part of the project:

- an overcrossing of SR 70/99 south of Riego Road,
- two at-grade signalized intersections on Sankey Road, and
- local access to/from Natomas Road would be provided through the plan area.

The traffic volumes were developed to reflect the addition of project traffic; otherwise, all other analysis inputs were held constant. The analysis results for roadway segments, intersections, and freeway facilities are summarized below.

The tables presented below that summarize off-site traffic operations include study roadway segments and intersection on Sankey Road, Pacific Avenue (north of Riego Road), and Riego Road even though most of the segments are within the project. This convention was used to make the comparison of "no project" and "plus project" traffic operations more clear. The numbering of intersections in the tables corresponds to the numbering on the exhibits that show intersection traffic control, lane configurations, and traffic volume forecasts.

Roadway Segments

Table 3.3-15 and Exhibit 3.3-3 present the analysis of roadway segments with Phase 1 and the Project under existing conditions.

As shown in Table 3.3-15, the addition of Phase 1 and the Project under existing conditions would cause a significant impact to seven roadway segments and nine roadway segments, respectively. For one location, the impact because of Phase 1 occurs because of the exacerbation of unacceptable existing operations. The other six locations are deteriorations in LOS from acceptable to unacceptable operations. Similarly, for one location, the impact because of the Project occurs because of the exacerbation of unacceptable existing operations. The other

eight locations are deteriorations in LOS from acceptable to unacceptable operations. Specific impact statements and mitigation measures are presented at the end of this section.

On-site roadways, except for those along Sankey Road, Pacific Avenue (north of Riego Road), and Riego Road, were analyzed under cumulative and not existing conditions. Table 3.3-19 in the cumulative conditions analysis section summarizes on-site roadway LOS.

Intersections

Table 3.3-16 presents the analysis of off-site study intersections with Phase 1 and the Project under existing conditions. The addition of Phase 1 would cause significant impacts at nine of the 34 study intersections. The addition of the Project would cause significant impacts at 13 of the 34 study intersections. Significant impacts are denoted in bold text in Table 3.3-16. Specific impact statements and mitigation measures are presented at the end of this section.

On-site intersections, except for intersections along Sankey Road, Pacific Avenue (north of Riego Road), and Riego Road, were analyzed under cumulative and not existing conditions. Table 3.3-21 in the cumulative conditions analysis section summarizes on-site intersection LOS.

Freeway Facilities

Table 3.3-17 presents the analysis of peak hour freeway facility mainline, merge, diverge, and weaving operations with Phase 1 and the Project under existing conditions. Based on peak hour operations, the addition of the Project would cause significant impacts at 5 of the 31 study freeway facilities. In addition, although the addition of project traffic does not cause most of the study freeway facilities to operate worse than Caltrans' LOS E significance threshold for SR 70/99 and I-5, the addition of project traffic does cause a deteriorate operations on 16 study facilities to LOS E or F compared to six locations under existing conditions (i.e., including the at-grade intersections at Riego Road and Elverta Road).

In addition, the segments of I-5 south of SR 70/99 to I-80 were also analyzed using the methodology for roadway segments, which is summarized in Table 3.3-15. The roadway segment analysis shows that the project would cause significant impact to I-5 between SR 70/99 and Arena Boulevard with Phase 1 and between SR 70/99 and I-80 with the Project. Specific impact statements and mitigation measures are presented at the end of this section.

Transit Evaluation

The SPSP is designed to accommodate future public transit service and includes a comprehensive transit plan that includes detailed information and policy on mobility enhancing strategies, phasing, performance standards, cost, and funding. The SPSP will establish a TMA to oversee transit service in the project. The TMA will oversee the implementation of commuter, fixed-route, and dial-a-ride services.

The project is proposing three transit centers: one located in the Town Center near SR 70/99, one in the South Village Center along Riego Road, and one in the North Village Center near Road C. In addition to the transit centers, the transit plan contains development densities that place more people in close proximity to the transit stops. The transit plan includes service standards for all of its components including minimum service standards based on funding availability.

While the proposed project would accommodate transit service and would not disrupt existing service, the project could create new demand for transit service, especially given the residential uses of the project. For potential transit impacts under future conditions, refer to the transit evaluation under cumulative conditions.

Table 3.3-15
Roadway LOS: Existing Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
1. Sankey Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	200	0.01	C	2R	200	0.01	C	2R	200	0.01	C
2. Sankey Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	1,400	0.07	C	2U	1,800	0.11	C	4E	25,900	0.50	C
3. Sankey Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	1,100	0.05	C	-	-	-	-	-	-	-	-
3a. Sankey Rd. – Pacific Ave. to Road C	Sutter Co.	-	-	-	-	2R	1,600	0.08	C	4E	7,300	0.14	C
3b. Sankey Rd. – Road C to Pleasant Grove Rd. (N)	Sutter Co.	-	-	-	-	2R	1,600	0.08	C	4E	6,200	0.12	C
4. Sankey Rd. – Pleasant Grove Rd. (N) to Locust Rd.	Sutter Co.	2R	1,500	0.07	C	2R	1,500	0.07	C	2R	3,400	0.16	C
5. Riego Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	800	0.04	C	-	-	-	-	4U	-	-	-
5a. Riego Rd. – Power Line Rd. to Road U	Sutter Co.	-	-	-	-	2U	1,500	0.09	C	4U	10,600	0.32	C
5b. Riego Rd. – Road U to Road R	Sutter Co.	-	-	-	-	4U	1,500	0.05	C	4U	23,900	0.73	C
5c. Riego Rd. – Road R to Road S	Sutter Co.	-	-	-	-	6U	6,500	0.13	C	6U	30,500	0.62	C
5d. Riego Rd. – Road S to SR 70/SR 99	Sutter Co.	-	-	-	-	6E	45,100	0.58	C	8E	73,400	0.71	C
6. Riego Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	9,600	0.46	D	-	-	-	-	8E	-	-	-
6a. Riego Rd. – SR 70/SR 99 to Road A	Sutter Co.	-	-	-	-	6E	47,600	0.61	C	8E	69,500	0.67	C
6b. Riego Rd. – Road A to Pacific Ave.	Sutter Co.	-	-	-	-	6E	34,800	0.45	C	8E	58,900	0.57	C
7. Riego Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	8,100	0.39	D	-	-	-	-	6E	-	-	-
7a. Riego Rd. – Pacific Ave. to Road C	Sutter Co.		-	-	-	6E	31,000	0.40	C	6E	52,200	0.67	C
7b. Riego Rd. – Road C to Road D	Sutter Co.		-	-	-	6E	17,800	0.23	C	6E	35,900	0.46	C

Table 3.3-15
Roadway LOS: Existing Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
7c. Riego Rd. – Road D to Natomas Rd.	Sutter Co.		-	-	-	4E	18,900	0.37	C	6E	35,700	0.46	C
8. Riego Rd. – Natomas Road to Pleasant Grove Rd. (S)	Placer Co.	2R	10,700	0.51	D	2R	**19,900**	**0.96**	**E**	2R	**32,000**	**1.54**	**F**
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	10,600	0.59	A	2M	**17,700**	**0.98**	**E**	2M	**26,000**	**1.44**	**F**
10. Baseline Rd. – Locust Rd. to Brewer Rd.	Placer Co.	2M	12,100	0.67	B	2M	**19,200**	**1.07**	**F**	2M	**28,100**	**1.56**	**F**
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	2M	11,200	0.62	B	2M	**18,200**	**1.01**	**F**	2M	**27,100**	**1.51**	**F**
12. Baseline Rd. – Watt Ave. to Fiddyment Dr.	Placer Co.	2M	12,600	0.70	B	2M	**15,900**	**0.88**	**D**	2M	**20,700**	**1.15**	**F**
13. Elverta Rd. – Power Line Rd. to SR 70/SR 99	Sacramento Co.	2H	1,000	0.05	A	2H	1,000	0.05	A	2H	11,600	0.58	A
14. Elverta Rd. – SR 70/SR 99 to East Levee Rd.	Sacramento Co.	2H	6,100	0.31	A	2H	8,300	0.42	A	2H	10,300	0.52	A
15. Elverta Rd. – East Levee Rd. to Sorento Rd.	Sacramento Co.	2M	7,900	0.44	A	2M	10,800	0.60	A	2M	13,600	0.76	C
16. Elverta Rd. – Sorento Rd. to 16th St.	Sacramento Co.	2M	8,700	0.48	A	2M	10,900	0.61	B	2M	14,800	0.82	D
17. Elverta Rd. – 16th St. to Watt Ave.	Sacramento Co.	2M	15,400	0.86	D	2M	15,500	0.86	D	2M	17,500	0.97	E
18. Power Line Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C
19. Power Line Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	300	0.01	C	2R	1,000	0.05	C	2R	9,400	0.45	D
20. Power Line Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	300	0.02	A	2RS	1,000	0.05	A	2RS	12,800	0.64	E

Table 3.3-15
Roadway LOS: Existing Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
21. Power Line Rd. – Elverta Rd. to Elkhorn Blvd.	Sacramento Co.	2RS	400	0.02	A	2RS	500	0.03	A	2RS	2,200	0.11	A
22. Pacific Ave. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	900	0.04	C	-	-	-	-	-	-	-	-
22a. Pacific Ave. – Sankey Rd. to Road K	Sutter Co.	-	-	-	-	2U	900	0.05	C	2U	11,100	0.34	C
22b. Pacific Ave. – Road K to Road J	Sutter Co.	-	-	-	-	2U	900	0.05	C	2U	14,100	0.43	C
22c. Pacific Ave. – Road J to Riego Rd.	Sutter Co.	-	-	-	-	4U	4,100	0.12	C	4U	19,100	0.58	C
23. Natomas Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C
24. Natomas Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	700	0.03	C	2R	1,700	0.08	C	2R	7,100	0.34	C
25. East Levee Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	700	0.04	A	2RS	1,700	0.09	A	2RS	7,100	0.36	C
26. Pleasant Grove Rd. (N) – Sankey Rd to Riego Rd.	Sutter Co.	2R	1,700	0.08	C	2R	1,700	0.08	C	2R	2,100	0.10	C
27. Pleasant Grove Rd. (S) – Riego Rd. to Sacramento County Line	Sutter Co.	2R	1,800	0.09	C	2R	3,700	0.18	C	2R	7,400	0.36	D
28. Sorento Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	1,800	0.10	A	2M	2,200	0.12	A	2M	4,300	0.24	A
29. Locust Rd. – Sankey Rd. to Baseline Rd.	Placer Co.	2M	1,500	0.08	A	2M	1,500	0.08	A	2M	3,400	0.19	A
30. Brewer Rd. – Phillip Rd. to Baseline Rd.	Placer Co.	2M	600	0.03	A	2M	600	0.03	A	2M	700	0.04	A
31. Palladay Rd. – Baseline Rd. to Sacramento County Line	Placer Co.	2M	200	0.01	A	2M	200	0.01	A	2M	400	0.02	A
32. Palladay Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	200	0.01	A	2RS	200	0.01	A	2RS	400	0.02	A
33. 16th St. – Kasser Rd. to Elverta Rd.	Sacramento Co.	2RS	600	0.03	A	2RS	1,200	0.06	A	2RS	1,000	0.05	A

Table 3.3-15
Roadway LOS: Existing Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
34. Watt Ave. – Baseline Rd. to PFE Rd.	Sacramento Co.	2H	7,100	0.36	A	2M	10,600	0.59	A	2M	11,900	0.60	A
35. Watt Ave. – PFE Rd. to Elverta Rd.	Sacramento Co.	5M	10,100	0.22	A	5M	12,100	0.27	A	5M	13,900	0.31	A
36. Walerga Rd. – Baseline Rd. to PFE Rd.	Placer Co.	2M	14,900	0.83	D	2M	14,900	0.83	D	2M	14,900	0.83	D
37. Elkhorn Blvd. – SR 70/SR 99 to Northborough Dr.	Sacramento Co.	2M	13,900	0.77	C	2M	15,400	0.86	D	2M	16,800	0.93	E
38. Elkhorn Blvd. – Northborough Dr. to Natomas Blvd.	Sacramento Co.	2M	11,800	0.66	B	2M	12,000	0.67	B	2M	12,900	0.72	C
39. Elkhorn Blvd. – Natomas Blvd. to Sageview Dr.	Sacramento Co.	2M	14,500	0.81	D	2M	14,500	0.81	D	2M	15,000	0.83	D
40. Elkhorn Blvd. – Sageview Dr. to East Levee Rd.	Sacramento Co.	2M	14,700	0.82	D	2M	14,700	0.82	D	2M	15,200	0.84	D
41. I-5 – SR 70/SR 99 to Del Paso Rd.	Sacramento Co.	6F	103,000	0.81	D	6F	117,600	0.98	E	6F	**139,100**	**1.16**	**F**
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	127,000	1.00	F	6F	**138,200**	**1.15**	**F**	6F	**155,900**	**1.30**	**F**
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	139,000	0.82	D	8F	149,000	0.93	E	8F	**165,300**	**1.03**	**F**
44. Sunset Blvd. (West) – East of Brewer Rd.	Placer Co.	2RH	1,900	0.08	A	2RH	3,200	0.13	B	2RH	5,200	0.21	B
45. E. Catlett Rd. – East of Brewer Rd.	Placer Co.	2RH	1,000	0.04	A	2RH	1,600	0.06	A	2RH	2,500	0.10	A
46. Moore Rd. – East of Brewer Rd.	Placer Co.	2RH	1,000	0.04	A	2RH	1,100	0.04	A	2RH	1,100	0.04	A

Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers 2008

Table 3.3-16
Intersection LOS: Existing Plus Phase 1 and Project Conditions

Intersections	Jurisdiction	Existing					Existing Plus Phase 1 Conditions					Existing Plus Project Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
1. Sankey Rd./ Power Line Rd.	Sutter Co.	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A
2. Sankey Rd./ SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	37	E	Side-Street Stop	>50	F	>50	F	Signal	64	E	**>80**	**F**
3. Sankey Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	10	A	9	A	Side-Street Stop	10	A	9	A	Signal	24	C	48	D
4. Riego Rd./ Power Line Rd.	Sutter Co.	All-Way Stop	7	A	7	A	All-Way Stop	7	A	7	A	Signal	17	B	25	C
5. Riego Rd./ SR 70/SR 99	Sutter Co.	Signal	66	E	23	C	Signal	**>80**	**F**	**>80**	**F**	Signal	**>80**	**F**	**>80**	**F**
6. Riego Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	16	C	14	B	Signal	13	B	12	B	Signal	43	D	46	D
7. Riego Rd./ Natomas Rd.	Sutter Co.	All-Way Stop	33	D	23	C	Signal	6.5	A	11	B	Signal	28	C	12	B
8. Riego Rd./Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	31	D	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**
9. Riego Rd./Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	42	E	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**
10. Baseline Rd./ Locust Rd.	Placer Co.	All-Way Stop	>50	F	43	E	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**

Table 3.3-16
Intersection LOS: Existing Plus Phase 1 and Project Conditions

Intersections	Jurisdiction	Existing					Existing Plus Phase 1 Conditions					Existing Plus Project Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
11. Baseline Rd./ Brewer Rd.	Placer Co.	Side-Street Stop	24	C	22	C	Side-Street Stop	**37**	**E**	**40**	**E**	Side-Street Stop	**>50**	**F**	**>50**	**F**
12. Baseline Rd./ Watt Ave.	Placer Co.	Signal	12	B	19	B	Signal	18	B	23	C	Signal	23	C	21	C
13. Baseline Rd./ Walerga Rd.	Placer Co.	Signal	36	D[2]	63	E[2]	Signal	**38**	**D**	**44**	**D**	Signal	**36**	**D**	**44**	**D**
14. Elverta Rd./ Power Line Rd.	Sacramento Co.	All-Way Stop	8	A	7	A	All-Way Stop	8	A	7	A	All-Way Stop	**>50**	**F**	**>50**	**F**
15. Elverta Rd./ SR 70/SR 99	Sacramento Co.	Signal	>80 (1.07)	F (F)	30 (0.91)	C (E)	Signal	**>80 (1.16)**	**F (F)**	**>80 (1.25)**	**F (F)**	Signal	**>80 (1.64)**	**F (F)**	**>80 (1.92)**	**F (F)**
16. Elverta Rd./ East Levee Rd.	Sacramento Co.	All-Way Stop	19	C	31	D	All-Way Stop	**>50**	**F**	47	E	All-Way Stop	**>50**	**F**	**>50**	**F**
17. Elverta Rd./ Sorento Rd.	Sacramento Co.	Side-Street Stop	13	B	14	B	Side-Street Stop	40	E	27	D	Side-Street Stop	**>50**	**F**	**>50**	**F**
18. Elverta Rd./ Palladay Rd.	Sacramento Co.	Side-Street Stop	13	B	15	C	Side-Street Stop	14	B	14	B	Side-Street Stop	15	B	16	C
19. Elverta Rd./16th St.	Sacramento Co.	Side-Street Stop	20	C	20	C	Side-Street Stop	22	C	31	D	Side-Street Stop	29	D	39	E
20. Elverta Rd./ Watt Ave.	Sacramento Co.	Signal	30 (0.48)	C (A)	28 (0.54)	C (A)	Signal	28 (0.50)	C (A)	28 (0.57)	C (A)	Signal	52 (0.51)	D (A)	56 (0.56)	E (A)
21. Elkhorn Blvd./ SR 70/SR 99 SB Ramps	Sacramento Co.	Side-Street Stop	9	A	9	A	Side-Street Stop	10	A	19	C	Side-Street Stop	11	B	41	E

Table 3.3-16
Intersection LOS: Existing Plus Phase 1 and Project Conditions

Intersections	Jurisdiction	Existing					Existing Plus Phase 1 Conditions					Existing Plus Project Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
22. Elkhorn Blvd./ SR 70/SR 99 NB Ramps	Sacramento Co.	Side-Street Stop	12	B	>50	F	Side-Street Stop	12	B	**>50**	**F**	Side-Street Stop	16	C	**>50**	**F**
23. Elkhorn Blvd./ Natomas Blvd.	Sacramento Co.	Signal	12 (0.51)	B (A)	13 (0.69)	B (B)	Signal	13 (0.52)	B (A)	14 (0.70)	B (B)	Signal	13 (0.54)	B (A)	14 (0.72)	B (C)
24. Elkhorn Blvd./ East Levee Rd.	Sacramento Co.	Side-Street Stop	24	C	23	C	Side-Street Stop	23	C	22	C	Side-Street Stop	**31**	**D**	**>50**	**F**
45. Riego Rd./Road U	Sutter Co.	-	-	-	-	-	-	39	D	23	C	Signal	31	C	38	D
46. Riego Rd./Road R	Sutter Co.	-	-	-	-	-	Signal	30	C	36	D	Signal	12	B	27	C
47. Riego Rd./Road S	Sutter Co.	-	-	-	-	-	Signal	43	D	55	D	Signal	23	C	54	D
48. Riego Rd./ SR 70/SR 99 SB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49. Riego Rd./ SR 70/ SR 99 NB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50. Riego Rd./Road A	Sutter Co.	-	-	-	-	-	Signal	48	D	53	D	Signal	39	D	55	D
51. Riego Rd./Road C	Sutter Co.	-	-	-	-	-	Signal	22	C	41	D	Signal	37	D	38	D
52. Riego Rd./Road D	Sutter Co.	-	-	-	-	-	Signal	9	A	9	A	Signal	43	D	48	D

Table 3.3-16
Intersection LOS: Existing Plus Phase 1 and Project Conditions

Intersections	Jurisdiction	Existing					Existing Plus Phase 1 Conditions					Existing Plus Project Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
53. Power Line Rd./ Road T	Sutter Co.	-	-	-	-	-	Signal	22	C	14	B	Signal	10	A	11	B
66. Sankey Rd./Road C	Sutter Co.	-	-	-	-	-	Signal	22	C	46	D	Signal	33	C	21	C

Note:
[1] For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
[2] V/C and LOS based on Circular 212 procedure. Applies only to Sacramento County signalized intersections.
[3] Field observations showed that not all peak demand flows were served and that actual operations are worse.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers 2008

Table 3.3-17
Freeway LOS: Existing Plus Phase 1 and Project Conditions

Freeway Facility[4]	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]
1. NB SR 70/SR 99 North of Sankey Road (Placer Parkway)	Mainline	8.5	A	16.3	B	8.6	A	18.1	C	9.3	A	19.6	C
2. NB SR 70/SR 99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
3. NB SR 70/SR 99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
4. NB SR 70/SR 99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	8.4	A	15.8	B	8.6	A	17.8	B	15.6	B	21.9	C
5. NB SR 70/SR 99 at Riego Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	17.6	B	23.8	C
6. NB SR 70/SR 99 at Riego Road loop on-ramp	Merge					10.4	B	19.8	B	17.2	B	21.2	C
7. NB SR 70/SR 99 at Riego Road off-ramp	Diverge	-	-	-	-	25.7	C	39.3	E	24.2	C	20.2	B
8. NB SR 70/SR 99 between Riego Road and Elverta Road	Mainline	1.7	A	4.6	A	20.3	C	35.6	E	38.8	E	31.9	D
9. NB SR 70/SR 99 at Elverta Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
10. NB SR 70/SR 99 at Elverta Road loop on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
11. NB SR 70/SR 99 at Elverta Road off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
12. NB SR 70/SR 99 between Elverta Road and Elkhorn Boulevard	Mainline	10.9	A	25.1	C	17.0	B	32.3	D	40.5	E	36.3	E

Table 3.3-17
Freeway LOS: Existing Plus Phase 1 and Project Conditions

Freeway Facility[4]	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]
13. NB SR 70/SR 99 at Elkhorn Boulevard slip on-ramp	Merge	13.3	B	27.7	C	19.3	B	33.2	D	37.0	E	35.5	E
14. NB SR 70/SR 99 at Elkhorn Boulevard loop on-ramp	Merge	11.4	B	25.8	C	16.6	B	30.4	D	34.2	D	33.4	D
15. NB SR 70/SR 99 at Elkhorn Boulevard off-ramp	Diverge	16.4	B	39.3	E	21.6	C	42.3	E	39.4	E	-	**F**
16. NB SR 70/SR 99 between I-5 interchange and Elkhorn Boulevard	Mainline	12.5	B	36.6	E	17.1	B	43.3	E	38.6	E	-	**F**
17. NB I-5 between SR 70/SR 99 and Airport Boulevard	Mainline	27.9	D	22.3	C	28.8	D	24.8	C	29.2	D	23.2	C
18. NB I-5 to NB SR 70/SR 99 off-ramp	Major Diverge	14.1	B	22.1	C	16.2	B	23.9	C	23.9	C	24.4	C
19. NB I-5 between Del Paso Road and SR 70/SR 99 interchange	Mainline	19.9	C	33.4	D	22.8	C	28.3	E	38.2	E	40.1	E
20. NB 1-5 at Del Paso Road on-ramp	Merge	22.4	C	32.8	D	25.1	C	35.2	E	35.6	D	35.8	E
21. SB SR 70/SR 99 North of Sankey Road (Placer Parkway)	Mainline	19.3	C	8.2	A	19.7	C	8.3	A	23.1	C	9.2	A
22. SB SR 70/SR 99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
23. SB SR 70/SR 99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
24. SB SR 70/SR 99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	18.4	C	8.1	A	19.1	C	8.3	A	23.6	C	15.2	B
25. SB SR 70/SR 99 at Riego Road off-ramp	Diverge	-	-	-	-	24.4	C	12.3	B	12.6	B	3.3	A

Table 3.3-17
Freeway LOS: Existing Plus Phase 1 and Project Conditions

Freeway Facility[4]	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]
26. SB SR 70/SR 99 at Riego Road loop on-ramp						31.0	D	26.8	C	22.5	C	20.3	C
27. SB SR 70/SR 99 at Riego Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	28.8	D	34.5	D
28. SB SR 70/SR 99 between Riego Road and Elverta Road	Mainline	4.6	A	2.1	A	31.2	D	26.9	D	27.5	D	38.1	E
29. SB SR 70/SR 99 at Elverta Road off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
30. SB SR 70/SR 99 at Elverta Road loop on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
31. SB SR 70/SR 99 at Elverta Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
32. SB SR 70/SR 99 between Elverta Road and Elkhorn Boulevard	Mainline	26.4	D	10.8	A	27.5	D	21.0	C	28.6	D	36.6	E
33. SB SR 70/SR 99 at Elkhorn Boulevard off-ramp	Diverge	31.8	D	14.5	B	31.0	D	25.9	C	33.8	D	39.3	E
34. SB SR 70/SR 99 at Elkhorn Boulevard loop on-ramp	Merge	34.9	D	15.3	B	35.6	E	23.5	C	36.3	E	34.8	D
35. SB SR 70/SR 99 at Elkhorn Boulevard slip on-ramp	Merge	24.9	D	15.0	B	34.5	E	23.3	C	37.0	E	36.1	E
36. SB SR 70/SR 99 between I-5 interchange and Elkhorn Boulevard	Mainline	36.1	E	13.1	B	37.7	E	21.4	C	39.3	E	37.5	E
37. SB SR 70/SR 99 to NB I-5 off-ramp	Diverge	27.4	C	5.4	A	28.2	D	14.6	B	29.0	D	28.1	C
38. SB SR 70/SR 99 to NB I-5 on-ramp	Merge	22.7	C	18.4	B	23.4	C	20.9	C	23.7	C	19.3	B
39. SB SR 70/SR 99 to SB I-5 on-ramp	Weave	N/A[3]	E	N/A[3]	C	N/A[3]	E	N/A[3]	D	N/A[3]	E	**N/A[3]**	**F**

Table 3.3-17
Freeway LOS: Existing Plus Phase 1 and Project Conditions

Freeway Facility[4]	Type	Existing Conditions				Existing Plus Phase 1 Conditions				Existing Plus Project Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]
40. SB I-5 between SR 70/SR 99 interchange and Del Paso Road													
41. SB I-5 at Del Paso Road off-ramp	Diverge	23.9	C	15.4	B	26.1	C	20.3	C	25.1	C	28.0	C
42. SB I-5 between Airport Boulevard and SR 70/SR 99 interchange	Mainline	21.4	C	24.3	C	25.9	C	25.7	C	23.8	C	24.4	C
43. SB I-5 to NB SR 70/SR 99 off-ramp	Diverge	14.7	B	17.9	B	19.6	B	19.4	B	17.4	B	18.0	B
44. SB I-5 to NB SR 70/SR 99 on-ramp	Merge	8.4	A	29.0	D	13.0	B	31.7	D	29.8	D	-	**F**
45. EB Placer Parkway between SR 70/ SR 99 to Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-
46. EB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
47. EB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
48. EB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-
49. WB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-
50. WB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-
51. WB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-
52. WB Placer Parkway between Road C and SR 70/SR 99	Mainline	-	-	-	-	-	-	-	-	-	-	-	-

Notes: Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
[1] Density reported in passenger cars per mile per lane.
[2] Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000).
[3] Weaving section analyzed using the Leisch Method, LOS not based on density.
[4] Peak hour factors of 0.92 and 0.97 were used for the AM and PM peak hours, respectively. The peak hour factors are based on traffic counts collected at the SR 99/Riego Road intersection in May 2007.
Source: Fehr & Peers 2008

Non-Motorized Evaluation

The proposed project is designed to accommodate non-motorized transportation through the construction of pedestrian and bicycle facilities. Sidewalks would be constructed along the arterial and collector roads in addition to Class I bike paths through the project that would serve as multiple use trails. Striped bike lanes are also proposed on major roadways in the plan. Implementation of the project would not disrupt or interfere with existing or planned non-motorized facilities in the larger study area.

Cumulative Scenario Traffic Operations Analysis

The analysis of cumulative conditions provides a context for the potential effects of the project in the future. For purposes of this analysis, "cumulative" represents land use development and roadway network improvements expected to be in place by 2035. The traffic operations analysis presented below was based on the traffic volume forecasts discussed above and used the same methodology described for existing conditions. Planned improvements listed in Table 3.3-10 have been included in the operations analysis of roadway segments, intersections, and freeway facilities. The discussion below describes the traffic operations analysis results and evaluation of public transit and non-motorized transportation under cumulative conditions.

In addition to the roadways shown on Exhibit 3.3-14, the following infrastructure improvements were assumed for the analysis of project analysis of Phase 1 and the Project because they are elements of the project:

- An overcrossing of SR 70/99 south of Riego Road.
- Two at-grade signalized intersections on Sankey Road under the "without Placer Parkway" scenario.
- The "with Placer Parkway" scenario includes a grade-separated crossing of Placer Parkway at Pacific Avenue that is needed to accommodate the planned high-speed freeway-to-freeway interchange on SR70/99 at Placer Parkway. Placer Parkway also requires a grade-separate interchange at Road C.
- The SPSP circulation network also includes the provision to accommodate local-access east-west access west of SR 70/99 through the north employment village. This local-access crossing of SR70/99 would be needed because the proposed freeway-to-freeway interchange at Placer Parkway may prevent the provision for local access because of design constraints. It is envisioned that this connection would be constructed as part of the Placer Parkway project.
- Local access to/from Natomas Road would be provided through the plan area.

The traffic volumes were developed to reflect the addition of project traffic; otherwise, all other analysis inputs were held constant. The analysis results for roadway segments, intersections, and freeway facilities are summarized below.

The tables presented below that summarize off-site traffic operations include study roadway segments and intersection on Sankey Road, Pacific Avenue (north of Riego Road), and Riego Road even though most of the segments are within the project. This convention was used to make the comparison of "no project" and "plus project" traffic operations more clear. The numbering of intersections in the tables corresponds to the numbering on the exhibits that show intersection traffic control, lane configurations, and traffic volume forecasts.

Roadway Segments

Table 3.3-18 and Exhibits 3.3-15 present the cumulative no project conditions analysis for roadway segments. Under cumulative no project conditions, 10 of the 43 roadway segment will operate at LOS F, including Riego Road between SR 70/99 and Locust Road. Implementation of the proposed project would exacerbate these LOS F operations at these locations under cumulative plus project conditions. Exhibits 3.3-18, 3.3-21, and 3.3-24 display

cumulative daily volumes and LOS with Phase 1 and the Project (with and without Placer Parkway), while the bold text in Table 3.3-18 highlights the significant impacts. Specific impact statements and mitigation measures are presented at the end of this section.

Table 3.3-19 presents the cumulative conditions analysis for on-site study roadway segments not located on Sankey Road, Pacific Avenue (north of Riego Road), and Riego Road, which were presented in Table 3.3-18. All of the roadway segments to operate at LOS D or better. Roadway LOS operations are provided for Phase 1 and the Project (without and with Placer Parkway).

Demand of travel through the Riego Road – Baseline Road corridor is greater than shown in Table 3.3-18 and 3.3-25. Currently, the is no funding identified for widening the segments of Riego Road – Baseline Road between the SPSP and Locust Road in Placer County. The Placer Vineyards Specific Plan is conditioned to improve Baseline Road from Locust Road east along is frontage and includes intersection improvements in Sutter County on Riego Road (i.e., Locust Road, Pleasant Grove Road (S), Pleasant Grove Road (N), Natomas Road, and Pacific Avenue). The SPSP proposes to widen Riego Road in the plan area to a six- /eight-lane expressway. Consequently, the unimproved (two-lane) segment constrains travel through the corridor.

The SPSP TDF model was used to forecast unconstrained demand along Baseline Road and Riego Road by testing how travel demand would change with the unimproved segment widened to six lanes (i.e., to complete the "gap" in the corridor). Under cumulative conditions, unconstrained demand is about 12,000 vehicles per day higher than the volumes show in Tables 3.3-18 on Riego Road – Baseline Road between the SPSP and Locust Road in Placer County. The affect of the constraint caused by the "gap" is less (i.e., in total demand) close to SR 70/99. In general, improving the "gap" increases the accessibility for trip making between Sutter County and Placer County.

UPRR Crossing Grade Separation

As outlined in section 3.3-2, there is an at-grade Union Pacific Railroad (UPRR) railroad crossing of Riego Road between Natomas Road and Pleasant Grove Road (N) in the "gap" area that serves an average of 24 trains per day, excluding passenger trains.

The Federal Highway Administration (FHWA) has published guidelines, Federal Highway Administration, *Guidelines on Traffic Control Devices at Highway-Rail Crossings*, U.S. Department of Transportation-FHWA, for determining when a railroad crossing should be considered for grade separation. The FHWA crossing exposure criteria was evaluated for the crossing based on the constrained (two lane "gap") and unconstrained (four-lane "gap") travel demand at the UPRR crossing on Riego Road. The crossing exposure criterion is outlined below:

- *Crossing Exposure* – is met if the product of the number of trains per day and annual average daily traffic (AADT) exceeds 1,000,000 in urban areas or 250,000 in rural areas.

The following summarizes the evaluation of the crossing exposure criterion for constrained and unconstrained demand at the UPRR crossing. The analysis of the constrained forecasts applies only if the project is unsuccessful in implementing identified mitigation for the widening of Riego Road between Natomas Road and Pleasant Grove Road (N). However, with the mitigation, the crossing exposure criterion would be met.

- *Constrained* – The daily traffic volume forecast is 40,700, which is equivalent to an average annual daily traffic volume of about 37,000. Therefore, the crossing exposure is about 880,000 (37,000 AADT x 24 trains = 880,000). The crossing exposure criterion would not be met.

- *Unconstrained* – The daily traffic volume forecast is 52,700, which is equivalent to an average annual daily traffic volume of about 48,000. Therefore, the crossing exposure is about 1,152,000 (48,000 AADT x 24 trains = 1,152,000). The crossing exposure criterion would be met.

Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
1. Sankey Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	200	0.01	C	2R	200	0.01	C	2R	200	0.01	C	2R	200	0.01	C
2. Sankey Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	1,400	0.07	C	2U	2,900	0.18	C	4E	32,600	0.63	C	4F	40,900	0.51	B
3. Sankey Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	1,300	0.06	C	-				-	-	-	-	-	-	-	-
3a. Sankey Rd. – Pacific Ave. to Road C	Sutter Co.	-	-	-	-	2R	2,500	0.12	C	4E	9,500	0.18	C	4F	40,900	0.51	B
3b. Sankey Rd. – Road C to Pleasant Grove Rd. (N)	Sutter Co.	-	-	-	-	2R	1,700	0.08	C	4E	7,900	0.15	C	4F	44,400	0.56	C
4. Sankey Rd. – Pleasant Grove Rd. (N) to Locust Rd.	Sutter Co.	2R	1,500	0.07	C	2R	1,600	0.08	C	2R	5,700	0.27	C	4F	1,500	0.02	A
5. Riego Rd. – Power Line Rd. to SR 70/SR 99	Sutter Co.	2R	900	0.04	C	-				-	-	-	-	-	-	-	-
5a. Riego Rd. – Power Line Rd. to Road U	Sutter Co.	-	-	-	-	2U	1,900	0.12	C	4U	8,000	0.24	C	4U	8,100	0.25	C
5b. Riego Rd. – Road U to Road R	Sutter Co.	-	-	-	-	4U	1,900	0.06	C	4U	23,000	0.70	C	4U	23,600	0.72	C
5c. Riego Rd. – Road R to Road S	Sutter Co.	-	-	-	-	6U	8,300	0.17	C	6U	33,800	0.68	C	6U	34,800	0.70	C
5d. Riego Rd. – Road S to SR 70/SR 99	Sutter Co.	-	-	-	-	6E	49,900	0.64	C	8E	82,200	0.80	D	8E	83,600	0.81	D
6. Riego Rd. – SR 70/SR 99 to Pacific Ave.	Sutter Co.	2R	20,000	0.96	E	-				-	-	-	-	-	-	-	-

Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
6a. Riego Rd. – SR 70/SR 99 to Road A	Sutter Co.	-	-	-	-	6E	58,900	0.76	D	8E	83,600	0.81	D	8E	87,300	0.85	D
6b. Riego Rd. – Road A to Pacific Ave.	Sutter Co.	-	-	-	-	6E	43,500	0.56	C	8E	65,200	0.63	C	8E	67,000	0.65	C
7. Riego Rd. – Pacific Ave. to Pleasant Grove Rd. (N)	Sutter Co.	2R	19,300	0.93	E	-				-	-	-	-	-	-	-	-
7a. Riego Rd. – Pacific Ave. to Road C	Sutter Co.		-	-	-	6E	40,000	0.52	C	6E	57,800	0.75	C	6E	53,900	0.70	C
7b. Riego Rd. – Road C to Road D	Sutter Co.		-	-	-	6E	27,700	0.36	C	6E	41,100	0.53	C	6E	38,900	0.50	C
7c. Riego Rd. – Road D to Natomas Rd.	Sutter Co.		-	-	-	4E	30,600	0.59	C	6E	44,000	0.57	C	6E	41,800	0.54	C
8. Riego Rd. – Natomas Rd. to Pleasant Grove Rd. (S)	Sutter Co.	2R	23,100	1.11	F	2R	**31,100**	**1.50**	**F**	2R	**40,700**	**1.96**	**F**	2R	**38,600**	**1.86**	**F**
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	22,200	1.23	F	2M	**28,800**	**1.60**	**F**	2M	**34,900**	**1.94**	**F**	2M	**32,700**	**1.82**	**F**
10. Baseline Rd. – Locust Rd. to Brewer Rd.	Placer Co.	6H	23,700	0.40	A	6H	29,100	0.49	A	6H	38,800	0.65	B	6H	32,700	0.55	A
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	6H	44,200	0.74	C	6H	47,700	0.80	C	6H	**54,300**	**0.91**	**E**	6H	48,500	0.81	D
12. Baseline Rd. – Watt Ave. to Fiddyment Dr.	Placer Co.	6M	33,300	0.62	B	6M	34,900	0.65	B	6M	37,800	0.70	B	6M	34,600	0.64	B
13. Elverta Rd. – Power Line Rd. to SR 70/SR 99	Sacramento Co.	2H	3,900	0.20	A	2H	4,600	0.23	A	2H	11,700	0.59	A	2H	11,700	0.59	A

Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
14. Elverta Rd. – SR 70/SR 99 to East Levee Rd.	Sacramento Co.	2H	16,900	0.85	D	2H	**20,700**	**1.04**	**F**	2H	**23,200**	**1.16**	**F**	2H	19,600	0.98	E
15. Elverta Rd. – East Levee Rd. to Sorento Rd.	Sacramento Co.	2H	23,200	1.16	F	2H	**26,100**	**1.31**	**F**	2H	**31,300**	**1.57**	**F**	2H	**27,500**	**1.38**	**F**
16. Elverta Rd. – Sorento Rd. to 16th St.	Sacramento Co.	4M	27,700	0.77	C	4M	30,700	0.85	D	4M	**36,200**	**1.01**	**F**	4M	33,300	0.93	E
17. Elverta Rd. – 16th St. to Watt Ave.[2]	Sacramento Co.	5M	37,200	0.83	D	5M	38,500	0.86	D	5M	41,900	0.93	E	5M	39,900	0.89	D
18. Power Line Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C	2R	500	0.02	C
19. Power Line Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	300	0.01	C	2R	1,000	0.05	C	2R	7,200	0.35	C	2R	7,300	0.35	D
20. Power Line Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	300	0.02	A	2RS	900	0.05	A	2RS	11,200	0.56	D	2RS	11,100	0.56	D
21. Power Line Rd. – Elverta Rd. to Elkhorn Blvd.	Sacramento Co.	2RS	400	0.02	A	2RS	400	0.02	A	2RS	400	0.02	A	2RS	400	0.02	A
22. Pacific Ave. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	900	0.04	C	-				-	-	-	-	-	-	-	-
22a. Pacific Ave. – Sankey Rd. to Road K	Sutter Co.	-	-	-	-	2U	900	0.05	C	4U	12,800	0.39	C	4U	17,900	0.54	C
22b. Pacific Ave. – Road K to Road J	Sutter Co.	-	-	-	-	2U	900	0.05	C	4U	14,300	0.43	C	4U	23,200	0.70	C
22c. Pacific Ave. – Road J to Riego Rd.	Sutter Co.	-	-	-	-	4U	4,400	0.13	C	4U	19,000	0.58	C	4U	27,200	0.83	D

Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
23. Natomas Rd. – Sankey Rd. to Riego Rd.	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C	2R	400	0.02	C
24. Natomas Rd. – Riego Rd. to Sacramento County Line	Sutter Co.	2R	700	0.03	C	2R	2,300	0.11	C	2R	6,400	0.31	C	2R	6,200	0.30	C
25. East Levee Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2RS	700	0.04	A	2RS	2,300	0.12	B	2RS	6,400	0.32	C	2RS	6,200	0.31	C
26. Pleasant Grove Rd. (N) – Sankey Rd to Riego Rd.	Sutter Co.	2R	3,600	0.17	C	2R	3,400	0.16	C	2R	4,100	0.20	C	2R	3,400	0.16	C
27. Pleasant Grove Rd. (S) – Riego Rd. to Sacramento County Line	Sutter Co.	2R	2,000	0.10	C	2R	3,300	0.16	C	2R	6,800	0.33	C	2R	6,800	0.33	C
28. Sorento Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	2,600	0.14	A	2M	2,700	0.15	A	2M	4,400	0.24	A	2M	4,600	0.26	A
29. Locust Rd. – Sankey Rd. to Baseline Rd.	Placer Co.	2M	1,500	0.08	A	2M	1,700	0.09	A	2M	5,800	0.32	A	2M	2,100	0.12	A
30. Brewer Rd. – Phillip Rd. to Baseline Rd.	Placer Co.	2M	1,800	0.10	A	2M	2,300	0.13	A	2M	3,000	0.17	A	2M	2,800	0.16	A
31. Palladay Rd. – Baseline Rd. to Sacramento County Line	Placer Co.	2M	5,800	0.32	A	2M	6,300	0.35	A	2M	6,700	0.37	A	2M	6,000	0.33	A
32. Palladay Rd. – Sacramento County Line to Elverta Rd.	Sacramento Co.	2M	12,100	0.67	B	2M	12,600	0.70	B	2M	12,800	0.71	C	2M	11,000	0.61	B

Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
33. 16th St. – Kasser Rd. to Elverta Rd.	Sacramento Co.	2M	17,900	0.99	E	2M	**18,400**	**1.02**	**F**	2M	**19,000**	**1.06**	**F**	2M	**25,600**	**1.42**	**F**
34. Watt Ave. – Baseline Rd. to PFE Rd.	Placer Co.	6M	50,400	0.93	E	6M	**51,000**	**0.94**	**E**	6M	**52,600**	**0.97**	**E**	6M	**51,500**	**0.95**	**E**
35. Watt Ave. – PFE Rd. to Elverta Rd.	Sacramento Co.	5M	51,000	1.13	F	5M	51,200	1.14	F	5M	52,100	1.16	F	5M	50,700	1.13	F
36. Walerga Rd. – Baseline Rd. to PFE Rd.	Placer Co.	4M	34,100	0.95	E	4M	**34,400**	**0.96**	**E**	4M	**34,500**	**0.96**	**E**	4M	33,900	0.94	E
37. Elkhorn Blvd. – SR 70/SR 99 to Northborough Dr.	Sacramento Co.	6M	29,300	0.54	A	6M	30,100	0.56	A	6M	36,800	0.68	B	6M	36,500	0.68	B
38. Elkhorn Blvd. – Northborough Dr. to Natomas Blvd.	Sacramento Co.	6M	20,900	0.39	A	6M	19,900	0.37	A	6M	25,200	0.47	A	6M	24,800	0.46	A
39. Elkhorn Blvd. – Natomas Blvd. to Sageview Dr.	Sacramento Co.	6M	34,100	0.63	B	6M	32,200	0.60	A	6M	37,400	0.69	B	6M	36,900	0.68	B
40. Elkhorn Blvd. – Sageview Dr. to East Levee Rd.	Sacramento Co.	6M	35,300	0.65	B	6M	32,600	0.60	B	6M	36,600	0.68	B	6M	36,100	0.67	B
41. I-5 – SR 70/ SR 99 to Del Paso Rd.	Sacramento Co.	6F	171,500	1.43	F	6F	**184,900**	**1.54**	**F**	6F	**205,200**	**1.71**	**F**	6F	**204,500**	**1.70**	**F**
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	199,100	1.66	F	6F	**207,500**	**1.73**	**F**	6F	**223,800**	**1.87**	**F**	6F	**223,200**	**1.86**	**F**
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	218,800	1.37	F	8F	**225,400**	**1.41**	**F**	8F	**239,600**	**1.50**	**F**	8F	**239,400**	**1.50**	**F**
44. Sunset Blvd. (West) – East of Brewer Rd.	Placer Co.	2RH	7,300	0.29	C	2RH	7,800	0.31	C	2RH	8,700	0.35	C	2RH	5,200	0.21	B

Table 3.3-18
Roadway LOS: Cumulative Plus Phase 1 and Project Conditions

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
45. E. Catlett Rd. – East of Brewer Rd.	Placer Co.	2RH	2,000	0.08	A	2RH	2,600	0.10	A	2RH	3,400	0.14	B	2RH	1,100	0.04	A
46. Moore Rd. – East of Brewer Rd.	Placer Co.	2RH	1,100	0.04	A	2RH	1,200	0.05	A	2RH	1,500	0.06	A	2RH	1,100	0.04	A

Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
[2] Study segment include 4-lanes between 16 St. and 28th St. and 6-lanes between 28th St. and Watt Avenue. Segment analyzed as a 5-lane (5M) facility.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers 2008

Table 3.3-19
Roadway LOS: On-Site Locations

Roadway Segment	Jurisdiction	Phase 1 Conditions				Project Without Placer Parkway Conditions				Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
1. Road A – Road J to Riego Rd	Sutter Co.	6U[2]	12,700	0.26	C	6U[2]	31,800	0.64	C	6U[2]	32,300	0.65	C
2. Road A – Riego Rd to Road B	Sutter Co.	6U	17,100	0.35	C	8U	46,300	0.70	C	8U	46,300	0.70	C
3. Road D – Road C to Riego Rd	Sutter Co.	2U	3,600	0.22	C	4U	20,100	0.61	C	4U	21,600	0.66	C
4. Road D – Riego Rd to Road B	Sutter Co.	-	-	-	-	4U	12,600	0.38	C	4U	12,700	0.39	C
5. Road C – Road O to Sankey Rd.	Sutter Co.	-	800	-	-	4U	21,100	0.64	C	6U	30,100	0.61	C
6. Road C – Sankey Rd. to Road K	Sutter Co.	-	-	-	-	4U	23,200	0.70	C	6U	34,300	0.69	C
7. Road C – Road K to Road D	Sutter Co.	-	-	-	-	4U	25,600	0.78	C	4U	29,200	0.89	D
8. Road C – Road D to Road J	Sutter Co.	2U	5,300	0.32	C	4U	17,000	0.52	C	4U	18,100	0.55	C
9. Road C – Road J to Riego Rd.	Sutter Co.	2U	9,400	0.57	C	4U	18,800	0.57	C	4U	19,300	0.59	C
10. Road C – Riego Rd. to Road B	Sutter Co.	2U	2,800	0.17	C	4U	9,800	0.30	C	4U	10,500	0.32	C
11. Road K – Pacific Ave. to Road C	Sutter Co.	-	-	-	-	4U	14,500	0.44	C	4U	18,900	0.57	C
12. Road Q – Road S to Road A	Sutter Co.	2U	1,300	0.08	C	4U	11,000	0.33	C	4U	11,600	0.35	C
13. Road H – Road O to Sankey Rd.	Sutter Co.	-	-	-	-	4U	21,700	0.66	C	2U	14,500	0.88	D
14. Pacific Ave. – Riego Rd. to Road B	Sutter Co.	2U	700	0.04	C	4U	2,400	0.07	C	4U	3,000	0.09	C
15. Road S – Riego Road to Road V	Sutter Co.	6U	30,300	0.61	C	6U	32,500	0.66	C	6U	32,800	0.66	C
16. Road S – Riego Road to Road Q	Sutter Co.	4U[3]	13,000	0.39	C	4U[3]	20,400	0.62	C	4U[3]	20,300	0.62	C

Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
[2] Roadway lane requirement from Riego Road needed to serve commercial parcel. Four lanes adequate north of commercial parcel (Road G to Road J).
[3] Roadway lane requirement from Riego Road needed to serve commercial parcel. Two lanes adequate south of commercial parcel to Road Q.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Intersections

Table 3.3-20 presents the cumulative conditions analysis for off-site study intersections under "no project" conditions and with the addition of Phase 1 and the Project (without and with Placer Parkway). The following summarizes traffic operations under these scenarios:

- *Cumulative Plus Phase 1 Conditions* – The addition of Phase 1 would cause significant impacts at 8 of the 36 study intersections.

- *Cumulative Plus Project Conditions* – The addition of the Project would cause significant impacts at 16 of the 36 study intersections.

- *Cumulative Plus Project (With Placer Parkway) Conditions* – The addition of the Project with Placer Parkway would cause significant impacts at 16 of the 36 study intersections.

The significant impacts identified above are denoted in bold text in Table 3.3-20. Specific impact statements and mitigation measures are presented at the end of this section.

Table 3.3-21 presents the cumulative conditions analysis for on-site study intersections not located on Sankey Road, Pacific Avenue (north of Riego Road), and Riego Road, which were presented in Table 3.3-20. All of the intersections are projected to operate at LOS D or better. Intersection LOS operations is provided for Phase 1 and the Project (without and with Placer Parkway). Lane requirement for several of the roadway segments are different without and with Placer Parkway, which is because of eliminating the access at Pacific Avenue. Without Placer Parkway, the segment of H Street between Sankey Road and Road O would need to be four lanes compared to two lanes (as a grade-separated overcrossing) with Placer Parkway. Similarly, the segments of Road C between Sankey Road and Road O and between Sankey Road and Road K would need to be four lanes without Placer Parkway but would need to be six lanes with Placer Parkway.

Freeway Facilities

Table 3.3-22 presents the analysis of peak hour freeway facility mainline, merge, diverge, and weaving operations with Phase 1 and the Project (without and with Placer Parkway) under cumulative conditions. As shown, demand generally exceeds mainline. This generally indicates severe congestion on SR 99 and I-5 south of Riego Road and most freeway facilities will operate at LOS F. The ramp junction analysis methodology does not fully capture these effects, but the results in Table 3.3-22 do provide a basis for determining the incremental contribution of the project to the freeway problem. Specific impact statements and mitigation measures are presented at the end of this section.

In addition, the segments of I-5 south of SR 70/99 to I-80 were also analyzed using the methodology for roadway segments, which is summarized in Table 3.3-18. The roadway segment analysis shows that the project would exacerbate unacceptable conditions on I-5 between SR 70/99 and I-80 with the Phase 1 and the Project. Specific impact statements and mitigation measures are presented at the end of this section.

Transit Evaluation

The SPSP is designed to accommodate future public transit service and includes a comprehensive transit plan that includes detailed information and policy on mobility enhancing strategies, phasing, performance standards, cost, and funding. The SPSP will establish a TMA to oversee transit service in the project. The TMA will oversee the implementation of commuter, fixed-route, and dial-a-ride services.

The project is proposing three transit centers: one located in the Town Center near SR 70/99, one in the South Village Center along Riego Road, and one in the North Village Center near Road C. In addition to the transit centers, the transit plan contains development densities that place more people in close proximity to the transit

Table 3.3-20
Intersection LOS – Cumulative Plus Phase 1 and Project Conditions

Intersections	Jurisdiction	Cumulative No Project Conditions					Cumulative Plus Phase 1 Conditions					Cumulative Plus Project Without Placer Parkway Conditions					Cumulative Plus Project With Placer Parkway Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
1. Sankey Rd./ Power Line Rd.	Sutter Co.	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A
2. Sankey Rd./ SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	>50	F	Signal	**>80**	**F**	**>80**	**F**	Signal	**>80**	**F**	**>80**	**F**	-	-	-	-	-
3. Sankey Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	12	B	13	B	Signal	11	B	12	B	Signal	26	C	46	D	-	-	-	-	-
4. Riego Rd./ Power Line Rd.	Sutter Co.	All-Way Stop	8	A	7	A	Signal	30	C	22	C	Signal	24	C	20	C	Signal	21	C	24	C
5. Riego Rd./ SR 70/SR 99	Sutter Co.	Signal	>80	F	>80	F	Signal	**>80**	**F**	**>80**	**F**	Signal	**>80**	**F**	**>80**	**F**	Signal	**>80**	**F**	**>80**	**F**
6. Riego Rd./ Pacific Ave.	Sutter Co.	Side-Street Stop	>50	F	>50	F	Signal	45	D	44	D	Signal	53	D	42	D	Signal	69	E	54	D
7. Riego Rd./ Natomas Rd.	Sutter Co.	All-Way Stop	>50	F	>50	F	Signal	13	B	10	A	Side-Street Stop	11	B	16	B	Side-Street Stop	11	B	16	C
8. Riego Rd./ Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	>50	F	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**
9. Riego Rd./ Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	>50	F	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**
10. Baseline Rd./Locust Rd.	Placer Co.	All-Way Stop	>50	F	>50	F	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**	All-Way Stop	**>50**	**F**	**>50**	**F**
11. Baseline Rd./Brewer Rd.	Placer Co.	Signal	22	C	23	C	Signal	42	D	39	D	Signal	36	D	40	D	Signal	32	C	35	D
12. Baseline Rd./Watt Ave.	Placer Co.	Signal	>80	F	>80	F	Signal	>80	F	**>80**	**F**	Signal	**>80**	**F**	**>80**	**F**	Signal	**>80**	**F**	80	E
13. Baseline Rd./Walerga Rd.	Placer Co.	Signal	47	D	59	E	Signal	47	D	**63**	**E**	Signal	**51**	**D**	57	E	Signal	47	D	55	D
14. Elverta Rd./ Power Line Rd.	Sacramento Co.	All-Way Stop	8	A	7	A	All-Way Stop	8	A	7	A	All-Way Stop	15	B	**>50**	**F**	All-Way Stop	15	C	**>50**	**F**
15. Elverta Rd./SR 70/SR 99	Sacramento Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Elverta Rd./East Levee Rd.	Sacramento Co.	Side-Street Stop	>50	F	>50	F	Side-Street Stop	**>50**	**F**	**>50**	**F**	Side-Street Stop	**>50**	**F**	**>50**	**F**	Side-Street Stop	>50	F	**>50**	**F**

Table 3.3-20
Intersection LOS – Cumulative Plus Phase 1 and Project Conditions

Intersections	Jurisdiction	Cumulative No Project Conditions					Cumulative Plus Phase 1 Conditions					Cumulative Plus Project Without Placer Parkway Conditions					Cumulative Plus Project With Placer Parkway Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
17. Elverta Rd./ Sorento Rd.	Sacramento Co.	Signal	18 (0.74)	B (C)	9 (0.51)	A (A)	Signal	35 (0.95)	D (E)	11 (0.58)	B (A)	Signal	**>80 (1.30)**	**F (F)**	19 (0.81)	B (D)	Signal	**>80 (1.81)**	**F (F)**	20 (0.83)	B (D)
18. Elverta Rd./ Palladay Rd.	Sacramento Co.	Signal	27 (0.85)	C (D)	28 (0.83)	C (D)	Signal	27 (0.87)	C (D)	32 (0.87)	C (D)	Signal	41 (0.96)	D (E)	28 (0.87)	C (D)	Signal	36 (0.82)	D (D)	23 (0.74)	C (C)
19. Elverta Rd./16th St.	Sacramento Co.	Signal	30 (0.64)	C (B)	32 (0.67)	C (B)	Signal	49 (0.85)	D (D)	53 (0.82)	D (D)	Signal	36 (0.69)	D (B)	32 (0.70)	C (C)	Signal	35 (0.77)	D (C)	36 (0.77)	D (C)
20. Elverta Rd./Watt Ave.	Sacramento Co.	Signal	>80 (1.30)	F (F)	71 (1.24)	E (F)	Signal	**>80 (**1.33)	**F** (F)	**>80** (1.28)	**F** (F)	Signal	**>80 (1.38)**	**F (F)**	**>80 (1.36)**	**F (F)**	Signal	>80 (1.26)	F (F)	70 **(1.30)**	E **(F)**
21. Elkhorn Blvd./SR 70/SR 99 SB Ramps	Sacramento Co.	Signal	5 (0.35)	A (A)	6 (0.27)	A (A)	Signal	6 (0.38)	A (A)	8 (0.38)	A (A)	Signal	6 (0.38)	A (A)	9 (0.46)	A (A)	Signal	6 (0.37)	A (A)	9 (0.46)	A (A)
22. Elkhorn Blvd./SR 70/SR 99 NB Ramps	Sacramento Co.	Signal	3 (0.34)	A (A)	6 (0.30)	A (A)	Signal	4 (0.38)	A (A)	8 (0.40)	A (A)	Signal	4 (0.40)	A (A)	7 (0.49)	A (A)	Signal	4 (0.38)	A (A)	7 (0.49)	A (A)
23. Elkhorn Blvd./Natomas Blvd.	Sacramento Co.	Signal	29 (1.00)	C (E)	74 (1.24)	E (F)	Signal	28 (0.96)	C (E)	77 (1.29)	E (F)	Signal	23 (0.93)	C (E)	**>80 (1.32)**	**F (F)**	Signal	25 (0.95)	C (E)	**>80 (1.32)**	**F (F)**
24. Elkhorn Blvd./East Levee Rd.	Sacramento Co.	Signal	11 (0.59)	B (A)	13 (0.63)	B (B)	Signal	9 (0.57)	A (A)	13 (0.66)	B (B)	Signal	11 (0.63)	B (B)	15 (0.69)	B (B)	Signal	11 (0.62)	B (B)	13 (0.68)	B (B)
45. Riego Rd./ Road U	Sutter Co.	-	-	-	-	-	-	-	-	-	-	Signal	22	C	39	D	Signal	22	C	40	D
46. Riego Rd./ Road R	Sutter Co.	-	-	-	-	-	Signal	14	B	25	C	Signal	15	B	47	D	Signal	16	B	50	D
47. Riego Rd./ Road S	Sutter Co.	-	-	-	-	-	Signal	28	C	52	D	Signal	22	C	54	D	Signal	23	C	55	D
48. Riego Rd./SR 70/SR 99 SB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49. Riego Rd./ SR 70/ SR 99 NB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50. Riego Rd./ Road A	Sutter Co.	-	-	-	-	-	Signal	37	D	46	D	Signal	31	C	54	D	Signal	31	C	54	D
51. Riego Rd./ Road C	Sutter Co.	-	-	-	-	-	Signal	21	C	30	C	Signal	40	D	40	D	Signal	41	D	45	D
52. Riego Rd./ Road D	Sutter Co.	-	-	-	-	-	Signal	12	B	10	B	Signal	42	D	46	D	Signal	48	D	53	D
53. Power Line Rd./ Road T	Sutter Co.	-	-	-	-	-	-	-	-	-	-	Signal	10	A	15	B	Signal	11	B	15	B
64. Elverta Rd./ SR 70/ SR 99 SB Ramps	Sacramento Co.	Signal	7 (0.57)	A (A)	4 (0.22)	A (A)	Signal	7 (0.59)	A (A)	6 (0.35)	A (A)	Signal	8 (0.61)	A (B)	10 (0.59)	B (A)	Signal	7 (0.58)	A (A)	9 (0.59)	A (A)
65. Elverta Rd./SR 70/ SR 99 NB Ramps	Sacramento Co.	Signal	7 (0.47)	A (A)	2 (0.19)	A (A)	Signal	7 (0.54)	A (A)	3 (0.30)	A (A)	Signal	8 (0.55)	A (A)	7 (0.75)	A (C)	Signal	8 (0.52)	A (A)	6 (0.67)	A (B)
66. Sankey Rd./ Road C	Sutter Co.	-	-	-	-	-	Signal	15	B	17	B	Signal	30	C	23	C	-	-	-	-	-

Note:
[1] For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
[2] V/C and LOS based on Circular 212 procedure. Applies only to Sacramento County signalized intersections.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Table 3.3-21
Intersection LOS – On-Site Locations

Intersections	Jurisdiction	Phase 1 Conditions					Project Without Placer Parkway Conditions					Project With Placer Parkway Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1]	LOS	Delay[1]	LOS		Delay[1]	LOS	Delay[1]	LOS		Delay[1]	LOS	Delay[1]	LOS
25. Road O/ Road H	Sutter Co.	Signal	-	-	-	-	Signal	15	B	26	C	Signal	11	B	33	C
26. Road O/ Road C	Sutter Co.	Signal	-	-	-	-	Signal	41	D	39	D	Signal	36	D	46	D
27. Road C/ Placer Parkway WB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	Signal	11	B	7	A
28. Road C/ Placer Parkway EB Ramps	Sutter Co.	-	-	-	-	-	-	-	-	-	-	Signal	9	A	7	A
29. Road K/ Road C	Sutter Co.	-	-	-	-	-	Signal	53	D	45	D	Signal	34	C	45	D
30. Road K/ Pacific Ave.	Sutter Co.	-	-	-	-	-	Signal	33	C	22	C	Signal	26	C	40	D
31. Road K/ Road L	Sutter Co.	-	-	-	-	-	Side-Street Stop	13	B	15	C	Side-Street Stop	12	B	17	C
32. Road M/ Road C	Sutter Co.	-	-	-	-	-	Signal	7	A	8	A	Signal	9	A	9	A
33. Road M/ Road J	Sutter Co.	-	-	-	-	-	Side-Street Stop	10	A	9	A	Side-Street Stop	10	A	9	A
34. Road M/ Road G	Sutter Co.	-	-	-	-	-	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	9	A
35. Road D/ Road C	Sutter Co.	-	-	-	-	-	Signal	27	C	26	C	Signal	52	D	38	D
36. Road J/ Road D	Sutter Co.	Signal	21	C	41	D	Signal	19	B	29	C	Signal	31	C	29	C
37. Road J/ Road A	Sutter Co.	Side-Street Stop	11	B	10	A	Side-Street Stop	21	C	18	C	All-Way Stop	13	B	15	C
38. Road J/ Road L	Sutter Co.	Side-Street Stop	9	A	10	A	All-Way Stop	10	B	18	C	All-Way Stop	11	B	19	C
39. Road J/ Pacific Ave.	Sutter Co.	Signal	35	D	30	C	Signal	32	C	30	C	Signal	36	D	35	D
40. Road J/ Road C	Sutter Co.	Signal	36	D	30	C	Signal	13	B	15	B	Signal	14	B	13	B
41. Road G/ Road A	Sutter Co.	Signal	11	B	8	A	Signal	9	A	9	A	Signal	9	A	9	A

Table 3.3-21
Intersection LOS – On-Site Locations

Intersections	Jurisdiction	Phase 1 Conditions					Project Without Placer Parkway Conditions					Project With Placer Parkway Conditions				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1]	LOS	Delay[1]	LOS		Delay[1]	LOS	Delay[1]	LOS		Delay[1]	LOS	Delay[1]	LOS
42. Road G/ Pacific Ave.	Sutter Co.	Signal	15	B	31	C	Signal	18	B	18	B	Signal	27	C	25	C
43. Road G/ Road C	Sutter Co.	Signal	18	B	21	C	Signal	16	B	17	B	Signal	18	B	19	B
44. Road G/ Road D	Sutter Co.	Signal	13	B	10	A	Signal	20	B	15	B	Signal	17	B	12	B
54. Road T/ Road U	Sutter Co.	-	-	-	-	-	Side-Street Stop	10	A	10	B	Side-Street Stop	10	A	10	B
55. Road Q/ Road R	Sutter Co.	-	-	-	-	-	Side-Street Stop	10	A	10	A	Side-Street Stop	10	B	10	A
56. Road T/ Road R	Sutter Co.	-	-	-	-	-	Side-Street Stop	10	A	10	A	Side-Street Stop	10	A	10	B
57. Road Q/ Road S	Sutter Co.	Signal	8	A	8	A	Signal	30	C	39	D	Signal	31	C	39	D
58. Road B (N)/ Road A	Sutter Co.	Signal	16	B	16	B	Signal	16	B	17	B	Signal	16	B	19	B
59. Road B (S)/ Road A	Sutter Co.	Signal	25	C	38	D	Signal	28	C	42	D	Signal	28	C	51	D
60. Road B/ Pacific Ave.	Sutter Co.	Side-Street Stop	9	A	9	A	Side-Street Stop	9	A	19	C	Side-Street Stop	9	A	18	C
61. Road B (N)/ Road C	Sutter Co.	Signal	10	A	11	B	Signal	14	B	25	C	Signal	13	B	23	C
62. Road B (S)/ Road C	Sutter Co.	Signal	15	B	18	B	Signal	24	C	24	C	Signal	22	C	24	C
63. Road B/ Road D	Sutter Co.	-	-	-	-	-	Side-Street Stop	11	B	14	B	Side-Street Stop	11	B	14	B

Note:
[1] For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Table 3.3-22
Freeway LOS: Cumulative Plus Phase 1 and Project Conditions

Freeway Facility	Type	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density	LOS[2,3]
1. NB SR 70/99 North of Sankey Road (Placer Parkway)	Mainline	12.8	B	21.4	C	12.9	B	23.7	C	12.9	B	22.8	C	12.9	B	21.5	C
2. NB SR 70/99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	15.2	B	23.9	C
3. NB SR 70/99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-		24.6	C	37.1	E
4. NB SR 70/99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	12.3	B	23.5	C	12.9	B	23.6	C	19.6	C	26.5	D	20.6	C	34.4	D
5. NB SR 70/99 at Riego Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	21.5	C	28.3	D	22.5	C	36.7	E
6. NB SR 70/99 at Riego Road loop on-ramp	Merge	-	-	-	-	14.7	B	25.4	C	20.6	C	25.3	C	21.4	C	30.5	D
7. NB SR 70/99 at Riego Road off-ramp	Diverge	-	-	-	-	32.1	D	**49.3**	**F**	**45.5**	**F**	**38.2**	**F**	**46.1**	**F**	**42.4**	**F**
8. NB SR 70/99 between Riego Road and Elverta Road	Mainline	17.8	B	35.3	E	26.2	D	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
9. NB SR 70/99 at Elverta Road slip on-ramp	Merge	20.3	C	35.1	E	27.8	D	**44.3**	**F**	**49.9**	**F**	**43.6**	**F**	**50.5**	**F**	**45.0**	**F**
10. NB SR 70/99 at Elverta Road loop on-ramp	Merge	20.0	B	34.4	D	28.3	D	**44.2**	**F**	**47.1**	**F**	**41.7**	**F**	**47.7**	**F**	**43.7**	**F**
11. NB SR 70/99 at Elverta Road off-ramp	Diverge	26.3	C	42.3	F	**35.3**	**E**	**50.1**	**F**	**56.1**	**F**	**50.4**	**F**	**56.7**	**F**	**52.5**	**F**
12. NB SR 70/99 between Elverta Road and Elkhorn Boulevard	Mainline	22.1	C	-	F	31.6	D	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
13. NB SR 70/99 at Elkhorn Boulevard slip on-ramp	Merge	24.4	C	39.2	F	32.4	D	**46.2**	**F**	**50.9**	**F**	**46.4**	**F**	**51.4**	**F**	**48.3**	**F**
14. NB SR 70/99 at Elkhorn Boulevard loop on-ramp	Merge	21.9	C	37.3	E	29.2	D	**42.9**	**F**	**44.7**	**F**	**42.5**	**F**	**45.2**	**F**	**44.4**	**F**
15. NB SR 70/99 at Elkhorn Boulevard off-ramp	Diverge	28.1	D	52.5	F	**38.0**	E	**58.6**	**F**	**52.2**	**F**	**58.3**	**F**	**52.8**	**F**	**60.4**	**F**
16. NB SR 70/99 between I-5 interchange and Elkhorn Boulevard	Mainline	23.7	C	-	F	36.0	E	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
17. NB I-5 between SR 70/99 and Airport Boulevard	Mainline	-	F	-	F	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
18. NB I-5 to NB SR 70/99 off-ramp	Major Diverge	25.2	C	32.4	F	28.3	D	**34.0**	**F**	**33.7**	**F**	**34.6**	**F**	**34.1**	**F**	**35.3**	**F**
19. NB I-5 between Del Paso Road and SR 70/99 interchange	Mainline	43.1	E	-	F	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
20. NB 1-5 at Del Paso Road on-ramp	Merge	36.5	E	49.9	F	**43.4**	**F**	**55.6**	**F**	**48.3**	**F**	**49.8**	**F**	**48.8**	**F**	**50.7**	**F**
21. SB SR 70/99 North of Sankey Road (Placer Parkway)	Mainline	23.4	C	13.4	B	27.4	D	13.4	B	25.1	C	13.4	B	23.5	C	13.4	B
22. SB SR 70/99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	27.8	C	16.6	B
23. SB SR 70/99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	37.2	E	24.0	C
24. SB SR 70/99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	26.7	D	12.9	B	27.2	D	13.4	B	29.5	D	20.6	C	43.2	E	22.4	C
25. SB SR 70/99 at Riego Road off-ramp	Diverge	-	-	-	-	33.0	D	17.9	B	35.1	E	26.0	C	**42.7**	**F**	20.3	C
26. SB SR 70/99 at Riego Road loop on-ramp	Merge					**43.7**	**F**	**35.6**	**E**	32.7	C	31.5	C	**37.0**	**F**	33.2	D
27. SB SR 70/99 at Riego Road slip on-ramp	Merge	-	-	-	-	-	-	-	-	**36.3**	**F**	**41.5**	**F**	**40.2**	**F**	**48.1**	**F**
28. SB SR 70/99 between Riego Road and Elverta Road	Mainline	40.9	E	18.8	C	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
29. SB SR 70/99 at Elverta Road off-ramp	Diverge	40.4	F	22.6	C	**49.3**	**F**	**41.5**	**E**	**43.0**	**F**	**53.1**	**F**	**47.1**	**F**	**54.1**	**F**

Table 3.3-22
Freeway LOS: Cumulative Plus Phase 1 and Project Conditions

Freeway Facility	Type	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions				Cumulative Plus Project Without Placer Parkway Conditions				Cumulative Plus Project With Placer Parkway Conditions			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density[1]	LOS[2,3]	Density	LOS[2,3]
30. SB SR 70/99 at Elverta Road loop on-ramp	Merge	39.1	F	23.0	C	**48.0**	**F**	**38.8**	**F**	**41.1**	**F**	**46.6**	**F**	**45.2**	**F**	**47.8**	**F**
31. SB SR 70/99 at Elverta Road slip on-ramp	Merge	39.6	F	25.7	C	**48.8**	**F**	**41.7**	**F**	**42.7**	**F**	**49.5**	**F**	**46.4**	**F**	**50.7**	**F**
32. SB SR 70/99 between Elverta Road and Elkhorn Boulevard	Mainline	-	F	23.3	C	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
33. SB SR 70/99 at Elkhorn Boulevard off-ramp	Diverge	27.4	F	12.3	B	**37.5**	**F**	**29.9**	**F**	**30.8**	**F**	**38.5**	**F**	**35.0**	**F**	**39.8**	**F**
34. SB SR 70/99 at Elkhorn Boulevard loop on-ramp	Merge	43.3	F	25.2	C	**51.8**	**F**	**38.4**	**F**	**45.7**	**F**	**43.5**	**F**	**49.3**	**F**	**44.7**	**F**
35. SB SR 70/99 at Elkhorn Boulevard slip on-ramp	Merge	45.2	F	25.9	C	**53.8**	**F**	**39.8**	**F**	**47.7**	**F**	**44.6**	**F**	**51.3**	**F**	**45.8**	**F**
36. SB SR 70/99 between I-5 interchange and Elkhorn Boulevard	Mainline	-	F	23.3	C	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
37. SB SR 70/99 to NB I-5 off-ramp	Diverge	38.1	F	16.8	B	**47.6**	**F**	**32.2**	**F**	**40.9**	**F**	**37.5**	**F**	**44.8**	**F**	**38.8**	**F**
38. SB SR 70/99 to NB I-5 on-ramp	Merge	39.7	F	33.2	F	**39.9**	**F**	**36.0**	**F**	**37.8**	**F**	**35.5**	**F**	**41.9**	**F**	**36.7**	**F**
39. SB SR 70/99 to SB I-5 on-ramp	Weave	N/A[4]	F	N/A[4]	F	N/A[4]	**F**	N/A[4]	**F**	N/A[4]	**F**	N/A[4]	**F**	N/A[4]	**F**	N/A[4]	**F**
40. SB I-5 between SR 70/99 interchange and Del Paso Road																	
41. SB I-5 at Del Paso Road off-ramp	Diverge	37.5	E	26.6	C	**40.4**	**F**	33.0	D	**38.4**	**F**	**36.9**	**E**	**39.4**	**F**	**36.7**	**E**
42. SB I-5 between Airport Boulevard and SR 70/99 interchange	Mainline	44.2	E	-	F	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**	-	**F**
43. SB I-5 to NB SR 70/99 off-ramp	Diverge	30.9	D	36.2	F	**32.0**	**F**	**37.5**	**F**	**34.7**	**F**	**37.1**	**F**	**34.4**	**F**	**37.6**	**F**
44. SB I-5 to NB SR 70/ 99 on-ramp	Merge	19.4	B	41.7	F	26.6	C	**45.8**	**F**	**40.8**	**F**	**46.8**	**F**	**41.4**	**F**	**46.7**	**F**
45. EB Placer Parkway between SR 70/99 to Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	12.1	B	15.3	B
46. EB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	8.8	A	12.3	B
47. EB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	10.5	B	19.7	B
48. EB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	11.6	B	21.1	C
49. WB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	24.3	C	11.5	B
50. WB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	22.4	C	8.1	A
51. WB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	16.2	B	12.5	B
52. WB Placer Parkway between Road C and SR 70/99	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	17.0	B	13.7	B

Notes: Shading indicates that the freeway facility operates unacceptably based on the significance criteria.
Cells with "-" denote facilities that do exist for specified scenario.
[1] Density reported in passenger cars per mile per lane.
[2] Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000).
[3] Demand generally exceeds mainline capacity, which indicates LOS F is most likely to occur at most ramp junctions.
[4] Weaving section analyzed using the Leisch Method, LOS not based on density.
Source: Fehr & Peers 2008.

stops. The transit plan includes service standards for all of its components including minimum service standards based on funding availability.

While the proposed project would accommodate transit service and would not disrupt existing service, the project could create new demand for transit service, especially given the residential uses of the project. However, the conceptual transit plan outlines phased implementation of services. The policy and standards in the transit plan are designed to have transit as a viable option to the automobiles even at the early stages of development in the plan.

Non-Motorized Evaluation

The proposed project will contribute to cumulative non-motorized travel demand and includes facilities within the plan to accommodate this travel. As noted under the existing plus project conditions analysis, the proposed project includes non-motorized facilities such as sidewalks and multiple use trails. These facilities will provide for non-motorized transportation within the project and are consistent with the various non-motorized policies of Sutter County. Further, implementation of the project would not disrupt or interfere with existing or planned non-motorized facilities in the larger study area. Therefore, no significant impact would occur to non-motorized transportation.

THRESHOLDS OF SIGNIFICANCE

Roadway System

The roadway impact significance criteria outlined below were developed based on the applicable policies of the public agencies whose roadways are likely to be affected by development in the plan area.

Based on the LOS policy descriptions in the transportation setting, an impact to the roadway system is considered significant if implementation of the proposed project would meet the following criteria.

Sutter County Roadways and Intersections

- Cause the existing or cumulative no project level of service for study locations to deteriorate from LOS D (or better) to LOS E (or worse).
- Exacerbate the existing or cumulative no project LOS E (or worse) conditions for study locations.

Placer County Roadways and Intersections

- Cause the existing or cumulative no project level of service for study locations not within one-half mile of a state highway to deteriorate from LOS C (or better) to LOS D (or worse) or for study locations within one-half mile of a state highway to deteriorate from LOS D (or better) to LOS E (or worse).
- Exacerbate the existing or cumulative no project LOS D (or worse) conditions for study locations not within one-half mile of a state highway or LOS E (or worse) conditions for study locations within one-half mile of a state highway.
- Cause or exacerbate LOS E or worse conditions on roadways or intersections within or on the boundary of the Placer Vineyards Specific Plan Area plan area, which includes roadway segments and intersections on Baseline Road (Pleasant Grove Road (South) to Walerga Road) and Watt Avenue (Baseline Road to Dyer Lane).

Sacramento County Roadways and Intersections

- Cause the existing or cumulative no project level of service for study locations to deteriorate from LOS E (or better) to LOS F.
- Exacerbate the existing or cumulative no project LOS F conditions for study locations.

Caltrans Facilities

- Cause the existing or cumulative no project level of service for study locations to deteriorate from LOS E (or better) to LOS F.
- Exacerbate the existing or cumulative no project LOS F (or worse) conditions for study locations by adding traffic to a freeway/highway segment, ramp terminal intersection, or ramp junction influence area.

Transit System

For the purposes of the EIR, an impact to the transit system is considered significant if implementation of the proposed project would:

- create demand for public transit services or facilities greater than there is adequate capacity to accommodate,
- disrupt existing or interfere with planned transit services or facilities, and
- create an inconsistency with the transit policies or standards of plans adopted by jurisdictions within the study area.

Bicycle and Pedestrian System

For the purposes of the EIR, an impact to the bicycle and pedestrian system is considered significant if implementation of the proposed project would:

- disrupt existing or interfere with existing or planned bicycle or pedestrian facilities that would discourage their use and/or
- create an inconsistency with the bikeway or pedestrian policies or standards of plans adopted by the jurisdictions within the study area.

Aviation

For the purposes of the EIR, an impact to aviation is considered significant if implementation of the proposed project would:

- result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risk.

IMPACT ANALYSIS

Program-Level Impacts and Mitigation Measures

This section contains the program level impact statements and mitigation measures for the roadway system, public transit, and non-motorized transportation. The roadway system impacts include those impacts identified through the analysis of the study area roadway segments, intersections, and freeway facilities. New analysis was

conducted to verify the effectiveness of proposed mitigation actions. These results are contained in Tables 3.3-23 through 3.3-27. Exhibits 3.3-27 through 3.3-37 display the recommended mitigation measures.

IMPACT 3.3-1 Unacceptable Operations on the Regional Roadway Network. *The proposed project would contribute to traffic volumes that exceed the capacity of the regional roadway network under existing conditions and cumulative conditions.*

On-Site Elements

Development of the proposed project would generate approximately 338,000 daily vehicle trips at full build-out. The regional roadway network consisting of state highways (e.g., SR 70/99 and I-5) and major arterials such as Riego Road, Baseline Road, Watt Avenue, and Elverta Road does not have the capacity to accommodate the added project traffic under cumulative conditions within the LOS thresholds established by local and state agencies. A disconnect exists between the current LOS thresholds and the level of investment dedicated to expanding the capacity of the regional roadway network. As a result, several regional roadways operate at or near LOS F under cumulative conditions, which will be exacerbated by the addition of project traffic. This is a **significant** impact.

Mitigation Measure 3.3-1: Participate In Funding Improvement to the Regional Roadway Network.

On-Site Elements

a. Developers of property within the plan area ("Specific Plan," "SPSP," or "the Project") shall be responsible for the Project's fair share of all feasible physical improvements necessary and available to reduce the severity of the Project's significant transportation-related impacts, based on "cumulative plus project conditions," consistent with the policies and exceptions set forth in the Transportation and Circulation Element of the 1994 Sutter County General Plan. (For purposes of this measure, "cumulative plus project conditions" refers to development authorized under the Specific Plan as well as development consistent with approved general plans, specific plans, and other entitlements in Sutter County and other jurisdictions.) In cases where the Project's fair share contribution is identified, the share will be based on the Project's relative contribution to traffic growth under "cumulative plus project conditions." The Project's contribution toward such improvements may take any, or some combination, of the following forms:

    1. Construction of roads and related facilities within and adjacent to the boundaries of the Specific Plan area, which may be subject to fee credits and/or reimbursement, coordinated by the County, from other fee-paying development projects if available with respect to roads or other facilities that would also serve those non-SPSP fee-paying development projects;

    2. Construction of roads, road improvements, or other transportation facilities outside the boundaries of the Specific Plan area but within unincorporated Sutter County, subject in some instances to fee credit against other improvements necessitated by the SPSP or future reimbursement, coordinated by the County, from other fee-paying development projects if available where the roads or improvements at issue would also serve those non-SPSP fee paying development projects;

    3. The payment of impact fees to Sutter County in amounts that constitute the Project's fair share contributions to the construction of transportation facilities to be built or improved within unincorporated Sutter County, consistent with the County's Capital Improvement Program ("CIP");

    4. The payment of other adopted regional impact fees that would provide improvements to roadways, intersections and/or interchanges that are affected by multiple jurisdictions, except where the project applicant's payments of other fees or construction of improvements within Sutter County creates credit against the payment of regional impact fees;

Table 3.3-23
Roadway LOS: Existing Plus Phase 1 and Project Conditions With Mitigation

Roadway Segment	Jurisdiction	Existing Conditions				Existing Plus Phase 1 Conditions With Mitigation				Existing Plus Project Conditions With Mitigation			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
8. Riego Rd. – Pleasant Grove Rd. (N) to Pleasant Grove Rd. (S)	Sutter Co.	2R	10,700	0.51	D	4E	19,900	0.43	C	4E	32,000	0.62	C
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	10,600	0.59	A	4H	17,700	0.48	A	4H	26,000	0.65	B
10. Baseline Rd. – Locust Rd. to Brewer Rd.	Placer Co.	2M	12,100	0.67	B	4H	19,200	0.51	A	4H	28,100	0.70	C
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	2M	11,200	0.62	B	4H	18,200	0.49	A	4H	27,100	0.68	B
12. Baseline Rd. – Watt Ave. to Fiddyment Dr.	Placer Co.	2M	12,600	0.70	B	4M	15,900	0.47	A	4M	20,700	0.58	A
41. I-5 – SR 70/SR 99 to Del Paso Rd.	Sacramento Co.	6F	103,000	0.81	D	6F	117,600	0.98	E	8F	139,100	0.87	D
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	127,000	1.00	F	8F	138,200	0.88	D	8F	155,900	0.97	E
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	139,000	0.82	D	8F	149,000	0.93	E	10F	165,300	0.83	D

Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Table 3.3-24
Intersection LOS - Existing Plus Phase 1 and Project Conditions with Mitigations

Intersections	Jurisdiction	Existing					Existing Plus Phase 1 Mitigations					Existing Plus Project Mitigations				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
2. Sankey Rd./ SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	37	E	Signal	12	B	12	B	Signal	34	C	43	D
8. Riego Rd./Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	31	D	Signal	7	A	11	B	Signal	8	A	9	A
9. Riego Rd./Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	42	E	Signal	8	A	11	B	Signal	14	B	9	A
10. Baseline Rd./Locust Rd.	Placer Co.	All-Way Stop	>50	F	43	E	Signal	15	B	27	C	Signal	22	C	23	C
11. Baseline Rd./Brewer Rd.	Placer Co.	Side-Street Stop	24	C	22	C	Signal	4	A	2	A	Signal	4	A	2	A
13. Baseline Rd./Walerga Rd.	Placer Co.	Signal	36	D[3]	63	E[3]	Signal	34	C	42	D	Signal	33	C	42	D
14. Elverta Rd./Power Line Rd.	Sacramento Co.	All-Way Stop	8	A	7	A	-	-	-	-	-	Signal	25	C	28	C
15. Elverta Rd./SR 70/SR 99	Sacramento Co.	Signal	>80	F	30	C	Signal	36	D	24	C	Signal	46	D	53	D
16. Elverta Rd./East Levee Rd.	Sacramento Co.	All-Way Stop	19	C	31	D	Side-Street Stop	22	C	16	C	Side-Street Stop	20	C	26	D
17. Elverta Rd./Sorento Rd.	Sacramento Co.	Side-Street Stop	13	B	14	B	Signal	11 (0.61)	B (B)	8 (0.50)	A (A)	Signal	22 (0.74	C (C)	15 (0.61)	B (B)
21. Elkhorn Blvd./SR 70/SR 99 SB Ramps	Sacramento Co.	Side-Street Stop	9	A	9	A	Signal[4]	4 (0.14)	A (A)	5 (0.41)	A (A)	Signal[4]	4 (0.16)	A (A)	7 (0.54)	A (A)
22. Elkhorn Blvd./SR 70/SR 99 NB Ramps	Sacramento Co.	Side-Street Stop	12	B	>50	F	Signal	8 (0.74)	A (C)	30 (0.92)	C (E)	Signal	8 (0.76)	A (C)	43 (1.00)	D (E)
24. Elkhorn Blvd./East Levee Rd.	Sacramento Co.	Side-Street Stop	24	C	23	C	Side-Street Stop	20 (0.57)	C (A)	17 (0.56)	C (A)	Signal	16 (0.72)	B (C)	11 (0.57)	B (A)
48. Riego Rd./SR 70/SR 99 SB Ramps	Sutter Co.	-	-	-	-	-	Signal	7	A	5	A	Signal	19	B	30	C
49. Riego Rd/SR 70/SR 99 NB Ramps	Sutter Co.	-	-	-	-	-	Signal	42	D	28	C	Signal	15	B	7	A

Note:
[1] For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
[2] V/C and LOS based on Circular 212 procedure. Applies only to Sacramento County signalized intersections.
[3] Field observations showed that not all peak demand flows were served and that actual operations are worse.
[4] Impact identified at intersection #22. Improvement on SB ramp (traffic signal installation) shown for consistency of interchange ramp-terminal intersection operation.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Table 3.3-25
Roadway LOS: Cumulative Conditions Plus Phase 1 and Project Conditions With Mitigation

Roadway Segment	Jurisdiction	Cumulative No Project Conditions				Cumulative Plus Phase 1 Conditions With Mitigation				Cumulative Plus Project Without Placer Parkway Conditions With Mitigation				Cumulative Plus Project With Placer Parkway Conditions With Mitigation			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
8. Riego Rd. – Pleasant Grove Rd. (N) to Pleasant Grove Rd. (S)	Sutter Co.	2R	23,100	1.11	F	4E	31,100	0.60	C	6E	40,700	0.53	C	6E	38,600	0.50	C
9. Riego Rd. – Pleasant Grove Rd. (S) to Locust Rd.	Placer Co.	2M	22,200	1.23	F	4H	28,800	0.72	C	6H	34,900	0.58	A	6E	32,700	0.55	A
11. Baseline Rd. – Brewer Rd. to Watt Ave.	Placer Co.	6H	44,200	0.74	C	6H	47,700	0.80	C	6H	48,500	0.81	D	6H	48,500	0.81	D
14. Elverta Rd. – SR 70/SR 99 to East Levee Rd.	Sacramento Co.	2H	16,900	0.85	D	4H	20,700	0.52	A	4H	23,200	0.58	A	2H	19,600	0.98	E
15. Elverta Rd. – East Levee Rd. to Sorento Rd.	Sacramento Co.	2H	23,200	1.16	F	4M	26,100	0.73	C	4M	31,300	0.87	D	4M	27,500	0.76	C
16. Elverta Rd. – Sorento Rd. to 16th St.	Sacramento Co.	4M	27,700	0.77	C	4M	30,700	0.85	D	6M	36,200	0.67	B	4M	33,300	0.93	E
33. 16th St. – Kasser Rd. to Elverta Rd.	Sacramento Co.	2M	17,900	0.99	E	4M	18,400	0.51	A	4M	19,000	0.53	A	4M	25,600	0.71	C
34. Watt Ave. – Baseline Rd. to PFE Rd.	Placer Co.	6M	50,400	0.93	E	6H	51,000	0.85	D	6H	52,600	0.88	D	6H	51,500	0.86	D
36. Walerga Rd. – Baseline Rd. to PFE Rd.	Placer Co.	4M	34,100	0.95	E	4M	33,800	0.94	E	4M	33,900	0.94	E	4M	33,900	0.94	E
41. I-5 – SR 70/SR 99 to Del Paso Rd.	Sacramento Co.	6F	171,500	1.43	F	8F	184,900	1.16	F	8F	205,200	1.28	F	8F	204,500	1.28	F
42. I-5 – Del Paso Rd. to Arena Blvd.	Sacramento Co.	6F	199,100	1.66	F	8F	207,500	1.30	F	8F	223,800	1.40	F	8F	223,200	1.40	F
43. I-5 – Arena Blvd. to I-80	Sacramento Co.	8F	218,800	1.37	F	10F	225,400	1.13	F	10F	239,600	1.20	F	10F	239,400	1.20	F

Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Table 3.3-26
Intersection LOS - Cumulative Plus Phase 1 and Project Conditions with Mitigations

Intersections	Jurisdiction	Cumulative No Project Conditions					Cumulative Plus Phase 1 Mitigations					Cumulative Plus Project Without Placer Parkway Mitigations					Cumulative Plus Project With Placer Parkway Mitigations				
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]		Delay[1] (V/C)[2]	LOS (LOS)[2]	Delay[1] (V/C)[2]	LOS (LOS)[2]
2. Sankey Rd./ SR 70/SR 99	Sutter Co.	Side-Street Stop	>50	F	>50	F	Signal	17	B	17	B	Signal	34	C	68	E	-	-	-	-	-
8. Riego Rd./Pleasant Grove Rd. (N)	Sutter Co.	All-Way Stop	>50	F	>50	F	Signal	10	B	8	A	-	-	-	-	-	-	-	-	-	-
9. Riego Rd./Pleasant Grove Rd. (S)	Placer Co.	All-Way Stop	>50	F	>50	F	Signal	45	D	46	D	Signal	36	D	27	C	Signal	31	C	28	C
10. Baseline Rd./Locust Rd.	Placer Co.	All-Way Stop	>50	F	>50	F	Signal	18	B	23	C	Signal	18	B	55	E	Signal	16	B	17	B
12. Baseline Rd./Watt Ave.	Placer Co.	Signal	>80	F	>80	F	Signal	59	E	75	E	Signal	78	E	69	E	Signal	59	E	60	E
13. Baseline Rd./Walerga Rd.	Placer Co.	Signal	47	D[3]	59	E[3]	Signal	45	D	58	E	Signal	47	D	54	D	Signal	45	D	52	D
14. Elverta Rd./Power Line Rd.	Sacramento Co.	All-Way Stop	8	A	7	A	-	-	-	-	-	Signal	30 (0.47)	C (A)	18 (0.70)	B (B)	Signal	27 (.049)	C (A)	21 (0.77)	C (C)
16. Elverta Rd./East Levee Rd.	Sacramento Co.	Side-Street Stop	>50	F	>50	F	Signal	8 (0.94)	A (E)	67 **(1.19)**	E **(F)**	Signal	6 (0.61)	A (B)	18 (0.81)	B (D)	-	-	-	-	-
17. Elverta Rd./Sorento Rd.	Sacramento Co.	Signal	18	B	9	A	-	-	-	-	-	Signal	17 (0.71)	B (C)	15 (0.73)	B (C)	Signal	15 (0.61)	B (B)	15 (0.67)	B (B)
20. Elverta Rd./Watt Ave.	Sacramento Co.	Signal	>80 (1.30)	F (F)	71 (1.24)	E (F)	Signal	>80 (1.10)	F (F)	71 (1.02)	E (F)	Signal	>80 (1.15)	F (F)	66 (1.10)	E (F)	-	-	-	-	-
23. Elkhorn Blvd./Natomas Blvd.	Sacramento Co.	Signal	29 (1.00)	C (E)	74 (1.24)	E (F)	-	-	-	-	-	Signal	14 (0.71)	B (C)	65 (1.15)	E (F)	Signal	14 (0.71)	B (C)	68 (1.15)	E (F)
48. Riego Rd./SR 70/SR 99 SB Ramps	Sutter Co.	-	-	-	-	-	Signal	12	B	5	A	Signal	19	B	35	D	Signal	33	C	26	C
49. Riego Rd./ SR 70/SR 99 NB Ramps	Sutter Co.	-	-	-	-	-	Signal	20	C	35	D	Signal	39	D	35	D	Signal	52	D	36	D

Note:
[1] For signalized intersections analyzed and all-way stop intersections, average intersection delay is reported in seconds per vehicle. For side-street stop intersections, delay is reported for side-street movement with highest delay.
[2] V/C and LOS based on Circular 212 procedure. Applies only to Sacramento County signalized intersections.
[3] Field observations showed that not all peak demand flows were served and that actual operations are worse.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008

Table 3.3-27
Freeway LOS: Cumulative Plus Phase 1 and Project Conditions with Mitigations

Freeway Facility	Type	Cumulative No Project Conditions				Cumulative Plus Phase 1 Mitigations				Cumulative Plus Project Without Placer Parkway Conditions With Mitigation				Cumulative Plus Project With Placer Parkway Conditions With Mitigation			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density	LOS
1. NB SR 70/SR 99 North of Sankey Road (Placer Parkway)	Mainline	12.8	B	21.4	C	27.4	D	23.7	C	12.9	B	22.8	C	12.9	B	21.5	C
2. NB SR 70/SR 99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	15.2	B	23.9	C
3. NB SR 70/SR 99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	19.7	B	28.4	D
4. NB SR 70/SR 99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	12.3	B	23.5	C	27.2	D	13.4	B	13.7	B	18.4	C	14.4	B	22.3	C
5. NB SR 70/SR 99 at Riego Road slip on-ramp	Merge	-	-	-	-	10.7	B	12.1	B	15.8	B	21.1	C	16.5	B	25.0	C
6. NB SR 70/SR 99 at Riego Road loop on-ramp	Merge	-	-	-	-	11.1	B	13.6	B	15.6	B	20.1	C	16.3	B	24.6	C
7. NB SR 70/SR 99 at Riego Road off-ramp	Diverge	-	-	-	-	12.9	B	25.0	C	32.3	D	27.2	C	32.7	D	28.2	D
8. NB SR 70/SR 99 between Riego Road and Elverta Road	Mainline	17.8	B	35.3	E	18.2	C	29.9	D	36.9	E	29.3	D	37.8	E	30.6	D
9. NB SR 70/SR 99 at Elverta Road slip on-ramp	Merge	20.3	C	35.1	E	20.9	C	32.1	D	26.4	E	31.7	D	36.8	E	32.5	D
10. NB SR 70/SR 99 at Elverta Road loop on-ramp	Merge	20.0	B	34.4	D	20.7	C	31.3	D	33.8	D	30.5	D	34.3	D	31.9	D
11. NB SR 70/SR 99 at Elverta Road off-ramp	Diverge	26.3	C	42.3	F	21.7	C	28.2	D	30.0	D	28.4	D	30.2	D	29.1	C
12. NB SR 70/SR 99 between Elverta Road and Elkhorn Boulevard	Mainline	22.1	C	-	F	14.1	B	20.3	C	22.8	C	20.4	C	23.0	C	21.3	C
13. NB SR 70/SR 99 at Elkhorn Boulevard slip on-ramp	Merge	24.4	C	39.2	F	16.6	B	22.3	C	25.9	C	22.7	C	26.0	C	23.5	C
14. NB SR 70/SR 99 at Elkhorn Boulevard loop on-ramp	Merge	21.9	C	37.3	E	14.1	B	20.3	C	21.0	C	20.1	C	21.2	C	20.9	C
15. NB SR 70/SR 99 at Elkhorn Boulevard off-ramp	Diverge	28.1	D	52.5	F	20.7	C	31.6	D	25.9	C	30.3	D	26.1	C	32.4	D
16. NB SR 70/SR 99 between I-5 interchange and Elkhorn Boulevard	Mainline	23.7	C	-	F	15.2	B	25.3	C	21.2	C	23.7	C	21.4	C	21.2	C
17. NB I-5 between SR 70/SR 99 and Airport Boulevard	Mainline	-	F	-	F	34.4	D	26.9	D	22.7	C	19.7	C	23.5	C	13.4	B
18. NB I-5 to NB SR 70/SR 99 off-ramp	Major Diverge	25.2	C	32.4	F	21.2	C	27.7	F	30.2	D	31.5	F	27.0	C	29.0	F
19. NB I-5 between Del Paso Road and SR 70/SR 99 interchange	Mainline	43.1	E	-	F	22.4	C	30.4	D	25.1	C	25.8	C	25.4	C	26.3	D
20. NB 1-5 at Del Paso Road on-ramp	Merge	36.5	E	49.9	F	19.6	B	21.3	C	17.8	B	18.1	B	16.0	B	18.2	B
21. SB SR 70/SR 99 North of Sankey Road (Placer Parkway)	Mainline	23.4	C	13.4	B	27.4	D	13.4	B	25.1	C	13.4	B	23.5	C	13.4	B
22. SB SR 70/SR 99 at Placer Parkway off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	27.8	C	16.6	B
23. SB SR 70/SR 99 at Placer Parkway on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	31.2	D	20.5	C
24. SB SR 70/SR 99 between Sankey Road (Placer Parkway) and Riego Road	Mainline	26.7	D	12.9	B	27.2	D	13.4	B	20.1	C	14.4	B	25.0	C	15.6	B
25. SB SR 70/SR 99 at Riego Road off-ramp	Diverge	-	-	-	-	24.0	C	13.4	B	17.7	B	11.4	B	23.1	C	12.8	B
26. SB SR 70/SR 99 at Riego Road loop on-ramp	Merge	-	-	-	-	32.9	D	20.7	C	16.8	B	17.3	B	17.0	B	18.5	C
27. SB SR 70/SR 99 at Riego Road slip on-ramp	Merge	-	-	-	-	30.4	D	24.1	C	24.9	C	34.2	D	23.4	C	34.4	D
28. SB SR 70/SR 99 between Riego Road and Elverta Road	Mainline	40.9	E	18.8	C	31.2	D	25.1	C	26.1	D	35.3	E	29.3	D	36.5	E
29. SB SR 70/SR 99 at Elverta Road off-ramp	Diverge	40.4	F	22.6	C	35.0	D	29.5	D	30.5	D	37.7	E	33.5	D	38.3	E

Table 3.3-27
Freeway LOS: Cumulative Plus Phase 1 and Project Conditions with Mitigations

Freeway Facility	Type	Cumulative No Project Conditions				Cumulative Plus Phase 1 Mitigations				Cumulative Plus Project Without Placer Parkway Conditions With Mitigation				Cumulative Plus Project With Placer Parkway Conditions With Mitigation			
		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour		a.m. Peak Hour		p.m. Peak Hour	
		Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density[1]	LOS[2]	Density	LOS
30. SB SR 70/SR 99 at Elverta Road loop on-ramp	Merge	39.1	F	23.0	C	36.3	E	29.0	D	31.2	D	34.2	D	33.8	D	35.0	E
31. SB SR 70/SR 99 at Elverta Road slip on-ramp	Merge	39.6	F	25.7	C	34.9	D	30.7	D	30.8	D	36.1	E	33.5	D	36.9	E
32. SB SR 70/SR 99 between Elverta Road and Elkhorn Boulevard	Mainline	-	F	23.3	C	34.8	D	27.8	D	28.4	D	36.1	E	32.1	D	37.9	E
33. SB SR 70/SR 99 at Elkhorn Boulevard off-ramp	Diverge	27.4	F	12.3	B	22.1	C	16.8	B	32.7	D	38.1	E	29.3	D	32.8	D
34. SB SR 70/SR 99 at Elkhorn Boulevard loop on-ramp	Merge	43.3	F	25.2	C	39.3	F	28.5	D	35.1	E	32.0	D	37.5	E	33.0	D
35. SB SR 70/SR 99 at Elkhorn Boulevard slip on-ramp	Merge	45.2	F	25.9	C	39.7	F	28.9	D	34.5	D	32.2	D	37.0	E	20.0	C
36. SB SR 70/SR 99 between I-5 interchange and Elkhorn Boulevard	Mainline	-	F	23.3	C	43.3	E	26.1	D	33.6	D	30.2	D	38.6	E	31.4	D
37. SB SR 70/SR 99 to NB I-5 off-ramp	Diverge	38.1	F	16.8	B	30.6	F	19.8	B	29.2	D	26.1	C	33.0	F	27.5	C
38. SB SR 70/SR 99 to NB I-5 on-ramp	Merge	39.7	F	33.2	F	27.7	C	23.7	C	25.6	C	23.3	C	28.6	D	24.5	C
39. SB SR 70/SR 99 to SB I-5 on-ramp	Weave	N/A[3]	F	N/A[3]	F	**N/A[3]**	**F**	**N/A[3]**	**F**	**N/A[3]**	**F**	**N/A[3]**	**F**	**N/A[3]**	**F**	**N/A[3]**	**F**
40. SB I-5 between SR 70/SR 99 interchange and Del Paso Road																	
41. SB I-5 at Del Paso Road off-ramp																	
42. SB I-5 between Airport Boulevard and SR 70/SR 99 interchange	Mainline	44.2	E	-	F	24.6	C	28.4	D	19.6	C	20.7	C	19.5	C	28.4	D
43. SB I-5 to NB SR 70/SR 99 off-ramp	Diverge	30.9	D	36.2	F	18.1	B	21.8	C	20.0	C	21.6	C	19.9	B	21.9	C
44. SB I-5 to NB SR 70/SR 99 on-ramp	Merge	19.4	B	41.7	F	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]
45. EB Placer Parkway between SR 70/SR 99 to Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	12.1	B	15.3	B
46. EB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	8.8	A	12.3	B
47. EB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	10.5	B	19.7	B
48. EB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	11.6	B	21.1	C
49. WB Placer Parkway East of Road C	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	24.3	C	11.5	B
50. WB Placer Parkway at Road C off-ramp	Diverge	-	-	-	-	-	-	-	-	-	-	-	-	22.4	C	8.1	A
51. WB Placer Parkway at Road C on-ramp	Merge	-	-	-	-	-	-	-	-	-	-	-	-	16.2	B	12.5	B
52. WB Placer Parkway between Road C and SR 70/SR 99	Mainline	-	-	-	-	-	-	-	-	-	-	-	-	17.0	B	13.7	B

Notes: Shading indicates that the freeway facility operates unacceptably based on the significance criteria.
Bold indicates a significant impact.
Cells with "-" denote facilities that do exist for specified scenario.
[1] Density reported in passenger cars per mile per lane.
[2] Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000).
[3] Weaving section analyzed using the Leisch Method, LOS not based on density.
[4] Operations governed by mainline section.
Source: Fehr & Peers 2008.

5. The payment of impact fees to Sutter County in amounts that constitute the Project's fair share contributions to the construction of transportation facilities and/or improvements within affected jurisdictions outside of Sutter County, which payments to Sutter County and transmittal of fees to other agencies would occur through one or more enforceable agreements that are consistent with Sutter County General Plan policy 3.A.7 and provided that for each required improvement, there is a reasonable mitigation plan that ensures that (i) the fees collected from the SPSP will be used for their intended purposes, and (ii) the improvements will actually be built within a reasonable period of time, and

6. The payment of impact fees to Sutter County in amounts that constitute the Project's fair share contributions to the construction of transportation facilities and/or improvements on federal or state highways or freeways needed in part because of the Project, to be made available to the California Department of Transportation ("Caltrans") if and when Caltrans and Sutter County enter into an enforceable agreement consistent with state law and Sutter County General Plan policy 3.A.7, provided that, for each required improvement, Caltrans has a reasonable mitigation plan that ensures that (i) the fees collected from Sutter Pointe will be used for their intended purposes, and (ii) the improvements will actually be built within a reasonable period of time.

b. In pursuing a single agreement or multiple agreements with any jurisdictions outside of Sutter County that will be affected by traffic from the Project in order to effectuate proposed mitigation measures for improvements outside of Sutter County Sutter County will seek to negotiate in good faith with these other jurisdictions to enter into fair and reasonable arrangements with the intention of achieving, within a reasonable time period after approval of the SPSP, commitments for (i) the provision of adequate "fair share" mitigation payments from the Project for out-of-jurisdiction traffic impacts and impacts on federal and state freeways and highways, and (ii) reciprocal payments from regional development projects to Sutter County to address cumulative "fair share" mitigation payments towards federal and state freeways and highways for transportation-related facilities and/or improvements within Sutter County necessitated by the development within the region. It is intended that these agreements shall permit the participating agencies flexibility in providing cross-jurisdictional credits and reimbursements consistent with the general "fair share" mitigation standard, and require an updated model run incorporating the best available information in order to obtain the most accurate, up-to-date impact assessment feasible and to generate the most accurate, up-to-date estimates of regional fair share contributions. These agreements, moreover, should also include provisions that allow for periodic updates to the traffic modeling on which fair share payment calculations depend in order to account for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements (e.g., the Sierra Vista and Creek View Specific Plans in Roseville or the Curry Creek Community Plan in Placer County), (ii) additional physical improvements necessitated in whole or in part by newly approved projects, (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs.

c. If transportation improvements required to be constructed as mitigation are constructed prior to SPSP implementation, the Project will pay its fair share portion for those improvements.

d. In considering individual projects within the SPSP area (e.g., small-lot tentative subdivision maps or similar discretionary non-residential approvals), Sutter County shall identify required improvements, and shall base its calculations for such projects' fair share payments, based on the most recent traffic modeling (i.e., modeling that accounts for (i) newly approved projects cumulatively contributing to transportation-related impacts and that therefore should contribute to the funding of necessary improvements, (ii) additional physical improvements necessitated in whole or in part by newly approved projects, and (iii) changing cost calculations for the construction of needed improvements based on changes in the costs of materials, labor, and other inputs).

e. At the time of issuance of building permits for individual development projects within the plan area, the County shall collect fair share fee payments for improvements or facilities addressed by its CIP as it exists at that time.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-1 would substantially lessen the significant impact associated with regional roadways, but the impact would remain **significant and unavoidable**. This conclusion in part reflects the fact that, even with the installation of proposed improvements, some impacts (addressed specifically below under specific impact categories) will still remain significant because acceptable levels of service will not be achieved. This conclusion also reflects the reality, however, that successful implementation of some of the proposed improvements will require the cooperation of third party agencies (Placer and Sacramento Counties, the City of Roseville, and Caltrans) over which Sutter County has no control. For this latter reason, Sutter County is conservatively acknowledging the possibility that, despite its own commitment to work with these other agencies, mutually acceptable accommodation may not be reached. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), though, Sutter County concludes that these other agencies can and should cooperate with the County in implementing the mitigation.

IMPACT 3.3-2 Unacceptable Operations on Sutter County Roadways. *The proposed project would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

Implementation of the proposed project would cause the LOS for the following Sutter County roadway segment to deteriorate from acceptable (i.e., LOS D or better) to unacceptable (i.e., LOS E, or F). This is a **significant** impact:

Segment A – Riego Road – Natomas Road to Pleasant Grove Road (S)

Mitigation Measure 3.3-2: Construct Improvements to Sutter County Roadways.

On-Site Elements

The project applicant shall construct the following mitigation projects, which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1.2. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase.

Segment A – Widen Riego Road from two to four lanes between the Natomas Road and Pleasant Grove Road (S).

a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-2 (see Table 3.3-23 for LOS after mitigation) would reduce this impact to a less than significant level. In the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** because the timing of the improvement cannot be guaranteed relative to when the impact may occur.

IMPACT 3.3-3 Unacceptable Operations on Placer County Roadways. *The proposed project would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

Implementation of the proposed project would cause the LOS for the following Placer County roadway segments to deteriorate from acceptable (i.e., LOS C or better) to unacceptable (i.e., LOS D, E, or F). Unacceptable operations also occur for Segments A under cumulative no project conditions. This is a **significant** impact:

Segment A – Baseline Road – Pleasant Grove Road (S) to Locust Road
Segment B – Baseline Road – Locust Road to Brewer Road
Segment C – Baseline Road – Brewer Road to Watt Avenue
Segment D – Baseline Road – Watt Avenue to Fiddyment Drive

Mitigation Measure 3.3-3: Participate In Funding Improvements to Placer County Roadways.

On-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase.

Segment A – Widen Baseline Road from two to four lanes between Pleasant Grove Road (S) and Locust Road.

Segment B – 1. Widen Baseline Road from two to four lanes between Locust Road and Brewer Road.

OR

2. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection.

Segment C – Widen Baseline Road from two to four lanes between Brewer Road and Watt Avenue.

Segment D – Widen Baseline Road from two to four lanes between Watt Avenue to Fiddyment Drive.

The roadway projects recommended in Mitigation Measure 3.3-3B through 3.3-3C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP.

Significance after Mitigation

While successful implementation of Mitigation Measures 3.3-3A through 3.3-3D would reduce this impact to a less than significant level (see Table 3.3-23 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and

should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-4 Unacceptable Operations on Sacramento County Roadways. *The proposed project would increase daily traffic volumes using Sacramento County roadway segments that do not meet minimum design standards for travel lane and shoulder width under existing plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project would increase daily traffic volumes on Powerline Road between the Sacramento County line (southern SPSP plan area boundary) and Elverta Road. Powerline Road has a limited roadway cross-section characterized by narrow travel lanes and no usable shoulders. While the daily traffic volume on Powerline Road does not exceed Sacramento County's threshold for acceptable traffic operations for a two-lane rural roadway, it would create a potential hazard for motorists traveling between Sacramento County and the SPSP. This is a **significant** impact:

Mitigation Measure 3.3-4: Participate In Funding Improvements to Sacramento County Roadways.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 to widen Powerline Road from the Sacramento County line to Elverta Road to meet Sacramento County design standards including minimum width travel lanes and usable shoulders.

Significance after Mitigation

While implementation of Mitigation Measures 3.3-4 would reduce this impact to a less than significant level. This roadway project is outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of increased traffic on a roadway that does not meet minimum design standards for roadway travel lanes and shoulder width, until such time as the contemplated improvements are in place.

IMPACT 3.3-5 Unacceptable Operations on Caltrans Roadways. *The proposed project would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

Implementation of the proposed project would exacerbate unacceptable LOS (i.e., LOS F) conditions on the segment of I-5 between Del Paso Road and Arena Boulevard. This is a **significant** impact:

Mitigation Measure 3.3-5: Participate in Funding Improvements to Caltrans Roadways.

On-Site Elements

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for the widening of I-5 between Del Paso Road and Arena Boulevard from six to eight lanes.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-24 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-6 Unacceptable Operations at Sutter County Intersections. *The proposed project would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

As shown in Table 3.3-16 and summarized below, implementation of the proposed project would exacerbate unacceptable LOS conditions at the following three intersections during at least one peak hour. This is a **significant** impact:

- Intersection A – Sankey Road/SR 70/99
- Intersection B – Riego Road/Pleasant Grove Road (N)
- Intersection C – Riego Road/SR 70/99

Mitigation Measure 3.3-6: Construct Improvements to Sutter County Intersections.

On-Site Elements

The project applicant shall construct or make fair share contributions towards the construction of the following mitigation projects, some of which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1. Because the proposed project will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase.

Intersection A – 1. Construct a grade-separated locally-serving interchange (Type-L7 configuration or equivalent). To the extent feasible, the interchange should be constructed to accommodate (at minimal extra cost) a future Type L-9 interchange configuration suitable for the Placer Parkway.

Intersection B – 1. Implement Mitigation Measure 3.3-2A

Install a traffic signal, construct exclusive left- and right-turn lanes on the southbound approach and construct an exclusive left-turn lane on the eastbound approach.

Intersection C – 1. Construct a grade-separated locally-serving Type-L7 (Upgradeable to a Type-L9 interchange configuration) with a minimum bridge width to accommodate five travel lanes across SR 70/99. With the recent passage of Proposition 1B, $19.1 million was appropriated for the construction of an interchange at the SR 70/SR

99/Riego Road interchange. The project applicants shall provide the local match for construction of this improvement subject to reimbursement or credit pursuant to agreements which may be negotiated in accordance with Mitigation Measure 3.3-1 or otherwise.

Elements of the interim interchange such as the EB Riego Road to SB SR 70/99 and WB Riego Road to NB SR 70/99 slip on-ramps can be phased. The slip ramps would eliminate corresponding eastbound and westbound left-turn lanes at the SB and WB off-ramp terminal intersections, respectively. The addition of the SB slip on-ramp and NB slip on-ramp should be constructed before issuance of occupancy permits for over 65% of Phase 1/A development.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-6 (see Table 3.3-24 for LOS after mitigation) would reduce this impact to a less than significant level in the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** because Caltrans would construct the proposed improvements, and the County cannot control the timing of the improvement relative to when the impact may occur.

IMPACT 3.3-7 Unacceptable Operations at Placer County Intersections. *The proposed project would increase peak hour traffic volumes using Placer County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

As shown in Table 3.3-16 and summarized below, implementation of the proposed project, and Phase 1/A of the proposed project would exacerbate unacceptable LOS (i.e., LOS D, E, or F) conditions during at least one peak hour. This is a **significant** impact:

- Intersection A – Riego Road/Pleasant Grove Road (S)
- Intersection B – Baseline Road/Locust Road
- Intersection C – Baseline Road/Brewer Road
- Intersection D – Baseline Road/Fiddyment Drive

Mitigation Measure 3.3-7: Participate in Funding improvements to Placer County Intersections.

On-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase.

Intersection A –
1. Implement Mitigation Measure 3.3-2A
2. Install a traffic signal
3. Construct an exclusive westbound left-turn lane and an exclusive northbound left- and right-turn lane.

Intersection B – 1. Implement Mitigation Measure 3.3-2A

2. Install a traffic signal

3. Modify the intersection and construct the following intersection lanes.
Northbound – a separate left, through, and right-turn lane.
Southbound – a separate left-turn lane and a shared through/right-turn lane.
Eastbound – a separate left-turn lane, two through lanes, and a separate right-turn lane.
Westbound – a separate left-turn lane, two through lanes, and a separate right-turn lane.

Intersection C – 1. Implement Mitigation Measure 3.3-2A

2. Install a traffic signal

3. Modify the intersection and construct the following intersection lanes.
Southbound – a shared through/right-turn lane.
Eastbound – an exclusive left-turn lane and two through lanes.
Westbound – an exclusive right-turn lane and two through lanes.

OR

4. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection.

Intersection D – 1. Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-24 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-8 Unacceptable Operations at Sacramento County Intersections. *The proposed project would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

As shown in Table 3.3-16 and summarized below, implementation of the proposed project or Phase 1/A of the proposed project, would cause the LOS at four Sacramento County intersections to deteriorate from acceptable (i.e., LOS E or better) to unacceptable (i.e., LOS F) during at least one peak hour. Trips from the proposed project would also exacerbate unacceptable LOS conditions for two intersections during at least one peak hour.

Unacceptable operations also occur for Intersection C under cumulative no project conditions. This is a **significant** impact:

- Intersection A – Elverta Road/ Power Line Road
- Intersection B – Elverta Road/SR 70/99
- Intersection C – Elverta Road/E. Levee Road
- Intersection D – Elverta Road/Sorento Road
- Intersection E – Elkhorn Boulevard/SR 70/99 NB Ramps (and SB Ramps)
- Intersection F – Elkhorn Boulevard/E. Levee Road

Mitigation Measure 3.3-8: Participate in Funding Improvements to Sacramento County Intersections.

On-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase.

Intersection A –
1. Install a traffic signal
2. Modify the intersection and construct the following intersection lanes.
   Northbound – an exclusive left-turn lane and a shared through/right-turn lane.
   Southbound – an exclusive left-turn lane and a shared through/right-turn lane.
   Eastbound – an exclusive left, through, and right-turn lane.
   Westbound – an exclusive left, through, and right-turn lane.

Intersection B –
1. Construct a grade-separated interchange on SR 99 at Elverta Road. Caltrans has allocated approximately $19.1 million in bond money for this project, similar to SR 99 at Riego Road.

Intersection C –
1. Modify the intersection traffic control to side-street stop control and limit access to E. Levee Road to right-in/right-out only. Elverta Road would be uncontrolled.
2. Construct a center curb median to prevent restricted turn movements.

Intersection D –
1. Install a traffic signal

   Construct an exclusive eastbound left-turn lane and exclusive southbound left and right-turn lanes.

Intersection E –
1. Install traffic signals.

Intersection F –
1. Install a traffic signal.
2. Modify the eastbound approach to provide one left-turn lane and one through lane.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-24 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for

that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-9 Unacceptable Operations on Caltrans Facilities. *The proposed project would increase peak hour traffic volumes using Caltrans facilities, resulting in unacceptable LOS conditions under existing plus project conditions.*

On-Site Elements

Implementation of the proposed project would cause unacceptable LOS (i.e., LOS F) conditions at the following locations on SR 70/99 and I-5. This is a **significant** impact:

- NB SR 70/99/Riego Road off-ramp diverge
- NB SR 70/99/Elkhorn Boulevard off-ramp diverge
- NB SR 70/99 mainline between I-5 and Elkhorn Boulevard
- SB SR 70/99 to SB I-5 on-ramp weaving section with Del Paso Road SB I-5 off-ramp.
- SB I-5 to NB SR 70/99 on-ramp merge.
- NB and SB SR 70/99 between Riego Road and I-5.

Mitigation Measure 3.3-9: Participate in Funding improvements to Caltrans Facilities.

On-Site Elements

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for adding mainline capacity to SR 70/99 and I-5 as set forth below.

Exhibits 3.3-35 and 3.3-37 show a freeway improvement concept for SR 70/99 and I-5 without and with Placer Parkway. This concept was developed based on cumulative conditions analysis and was developed to provide a comprehensive analysis of freeway operations in the SR 70/99/I-5 corridor that would link current planning on I-5 with future needs on the SR 99 corridor.

Caltrans is currently planning HOV lanes on I-5 that would extend from just north of the American River that would terminate just north of Del Paso Road. While still in the planning stages, the I-5 HOV lane project would include direct connector ramps at the I-5/I-80 interchange. In addition, Caltrans is considering to extend the HOV lane project further north on I-5 to Airport Boulevard to take advantage of I-5 mainline improvements (west of SR 70/99) that are to be funded by Sacramento County development.

While the ultimate improvements will be developed by Caltrans, the improvement concept shown on Exhibits 3.3-35 and 3.3-36 includes improvements that would connect the I-5 HOV lane improvements to SR 70/99 for a continuous HOV lane that would extend into Sutter County. The concept was also developed with current and continuing system-wide corridor constraints in mind, like the limited capacity of the I-5/I-80 interchange, to not deliver more traffic to system-widen constraints than can be accommodated. The following summarizes the mainline improvements shown on the exhibits:

Without Placer Parkway

- Construct HOV lanes northbound and southbound on SR 70/99 from midway between Sankey Road and Riego Road to I-5.

- Construct direct HOV connector ramps between SR 99 and I-5, linking the SR 99 and I-5 HOV lanes.
- Construct auxiliary lanes between the SB I-5 to NB SR 70/99 and SB SR 70/99 to NB I-5 connector and Elkhorn Boulevard.

With Placer Parkway

- The improvements would be the same as "without" Placer Parkway with the following exception:
- The SB HOV lane would begin just north of the WB Placer Parkway to SB SR 70/99 on-ramp.
- The NB HOV lane would end and the third mainline lane would be a trap lane to EB Placer Parkway with two mixed-flow lanes continuing on NB SR 70/99.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-27 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-10 Unacceptable Operations On Sutter County Roadways. *The proposed project would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project would cause the LOS for the following Sutter County roadway segment to deteriorate from acceptable (i.e., LOS D or better) to unacceptable (i.e., LOS E, or F). This is a **significant** impact:

Segment A – Riego Road – Natomas Road to Pleasant Grove Road (S)

Mitigation Measure 3.3-10: Participate In Funding Improvements to Sutter County Roadways.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Demand of travel through the Riego Road – Baseline Road corridor is greater than shown in Table 3.3-18 and 3.3-25. Currently, there is no funding identified for widening the segments of Riego Road – Baseline Road between the SPSP and Locust Road in Placer County. The Placer Vineyards Specific Plan is conditioned to improve Baseline Road from Locust Road east along its frontage and includes intersection improvements in Sutter County on Riego Road. The SPSP will widen Riego Road in the plan area to a six- /eight-lane expressway. Consequently, the unimproved (two-lane) segment constrains traffic volumes. Based on the SPSP TDF model, travel demand for these segments of Riego Road under cumulative conditions is about 12,000 vehicles per day higher than shown in Tables 3.3-18

and 3.3-25 assuming six lanes on Riego Road – Baseline Road between the SPSP and Locust Road in Placer County.

Another important feature of the cumulative impact analysis is that the cumulative no project and cumulative plus project are two separate "snapshots" of the future. The project's traffic is not added to a fixed amount of traffic under the no project scenario. Both scenarios are fully modeled, which more accurately allows for changes in the matching of trip origins and trip destinations as well as trip routing. Therefore, the project may contribute traffic to many roadways under the cumulative plus project scenarios, but may not necessarily result in higher volumes on a roadway segment when compared to the cumulative no project scenario and not cause an impact. However, as noted in Mitigation Measure 3.3-1, the project will be required to pay impact fees to Sutter County in amounts that constitute the project's fair share contributions to the construction of transportation facilities to be built or improved within unincorporated Sutter County, consistent with the County's CIP. This mitigation measure also extends responsibility for the project to mitigate roadway impacts in other jurisdictions if an enforceable agreement between Placer County and the other jurisdiction is established.

The unconstrained traffic volumes were used to develop the mitigation discussed below.

Segment A – 1. Widen Riego Road from two to six lanes between the Natomas Road and Pleasant Grove Road (S).

2. Eliminate the traffic control on eastbound and westbound Riego Road at Natomas Road and restrict access to Natomas Road to right-in/right-out only.

3. Construct a six-lane grade-separated crossing of the Union Pacific Railroad between Natomas Road and Pleasant Grove Road (N).

4. Realign Pleasant Grove Road (N) to the east to Pleasant Grove Road (S) so that the roadways form a single intersection. Provide local connection (to maintain local-access) concurrent with realignment. This improvement is needed to accommodate grade-separation of the Union Pacific Railroad.

5. Install a traffic signal at the Riego Road/Pleasant Grove Road (realigned) intersection.

Significance after Mitigation

Implementation of Mitigation Measure 3.3 10 - (see Table 3.3-25 for LOS after mitigation) would reduce this impact to a less than significant level in the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-11 Unacceptable Operations On Placer County Roadways. *The proposed project would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project would cause the LOS for the following three Placer County roadway segments to deteriorate from acceptable (i.e., LOS C or better) to unacceptable (i.e., LOS D, E, or F) or from acceptable (i.e., LOS D or better) to unacceptable (i.e., LOS E or F) for segments along the frontage of the Placer Vineyards Specific Plan. This is a **significant** impact:

Segment A – Baseline Road – Brewer Road to Watt Avenue
Segment B – Watt Avenue – Baseline Road to PFE Road
Segment C – Walerga Road - Baseline Road to PFE Road

Mitigation Measure 3.3-11: Participate In Funding Improvements to Placer County Roadways.

On-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1.

Segment A – 1. Construct Placer Parkway as a four-lane freeway/expressway between SR 65 and SR 70/99.

2. Add center lanes on 16th Street (for a total of four-lanes) from the Placer County line to Elverta Road.

On-Site and Off-Site Elements

Segment B – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2

Segment C – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2

2. Construct Watt Avenue between Baseline Road and PFE Road as a six-lane high-access control facility.

The roadway projects recommended in Mitigation Measure 3.3-3B through 3.3-3C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP.

The recommended mitigation measure contains multiple roadway projects of a regional nature. This is necessary for two reasons. One, a future roadway network to support the cumulative no project scenario at the LOS thresholds established in local or State policies has not been developed. Two, traffic volume forecasts under cumulative conditions will change in response to changes in the roadway network. Therefore, the mitigation for the cumulative scenarios involved the testing of roadway capacity expansion projects to determine the projects that helped to minimize project impacts. At this time, full funding has not yet been identified for Placer Parkway.

Significance after Mitigation

Implementation of Mitigation Measures 3.3-11A would reduce this impact to a less than significant level (see Table 3.3-25 for LOS after mitigation) for Segment A, B, and C. However, all of or portions of these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-12 Unacceptable Operations On Sacramento County Roadways. *The proposed project would increase daily traffic volumes using Sacramento County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project would cause the LOS on three Sacramento County roadway segments to deteriorate from acceptable (i.e., LOS E or better) to unacceptable (i.e., LOS F) and would exacerbate already unacceptable (i.e., LOS F) operations on one segment (Segment B). In addition, implementation of the proposed project would increase traffic on Powerline Road, which has a limited roadway cross-section characterized by narrow travel lanes and no usable shoulders. This is a **significant** impact:

Segment A – Elverta Road – SR 70/99 to East Levee Road
Segment B – Elverta Road – East Levee Road to Sorento Road
Segment C – Elverta Road – Sorento Road to 16th Street
Segment D – 16th Street – Placer County line to Elverta Road
Segment E – Powerline Road – Sacramento County line to Elverta Road

Mitigation Measure 3.3-12: Participate In Funding Improvements to Sacramento County Roadways.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1.

Segment A – 1. Widen Elverta Road from two to four lanes between SR 70/99 to East Levee Road.

Segment B – 1. Widen Elverta Road from two to four lanes between East Levee Road and Sorento Road.

Segment C – 1. Implement Mitigation Measure 3.3-11A.1

Segment D – 1. Implement Mitigation Measure 3.3-11A.2

Segment E – Implement Mitigation Measure 3.3-4.

The implementation of Placer Parkway would reduce daily traffic volumes on Elverta Road compared to "no Placer Parkway" conditions.

Significance after Mitigation

While implementation of Mitigation Measures 3.3-12 would reduce this impact to a less than significant level (see Table 3.3-25 for LOS after mitigation). These roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-13 Unacceptable Operations On Caltrans Roadways. *The proposed project would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project would exacerbate unacceptable LOS (i.e., LOS F) conditions on the following segments of I-5 between SR 70/99 and I-80 this is a **significant** impact:

Segment A – I-5 – SR 70/99 to Del Paso Road
Segment B – I-5 – Del Paso Road to Arena Boulevard
Segment C – I-5 – Arena Boulevard to I-80

Mitigation Measure 3.3-13: Participate In Funding Improvements to Caltrans Roadways.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1.

Segment A – Widen the segment of I-5 between SR 70/99 to Del Paso Boulevard from six to eight lanes.
Segment B – Implement Mitigation Measure 3.3-5
Segment C – Widen the segment of I-5 between Arena Boulevard and I-80 from eight to 10 lanes.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-25 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-14 Unacceptable Operations At Sutter County Intersections. *The proposed project would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

As shown in Table 3.3-20 and summarized below, implementation of the proposed project would exacerbate unacceptable LOS conditions at the following three intersections during at least one peak hour. This is a **significant** impact:

Intersection A – Sankey Road/SR 70/99
Intersection B – Riego Road/Pleasant Grove Road (N)
Intersection C – Riego Road/SR 70/99

Mitigation Measure 3.3-14: Participate In Funding Improvements to Sutter County Intersections.

On-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project

applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Intersection A – 1. Implement Mitigation Measure 3.3-6A.1

Intersection B – 1. Implement Mitigation Measure 3.3-10A.1 through 3.3-10A.5, and

2. Modify the intersection and construct the following intersection lanes.
Northbound – two left-turn lanes and a shared through/right-turn lane.
Southbound – a separate left-turn lane and a shared through/right-turn lane.
Eastbound – a separate left-turn lane, three through lanes, and a right-turn lane.
Westbound – a separate left-turn lane, three through lanes, and a right-turn lane.

Intersection C – 1. Upgrade the interim interchange (identified in Mitigation Measure 3.3-6C.1) to a grade-separated locally-serving Type-L9 interchange configuration with a minimum bridge width to accommodate eight travel lanes across SR 70/99 and a southbound loop on-ramp that enters SR 70/99 as its own lane and merges with the southbound slip on-ramp creating an auxiliary lane.

Off-Site Elements

Intersection B – Implement Mitigation Measure 3.3-14B

Significance after Mitigation

Implementation of Mitigation Measure 3.3-14 (see Table 3.3-26 for LOS after mitigation) would reduce this impact to a less than significant level in the long-term, once Caltrans has granted the necessary approvals and the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable**, in the form of unacceptable levels of service, because the County does not control the timing of construction of Caltrans' improvements or traffic generated by development outside of Sutter County that might contribute to the need for the ultimate interchange.

IMPACT 3.3-15 Unacceptable Operations at Placer County Intersections. *The proposed project would increase peak hour traffic volumes using Placer County intersections, which would exacerbate unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

As shown in Table 3.3-20 and summarized below, implementation of the proposed project would also exacerbate unacceptable LOS conditions for four intersections during at least one peak hour. This is a **significant** impact:

Intersection A – Riego Road/Pleasant Grove Road (S)
Intersection B – Baseline Road/Locust Road
Intersection C – Baseline Road/Watt Avenue
Intersection D – Baseline Road/Fiddyment Drive

Mitigation Measure 3.3-15: Participate In Funding Improvements to Placer County Intersections.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Intersection A – 1. Implement Mitigation Measure 3.3-14B.

Intersection B – 1. Implement Mitigation Measure 3.3-10A.1 through 3.3-10A.5

2. Modify the intersection to provide the following intersection lanes.
Northbound – one left- turn lane, one through lane, and a right-turn lane.
Southbound – one left- turn lane and a shared through/right-turn lane.
Eastbound – one left-turn lane, three through lanes, and a right-turn lane.
Westbound – one left-turn lane, three through lanes, and a right-turn lane.

Intersection C – Provide a right-turn overlap phase for the southbound right-turn, which would require prohibiting eastbound u-turn movements.

Intersection D – Provide a right-turn overlap phase for the southbound and westbound right-turns, which would require prohibiting eastbound and southbound u-turn movements.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-26 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-16 Unacceptable Operations at Sacramento County Intersections. *The proposed project would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under Cumulative plus project conditions.*

On-Site and Off-Site Elements

As shown in Table 3.3-16 and summarized below, implementation of the proposed project would cause the LOS at two Sacramento County intersections to deteriorate from acceptable (i.e., LOS E or better) to unacceptable (i.e., LOS F) during at least one peak hour. Trips from the proposed project would also exacerbate unacceptable LOS conditions for three intersections during at least one peak hour. This is a **significant** impact:

Intersection A – Elverta Road/Power Line Road
Intersection B – Elverta Road/E. Levee Road
Intersection C – Elverta Road/Sorento Road
Intersection D – Elverta Road/Watt Avenue
Intersection E – Elkhorn Boulevard/Natomas Boulevard

Mitigation Measure 3.3-16: Participate In Funding Improvements to Sacramento County Intersections.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Intersection A – 1. Install a traffic signal

2. Modify the intersection and construct one left-turn lane, one through lane, and a right-turn lane on all approaches.

Intersection B – 1. Implement Mitigation Measure 3.3-8C, and

2. Install a traffic signal.

Intersection C – Construct separate left and right-turn lanes on the southbound approach.

Intersection E – Construct a second westbound left-turn lane

On-Site Elements

Intersection D – Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-26 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-17 Unacceptable Operations on Caltrans Facilities. *The proposed project would increase peak hour traffic volumes using Caltrans facilities, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

On-Site and Off-Site Elements

Implementation of the proposed project (SP) would cause unacceptable LOS (i.e., LOS F) conditions on SR 70/99 and I-5. Most freeway facilities mainline segment, off-ramp diverge areas, on-ramp merge areas, and weaving sections would operate unacceptably because of mainline capacity constraints. This is a **significant** impact.

Mitigation Measure 3.3-17: Participate In Funding Improvements to Caltrans Facilities.

On-Site and Off-Site Elements

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for adding mainline capacity to SR 70/99 and I-5.

Implement Mitigation Measure 3.3-9.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-27 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-18 Increased Demand for Public Transit. *The proposed project would increase demand for public transit under cumulative conditions.*

On-Site and Off-Site Elements

The SPSP is designed to accommodate future public transit service and includes a comprehensive transit plan that includes detailed information and policy on mobility enhancing strategies, phasing, performance standards, cost, and funding. The SPSP will establish a TMA to oversee transit service in the project. The TMA will oversee the implementation of commuter, fixed-route, and dial-a-ride services.

The project is proposing three transit centers: one located in the Town Center near SR 70/99, one in the South Village Center along Riego Road, and one in the North Village Center near Road C. In addition to the transit centers, the transit plan contains development densities that place more people near to the transit stops. The transit plan includes service standards for all of its components including minimum service standards. In addition, the transit plan is demand responsive and will fund increased transit service as rider demand increases based on funding availability. The policy and standards in the transit plan are designed to have transit as a viable option to the automobiles even at the early stages of development in the plan.

As development occurs, the project will generate demand for transit service especially commuter service to/from the project and downtown Sacramento. The Sutter Pointe Transit Plan has established a minimum 50 passenger per bus ridership threshold for the introduction of commuter bus service. A threshold population of 10,000 may be required to start limited peak hour commuter bus service (the population at build-out Phase 1 could exceed

20,000). The Sutter Pointe Transit Plan includes a set of recommended service standards that address system efficiency, quality/reliability, and design. The Sutter Pointe Transit Plan estimates that if minimum ridership thresholds are achieved, an initial commuter service would provide two a.m. peak hour and two p.m. peak hour commuter runs. However, until minimum ridership thresholds are achieved, commuter bus service will not be available to Sutter Pointe residents, since Yuba-Sutter Transit's Sacramento Commuter Express currently operates near or at capacity. This is a **significant** impact:

Mitigation Measure 3.3-18: Participate In Funding Interim Commuter Bus Service.

On-Site and Off-Site Elements

The project applicant shall pay for interim commuter bus service through an existing service provider like Yuba-Sutter Transit, which would require modification of their current Sacramento Commuter Express to serve the Sutter Pointe project until sufficient ridership is generated to meet minimum thresholds to support a project-administered commuter bus service through the TMA.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-18 would reduce this impact to a less than significant level in the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** impact, because of a lack of transit service, until such time that interim commuter bus service is operating.

IMPACT 3.3-19 Increased Demand for Non-motorized Travel. *The proposed project would increase demand for non-motorized travel under cumulative conditions.*

On-Site and Off-Site Elements

The proposed project includes facilities such as sidewalks, bicycle lanes, and multiple use trails to accommodate non-motorized travel demand. These facilities will adequately provide for non-motorized transportation within the project and are consistent with the various non-motorized policies of Sutter County. However, implementation of the project will create conditions that may increase bicycle/pedestrian/automobile conflicts, like high speed slip on-ramps at the Riego Road interchange, free right-turn movements, and triple left-turn lanes at some intersections. While these design elements may be necessary to provide acceptable operations for autos they may discourage the use of non-motorized modes like walking and biking. This is a **significant** impact.

Mitigation Measure 3.3-19: Modify Design Elements of the Riego Road and SR 70/SR 99 Interchange.

On-Site and Off-Site Elements

The project applicant shall coordinate with Caltrans to implement lower speed entrances to the slip on-ramps at the Riego Road interchange.

AND

Implement reduced cross-sections at study intersections by minimizing the number of left- and right-turn lanes at intersections providing controlled right-turn movements.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-19 would reduce this impact; however, the interchange is outside the jurisdiction of Sutter County. In addition, reduced intersection configurations would result in unacceptable LOS

(i.e., LOS E or F) and some intersections, which is inconsistent with Sutter County General Plan Policy 3.A.7. For these reasons the impact will be **significant and unavoidable**, despite the County's own commitment to work with Caltrans to implement lower speed entrance ramps. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation.

IMPACT 3.3-20 Impacts of Transportation Mitigation on Riego Road and SR 70/99. *Mitigation measures implemented to reduce transportation impacts could increase travel demand on Riego Road under cumulative conditions.*

On-Site and Off-Site Elements

Demand of travel through the Riego Road – Baseline Road corridor is greater than shown in Table 3.3-18 and 3.3-25. Currently, there is no funding identified for widening the segments of Riego Road – Baseline Road between the SPSP and Locust Road in Placer County. The Placer Vineyards Specific Plan is conditioned to improve Baseline Road from Locust Road east along its frontage and includes intersection improvements in Sutter County on Riego Road (i.e., Locust Road, Pleasant Grove Road (S), Pleasant Grove Road (N), Natomas Road, and Pacific Avenue). The SPSP proposes to widen Riego Road in the plan area to a six- /eight-lane expressway. Consequently, the unimproved (two-lane) segment constrains travel through the corridor.

The SPSP TDF model was used to forecast unconstrained demand along Baseline Road and Riego Road by testing how travel demand would change with the unimproved segment widened to six lanes (i.e., to complete the "gap" in the corridor). Under cumulative conditions, implementation of Mitigation Measure 3.3-10 would result in increased travel on Riego Road of about 52,600 vehicles on Riego Road between Natomas Road and Pleasant Grove Road (N), which are about 12,000 vehicles per day higher than the volumes show in Tables 3.3-18. The affect of the constraint caused by the "gap" is less (i.e., in total demand) close to SR 70/99. In general, improving the "gap" increases the accessibility for trip making between Sutter County and Placer County. However, the potential increase in travel on Riego Road because of proposed mitigation may affect traffic operations at the SR 70/99 interchange in the form of increased vehicle queuing and peak hour spreading. This is a **significant** impact.

Mitigation Measure 3.3-20: Participate in Funding Improvements to Provide Alternative Connections to Sacramento County and to SR 70/99.

On-Site and Off-Site Elements

Implement Mitigation Measure 3.3-6A, which is the construction of a grade-separated locally-serving interchange (Type-L7 configuration or equivalent). To the extent feasible, the interchange shall be constructed to accommodate (at minimal extra cost) a future Type L-9 interchange configuration suitable for the Placer Parkway.

In addition, the project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for providing a parallel facility to SR 70/99. Sutter County shall coordinate with the Sacramento County to pursue the construction of a two-lane frontage road (just east of SR 99) connecting the SPSP to Elverta Road to provide a local alternative to SR 70/99 and the SR70/99/Riego Road interchange. The frontage road shall be located adjacent to SR 99 and connect to Road A to minimize potential conflicts with the HCP located south of the plan area. Right-of-way for the frontage road shall be new right-of-way, exclusive of the right-of-way for SR 70/99.

Mitigation Measure: Implement Mitigation Measure 3.3-14C.1: Participate in Funding Improvements to Sutter County Intersections.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact because of increased travel demand on Riego Road and SR 70/99; however, the level of increased demand cannot be determined with certainty. In

addition, the frontage road improvement is outside the jurisdiction of Sutter County and may not be permitted by the NBHCP. For these reasons the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-21 Impacts of Transportation Mitigation. *Mitigation measures implemented to reduce transportation impacts could adversely affect traffic in other jurisdictions.*

On-Site and Off-Site Elements

The roadway improvements identified in the mitigation measures throughout this section would improve traffic impacts by increasing roadway and intersection capacity in some locations. Such improvements would also redistribute traffic in the study area and throughout the region. For example, Placer Parkway, one of a number of possible improvements identified as mitigation, would provide additional east-west roadway capacity and thereby decrease volumes on numerous roadways in western Placer County and Sutter County but would increase traffic on portions of SR 70/99 and I-5 in Sacramento County. The widening of SR 70/99 in Sutter County and Sacramento County would increase traffic volumes on SR 70/99 and I-5 in Sacramento County. This phenomenon, where additional capacity leads to additional demand or travel is known as "induced travel." Induced travel occurs when the cost of travel is reduced (i.e., travel time reduction because of additional capacity) causing an increase in demand (more travelers using the improved facility). The reduction is travel time causes various responses by travelers, including diversion from other routes, changes in destinations, changes in mode, departure time shifts, and possibly the creation of new trips all together.

The effects of mitigation on future roadway and intersection operations will depend on which improvements are constructed, the timing of such improvements, and development patterns in the region. As the improvements are designed and funded, they will be subject to review and analysis, including traffic studies. For example, an Environmental Impact Statement/Environmental Impact Report being prepared for Placer Parkway will identify the impacts of that improvement on regional roads. In some cases, segments or intersections could operate at unacceptable levels as the result of one or more mitigation measures being implemented. This is a **significant** impact.

Mitigation Measures 3.3-21 Coordinate Jurisdictions and Agencies on Mitigation for the Proposed Project.

On-Site Elements

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for designing roadway improvements to minimize impacts on existing and future roadways and intersections. Consistent with Mitigation Measure 3.3-1, Sutter County shall coordinate with the City of Roseville, Placer County, Sacramento County, and Caltrans to ensure that roadway improvements implemented in whole or in part as mitigation for the proposed project are designed to minimize impacts on existing and future roadways and intersections according to the LOS policies of affected jurisdictions.

Significance after Mitigation

Implementation of this mitigation would reduce Impact 33-20, but not to a level of less-than-significant. The feasibility of improvements necessary to achieve acceptable levels of service is unknown, in part because cooperation of third party agencies cannot be guaranteed. Therefore, no assurance exists that the recommended mitigation will achieve the desired LOS. Therefore, this impact would remain **significant and unavoidable**.

IMPACT 3.3-22 Impacts of Transportation Mitigation on the Physical Environment. *Mitigation measures implemented to reduce transportation impacts could have indirect adverse impacts on the physical environment.*

On-Site and Off-Site Elements

The roadway improvements identified in mitigation measures throughout this section would have indirect physical effects on the environment, primarily during construction. The exact nature of such effects will not be known until the design phase of each improvement. The nature of these effects will be refined when the various improvements are under design and environmental review, if any is needed.

Depending on their location, roadway widenings could require the acquisition of right-of-way, which may contain buildings, including homes. Such acquisition would be done in compliance with State law requiring that property owners be compensated for any property acquired for public works.

If roadway widening exceeds existing rights-of-way in agricultural areas, some farmland could be lost. Because the loss would be a relatively narrow strip of land, it would not typically result in the loss of entire agricultural parcels.

Roadway widenings would not substantially alter the visual character of existing roadways. However, new roads through rural areas, such as Placer Parkway, would alter views. Depending on the viewshed and surrounding uses, such changes in visual character could be significant.

Roadways and related infrastructure can increase impervious surfaces and/or interfere with storm-water drainage, increasing the potential for flooding.

Roadway construction could occur in areas supporting biological resources, such as wetlands, trees, riparian habitat and grasslands. Wildlife and plants using these habitats could be disturbed or destroyed by construction activities, resulting in the loss of open space, special-status plant species, habitat for special-status animals, including vernal pool crustaceans, valley elderberry longhorn beetle, western pond turtle, tri-colored blackbird, California horned lizard, bats, nesting burrowing owls and other raptors, foraging habitat for raptors, and oak woodlands and heritage trees. For the most part, the loss of raptor foraging habitat would include a narrow band of land that would leave the adjacent habitat intact.

Excavation and grading for roadway improvements could damage or destroy subsurface historic or prehistoric resources.

Construction activities would generate air emissions, including particulate matter and ozone, contributing to regional air pollution. If homes or schools are located near the construction area, they could be disturbed by dust.

Construction activities would also generate substantial noise. If residents or other sensitive receptors are located near construction areas, they could be disturbed by noise. Once roadway improvements are complete, the construction noise would cease. However, traffic noise could increase, and depending on the location of the road and nearby sensitive receptors, adopted noise standards could be exceeded.

Roadways could be widened or constructed in areas that had been used for agricultural or industrial operations. In such areas, hazardous materials may be present. If undiscovered, construction workers could be exposed to contaminated soils or groundwater.

Because the specific roadway improvements have not been engineered or designed, the full extent and magnitude of the potential physical impacts on the environment resulting from roadway improvements cannot be known at this time. Therefore, pursuant to Section 15145 of the CEQA Guidelines, the County believes it would be too speculative to attempt to further define impacts or attempt to provide mitigation measures for impacts that are

unknown. After the roadway improvements have been design and engineered, a subsequent CEQA analysis would be required to examine the full extent of, and determine any necessary feasible mitigation measures for, the physical impacts that could occur from implementation of proposed roadway improvements.

IMPACT 3.3-23 Increased Development Near Aircraft Flight Paths. *The proposed project would increase development near aircraft flight paths serving the Sacramento International Airport.*

On-Site and Off-Site Elements

The proposed project would increase population and employment near aircraft flight paths serving the Sacramento International Airport. With prevailing winds (i.e., coming from the southwest), the flight paths for aircraft landing at the Sacramento International Airport are near the western boundary of the proposed project, just west of Powerline Road and running parallel to SR 70/99, for aircraft is landing on runway 16L/34R. When landing on this flight path, air craft are at an altitude of about 1,000 feet mean sea level near Riego Road. Employment land uses (like warehousing) that have generally low employment densities and low-rise buildings are planned near this flight path. Since the project would not change air traffic patterns or increase air traffic levels, this impact is considered to be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Additional Detailed Analysis – Impacts and Mitigation Measures

IMPACT 3.3-24 Unacceptable Operations on Sutter County Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.*

Implementation of Phase 1 and Phase A would cause the LOS for the following Sutter County roadway segment to deteriorate from acceptable (i.e., LOS D or better) to unacceptable (i.e., LOS E, or F). This is a **significant** impact:

Segment A – Riego Road – Natomas Road to Pleasant Grove Road (S)

Mitigation Measure 3.3-24: Construct Improvements to Sutter County Roadways.

The project applicant shall construct the following mitigation projects, which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase.

Segment A – Widen Riego Road from two to four lanes between the Natomas Road and Pleasant Grove Road (S).

a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-24 (see Table 3.3-23 for LOS after mitigation) would reduce this impact to a less than significant level. in the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** because the timing of the improvement cannot be guaranteed relative to when the impact may occur.

IMPACT 3.3-25 Unacceptable Operations on Placer County Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under existing plus project conditions.*

Implementation of Phase 1 and Phase A would cause the LOS for the following Placer County roadway segments to deteriorate from acceptable (i.e., LOS C or better) to unacceptable (i.e., LOS D, E, or F). Unacceptable operations also occur for Segments A under cumulative no project conditions. This is a **significant** impact:

Segment A – Baseline Road – Pleasant Grove Road (S) to Locust Road
Segment B – Baseline Road – Locust Road to Brewer Road
Segment C – Baseline Road – Brewer Road to Watt Avenue
Segment D – Baseline Road – Watt Avenue to Fiddyment Drive

Mitigation Measure 3.3-25: Participate In Funding Improvements to Placer County Roadways.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase.

Segment A – Widen Baseline Road from two to four lanes between Pleasant Grove Road (S) and Locust Road.

Segment B – 1. Widen Baseline Road from two to four lanes between Locust Road and Brewer Road.

OR

2. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection.

Segment C – Widen Baseline Road from two to four lanes between Brewer Road and Watt Avenue.

Segment D – Widen Baseline Road from two to four lanes between Watt Avenue and Fiddyment Drive

The roadway projects recommended in Mitigation Measure 3.3-25B and 3.3-25C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP.

Significance after Mitigation

While successful implementation of Mitigation Measures 3.3-25A through 3.3-25D would reduce this impact to a less than significant level (see Table 3.3-23 for LOS after mitigation), these roadway projects are outside the

jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-26 Unacceptable Operations on Sacramento County Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Sacramento County roadway segments that do not meet minimum design standards for travel lane and shoulder width under existing plus project conditions.*

Implementation of Phase 1 and Phase A would increase daily traffic volumes on Powerline Road between the Sacramento County line (southern SPSP plan area boundary) and Elverta Road. Powerline Road has a limited roadway cross-section characterized by narrow travel lanes and no usable shoulders. While the daily traffic volume on Powerline Road does not exceed Sacramento County's threshold for acceptable traffic operations for a two-lane rural roadway, it would create a potential hazard for motorists traveling between Sacramento County and the SPSP. This is a **significant** impact:

Mitigation Measure 3.3-26: Participate In Funding Improvements to Sacramento County Roadways.

Implement Mitigation Measure 3.3-4, which is to widen Powerline Road from the Sacramento County line to Elverta Road to meet Sacramento County design standards including minimum width travel lanes and usable shoulders.

Significance after Mitigation

While implementation of Mitigation Measures 3.3-26 would reduce this impact to a less than significant level. This roadway project is outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of increased traffic on a roadway that does not meet minimum design standards for roadway travel lanes and shoulder width, until such time as the contemplated improvements are in place.

IMPACT 3.3-27 Unacceptable Operations on Caltrans Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under existing plus project conditions.*

Implementation of Phase 1 and Phase A would exacerbate unacceptable LOS (i.e., LOS F) conditions on the segment of I-5 between Del Paso Road and Arena Boulevard. This is a **significant** impact:

Mitigation Measure 3.3-27: Participate in Funding Improvements to Caltrans Roadways.

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for the widening of I-5 between Del Paso Road and Arena Boulevard from six to eight lanes.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-24 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-28 Unacceptable Operations at Sutter County Intersections. *Phase 1 and Phase A would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.*

As shown in Table 3.3-16 and summarized below, implementation of Phase 1 and Phase A would result in unacceptable (i.e., LOS E or F) during at least one peak hour. This is a **significant** impact:

- Intersection A – Riego Road/Pleasant Grove Road (N)
- Intersection B – Riego Road/SR 70/99

Mitigation Measure 3.3-28: Construct Improvements to Sutter County Intersections.

The project applicant shall construct or make fair share contributions towards the construction of the following mitigation projects, some of which may be subject to fee credits and/or reimbursements, as defined in Mitigation Measure 3.3-1. Because the proposed project will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers outside the project area depending on when specific development projects advanced to the implementation phase.

Intersection A – 1. Implement Mitigation Measure 3.3-2A, which is the widening of Riego Road from Natomas Road (SPSP area boundary) to Pleasant Grove Road (S).

Install a traffic signal, construct exclusive left- and right-turn lanes on the southbound approach and construct an exclusive left-turn lane on the eastbound approach.

a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing.

b. Should Placer County decline to approve the necessary permits for widening Riego Road to 500 feet east of Pleasant Grove Road (S), than widen Riego Road and outlined in Mitigation Measure 3.3-2A and transitions to two lanes west of Pleasant Grove Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future grade separation at railroad crossing.

Intersection B – 1. Implement Mitigation Measure 3.3-6C.1

Significance after Mitigation

Implementation of Mitigation Measure 3.3-28 (see Table 3.3-24 for LOS after mitigation) would reduce this impact to a less than significant level in the long-term, once Caltrans has granted the necessary approvals and the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** because the County does not control the timing of construction of Caltrans' improvements or traffic generated by development outside of Sutter County that might contribute to the need for the ultimate interchange..

IMPACT 3.3-29 Unacceptable Operations at Placer County Intersections. *Phase 1 and Phase A would increase peak hour traffic volumes using Placer County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.*

As shown in Table 3.3-16 and summarized below, implementation of Phase 1 and Phase A would exacerbate unacceptable LOS (i.e., LOS D, E, or F) conditions during at least one peak hour. This is a **significant** impact:

Intersection A – Riego Road/Pleasant Grove Road (S)
Intersection B – Baseline Road/Locust Road
Intersection C – Baseline Road/Brewer Road
Intersection D – Baseline Road/Fiddyment Drive

Mitigation Measure 3.3-29: Participate in Funding Improvements to Placer County Intersections.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase.

Intersection A –
1. Implement Mitigation Measure 3.3-2A
2. Install a traffic signal
3. Construct an exclusive westbound left-turn lane and an exclusive northbound left- and right-turn lane.

Intersection B –
1. Implement Mitigation Measure 3.3-2A
2. Install a traffic signal
3. Modify the intersection and construct the following intersection lanes.
   Northbound – a separate left, through, and right-turn lane.
   Southbound – a separate left-turn lane and a shared through/right-turn lane.
   Eastbound – a separate left-turn lane, two through lanes, and a separate right-turn lane.
   Westbound – a separate left-turn lane, two through lanes, and a separate right-turn lane.

Intersection C –
1. Implement Mitigation Measure 3.3-2A
2. Install a traffic signal

3. Modify the intersection and construct the following intersection lanes.
   Southbound – a shared through/right-turn lane.
   Eastbound – an exclusive left-turn lane and two through lanes.
   Westbound – an exclusive right-turn lane and two through lanes.

OR

4. Construct a center two-way left-turn lane through the Baseline Road/Brewer Road intersection to allow two-stage turn movements for the southbound left-turn. The turn lane should be constructed for a minimum of 1,000 feet east and west of the intersection.

Intersection D – 1. Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-24 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-30 Unacceptable Operations at Sacramento County Intersections. *Phase 1 and Phase A would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under existing plus project conditions.*

As shown in Table 3.3-16 and summarized below, implementation of Phase 1 and Phase A would cause the LOS at four Sacramento County intersections to deteriorate from acceptable (i.e., LOS E or better) to unacceptable (i.e., LOS F) during at least one peak hour. Trips from the proposed project would also exacerbate unacceptable LOS conditions for two intersections during at least one peak hour. Unacceptable operations also occur for Intersection C under cumulative no project conditions. This is a **significant** impact:

Intersection A – Elverta Road/SR 70/99
Intersection B – Elverta Road/E. Levee Road
Intersection C – Elkhorn Boulevard/SR 70/99 NB Ramps (and SB Ramps)
Intersection D – Elkhorn Boulevard/E. Levee Road

Mitigation Measure 3.3-30: Participate in Funding Improvements to Sacramento County Intersections.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase.

Intersection A – 1. Construct a grade-separated interchange on SR 99 at Elverta Road. Caltrans has allocated approximately $19.1 million in bond money for this project, similar to SR 99 at Riego Road.

Intersection B – 1. Modify the intersection traffic control to side-street stop control and limit access to E. Levee Road to right-in/right-out only. Elverta Road would be uncontrolled.

2. Construct a center curb median to prevent restricted turn movements.

Intersection C – 1. Install traffic signals.

Intersection D – 1. Install a traffic signal.

2. Modify the eastbound approach to provide one left-turn lane and one through lane.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-24 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-31 Unacceptable Operations on Sutter County Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Sutter County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

Implementation of Phase 1 and Phase A would cause the LOS for the following Sutter County roadway segment to deteriorate from acceptable (i.e., LOS D or better) to unacceptable (i.e., LOS E, or F). This is a **significant** impact:

Segment A – Riego Road – Natomas Road to Pleasant Grove Road (S)

Mitigation Measure 3.3-31: Participate In Funding Improvements to Sutter County Roadways.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual roadway widening will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Segment A – Widen Riego Road from two to four lanes between the Natomas Road and Pleasant Grove Road (S).

a. Should the California PUC decline to approve the necessary permits for widening Riego Road at its railroad crossing 500 feet east of Natomas road as an at-grade crossing, then widen Riego Road starting 500 feet west of Pleasant Grove Road (N) and continue to 500 feet east of Pleasant Grove

Road (S). Contribute fair share, as defined in Mitigation Measure 3.3-1, towards future (buildout) grade separation at railroad crossing.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-31 (see Table 3.3-25 for LOS after mitigation) would reduce this impact to a less than significant level in the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-32 Unacceptable Operations on Placer County Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Placer County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

Implementation of the proposed project would cause the LOS for the following three Placer County roadway segments to deteriorate from acceptable (i.e., LOS C or better) to unacceptable (i.e., LOS D, E, or F) or from acceptable (i.e., LOS D or better) to unacceptable (i.e., LOS E or F) for segments along the frontage of the Placer Vineyards Specific Plan. This is a **significant** impact:

Segment A – Riego Road – Pleasant Grove Road (S) to Locust Road
Segment B – Watt Avenue – Baseline Road to PFE Road
Segment C – Walerga Road - Baseline Road to PFE Road

Mitigation Measure 3.3-32: Participate In Funding Improvements to Placer County Roadways.

Segment A – 1. Implement Mitigation Measure 3.3-3A

Segment B – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2

Segment C – 1. Implement Mitigation Measure 3.3-11A.1 – 3.3-11A.2

2. Construct Watt Avenue between Baseline Road and PFE Road as a six-lane high-access control facility.

The roadway projects recommended in Mitigation Measure 3.3-32A and 3.3-32C are needed to accommodate previously approved development in the Placer County and surrounding jurisdictions. The need for these roadway projects could be accelerated with implementation of the SPSP.

Significance after Mitigation

Implementation of Mitigation Measures 3.3-32A would reduce this impact to a less than significant level (see Table 3.3-25 for LOS after mitigation) for Segment A, B, and C. However, all of or portions of these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-33 Unacceptable Operations on Sacramento County Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Sacramento County roadway segments, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

Implementation of Phase 1 and Phase A would cause the LOS on three Sacramento County roadway segments to deteriorate from acceptable (i.e., LOS E or better) to unacceptable (i.e., LOS F) and would exacerbate already unacceptable (i.e., LOS F) operations on one segment. This is a **significant** impact:

Segment A – Elverta Road – SR 70/99 to East Levee Road
Segment B – Elverta Road – East Levee Road to Sorento Road
Segment C – 16th Street – Placer County line to Elverta Road

Mitigation Measure 3.3-33: Participate In Funding Improvements to Sacramento County Roadways.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1.

Segment A – 1. Widen Elverta Road from two to four lanes between SR 70/99 to East Levee Road.

Segment B – 1. Widen Elverta Road from two to four lanes between East Levee Road and Sorento Road.

Segment C – 1. Implement Mitigation Measure 3.3-11A.2

Significance after Mitigation

While implementation of Mitigation Measures 3.3-33 would reduce this impact to a less than significant level (see Table 3.3-25 for LOS after mitigation). These roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-34 Unacceptable Operations on Caltrans Roadways. *Phase 1 and Phase A would increase daily traffic volumes using Caltrans roadway segments, exacerbating unacceptable LOS conditions under cumulative plus project conditions.*

Implementation of Phase 1 and Phase A would exacerbate unacceptable LOS (i.e., LOS F) conditions on the following segments of I-5 between SR 70/99 and I-80 this is a **significant** impact:

Segment A – I-5 – SR 70/99 to Del Paso Road
Segment B – I-5 – Del Paso Road to Arena Boulevard
Segment C – I-5 – Arena Boulevard to I-80

Mitigation Measure 3.3-34: Participate In Funding Improvements to Caltrans Roadways.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1.

Segment A – Implement Mitigation Measure 3.3-13A
Segment B – Implement Mitigation Measure 3.3-5
Segment C – Implement Mitigation Measure 3.3-13C

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-25 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County, and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-35 Unacceptable Operations at Sutter County Intersections. *Phase 1 and Phase A would increase peak hour traffic volumes using Sutter County intersections, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

As shown in Table 3.3-20 and summarized below, implementation of Phase 1 and Phase A would also exacerbate unacceptable LOS conditions at the following intersections during at least one peak hour. This is a **significant** impact:

Intersection A – Sankey Road/SR 70/99
Intersection B – Riego Road/Pleasant Grove Road (N)
Intersection C – Riego Road/SR 70/99

Mitigation Measure 3.3-35: Participate In Funding Improvements to Sutter County Intersections.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Intersection A – 1. Implement Mitigation Measure 3.3-6A

Intersection B – 1. Implement Mitigation Measure 3.3-6B

Intersection C – 1. Implement Mitigation Measure 3.3-6C.1

Significance after Mitigation

Implementation of Mitigation Measure 3.3-35 (see Table 3.3-26 for LOS after mitigation) would reduce this impact to a less than significant level in the long-term, once Caltrans has granted the necessary approvals and the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable** impact, in the form of unacceptable levels of service, because the County does not control the timing of construction of Caltrans' improvements or traffic generated by development outside of Sutter County that might contribute to the need for the ultimate interchange.

IMPACT 3.3-36 Unacceptable Operations at Placer County Intersections. *Phase 1 and Phase A would increase peak hour traffic volumes using Placer County intersections, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

As shown in Table 3.3-20 and summarized below, implementation of Phase 1 and Phase A would also exacerbate unacceptable LOS conditions for four intersections during at least one peak hour. This is a **significant** impact:

Intersection A – Riego Road/Pleasant Grove Road (S)
Intersection B – Baseline Road/Locust Road

Mitigation Measure 3.3-36: Participate In Funding Improvements to Placer County Intersections.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Intersection A – Implement Mitigation Measure 3.3-7A
Intersection B – Implement Mitigation Measure 3.3-7B

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-26 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Placer County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Placer County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-37 Unacceptable Operations at Sacramento County Intersections. *Phase 1 and Phase A would increase peak hour traffic volumes using Sacramento County intersections, resulting in unacceptable LOS conditions under Cumulative plus project conditions.*

As shown in Table 3.3-16 and summarized below, implementation of Phase 1 and Phase A would cause the LOS at two Sacramento County intersections to deteriorate from acceptable (i.e., LOS E or better) to unacceptable (i.e., LOS F) during at least one peak hour. Trips from the proposed project would also exacerbate unacceptable LOS conditions for three intersections during at least one peak hour. This is a **significant** impact:

Intersection A – Elverta Road/E. Levee Road
Intersection B – Elverta Road/Watt Avenue

Mitigation Measure 3.3-37: Participate In Funding Improvements to Sacramento County Intersections.

The project applicant shall pay its fair share of costs for the following mitigation projects as defined in Mitigation Measure 3.3-1. Because the SPSP will develop over time, implementation of the following mitigation projects will likely occur in phases and through various forms as outlined in Mitigation Measure 3.3-1. Individual intersection widenings and traffic control modifications will be largely constructed directly by the project applicant and other developers in the same area depending on when specific development projects advanced to the implementation phase. Major roadway and intersection widenings outside the plan area (in Sutter County) are expected to be constructed by the County using traffic impact fees paid by the project applicant and other developers in the same area possibly in combination with state and federal funding.

Intersection A – 1. Implement Mitigation Measure 3.3-8C, and

2. Install a traffic signal.

Intersection B – Provide a right-turn overlap phase for the southbound right-turn, which will require prohibiting eastbound u-turn movements.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-26 for LOS after mitigation), this roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Sacramento County. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Sacramento County can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-38 Unacceptable Operations on Caltrans Facilities. *Phase 1 and Phase A would increase peak hour traffic volumes using Caltrans facilities, resulting in unacceptable LOS conditions under cumulative plus project conditions.*

Implementation of Phase 1 and Phase A would cause unacceptable LOS (i.e., LOS F) conditions on SR 70/99 and I-5. This is a **significant** impact.

Mitigation Measure 3.3-38: Participate In Funding Improvements to Caltrans Facilities.

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for adding mainline capacity to SR 70/99 and I-5.

Implement Mitigation Measure 3.3-9.

Significance after Mitigation

While implementation of this mitigation measure would reduce this impact to a less than significant level (see Table 3.3-27 for LOS after mitigation), these roadway projects are outside the jurisdiction of Sutter County and for that reason the County must conservatively assume that the impact will be **significant and unavoidable,** despite the County's own commitment to work with Caltrans. Consistent with CEQA Guidelines section 15091,

subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation. In addition, even if all mitigation measures are successfully implemented, there may be a short-term **significant and unavoidable** impact, in the form of unacceptable levels of service, until such time as the contemplated improvements are in place.

IMPACT 3.3-39 Increased Demand for Public Transit. *Phase 1 and Phase A would increase demand for public transit.*

The SPSP is designed to accommodate future public transit service and includes a comprehensive transit plan that includes detailed information and policy on mobility enhancing strategies, phasing, performance standards, cost, and funding. The SPSP will establish a TMA to oversee transit service in the project. The TMA will oversee the implementation of commuter, fixed-route, and dial-a-ride services.

The project is proposing three transit centers: one located in the Town Center near SR 70/99, one in the South Village Center along Riego Road, and one in the North Village Center near Road C. In addition to the transit centers, the transit plan contains development densities that place more people near to the transit stops. The transit plan includes service standards for all of its components including minimum service standards. In addition, the transit plan is demand responsive and will fund increased transit service as rider demand increases based on funding availability. The policy and standards in the transit plan are designed to have transit as a viable option to the automobiles even at the early stages of development in the plan.

As development occurs, the project will generate demand for transit service especially commuter service to/from the project and downtown Sacramento. The Sutter Pointe Transit Plan has established a minimum 50 passenger per bus ridership threshold for the introduction of commuter bus service. A threshold population of 10,000 may be required to start limited peak hour commuter bus service (the population at build-out Phase 1 could exceed 20,000). The Sutter Pointe Transit Plan includes a set of recommended service standards that address system efficiency, quality/reliability, and design. The Sutter Pointe Transit Plan estimates that if minimum ridership thresholds are achieved, an initial commuter service would provide two a.m. peak hour and two p.m. peak hour commuter runs. However, until minimum ridership thresholds are achieved, commuter bus service will not be available to Sutter Pointe residents, since Yuba-Sutter Transit's Sacramento Commuter Express currently operates near or at capacity. This is a **significant** impact:

Mitigation Measure 3.3-39: Participate In Funding Interim Commuter Bus Service.

The project applicant shall negotiate for interim commuter bus service through an existing service provider like Yuba-Sutter Transit, which would require modification of their current Sacramento Commuter Express to serve the Sutter Pointe project until sufficient ridership is generated to meet minimum thresholds to support a project-administered commuter bus service through the TMA.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-39 would reduce this impact to a less than significant level in the long-term, once the required improvements have been funded and installed. In the short-term, however, the impact will be **significant and unavoidable**.

IMPACT 3.3-40 Increased Demand for Non-motorized Travel. *Phase 1 and Phase A would increase demand for non-motorized travel.*

The proposed project includes facilities such as sidewalks, bicycle lanes, and multiple use trails to accommodate non-motorized travel demand. These facilities will adequately provide for non-motorized transportation within the project and are consistent with the various non-motorized policies of Sutter County. However, implementation of the project will create conditions that may increase bicycle/pedestrian/automobile conflicts, like high speed slip

on-ramps at the Riego Road interchange, free right-turn movements, and triple left-turn lanes at some intersections. While these design elements may be necessary to provide acceptable operations for autos they may discourage the use of non-motorized modes like walking and biking. This is a **significant** impact.

Mitigation Measure 3.3-40: Modify Design Elements of the Riego Road and SR 70/SR 99 Interchange.

The project applicant shall coordinate with Caltrans to implement lower speed entrances to the slip on-ramps at the Riego Road interchange.

AND

Implement reduced cross-sections at study intersections by minimizing the number of left- and right-turn lanes at intersections providing controlled right-turn movements.

Significance after Mitigation

Implementation of Mitigation Measure 3.3-40 would reduce this impact; however, the interchange is outside the jurisdiction of Sutter County. In addition, reduced intersection configurations would result in unacceptable LOS (i.e., LOS E or F) and some intersections, which is inconsistent with Sutter County General Plan Policy 3.A.7. For these reasons the impact will be **significant and unavoidable**, despite the County's own commitment to work with Caltrans to implement lower speed entrance ramps. Consistent with CEQA Guidelines section 15091, subdivision (a)(2), Sutter County concludes that Caltrans can and should cooperate with Sutter County in implementing the mitigation.

IMPACT 3.3-41 Impacts of Transportation Mitigation on Other Jurisdictions. *Mitigation measures implemented to reduce transportation impacts could adversely affect traffic in other jurisdictions.*

The roadway improvements identified in the mitigation measures throughout this section would improve traffic impacts by increasing roadway and intersection capacity in some locations. Such improvements would also redistribute traffic in the study area and throughout the region. For example, Placer Parkway, one of a number of possible improvements identified as mitigation, would provide additional east-west roadway capacity and thereby decrease volumes on numerous roadways in Western Placer County but would increase traffic on portions of SR 70/99 and I-5 in Sacramento County. The widening of Watt Avenue in Placer County and Sacramento County would increase traffic volumes on Watt Avenue in Sacramento County south of the study area.

The effects of mitigation on future roadway and intersection operations will depend on which improvements are constructed, the timing of such improvements, and development patterns in the region. As the improvements are designed and funded, they will be subject to review and analysis, including traffic studies. For example, an Environmental Impact Statement/Environmental Impact Report being prepared for Placer Parkway will identify the impacts of that improvement on regional roads. In some cases, segments or intersections could operate at unacceptable levels as the result of one or more mitigation measures being implemented. This is a **significant** impact.

Mitigation Measure 3.3-41: Coordinate Jurisdictions and Agencies on Mitigation for the Proposed Project.

The project applicant shall pay its fair share of costs as defined in Mitigation Measure 3.3-1 for designing roadway improvements to minimize impacts on existing and future roadways and intersections. Consistent with Mitigation Measure 3.3-1, Sutter County shall coordinate with the City of Roseville, Placer County, Sacramento County, and Caltrans to ensure that roadway improvements implemented in whole or in part as mitigation for the proposed project are designed to minimize impacts on existing and future roadways and intersections according to the LOS policies of affected jurisdictions.

Significance after Mitigation

Implementation of this mitigation would reduce Impact 33-38, but not to a level of less-than-significant. The feasibility of improvements necessary to achieve acceptable levels of service is unknown, in part because cooperation of third party agencies cannot be guaranteed. Therefore, no assurance exists that the recommended mitigation will achieve the desired LOS. Therefore, this impact would remain significant and unavoidable.

CUMULATIVE CONDITIONS BEYOND 2035

The cumulative analysis also included one scenario that represents conditions beyond 2025. This scenario is referred to as the super-cumulative scenario and is included for informational purposes only. This scenario includes a forecast of build-out for all planned and proposed residential land in Placer County west of Sierra College Boulevard and the following major development projects in west Placer County and northern Sacramento County beyond year 2035 conditions.

Table 3.3-28
Land Use Projections – Conditions Beyond 2035 (Super-Cumulative)

Jurisdiction	Growth Area	Households	Employment		College Enrollment
			Retail	Non-Retail	
Sutter County	Sutter Pointe (Build-out)	17,500	8,791	48,860	-
	Phase 1	7,771	4,941	9,491	-
Placer County	Placer Vineyards	14,132	5,113	5,021	-
	Regional University	4,387	91	-	6,000
	Sierra Vista	10,275	4,666	1,098	-
	Placer Ranch	6,729	912	18,862	25,000
	Curry Creek	16,200	2,025	2,124	-
Sacramento County	Elverta	4,950	326	324	-
	Greenbriar	3473	655	150	-
	Metro Air Park	-	2,069	27,731	-
	Natomas Joint Vision Area	20,941	4,583	3,312	-

Source: Fehr & Peers 2008

This super-cumulative analysis is included for disclosure purposes only, and has not been used as the basis for identifying impacts and formulating mitigation. Rather, mitigation recommendations are based on the 2035 cumulative analysis. Table 3.3-28 summarizes these land use inputs. Given the uncertainty and current point in the planning process for many of these projects, these land use assumptions are subject to change.

For the purpose of the super-cumulative analysis, the Natomas Joint Vision area includes the sphere of influence amendment study area, which generally includes the area north of Elkhorn Boulevard, east of Metro Air Park, west of the Natomas East Main Drainage Canal (NEMDC) and just north of Elverta Road.

These land use projections were input to the SPSP model along with the mitigated roadway network. Some of these improvements are not yet approved by local agency decision-makers, and thus are subject to changes in alignment, connections, and number of lanes as more information is developed and more public input is obtained. Table 3.3-29 displays the resulting daily traffic volumes and LOS for the super-cumulative scenario.

These results indicate that regional freeways will have substantial congestion, placing a greater burden on local arterials to carry higher volumes. Given the limited right-of-way near these regional roads, it may be impossible to expand capacity to alleviate this problem. Intercity and intercommunity trips will occur on local arterials to a greater

degree, causing operational problems on existing east-west roadways such as Riego Road, Elverta Road, and Elkhorn Boulevard and creating demand for new north-south capacity between Sutter and Sacramento County. Curry Creek Specific Plan, the Natomas Joint Vision Area, and the other large specific plans in the area will likely utilize the existing east-west facilities as a connection to SR 70/SR 99. This will not only put demand on the east-west connections, but the planned and existing interchanges on SR 70/SR 99 as well. Opportunities may exist to provide more north-south capacity east and west of SR 70/SR 99; however, existing and planned habitat conservation areas south of the Sutter County line may make continuous connections into Sutter County infeasible.

Any new roadways will influence land use development patterns in terms of location and intensity. These roadways will also influence other community values related to community character, quality of life, and environmental protection. The final decisions regarding new roadways need to balance these various community values and recognize the inherent trade-offs associated with accommodating vehicle travel at differing levels of service.

Table 3.3-29
Roadway LOS: Super Cumulative Conditions

Roadway Segment	Jurisdiction	Cumulative Plus Project With Placer Parkway Conditions				Super Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
1. Sankey Road – Power Line Road to SR 70/SR 99	Sutter Co.	2R	200	0.01	C	2R	200	0.01	C
2. Sankey Road – SR 70/SR 99 to Pacific Avenue	Sutter Co.	4F	40,900	0.51	B	4F	52,700	0.66	C
3. Sankey Road – Pacific Avenue to Pleasant Grove Road (N)	Sutter Co.	-	-	-	-	-	-	-	-
3a. Sankey Road – Pacific Avenue to Road C	Sutter Co.	4F	40,900	0.51	B	4F	52,600	0.66	C
3b. Sankey Road – Road C to Pleasant Grove Road (N)	Sutter Co.	4F	44,400	0.56	C	4F	46,100	0.58	C
4. Sankey Road – Pleasant Grove Road (N) to Locust Road	Sutter Co.	4F	1,500	0.02	A	4F	1,500	0.02	A
5. Riego Road – Power Line Road to SR 70/SR 99	Sutter Co.	-	-	-	-	-	-	-	-
5a. Riego Road – Power Line Road to Road U	Sutter Co.	4U	8,100	0.25	C	4U	9,300	0.28	C
5b. Riego Road – Road U to Road R	Sutter Co.	4U	23,600	0.72	C	4U	28,700	0.87	D
5c. Riego Road – Road R to Road S	Sutter Co.	6U	34,800	0.70	C	6U	39,800	0.81	D
5d. Riego Road – Road S to SR 70/SR 99	Sutter Co.	8E	83,600	0.81	D	8E	90,900	0.88	D
6. Riego Road – SR 70/SR 99 to Pacific Avenue	Sutter Co.	-	-	-	-	-	-	-	-
6a. Riego Road – SR 70/SR 99 to Road A	Sutter Co.	8E	87,300	0.85	D	8E	90,500	0.88	D
6b. Riego Road – Road A to Pacific Avenue	Sutter Co.	6E	67,000	0.87	D	6E	72,800	0.94	E
7. Riego Road – Pacific Avenue to Pleasant Grove Road (N)	Sutter Co.	-	-	-	-	-	-	-	-
7a. Riego Road – Pacific Avenue to Road C	Sutter Co.	6E	53,900	0.70	C	6E	62,900	0.81	D
7b. Riego Road – Road C to Road D	Sutter Co.	6E	38,900	0.50	C	6E	50,800	0.66	C
7c. Riego Road – Road D to Natomas Road	Sutter Co.	6E	41,800	0.54	C	6E	62,300	0.80	D
8. Riego Road – Natomas Road to Pleasant Grove Road (S)	Sutter Co.	6E	38,600	0.50	C	6E	60,800	0.79	D
9. Riego Road – Pleasant Grove Road (S) to Locust Road	Placer Co.	6H	32,700	0.55	A	6H	57,000	0.95	E
10. Baseline Road – Locust Road to Brewer Road	Placer Co.	6H	32,700	0.55	A	6H	54,100	0.90	E
11. Baseline Road – Brewer Road to Watt Avenue	Placer Co.	6H	48,500	0.81	D	6H	63,900	1.07	F
12. Baseline Road – Watt Avenue to Fiddyment Drive	Placer Co.	6M	34,600	0.64	B	6M	36,400	0.67	B
13. Elverta Road – Power Line Road to SR 70/SR 99	Sacramento Co.	2H	11,700	0.59	A	2H	18,500	0.93	E
14. Elverta Road – SR 70/SR 99 to East Levee Road	Sacramento Co.	2H	19,600	0.98	E	2H	40,100	2.01	F
15. Elverta Road – East Levee Road to Sorento Road	Sacramento Co.	4M	27,500	0.76	C	4M	41,500	1.15	F
16. Elverta Road – Sorento Road to 16th Street	Sacramento Co.	4M	33,300	0.93	E	4M	40,900	1.14	F
17. Elverta Road – 16th Street to Watt Avenue2	Sacramento Co.	5M	39,900	0.89	D	5M	43,400	0.96	E
18. Power Line Road – Sankey Road to Riego Road	Sutter Co.	2R	500	0.02	C	2R	500	0.02	C
19. Power Line Road – Riego Road to Sacramento County Line	Sutter Co.	2R	7,300	0.35	D	2R	7,900	0.38	D

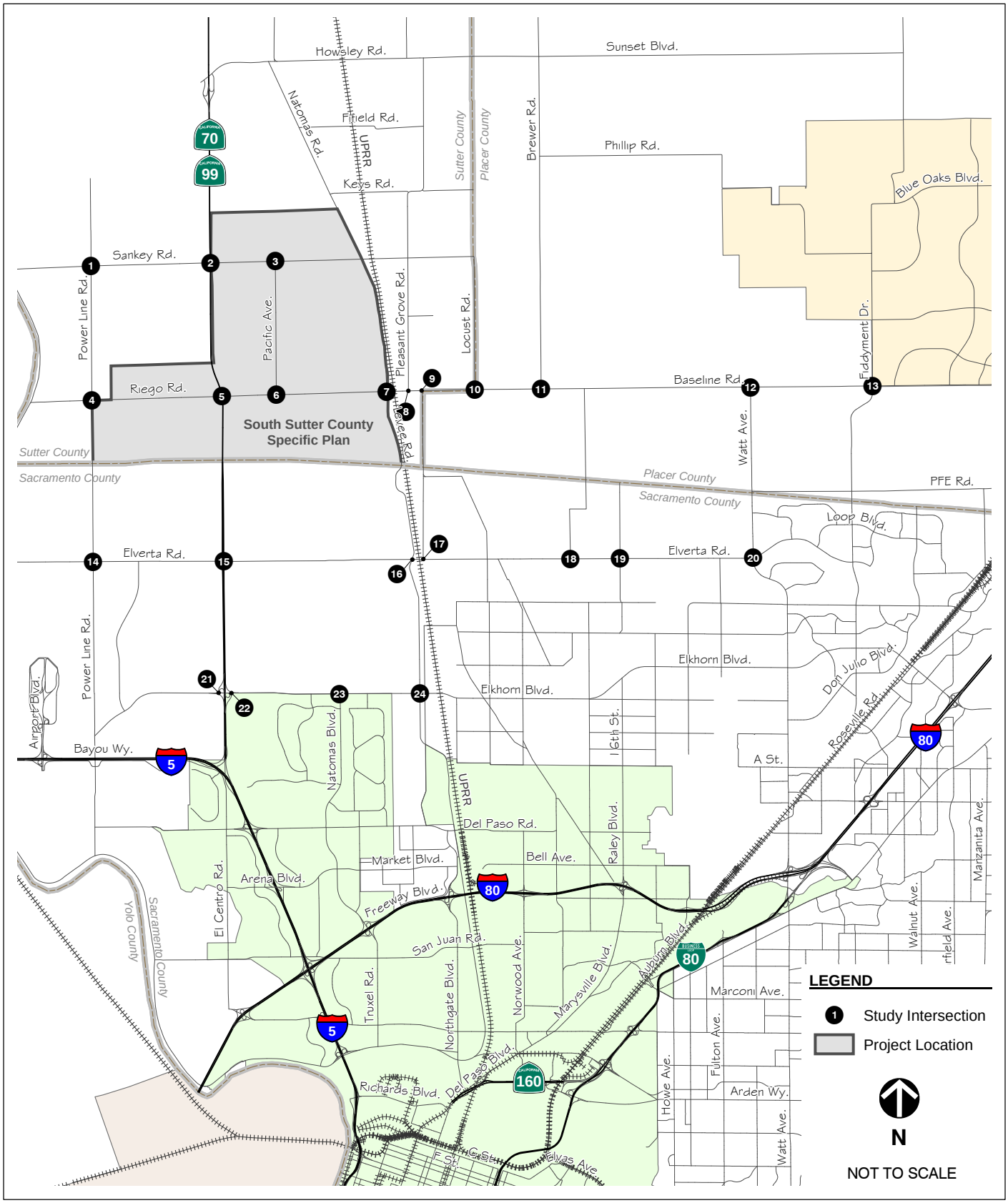
Table 3.3-29
Roadway LOS: Super Cumulative Conditions

Roadway Segment	Jurisdiction	Cumulative Plus Project With Placer Parkway Conditions				Super Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
20. Power Line Road – Sacramento County Line to Elverta Road	Sacramento Co.	2RS	11,100	0.56	D	2RS	10,300	0.52	D
21. Power Line Road – Elverta Road to Elkhorn Boulevard	Sacramento Co.	-	-	-	-	-	-	-	-
22. Pacific Avenue – Sankey Road to Riego Road	Sutter Co.	-	-	-	-	-	-	-	-
22a. Pacific Avenue – Sankey Road to Road K	Sutter Co.	4U	17,900	0.54	C	4U	13,300	0.40	C
22b. Pacific Avenue – Road K to Road J	Sutter Co.	4U	23,200	0.70	C	4U	13,100	0.40	C
22c. Pacific Avenue – Road J to Riego Road	Sutter Co.	4U	27,200	0.83	D	4U	18,100	0.55	C
23. Natomas Road – Sankey Road to Riego Road	Sutter Co.	2R	400	0.02	C	2R	400	0.02	C
24. Natomas Road – Riego Road to Sacramento County Line	Sutter Co.	2R	6,200	0.30	C	2R	5,800	0.28	C
25. East Levee Road – Sacramento County Line to Elverta Road	Sacramento Co.	2RS	6,200	0.31	C	2RS	5,800	0.29	C
26. Pleasant Grove Road (N) – Sankey Road to Riego Road	Sutter Co.	2R	3,400	0.16	C	2R	4,300	0.21	C
27. Pleasant Grove Road (S) – Riego Road to Sacramento County Line	Sutter Co.	2R	6,800	0.33	C	2R	5,700	0.27	C
28. Sorento Road – Sacramento County Line to Elverta Road	Sacramento Co.	2M	4,600	0.26	A	2M	4,000	0.22	A
29. Locust Road – Sankey Road to Baseline Road	Placer Co.	2M	2,100	0.12	A	2M	1,600	0.09	A
30. Brewer Road – Phillip Road to Baseline Road	Placer Co.	2M	2,800	0.16	A	2M	2,100	0.12	A
31. Palladay Road – Baseline Road to Sacramento County Line	Placer Co.	2M	6,000	0.33	A	2M	6,300	0.35	A
32. Palladay Road – Sacramento County Line to Elverta Road	Sacramento Co.	2M	11,000	0.61	B	2M	11,900	0.66	B
33. 16th Street – Kasser Road to Elverta Road	Sacramento Co.	4M	25,600	0.71	C	4M	30,100	0.84	D
34. Watt Avenue – Baseline Road to PFE Road	Placer Co.	6M	51,500	0.95	E	6M	59,300	1.10	F
35. Watt Avenue – PFE Road to Elverta Road	Sacramento Co.	6M	50,700	0.94	E	5M	63,000	1.17	F
36. Walerga Road – Baseline Road to PFE Road	Placer Co.	4M	33,900	0.94	E	4M	34,100	0.95	E
37. Elkhorn Boulevard – SR 70/SR 99 to Northborough Drive	Sacramento Co.	6M	36,500	0.68	B	6M	57,300	1.06	F
38. Elkhorn Boulevard – Northborough Drive to Natomas Boulevard	Sacramento Co.	6M	24,800	0.46	A	6M	50,800	0.94	E
39. Elkhorn Boulevard – Natomas Boulevard to Sageview Drive	Sacramento Co.	6M	36,900	0.68	B	6M	61,000	1.13	F
40. Elkhorn Boulevard – Sageview Drive to East Levee Road	Sacramento Co.	6M	36,100	0.67	B	6M	60,700	1.12	F
41. I-5 – SR 70/SR 99 to Del Paso Road	Sacramento Co.	8F	204,500	1.28	F	8F	239,100	1.49	F
42. I-5 – Del Paso Road to Arena Boulevard	Sacramento Co.	8F	223,200	1.40	F	8F	249,500	1.56	F
43. I-5 – Arena Boulevard to I-80	Sacramento Co.	10F	239,400	1.20	F	10F	262,400	1.31	F
44. SR 70/SR 99 – SR 70/SR 99 Interchange to Sankey Road	Sutter Co.	4F	47,300	0.56	C	4F	51,400	0.61	E
45. SR 70/SR 99 – Sankey Road to Riego Road	Sutter Co.	4FS	73,000	0.86	D	4F	96,300	1.14	F
46. SR 70/SR 99 – Riego Road to Sacramento County Line	Sutter Co.	6F	129,800	1.08	F	6F	168,800	1.41	F

Table 3.3-29
Roadway LOS: Super Cumulative Conditions

Roadway Segment	Jurisdiction	Cumulative Plus Project With Placer Parkway Conditions				Super Cumulative Plus Project With Placer Parkway Conditions			
		Lanes/ Road Class[1]	Volume	V/C	LOS	Lanes/ Road Class[1]	Volume	V/C	LOS
47. SR 70/SR 99 – Sacramento County Line to Elverta Road	Sacramento Co.	6F	129,800	1.08	F	6F	168,800	1.41	F
48. SR 70/SR 99 – Elverta Road to Elkhorn Boulevard	Sacramento Co.	6F	131,900	1.10	F	6F	155,600	1.30	F
49. SR 70/SR 99 – Elkhorn Boulevard to I-5	Sacramento Co.	6F	123,700	1.03	F	6F	168,200	1.40	F

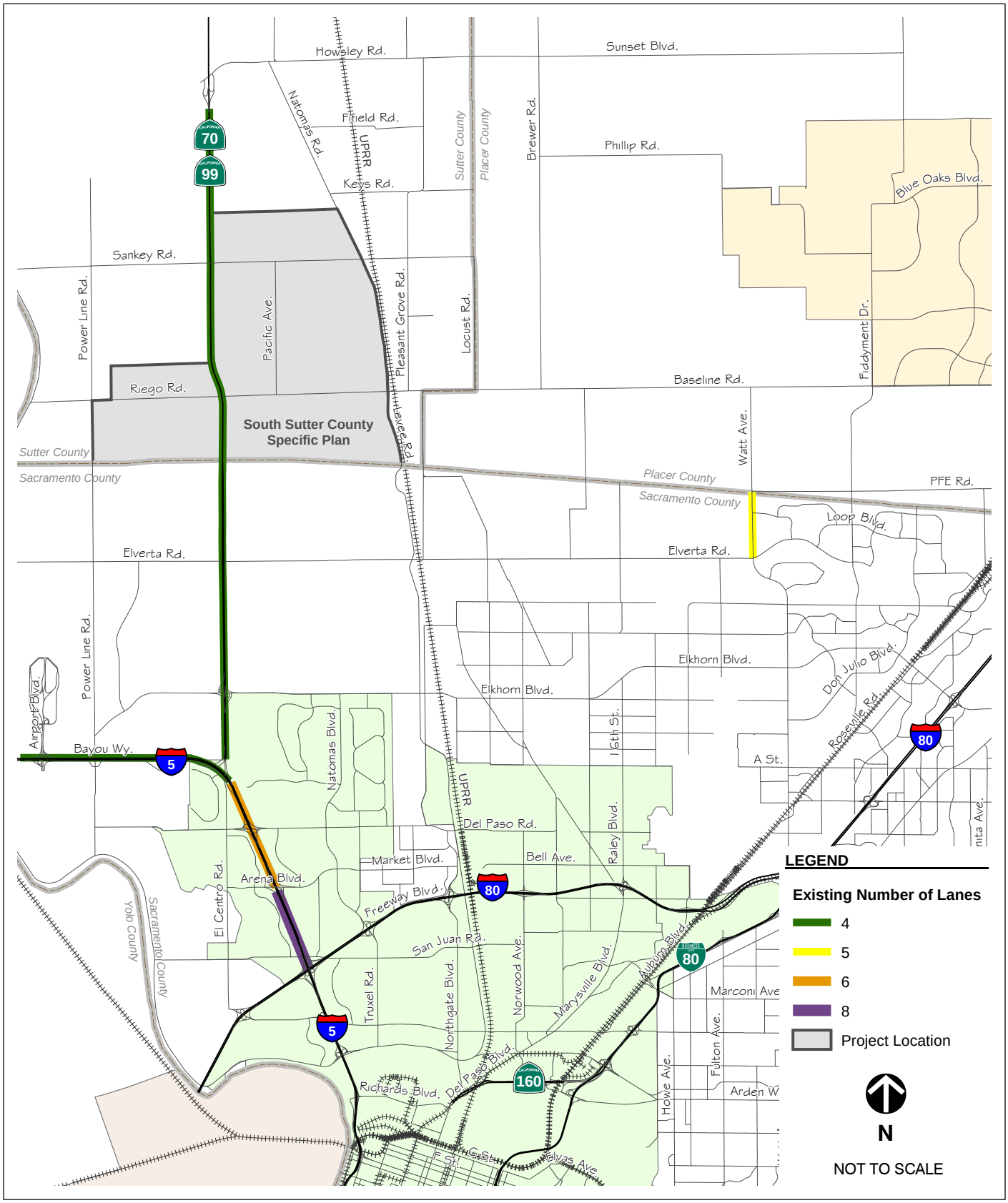
Note:
[1] Road Class corresponds to the classification shown in Table 3.3-4 for Sutter County, Placer County, and Sacramento County roadways.
Shaded cells indicate LOS worse than minimum acceptable threshold established in LOS policies.
Cells with "-" denote facilities that do exist for specified scenario.
Source: Fehr & Peers, 2008



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STUDY AREA
FIGURE 3.3-1

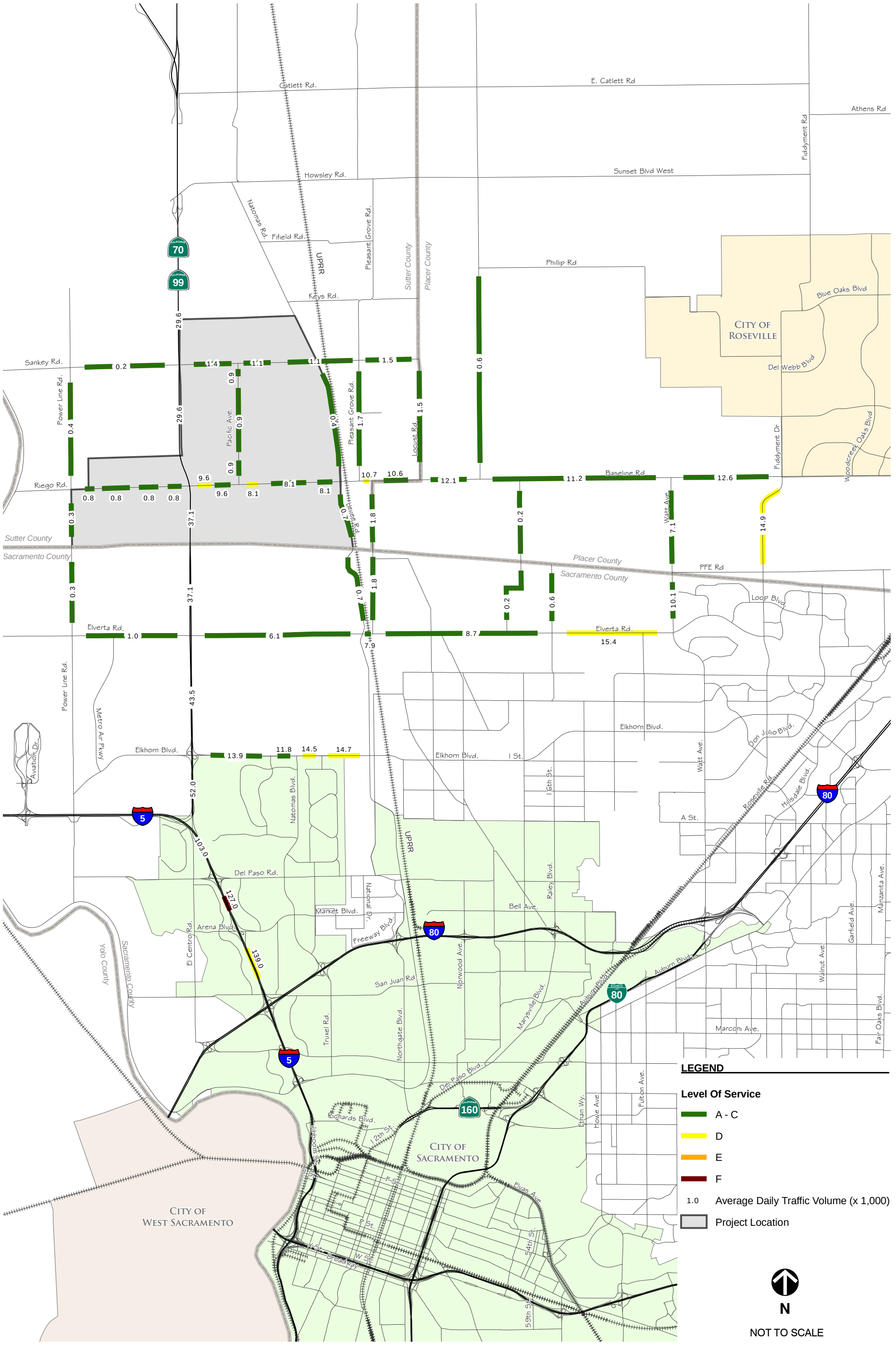


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NUMBER OF LANES - EXISTING CONDITIONS

FIGURE 3.3-2

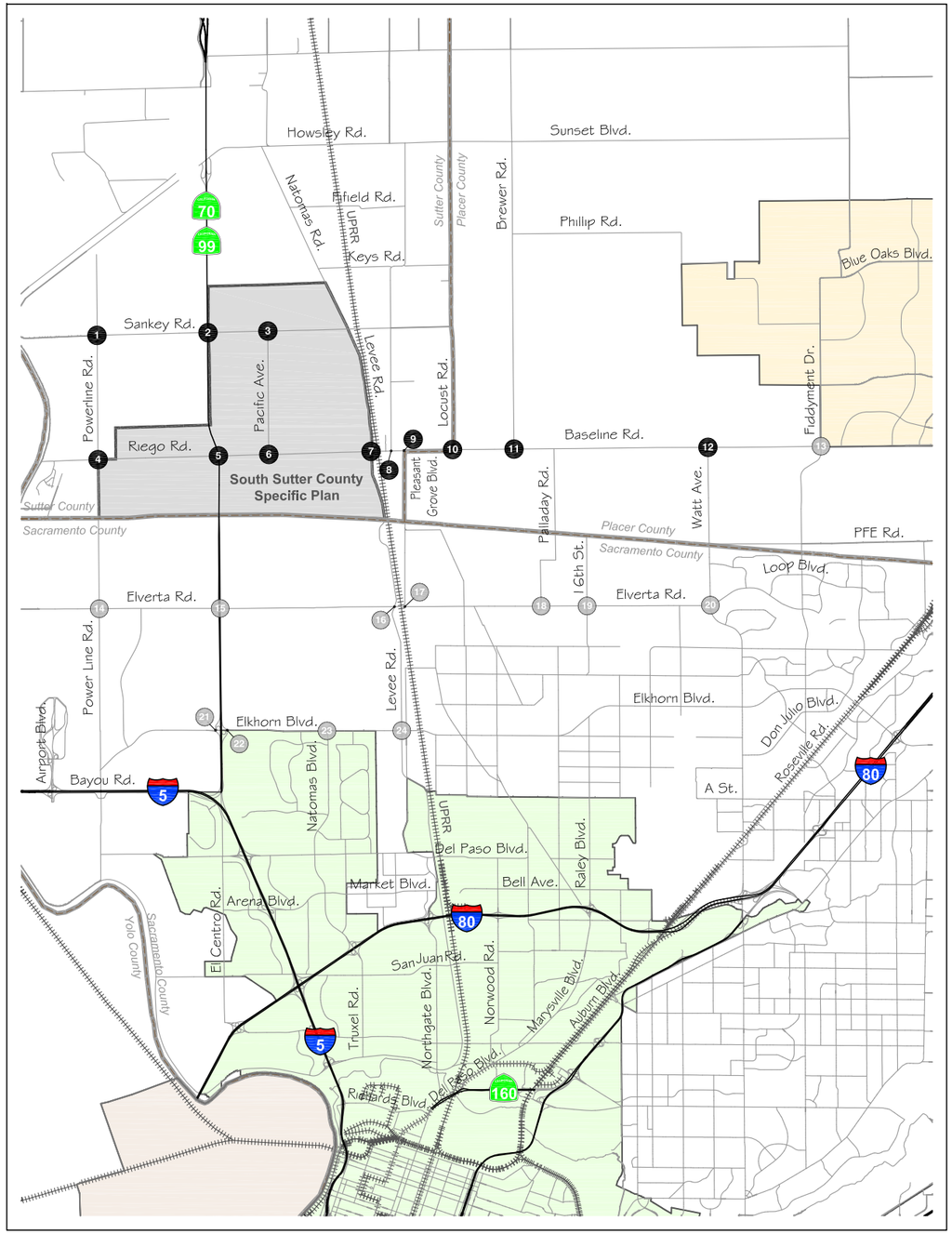


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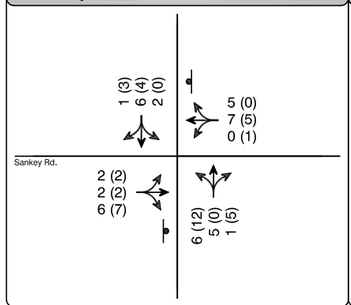
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - EXISTING CONDITIONS

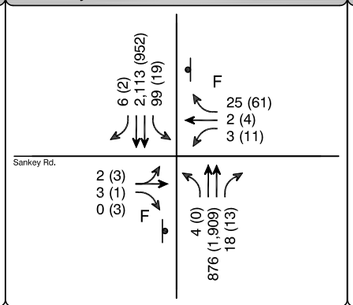
FIGURE 3.3-3



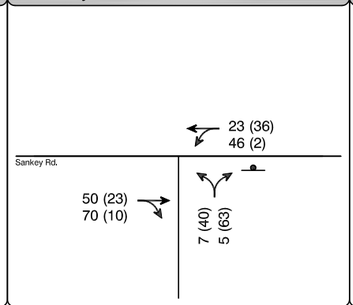
1. Sankey Rd./Powerline Rd.



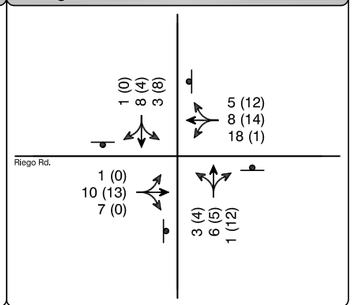
2. Sankey Rd./SR 99



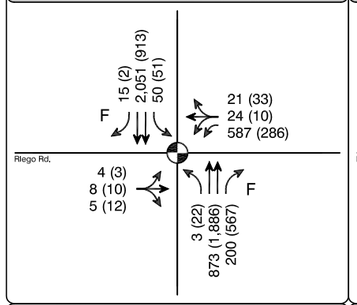
3. Sankey Rd./Pacific Ave.



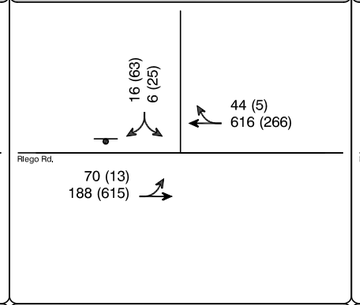
4. Riego Rd./Powerline Rd.



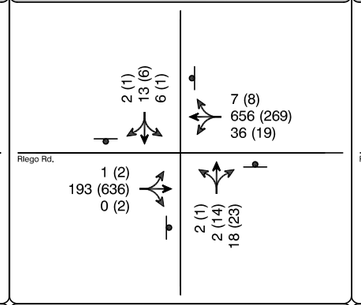
5. Riego Rd./SR 99



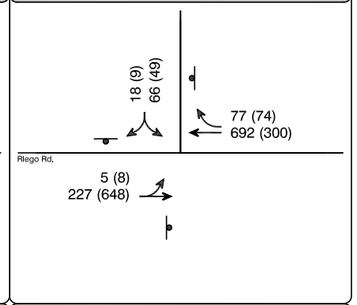
6. Riego Rd./Pacific Ave.



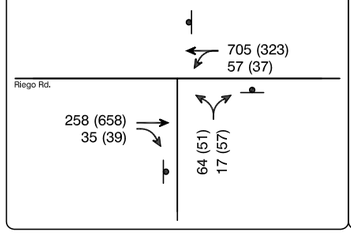
7. Riego Rd./Natomas Rd.



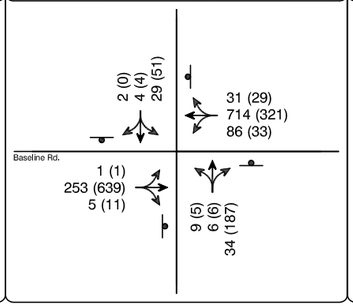
8. Riego Rd./Pleasant Grove Rd. N.



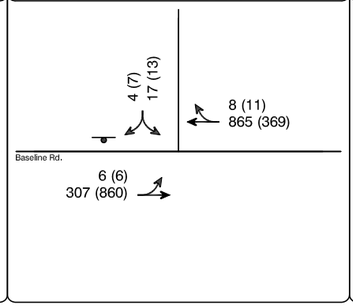
9. Riego Rd./Pleasant Grove Rd. S.



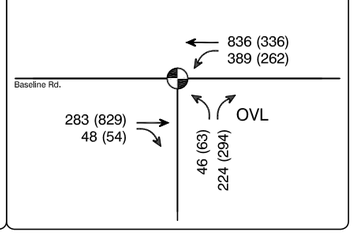
10. Baseline Rd./Locust Rd.



11. Baseline Rd./Brewer Rd.



12. Baseline Rd./Watt Ave.



LEGEND

	Turn Lane	F	"Free" Right Turn
AM (PM)	Peak Hour Traffic Volume	OVL	Overlap Phasing
1	Study Intersection (Grey: See Figure 3.3-4B)	-----	Planned Roadway
	Traffic Signal		City of Roseville Limits
	Stop Sign		City of West Sacramento Limits
			City of Sacramento Limits

N

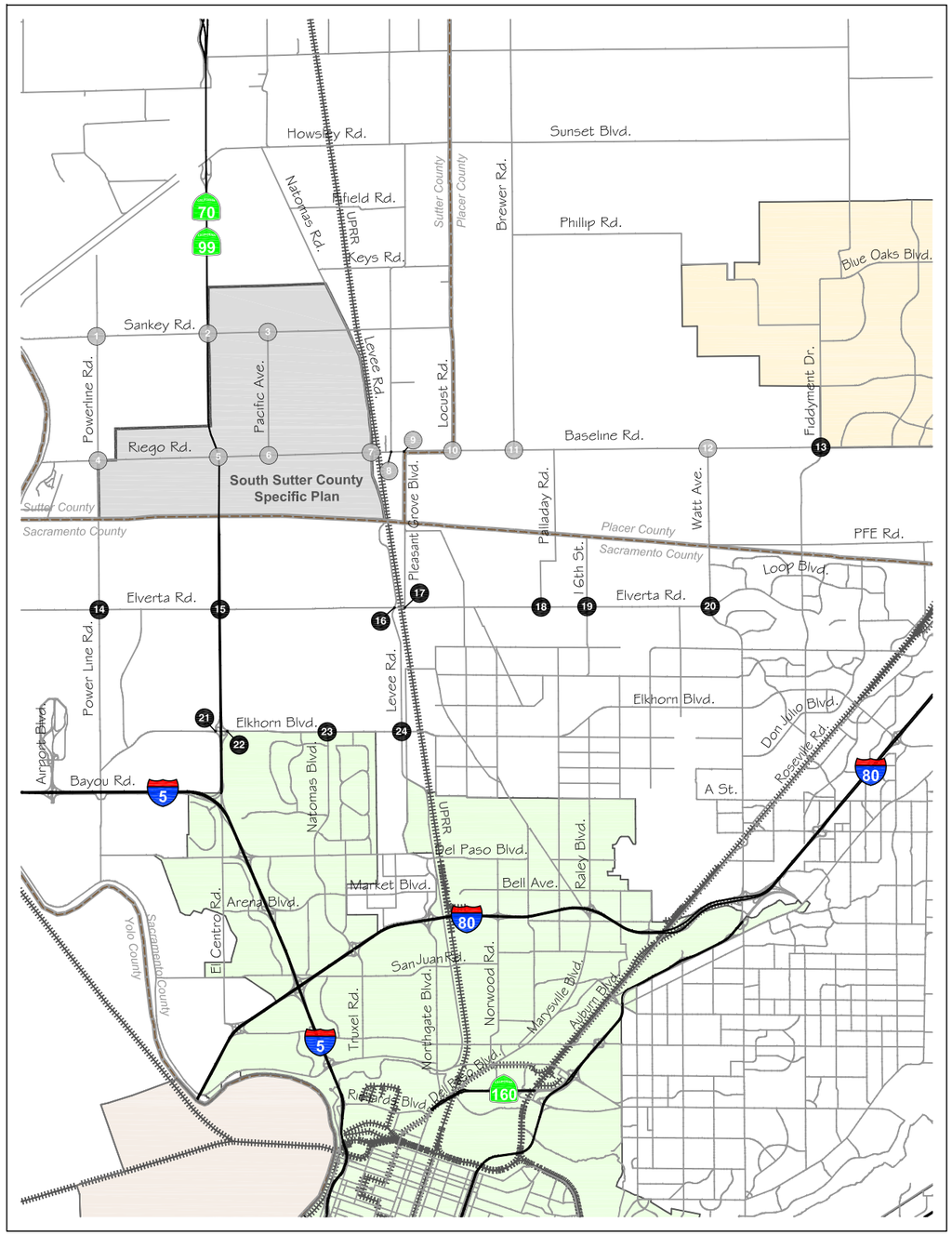
NOT TO SCALE

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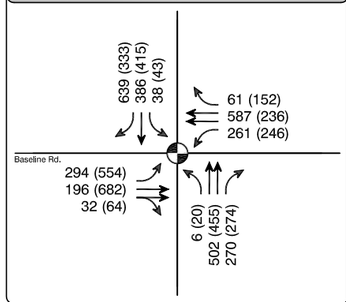
Jul 01, 2008 MJC
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING CONDITIONS

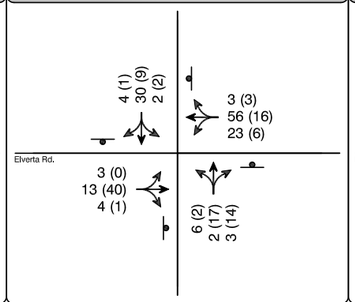
FIGURE 3.3-4A



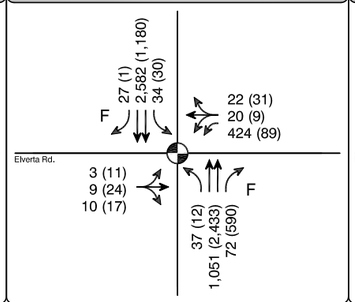
13. Baseline Rd./Fiddyment Dr.



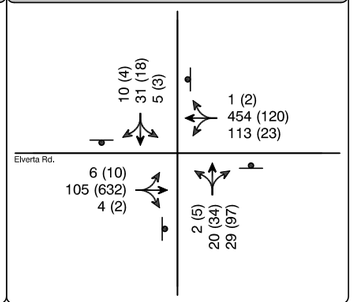
14. Elverta Rd./Power Line Rd.



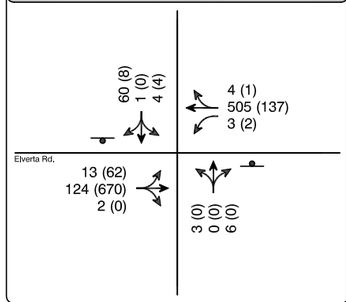
15. Elverta Rd./SR 99



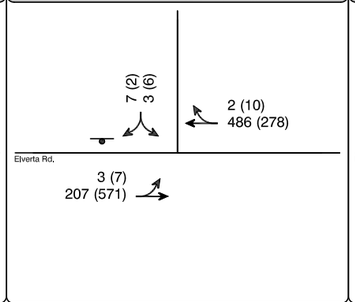
16. Elverta Rd./E. Levee Rd.



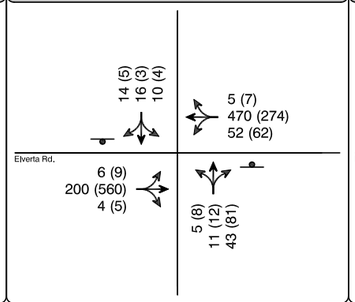
17. Elverta Rd./Sorento Rd.



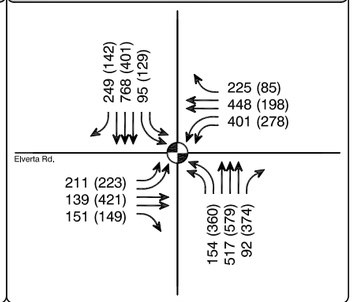
18. Elverta Rd./Palladay Rd.



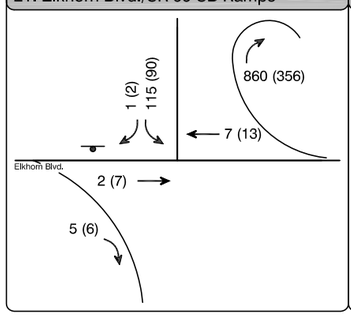
19. Elverta Rd./16th St.



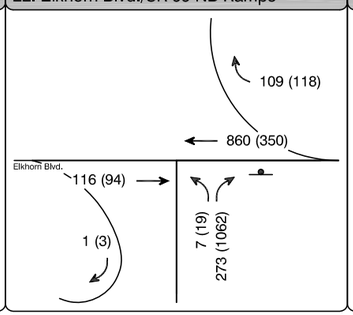
20. Elverta Rd./Watt Ave.



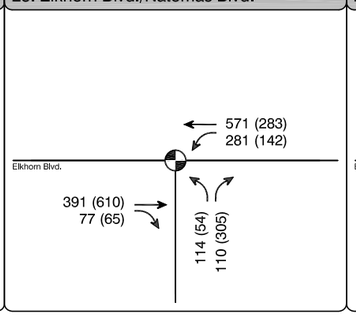
21. Elkhorn Blvd./SR 99 SB Ramps



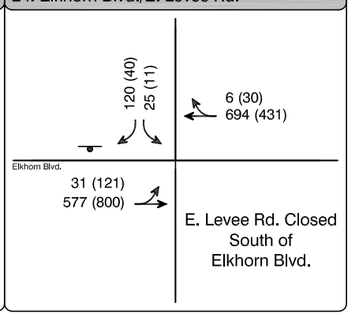
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



LEGEND

	Turn Lane	F	"Free" Right Turn
AM (PM)	Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-4A)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

N

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING CONDITIONS

FIGURE 3.3-4B

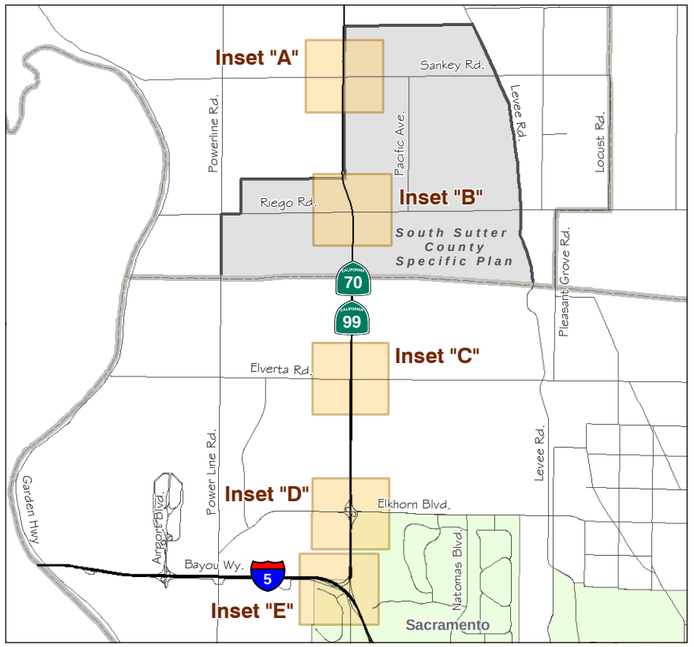
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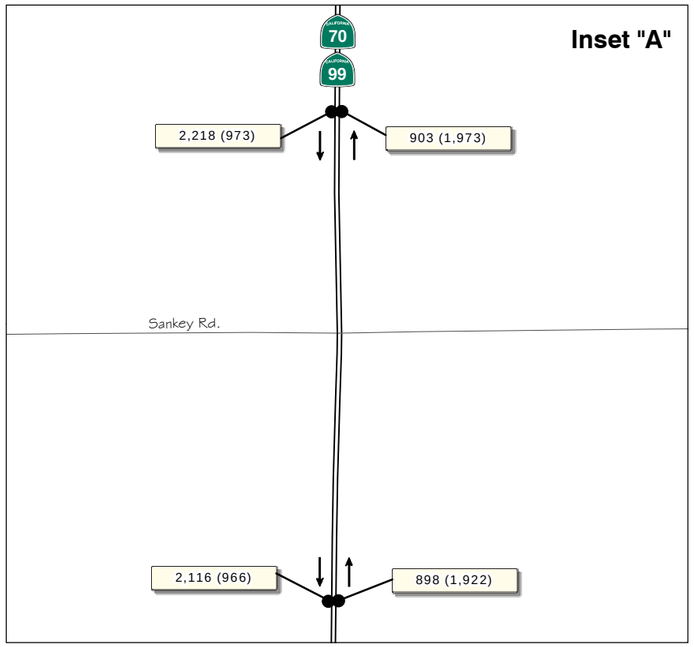
Through Lane

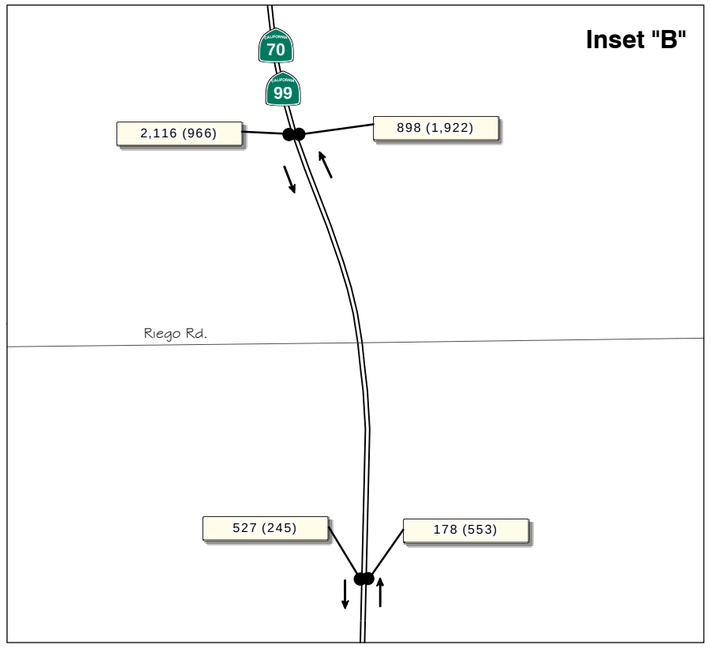
100 (100) AM (PM) Traffic Volume

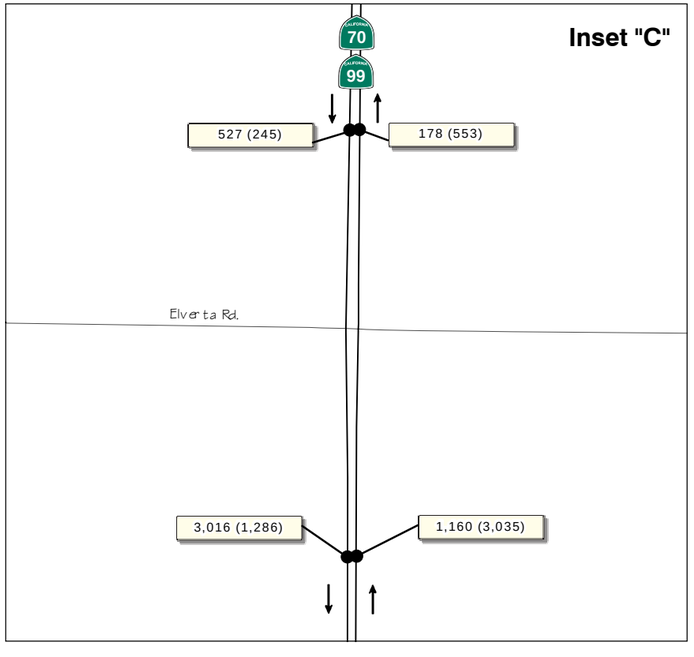
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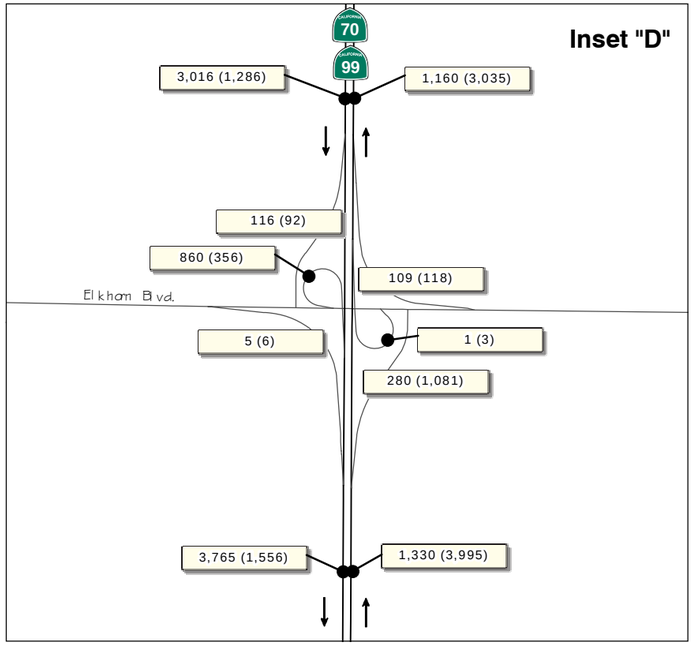
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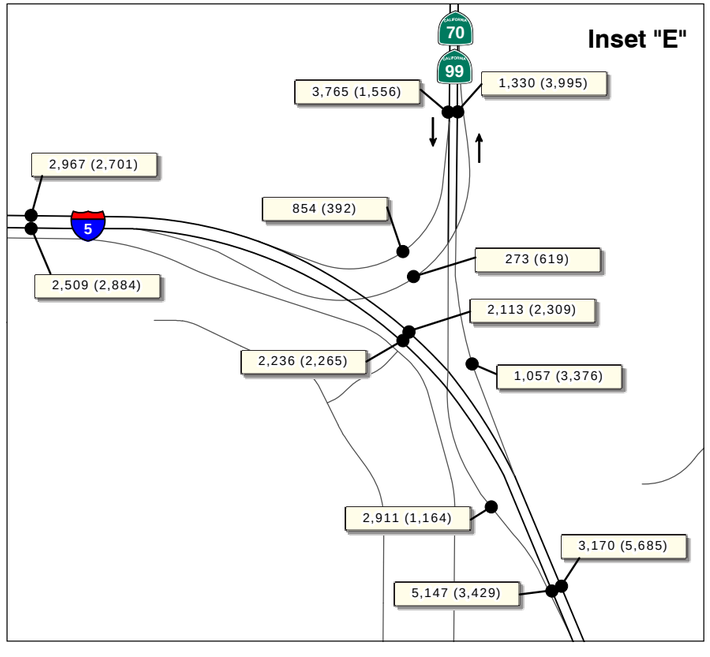










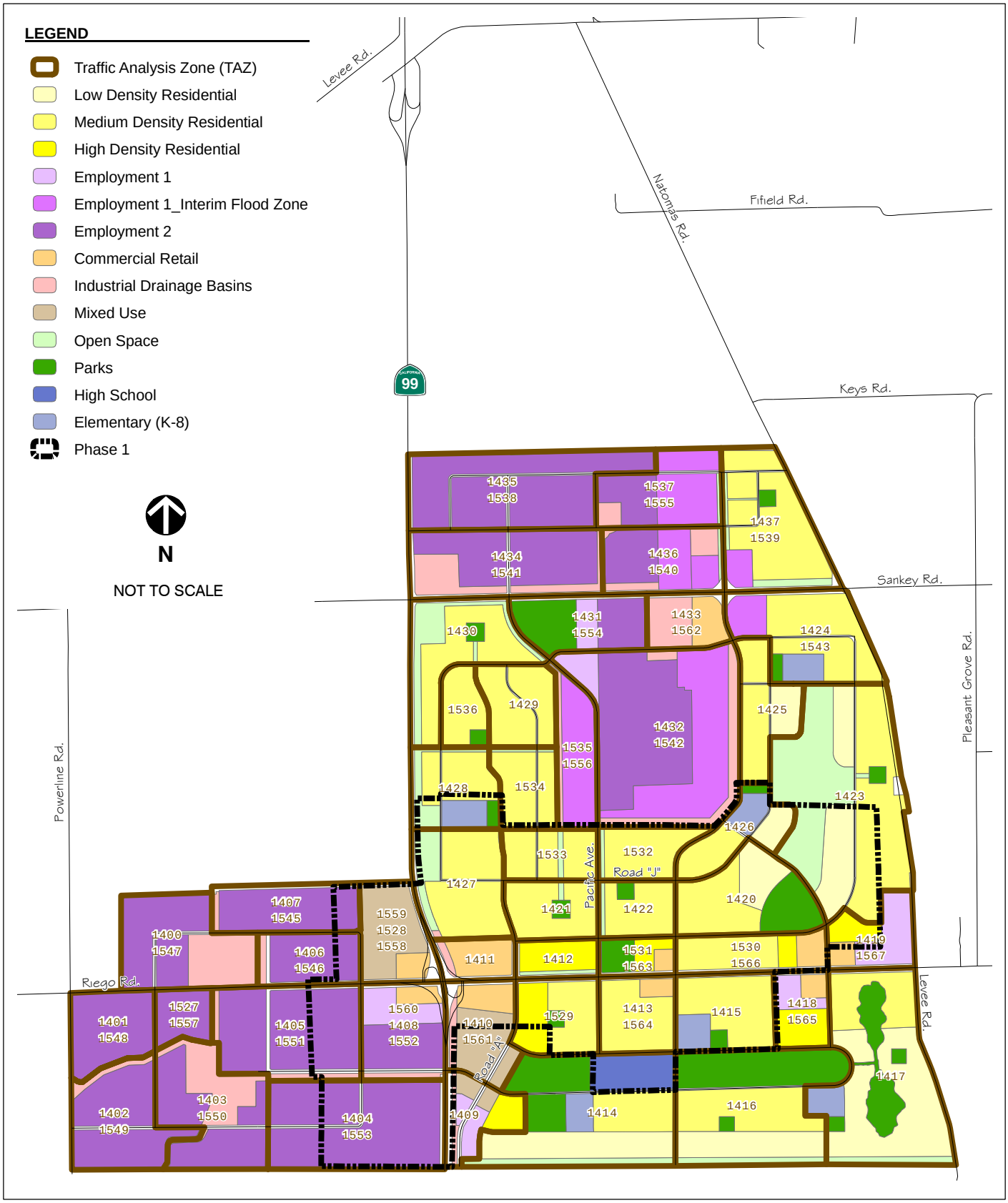


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - EXISTING CONDITIONS

FIGURE 3.3-5



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TRAFFIC ANALYSIS ZONES (TAZ) AND SUTTER POINTE CONCEPT LAND USE PLAN

FIGURE 3.3-6

Phase 1 Conditions

Buildout Conditions

LEGEND

- Traffic Analysis Zone (TAZ)
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Employment 1
- Employment 1_Interim Flood Zone
- Employment 2
- Commercial Retail
- Industrial Drainage Basins
- Mixed Use
- Open Space
- Parks
- High School
- Elementary (K-8)
- Phase 1

Number of Lanes

- 2
- 4
- 6
- 8

N

NOT TO SCALE

Without Placer Parkway
(At-Grade Intersections)

With Placer Parkway

Grade Separated

See Insets

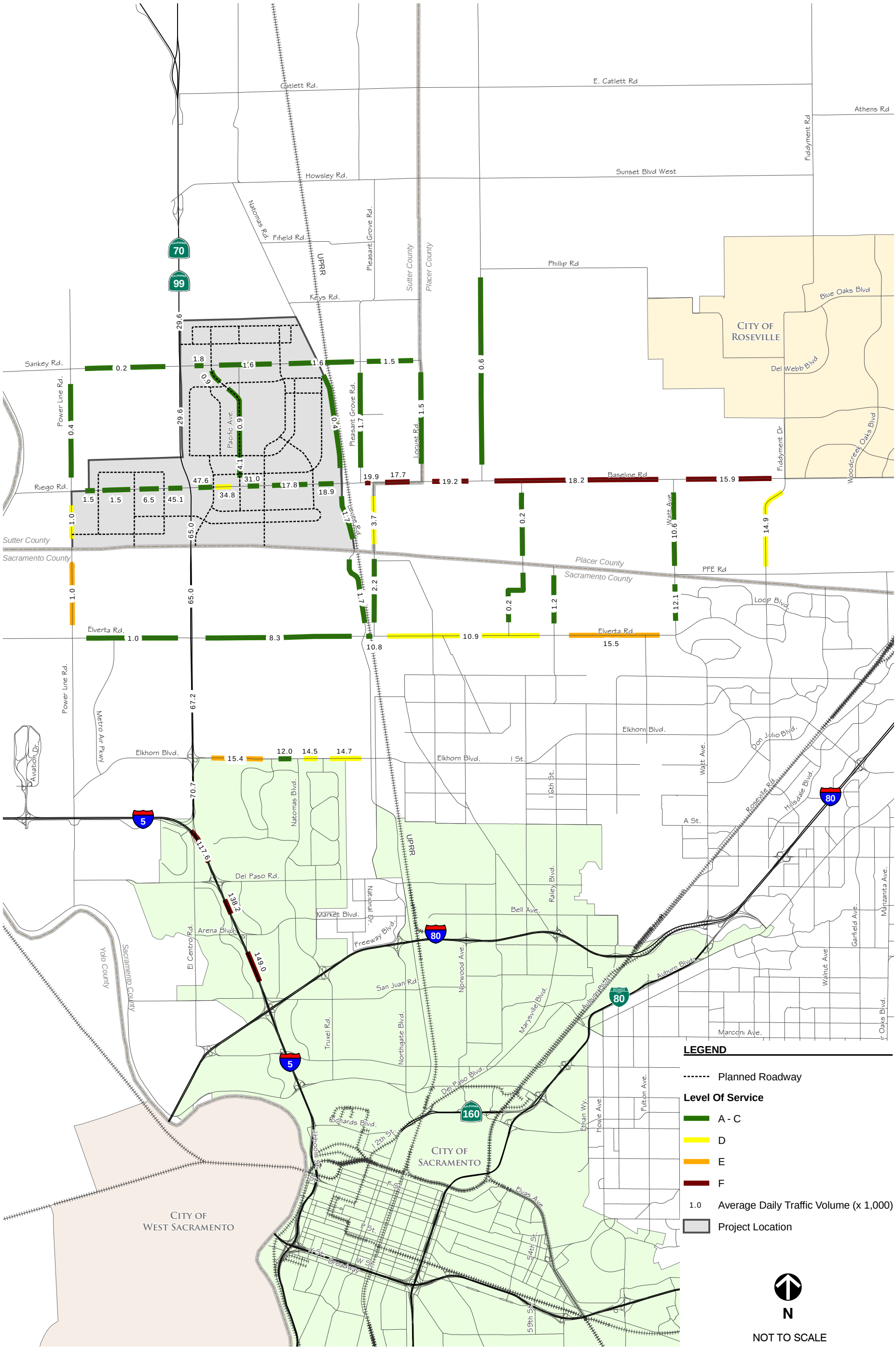
Levee Rd.
Nazomis Rd.
Fifield Rd.
Pleasant Grove Rd.
Keys Rd.
Sankey Rd.
Road "N"
Road "P"
Road "O"
Road "H"
Road "K"
Road "M"
Road "C"
Road "G"
Road "J"
Road "L"
Pacific Ave.
Road "B"
Road "D"
Powerline Rd.
Road "V"
Riego Rd.
Road "U"
Road "S"
Road "Q"
Road "A"
Road "T"
99

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SUTTER POINTE SPECIFIC PLAN - PLANNED ROADWAYS

FIGURE 3.3-7



LEGEND

Planned Roadway

Level Of Service

- A - C
- D
- E
- F

1.0 Average Daily Traffic Volume (x 1,000)

Project Location

N

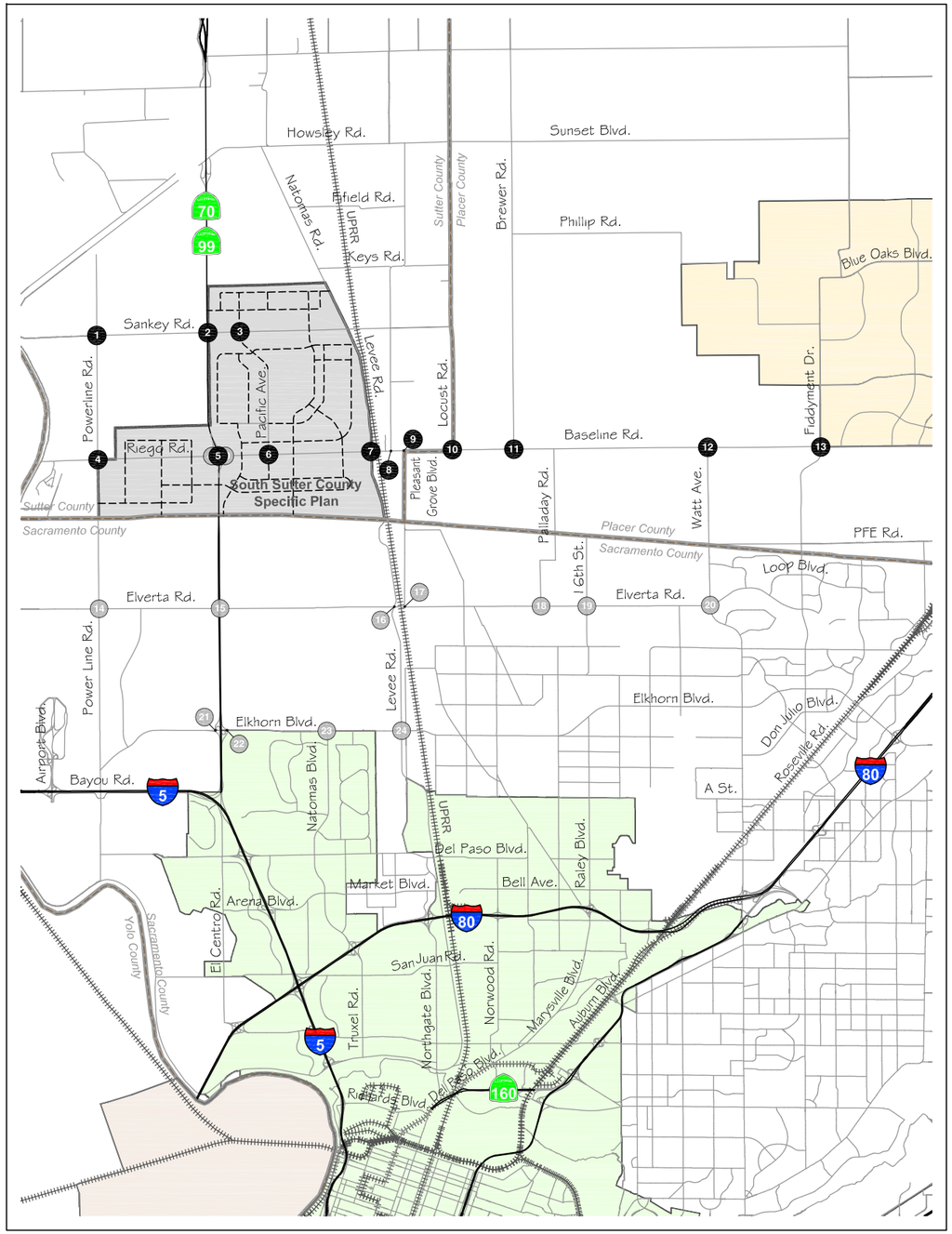
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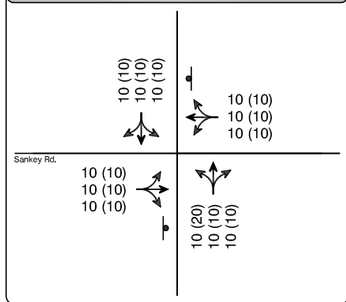
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - EXISTING PLUS PROJECT PHASE 1 CONDITIONS

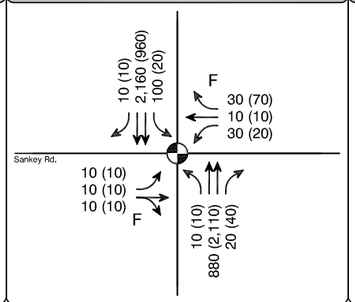
FIGURE 3.3-8



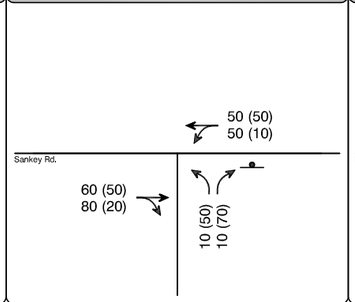
1. Sankey Rd./Powerline Rd.



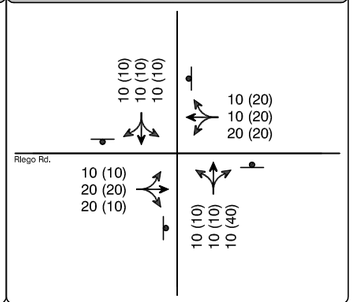
2. Sankey Rd./SR 99



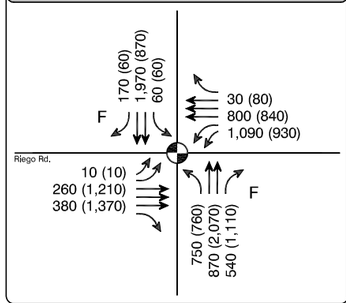
3. Sankey Rd./Pacific Ave.



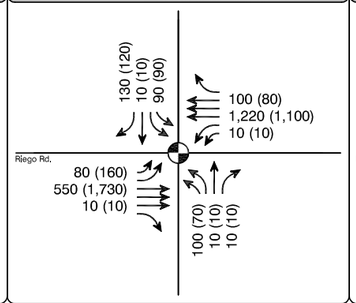
4. Riego Rd./Powerline Rd.



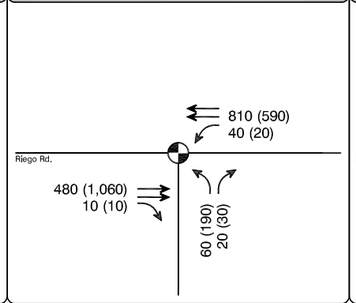
5. Riego Rd./SR 99



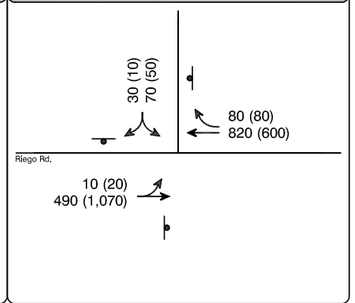
6. Riego Rd./Pacific Ave.



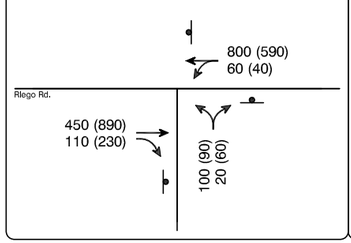
7. Riego Rd./Natomas Rd.



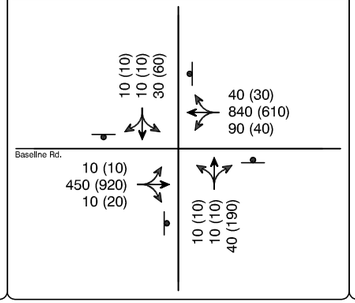
8. Riego Rd./Pleasant Grove Rd. N.



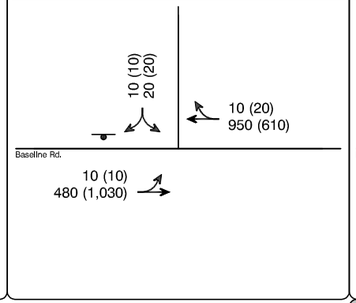
9. Riego Rd./Pleasant Grove Rd. S.



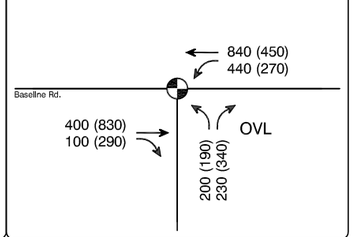
10. Baseline Rd./Locust Rd.



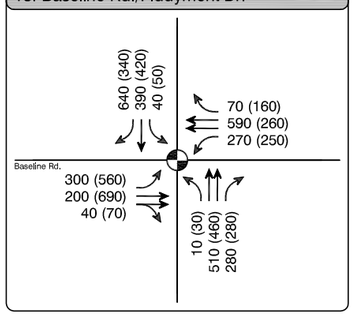
11. Baseline Rd./Brewer Rd.



12. Baseline Rd./Watt Ave.



13. Baseline Rd./Fiddyment Dr.



LEGEND

	Turn Lane	F	"Free" Right Turn
AM (PM)	Peak Hour Traffic Volume	OVL	Overlap Phasing
1	Study Intersection (Grey: See Figure 3.3-9B, 9C)	-----	Planned Roadway
	Traffic Signal		City of Roseville Limits
	Stop Sign		City of West Sacramento Limits
			City of Sacramento Limits

N

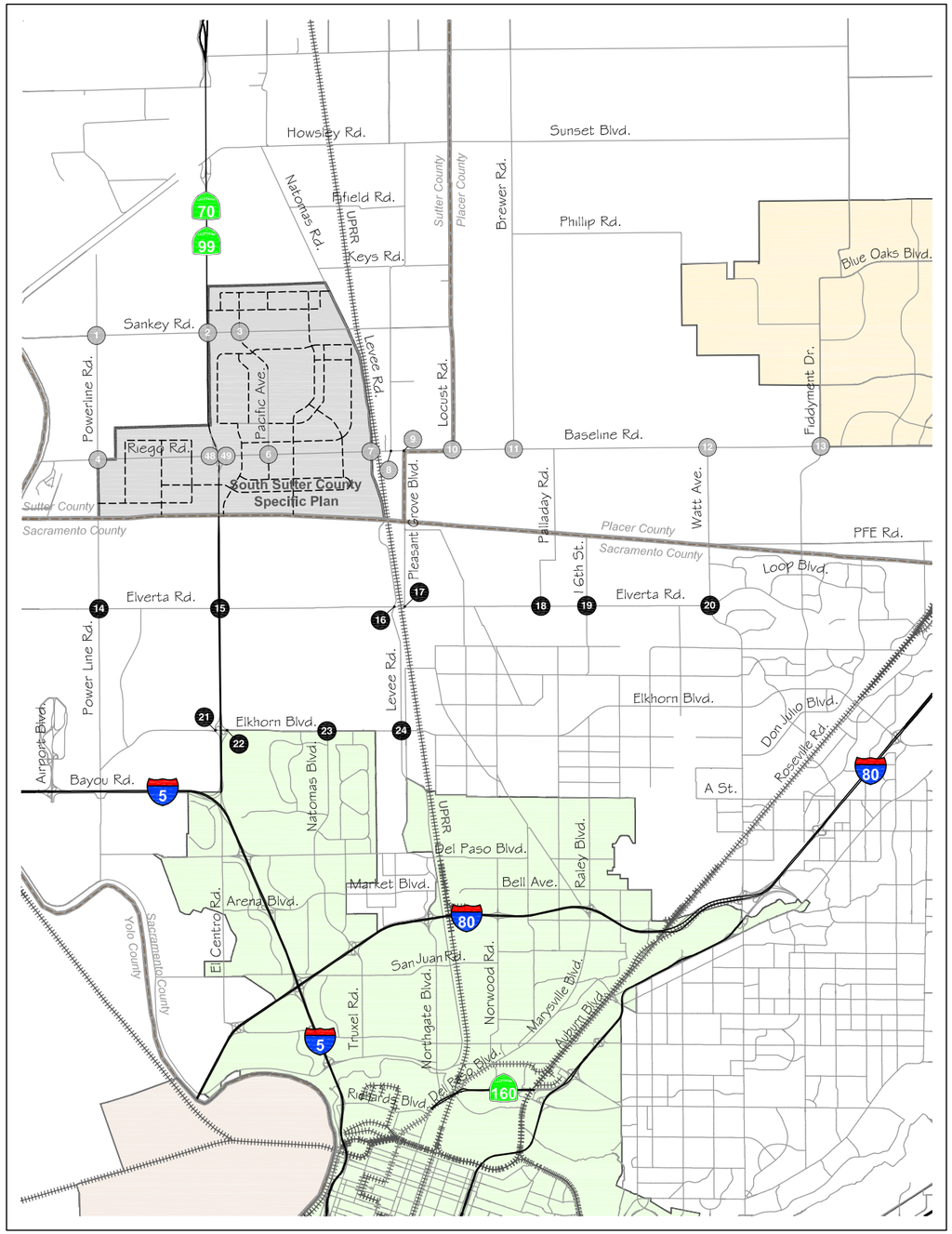
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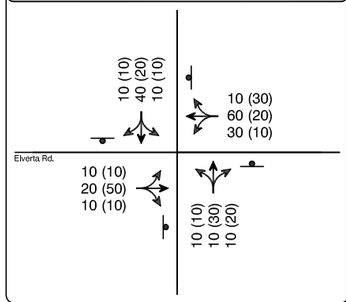
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT PHASE 1 CONDITIONS

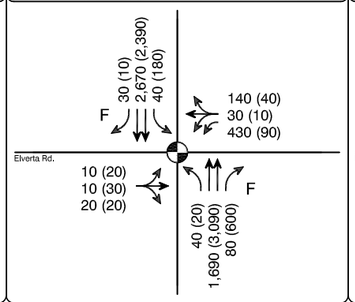
FIGURE 3.3-9A



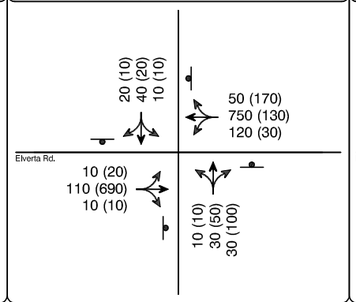
14. Elverta Rd./Power Line Rd.



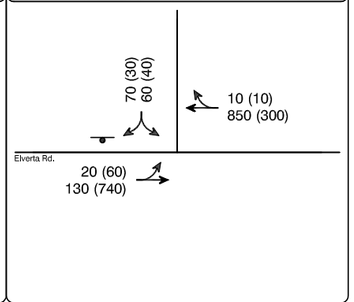
15. Elverta Rd./SR 99



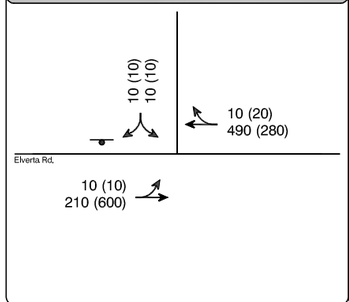
16. Elverta Rd./E. Levee Rd.



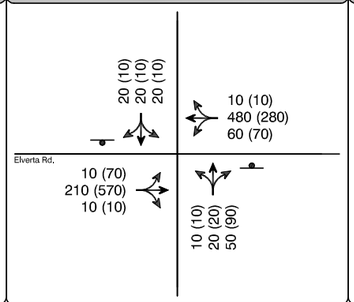
17. Elverta Rd./Sorento Rd.



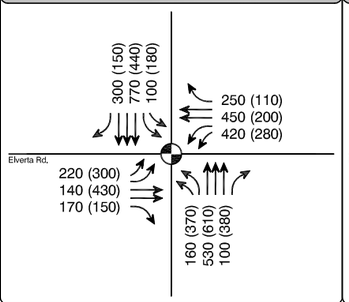
18. Elverta Rd./Palladay Rd.



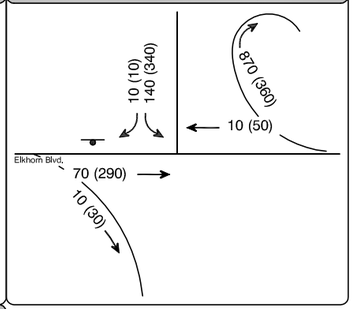
19. Elverta Rd./16th St.



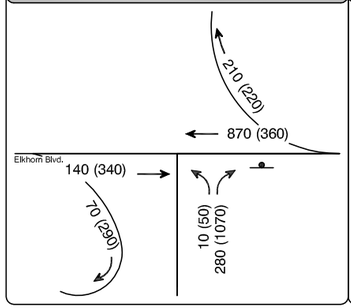
20. Elverta Rd./Watt Ave.



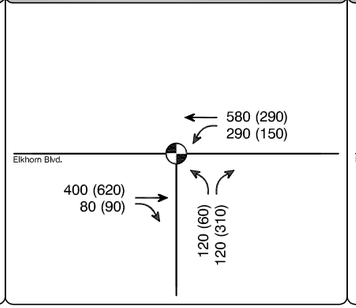
21. Elkhorn Blvd./SR 99 SB Ramps



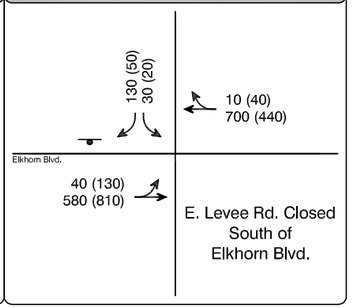
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



LEGEND

- Turn Lane
- AM (PM) Peak Hour Traffic Volume
- 1 Study Intersection (Grey: See Figure 3.3-9A, 9C)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

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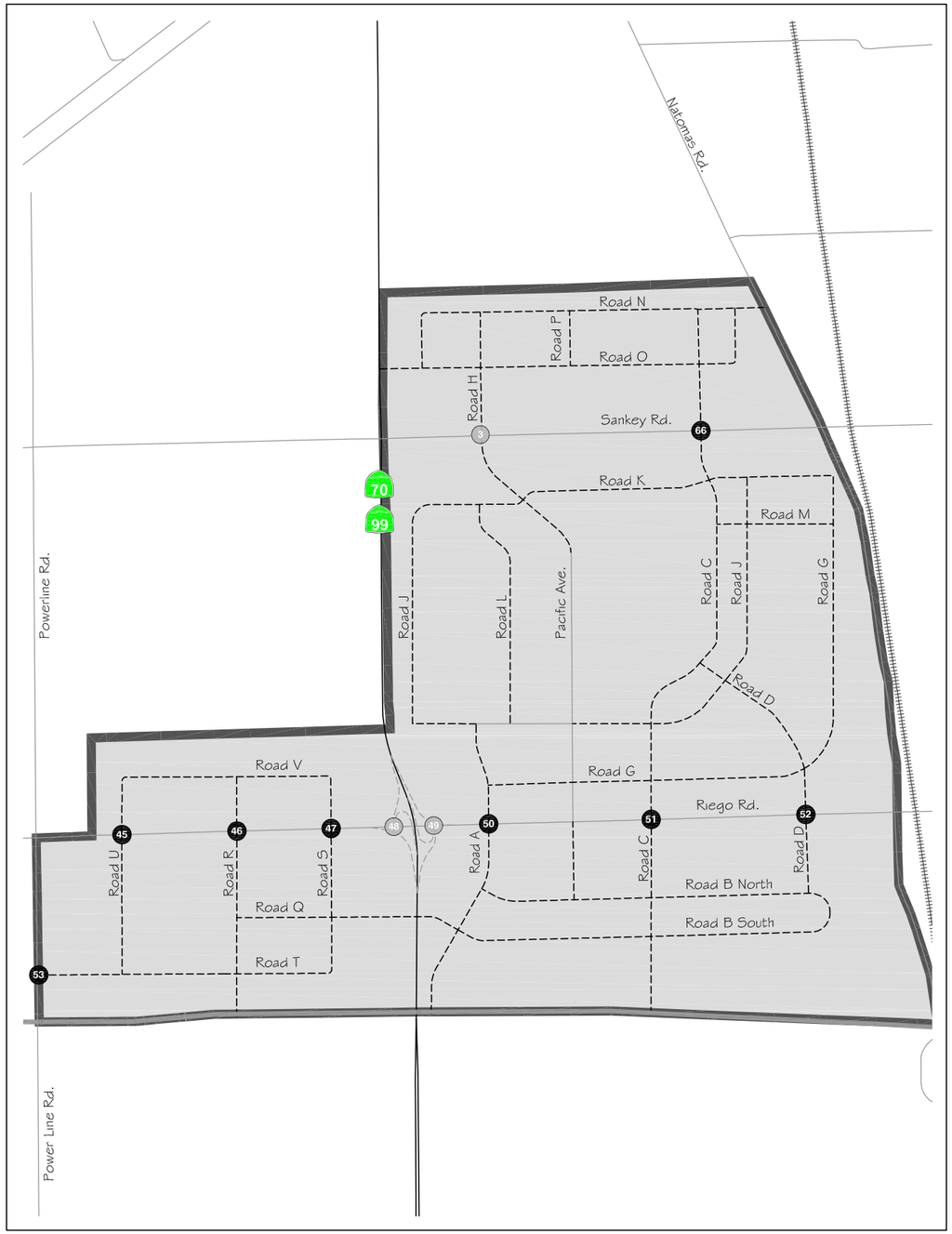
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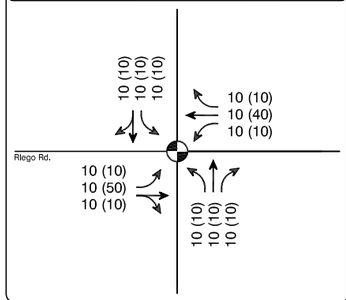
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT PHASE 1 CONDITIONS

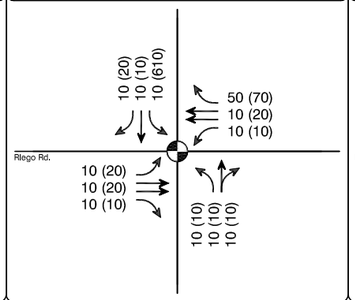
FIGURE 3.3-9B



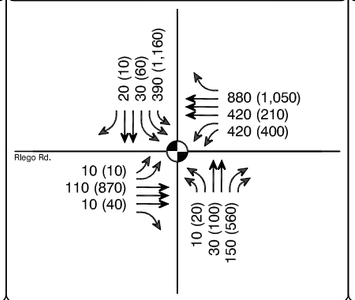
45. Riego Rd./Road U



46. Riego Rd./Road R



47. Riego Rd./Road S



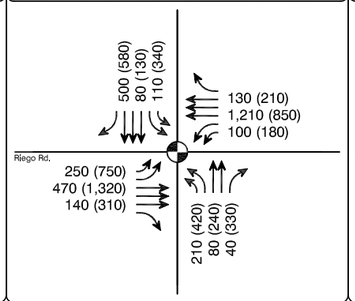
48. Riego Rd./SR 99 SB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

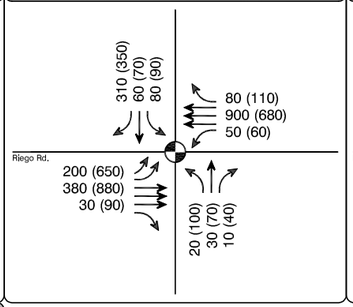
49. Riego Rd./SR 99 NB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

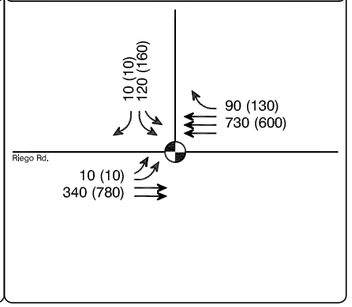
50. Riego Rd./Road A



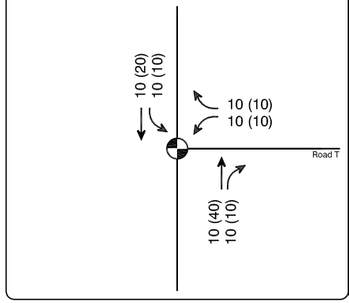
51. Riego Rd./Road C



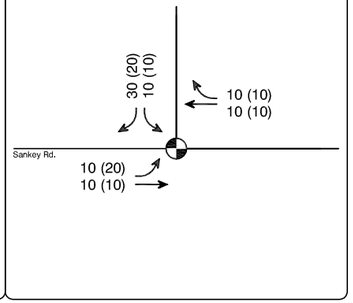
52. Riego Rd./Road D



53. Road T/Power Line Rd.



66. Sankey Rd./Road C



LEGEND

	Turn Lane	F	"Free" Right Turn
AM (PM)	Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-9A, 9B)		City of Roseville Limits
			City of West Sacramento Limits
	Traffic Signal		City of Sacramento Limits
	Stop Sign		

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT PHASE 1 CONDITIONS

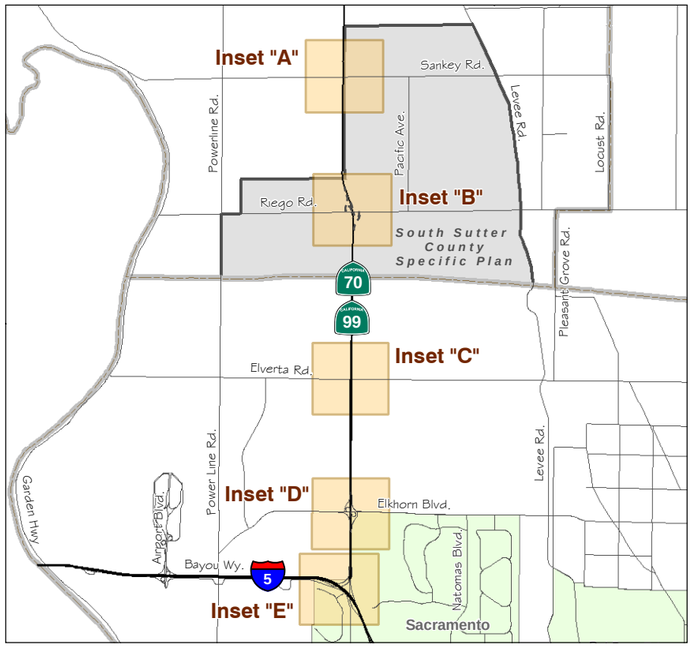
FIGURE 3.3-9C

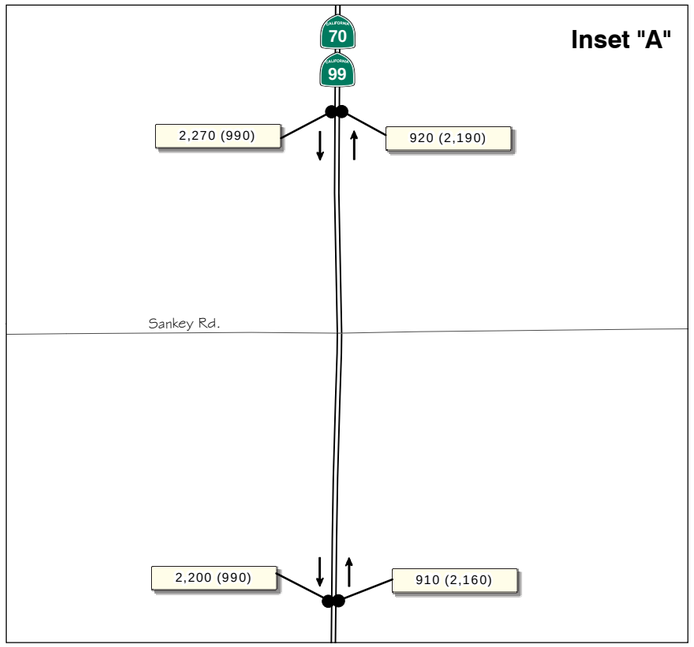
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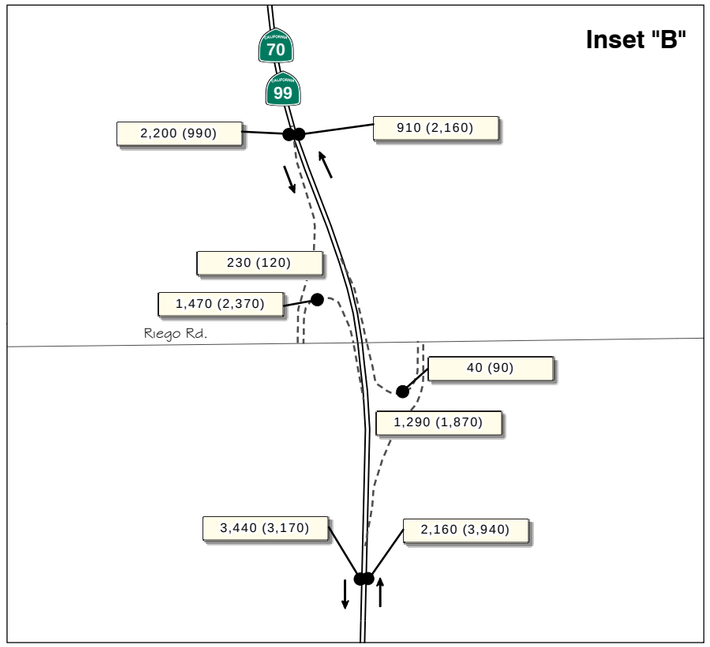
- Through Lane
- Future Ramp
- 100 (100) AM (PM) Traffic Volume

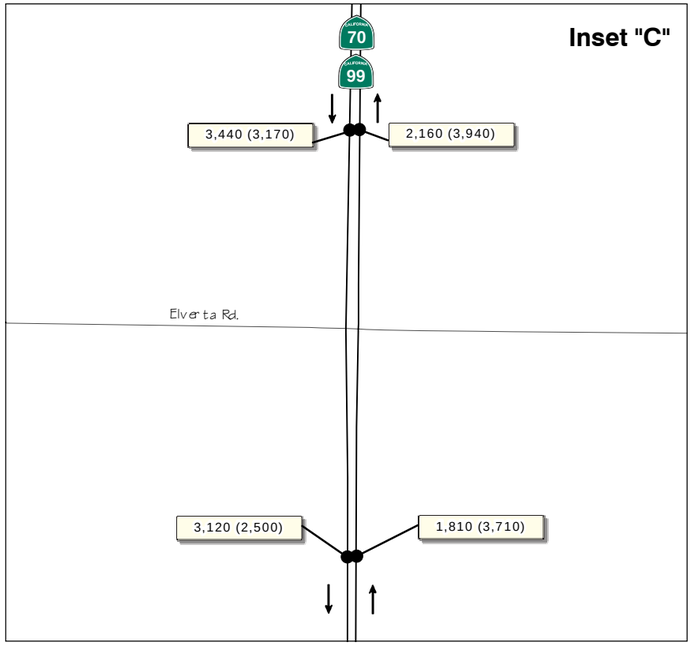
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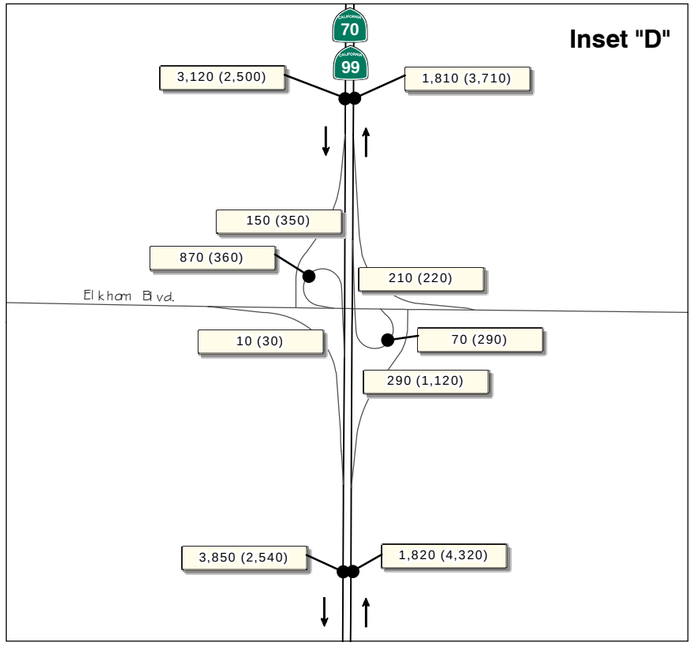
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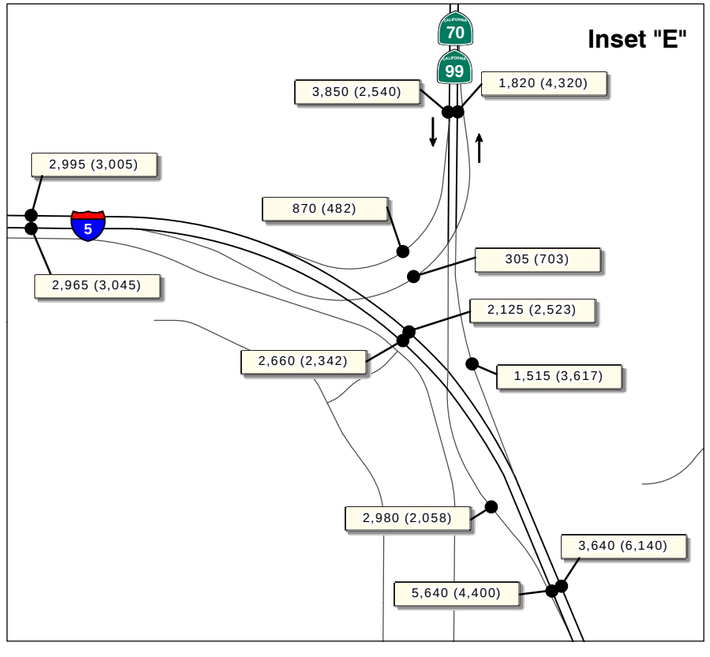










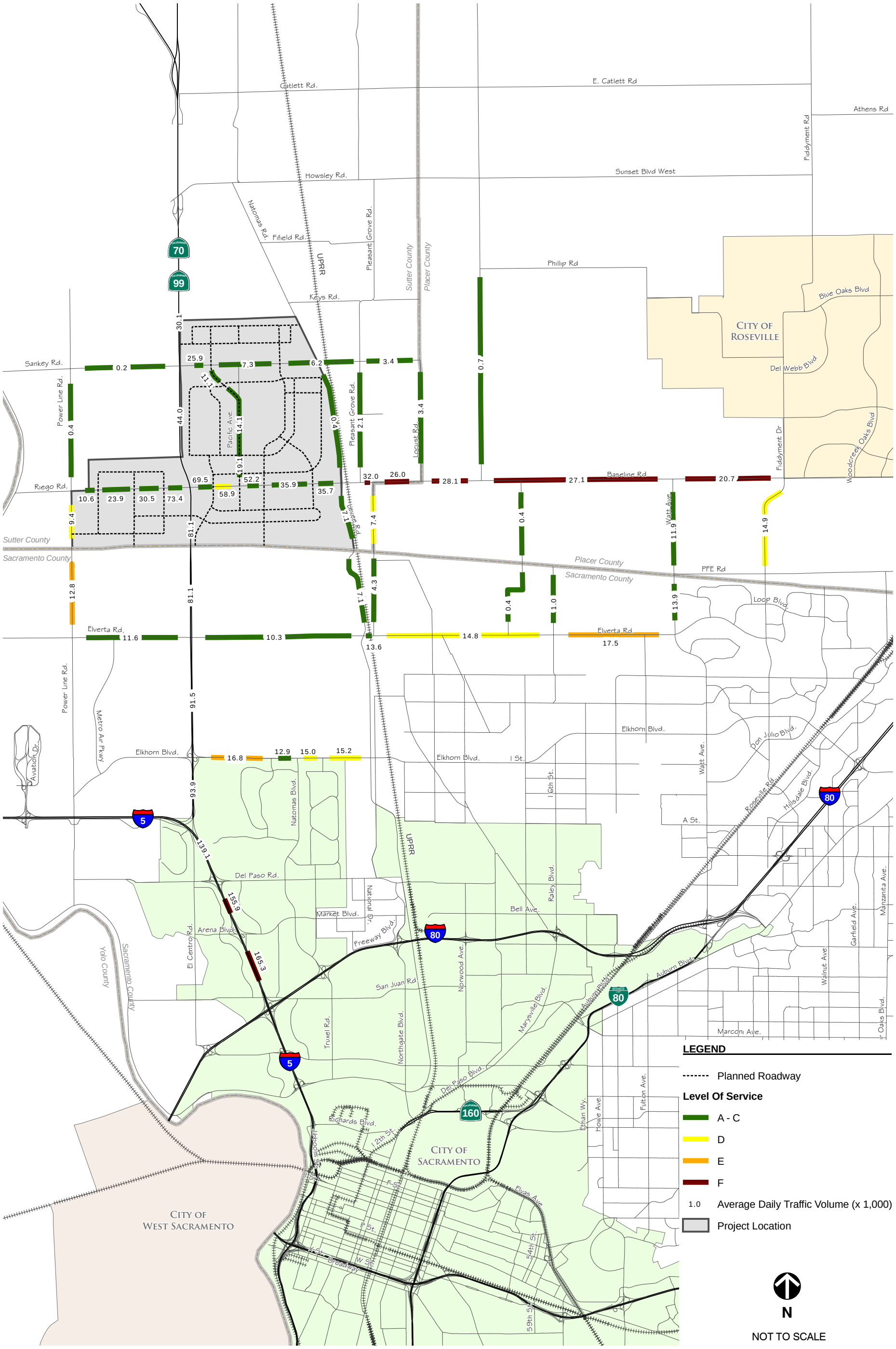


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - EXISTING PLUS PROJECT PHASE 1 CONDITIONS

FIGURE 3.3-10

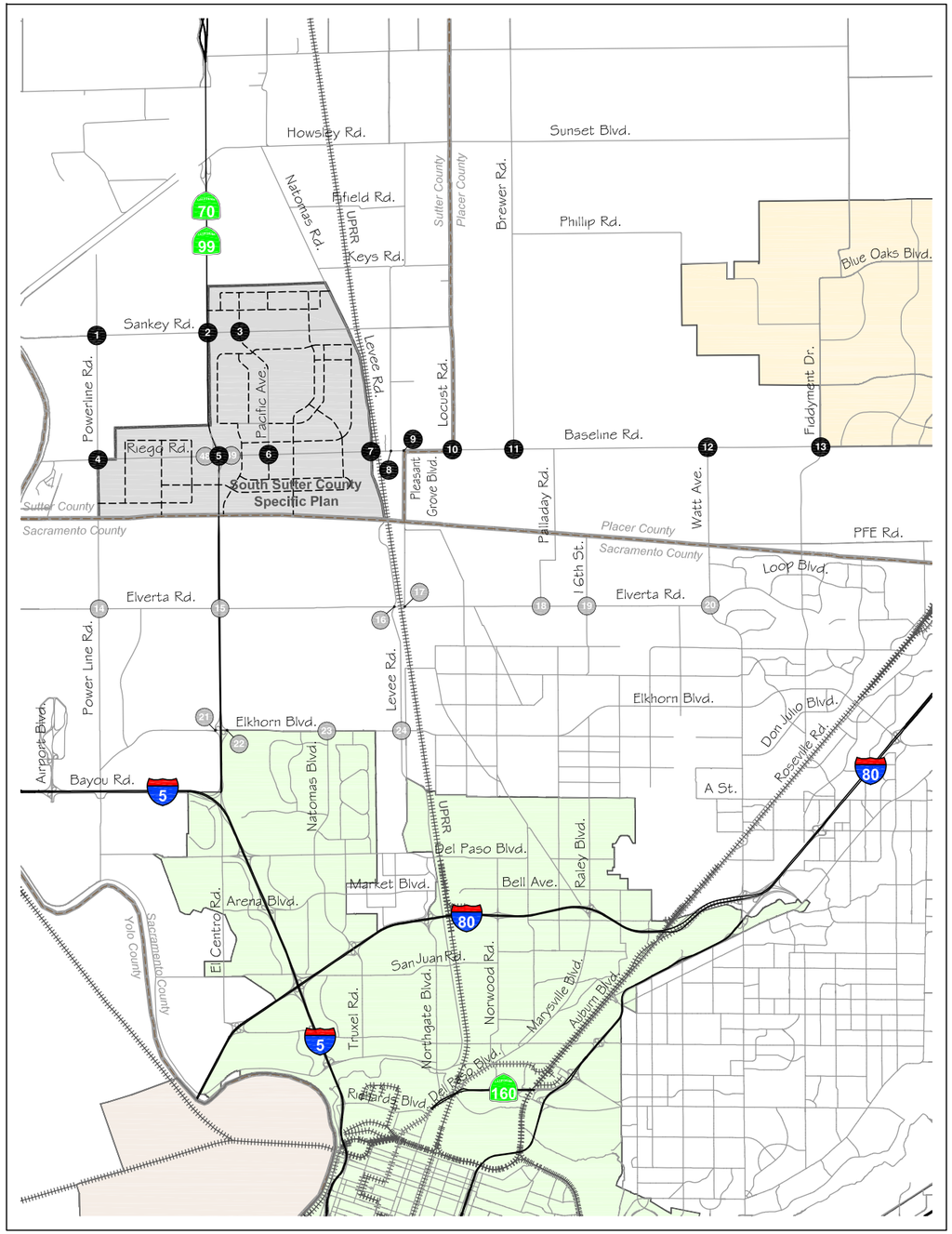


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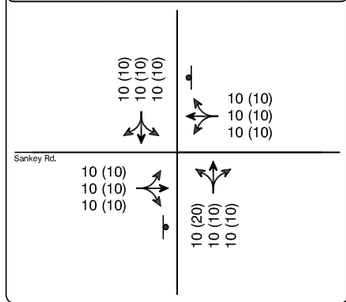
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - EXISTING PLUS PROJECT CONDITIONS

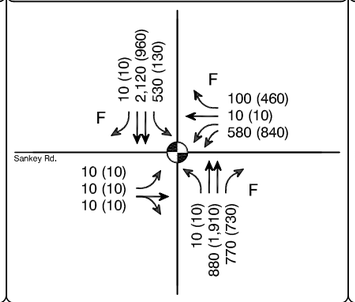
FIGURE 3.3-11



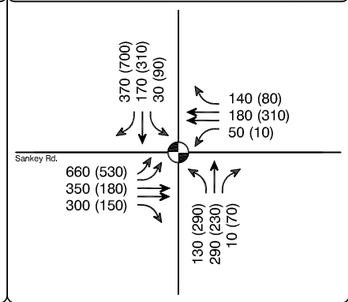
1. Sankey Rd./Powerline Rd.



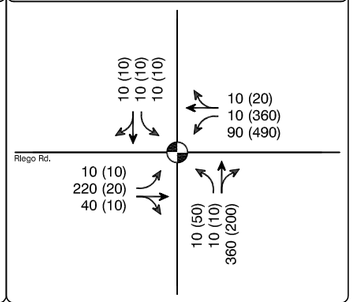
2. Sankey Rd./SR 99



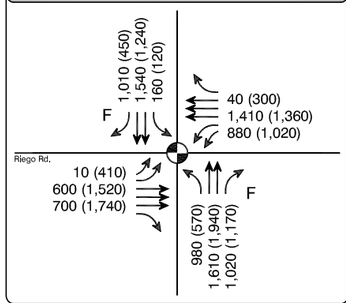
3. Sankey Rd./Pacific Ave.



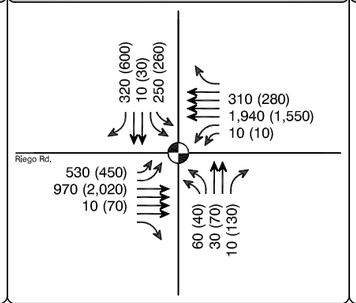
4. Riego Rd./Powerline Rd.



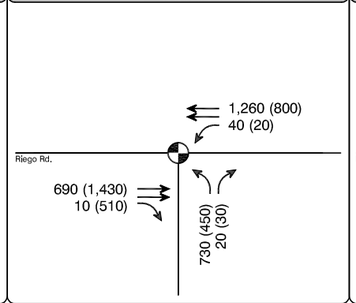
5. Riego Rd./SR 99



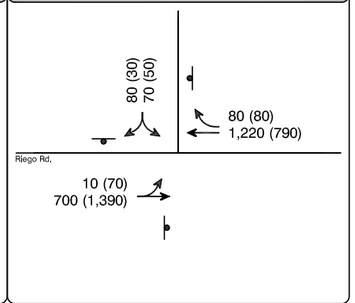
6. Riego Rd./Pacific Ave.



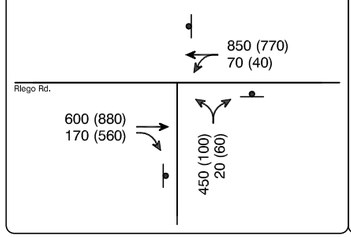
7. Riego Rd./Natomas Rd.



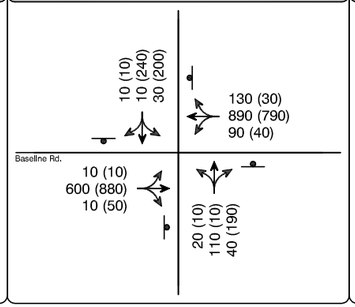
8. Riego Rd./Pleasant Grove Rd. N.



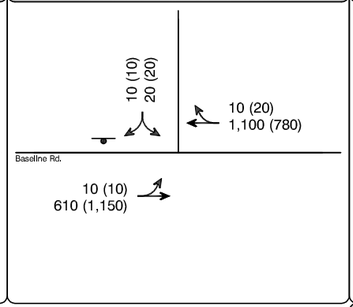
9. Riego Rd./Pleasant Grove Rd. S.



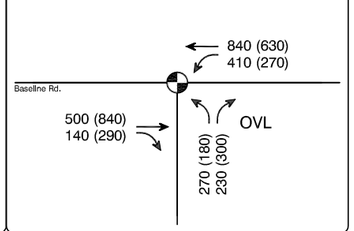
10. Baseline Rd./Locust Rd.



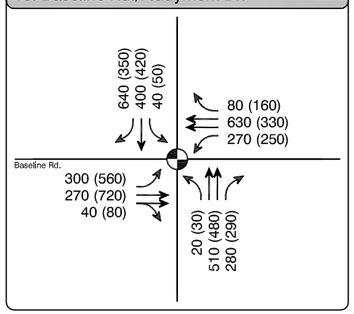
11. Baseline Rd./Brewer Rd.



12. Baseline Rd./Watt Ave.



13. Baseline Rd./Fiddyment Dr.



LEGEND

	Turn Lane	F	"Free" Right Turn
AM (PM)	Peak Hour Traffic Volume	OVL	Overlap Phasing
1	Study Intersection (Grey: See Figure 3.3-12B, 12C)	-----	Planned Roadway
	Traffic Signal		City of Roseville Limits
	Stop Sign		City of West Sacramento Limits
			City of Sacramento Limits

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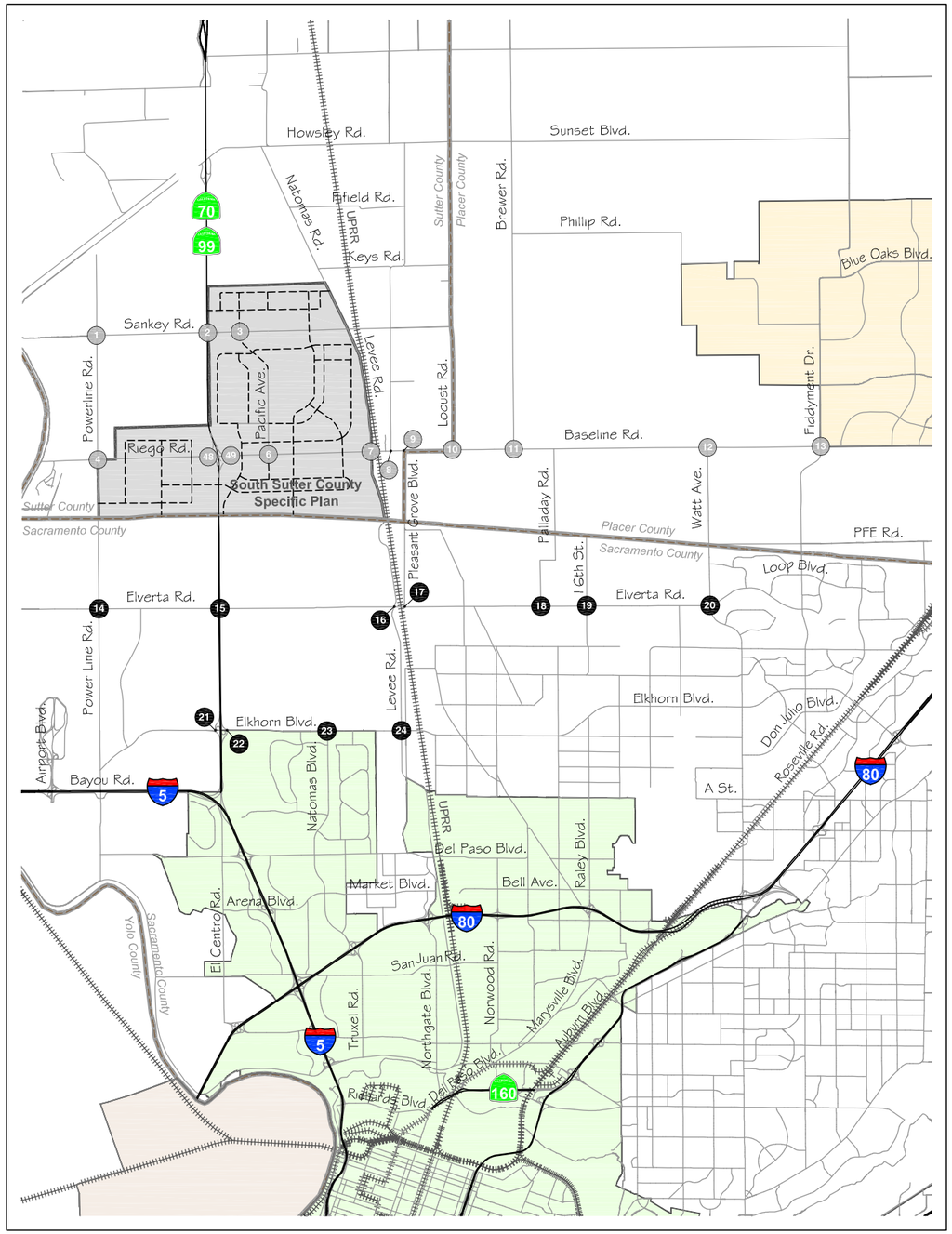
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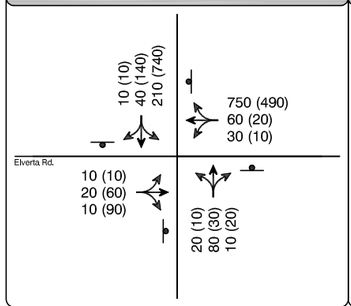
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT CONDITIONS

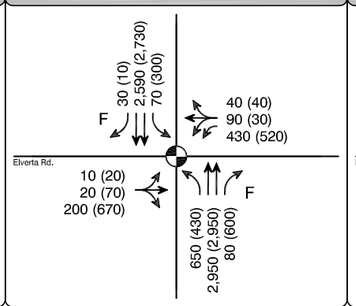
FIGURE 3.3-12A



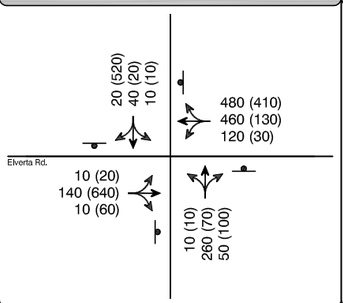
14. Elverta Rd./Power Line Rd.



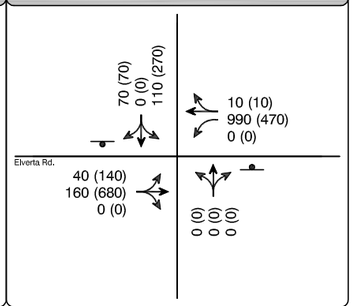
15. Elverta Rd./SR 99



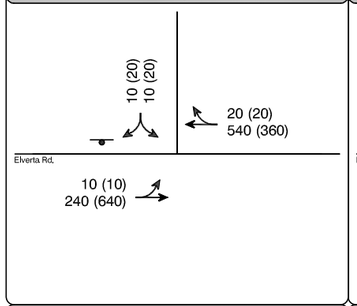
16. Elverta Rd./E. Levee Rd.



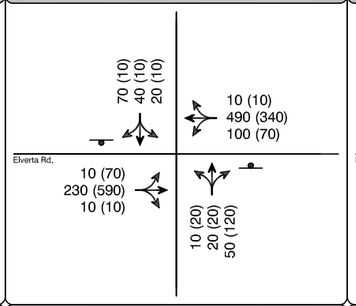
17. Elverta Rd./Sorento Rd.



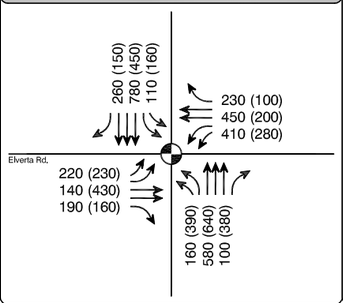
18. Elverta Rd./Palladay Rd.



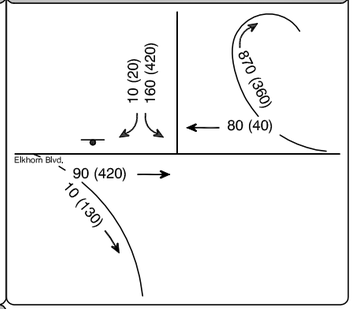
19. Elverta Rd./16th St.



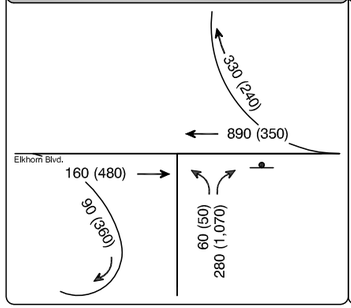
20. Elverta Rd./Watt Ave.



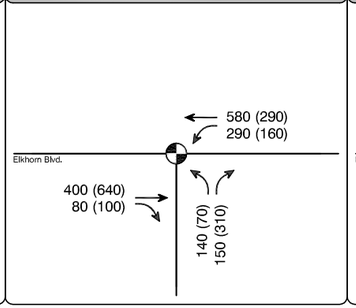
21. Elkhorn Blvd./SR 99 SB Ramps



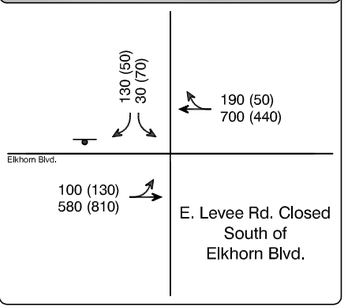
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



LEGEND

- Turn Lane
- AM (PM) Peak Hour Traffic Volume
- 1 Study Intersection (Grey: See Figure 3.3-12A, 12C)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

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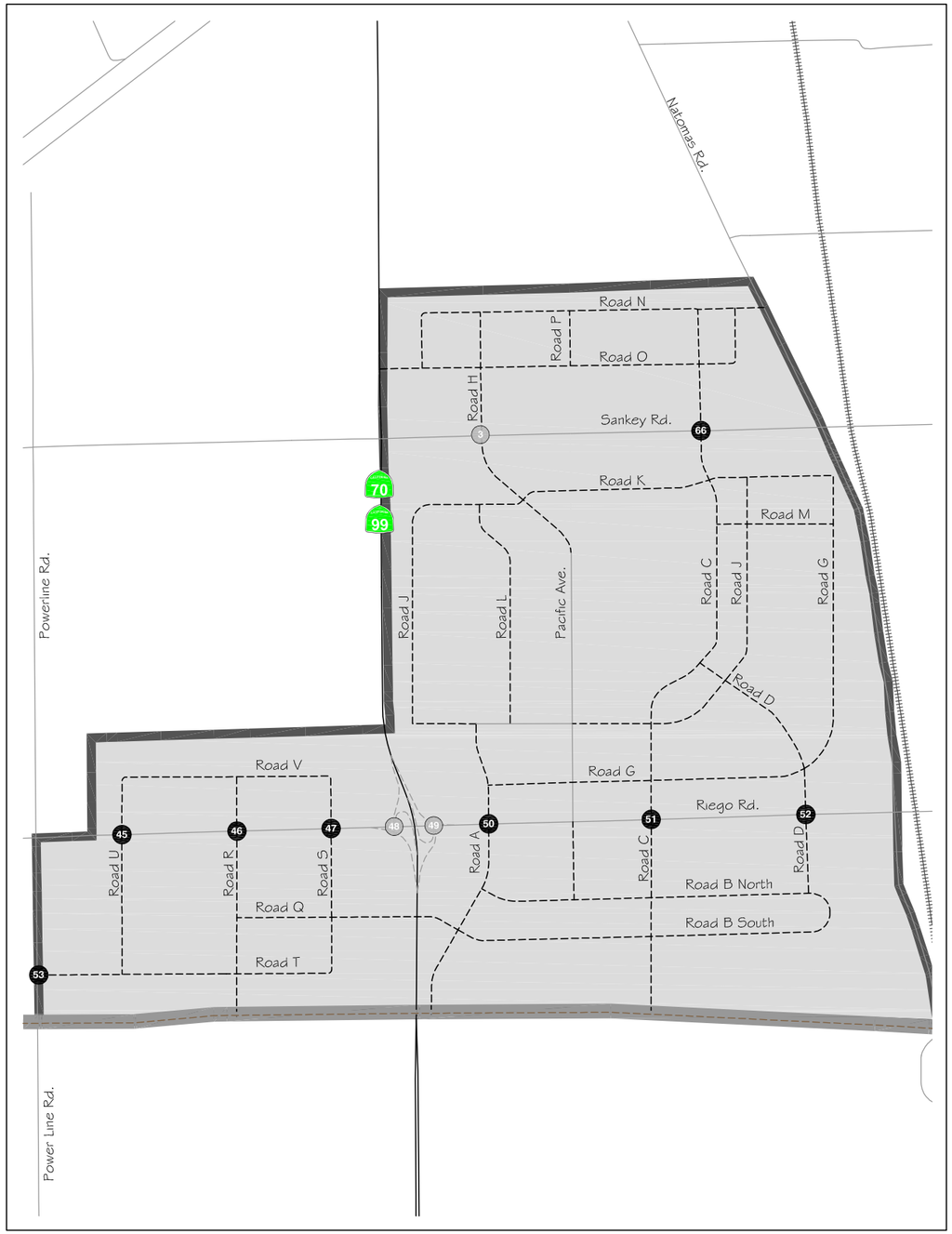
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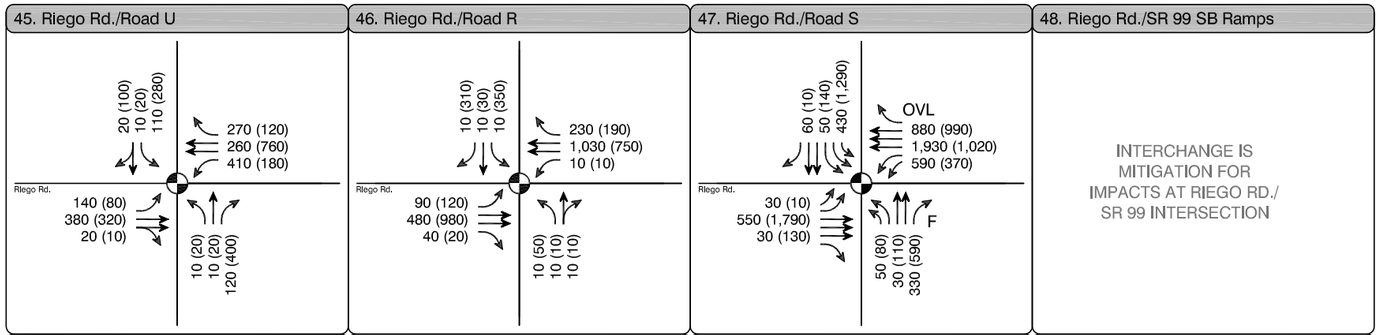
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT CONDITIONS

FIGURE 3.3-12B





LEGEND

	Turn Lane	F	"Free" Right Turn
AM (PM)	Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-12A, 12B)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT CONDITIONS

FIGURE 3.3-12C

LEGEND

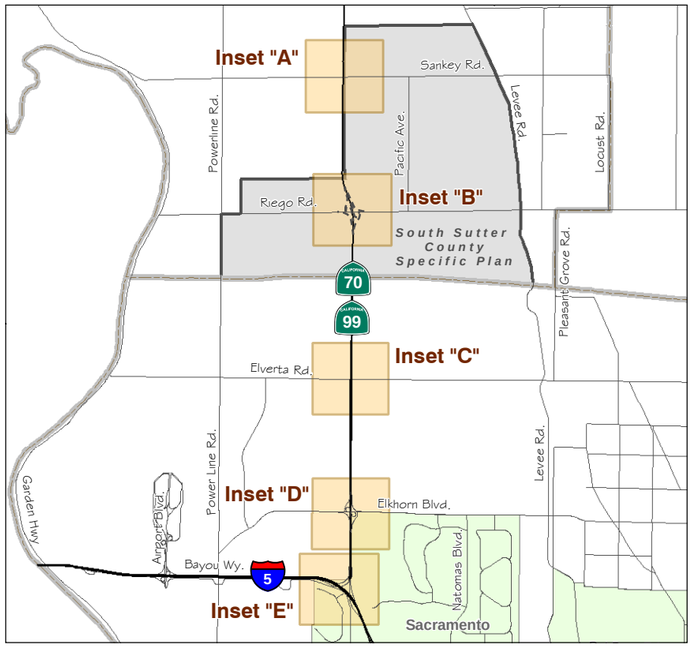
Through Lane

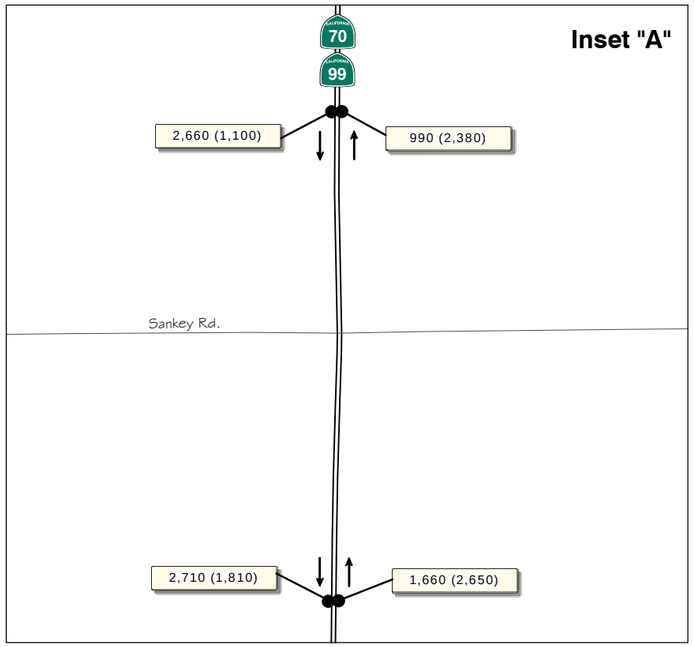
Future Ramp

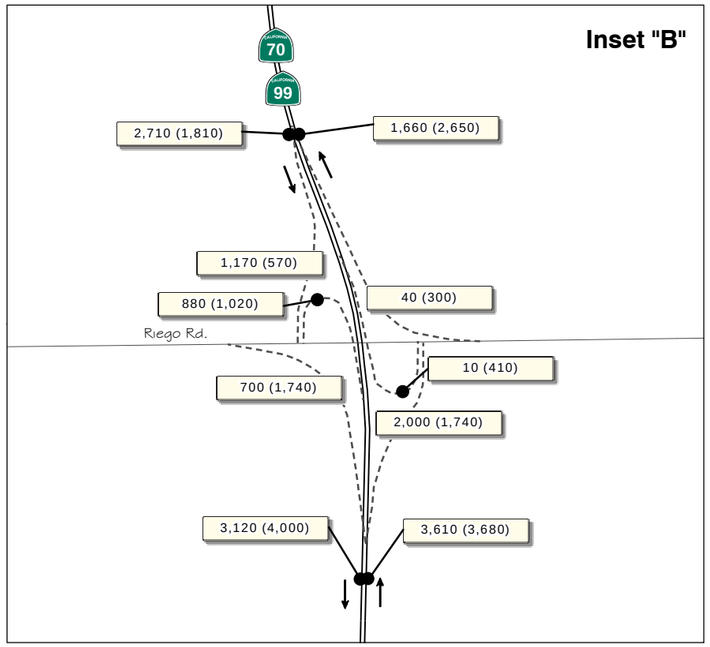
100 (100) AM (PM) Traffic Volume

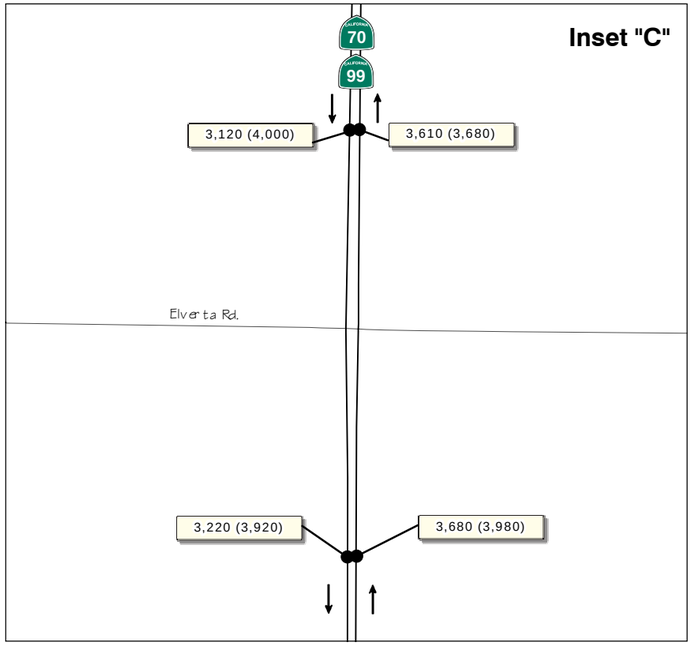
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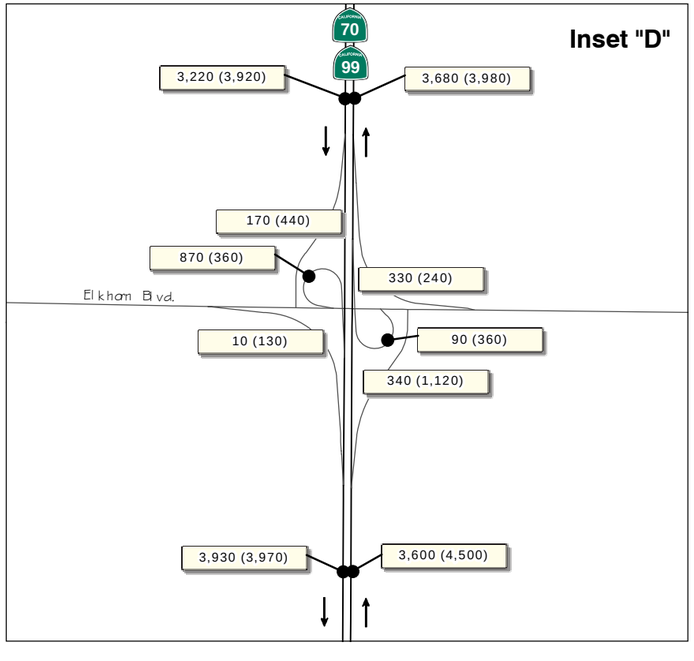
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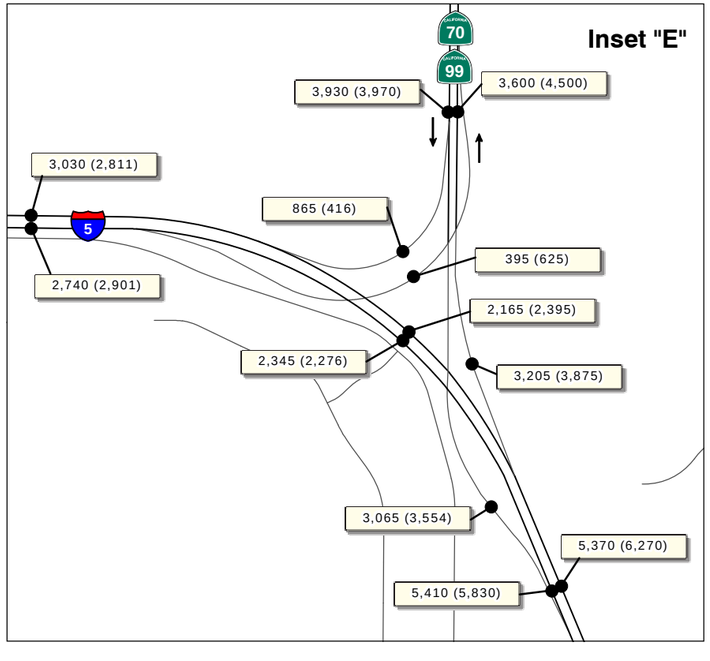










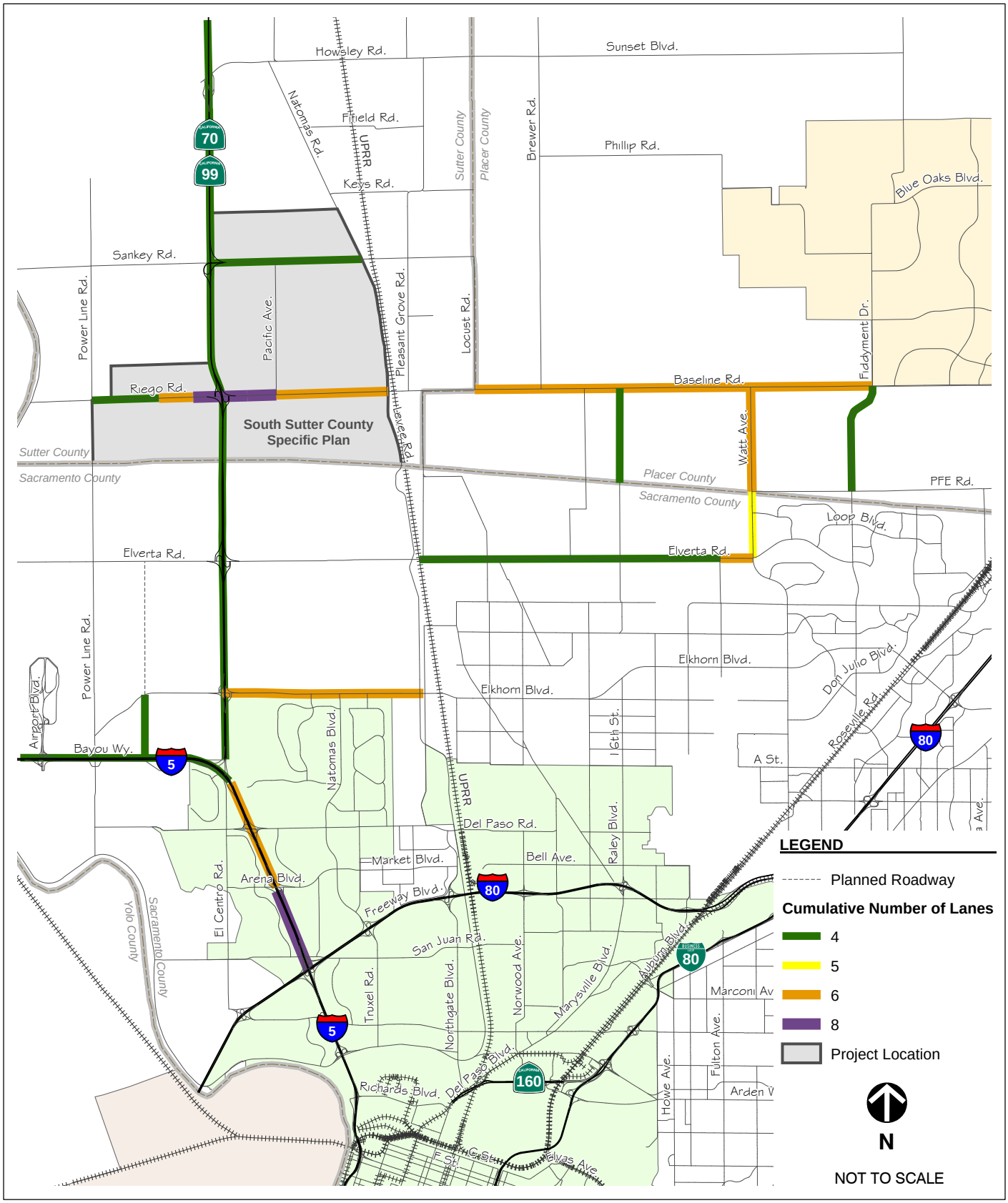


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - EXISTING PLUS PROJECT CONDITIONS

FIGURE 3.3-13

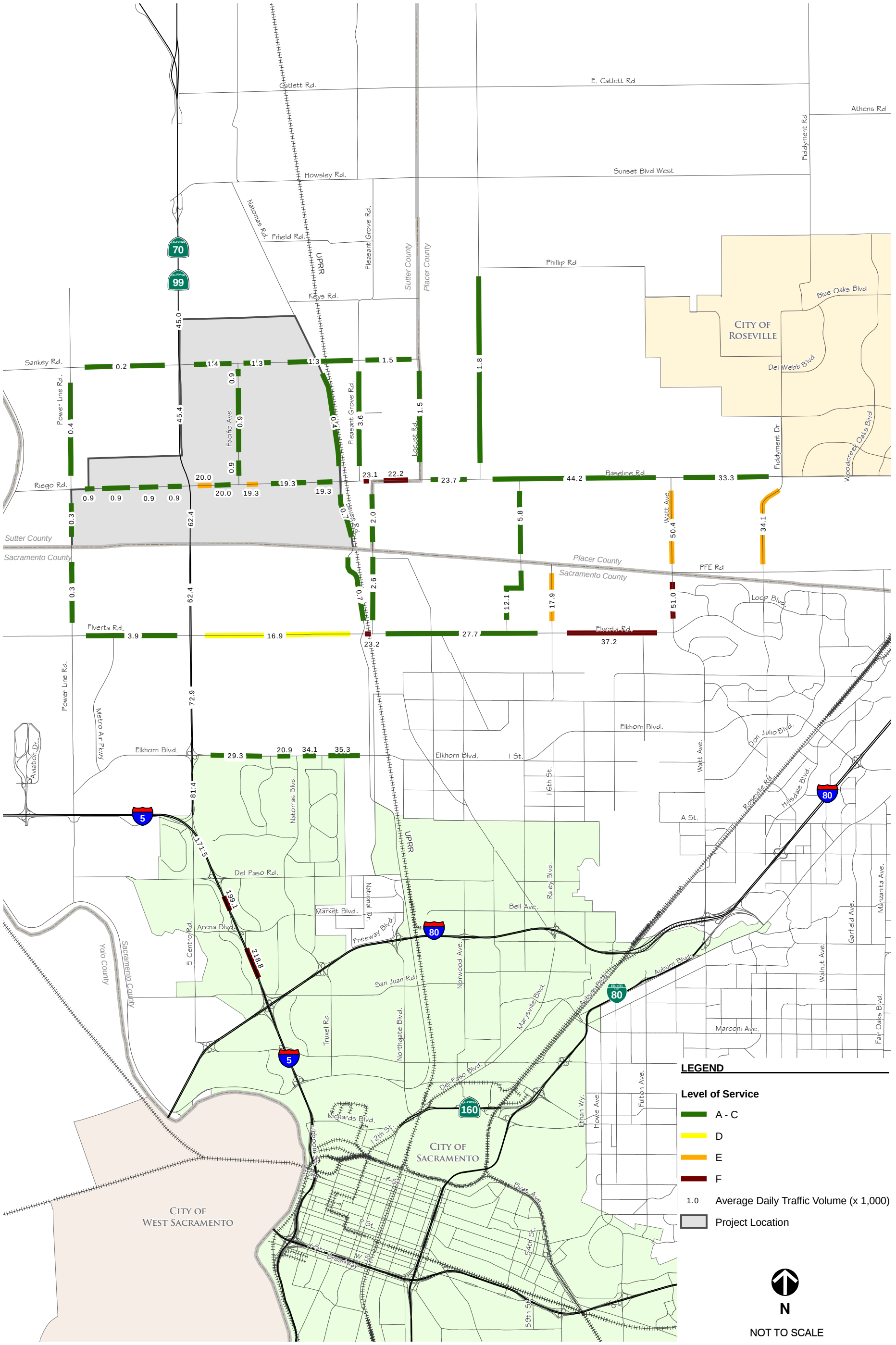


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NUMBER OF LANES - CUMULATIVE CONDITIONS

FIGURE 3.3-14

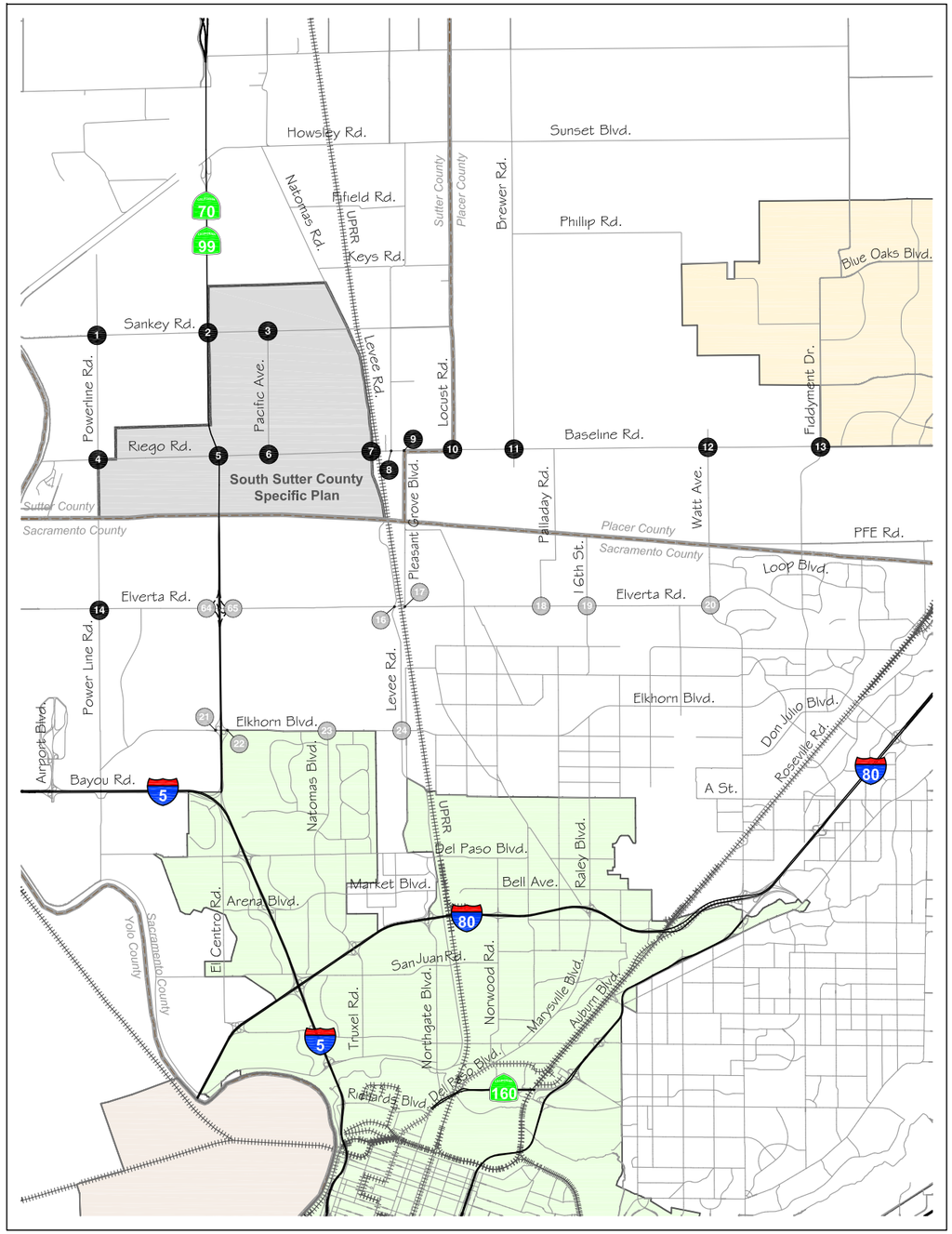


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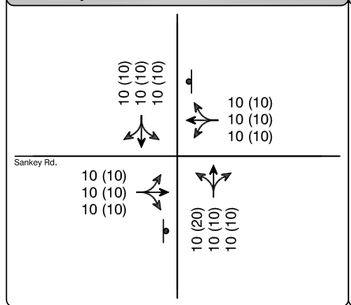
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - CUMULATIVE NO PROJECT CONDITIONS

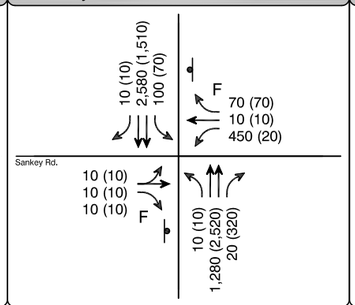
FIGURE 3.3-15



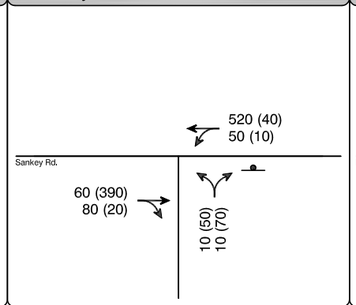
1. Sankey Rd./Powerline Rd.



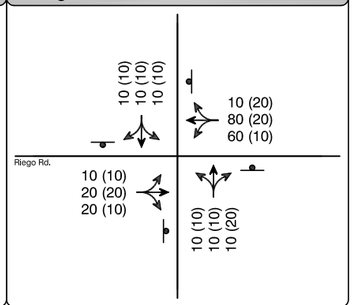
2. Sankey Rd./SR 99



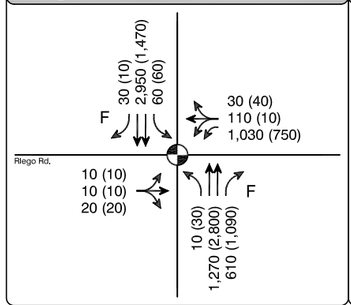
3. Sankey Rd./Pacific Ave.



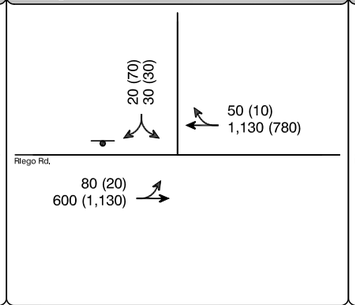
4. Riego Rd./Powerline Rd.



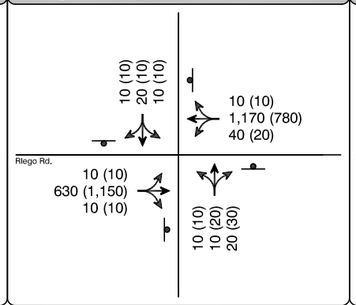
5. Riego Rd./SR 99



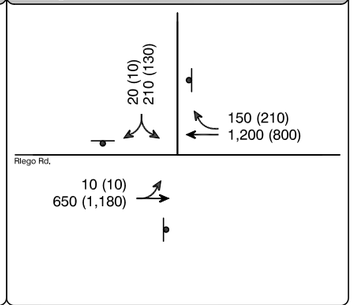
6. Riego Rd./Pacific Ave.



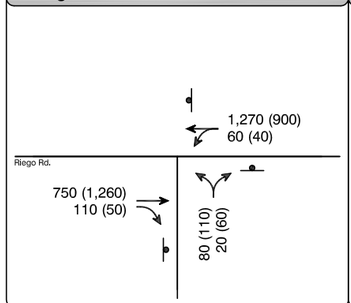
7. Riego Rd./Natomas Rd.



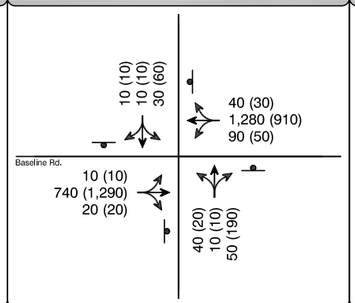
8. Riego Rd./Pleasant Grove Rd. N.



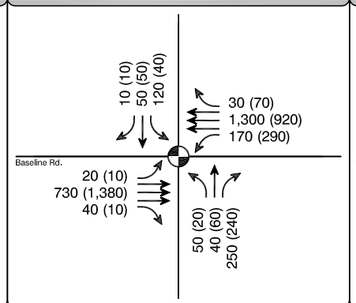
9. Riego Rd./Pleasant Grove Rd. S.



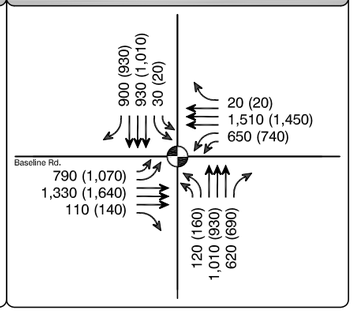
10. Baseline Rd./Locust Rd.



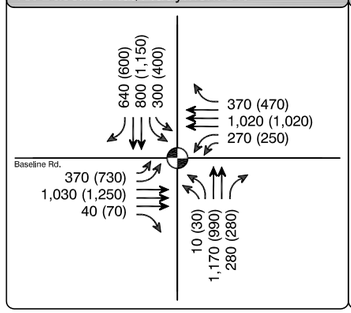
11. Baseline Rd./Brewer Rd.



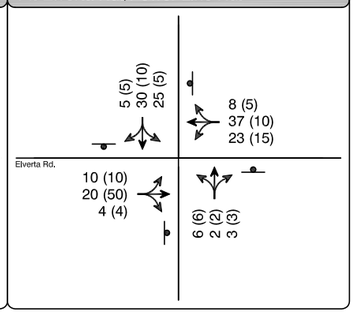
12. Baseline Rd./Watt Ave.



13. Baseline Rd./Fiddyment Dr.



14. Elverta Rd./Power Line Rd.



LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-16B)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

N

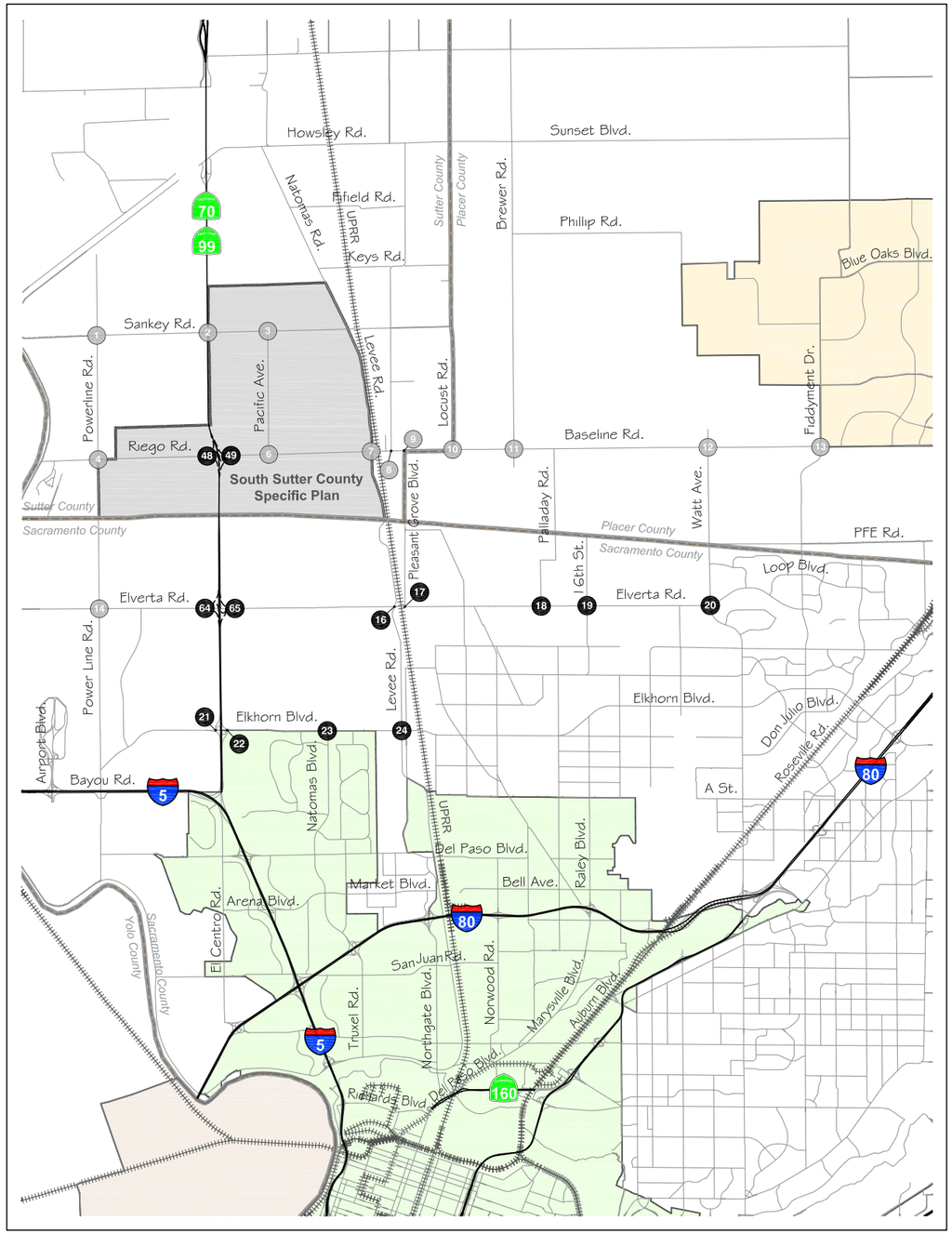
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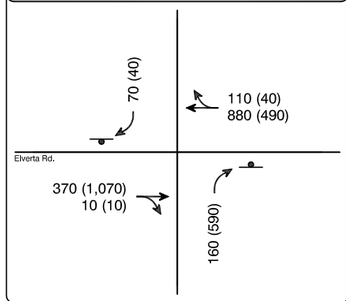
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE NO PROJECT CONDITIONS

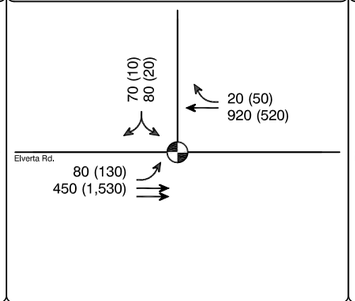
FIGURE 3.3-16A



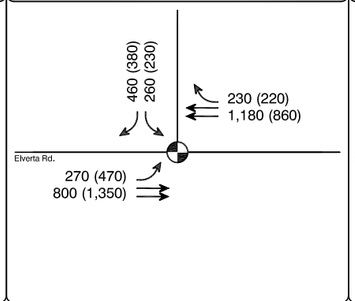
16. Elverta Rd./E. Levee Rd.



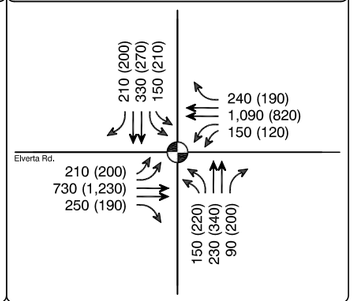
17. Elverta Rd./Sorento Rd.



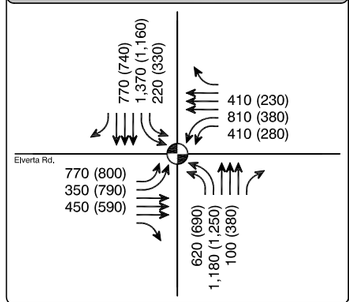
18. Elverta Rd./Palladay Rd.



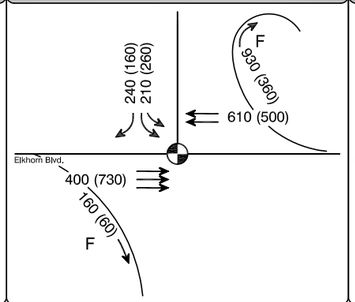
19. Elverta Rd./16th St.



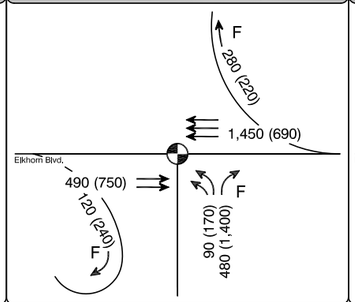
20. Elverta Rd./Watt Ave.



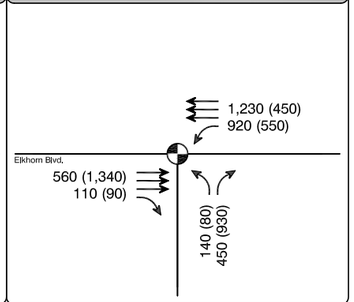
21. Elkhorn Blvd./SR 99 SB Ramps



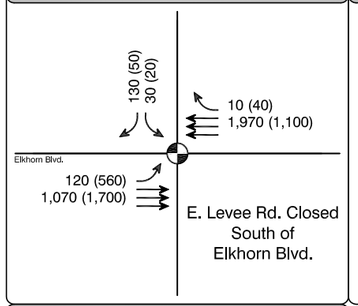
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



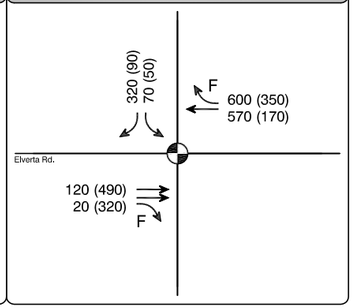
48. Riego Rd./SR 99 SB Ramps

PLUS PROJECT SCENARIOS ONLY

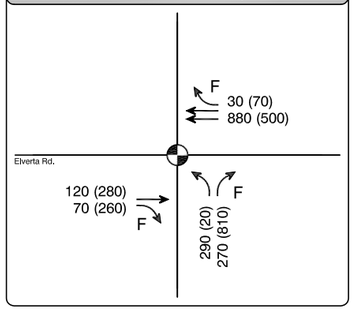
49. Riego Rd./SR 99 NB Ramps

PLUS PROJECT SCENARIOS ONLY

64. Elverta Rd./SR 99 SB Ramps



65. Elverta Rd./SR 99 NB Ramps



LEGEND

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection (Grey: See Figure 3.3-16A)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

N

NOT TO SCALE

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE NO PROJECT CONDITIONS

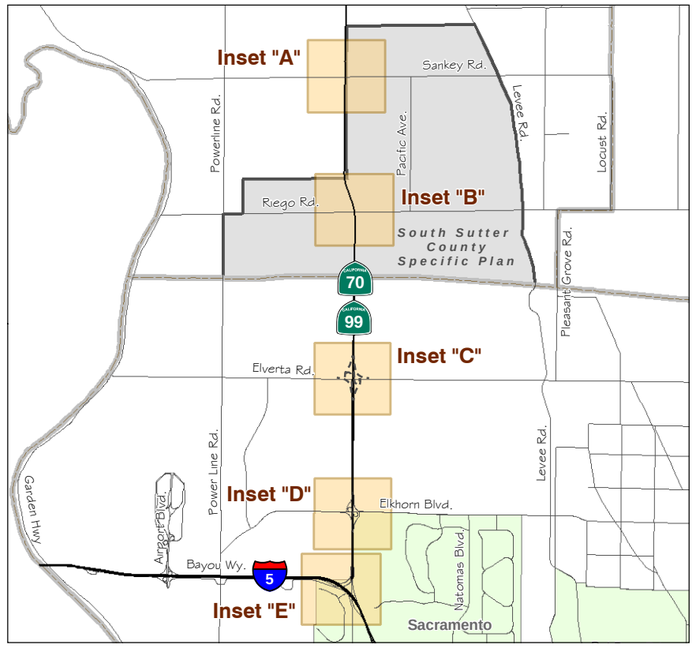
FIGURE 3.3-16B

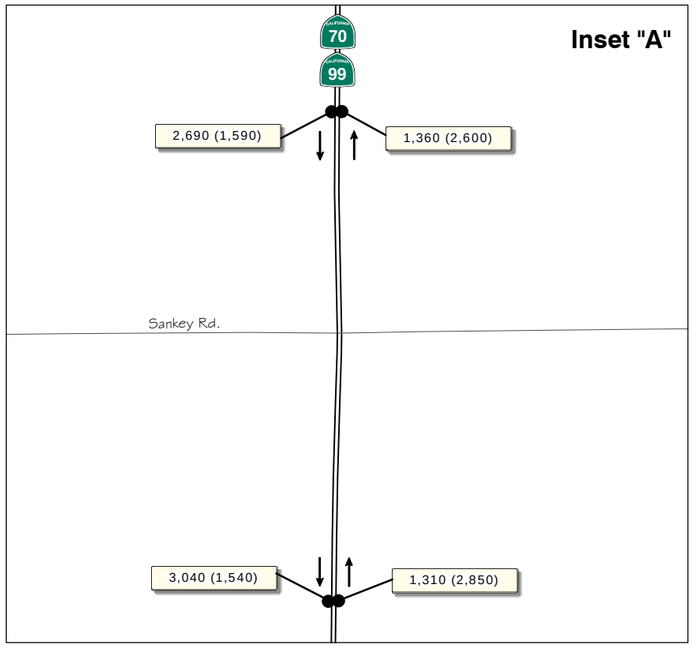
LEGEND

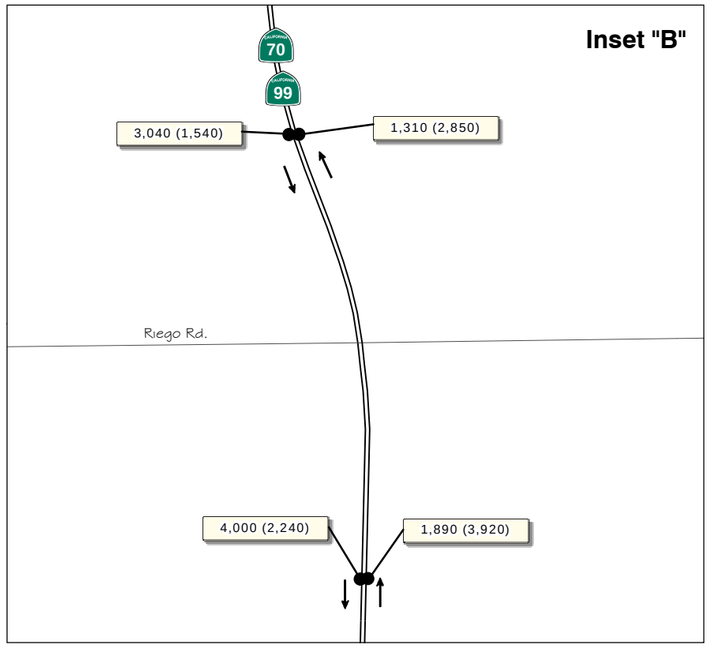
- Through Lane
- Future Ramp
- 100 (100) — AM (PM) Traffic Volume

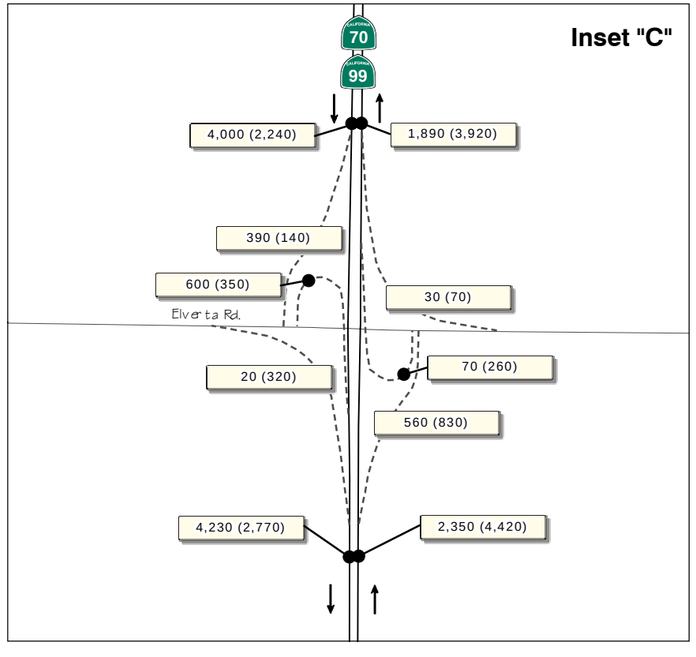
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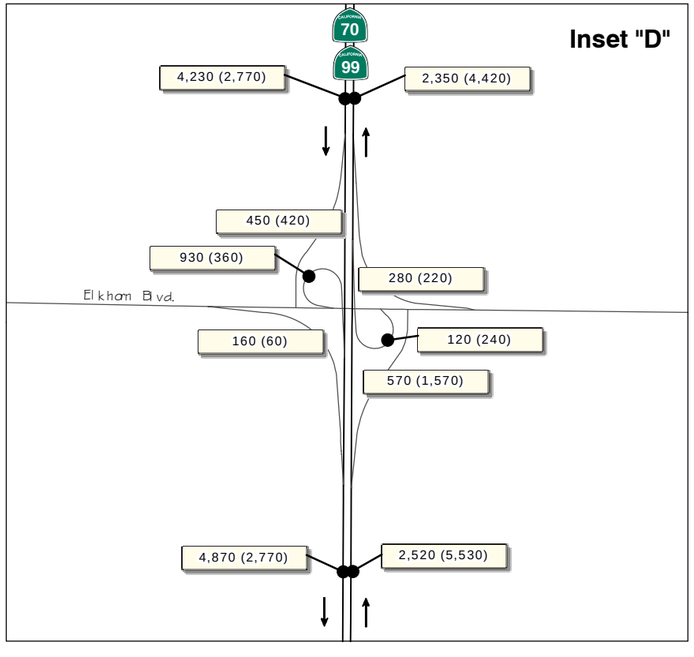
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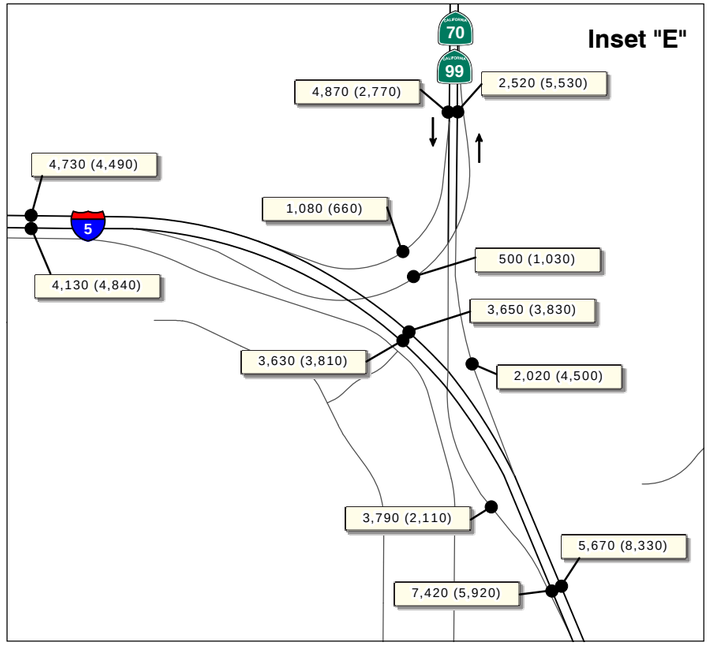










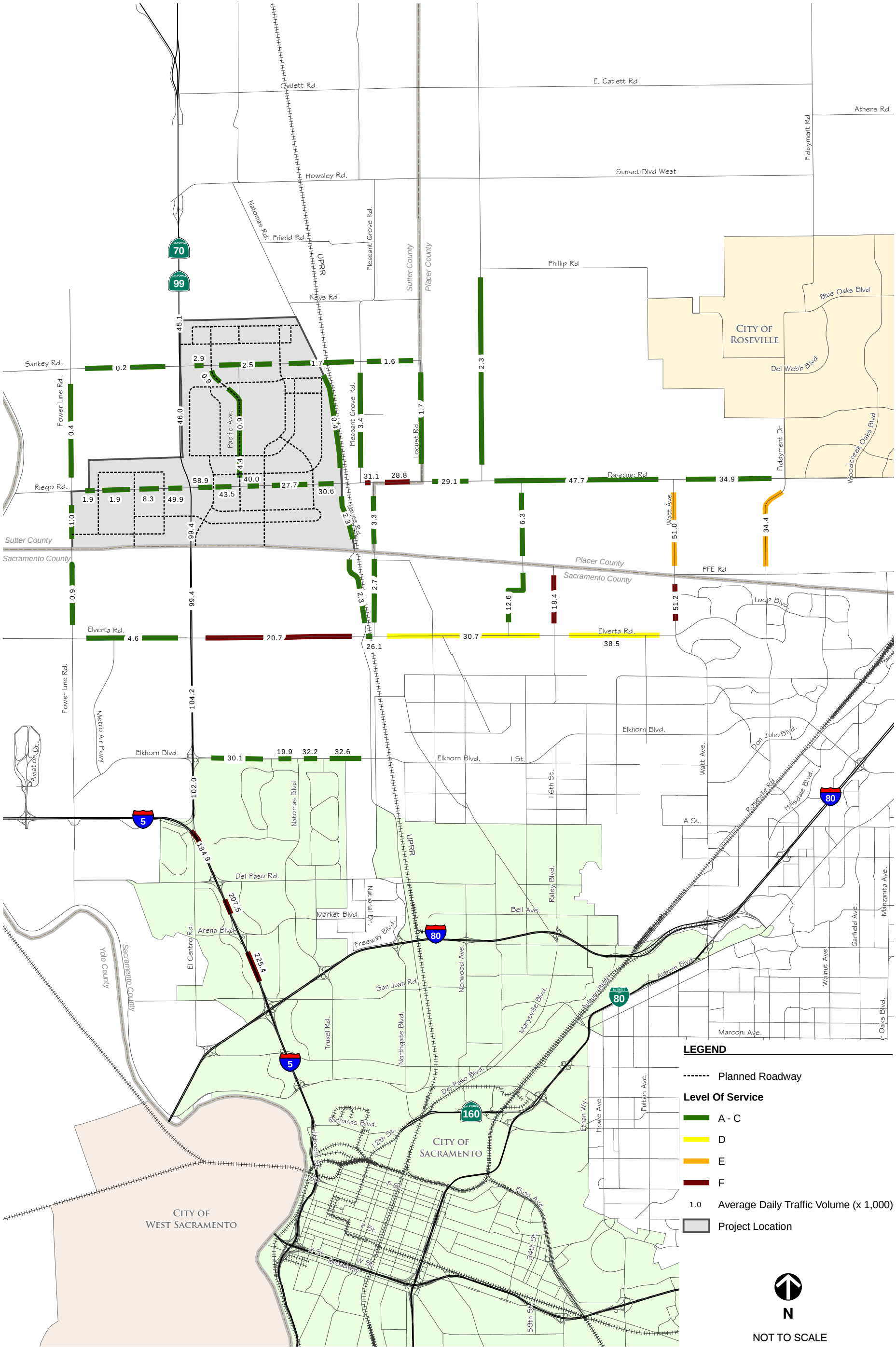


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - CUMULATIVE NO PROJECT CONDITIONS

FIGURE 3.3-17

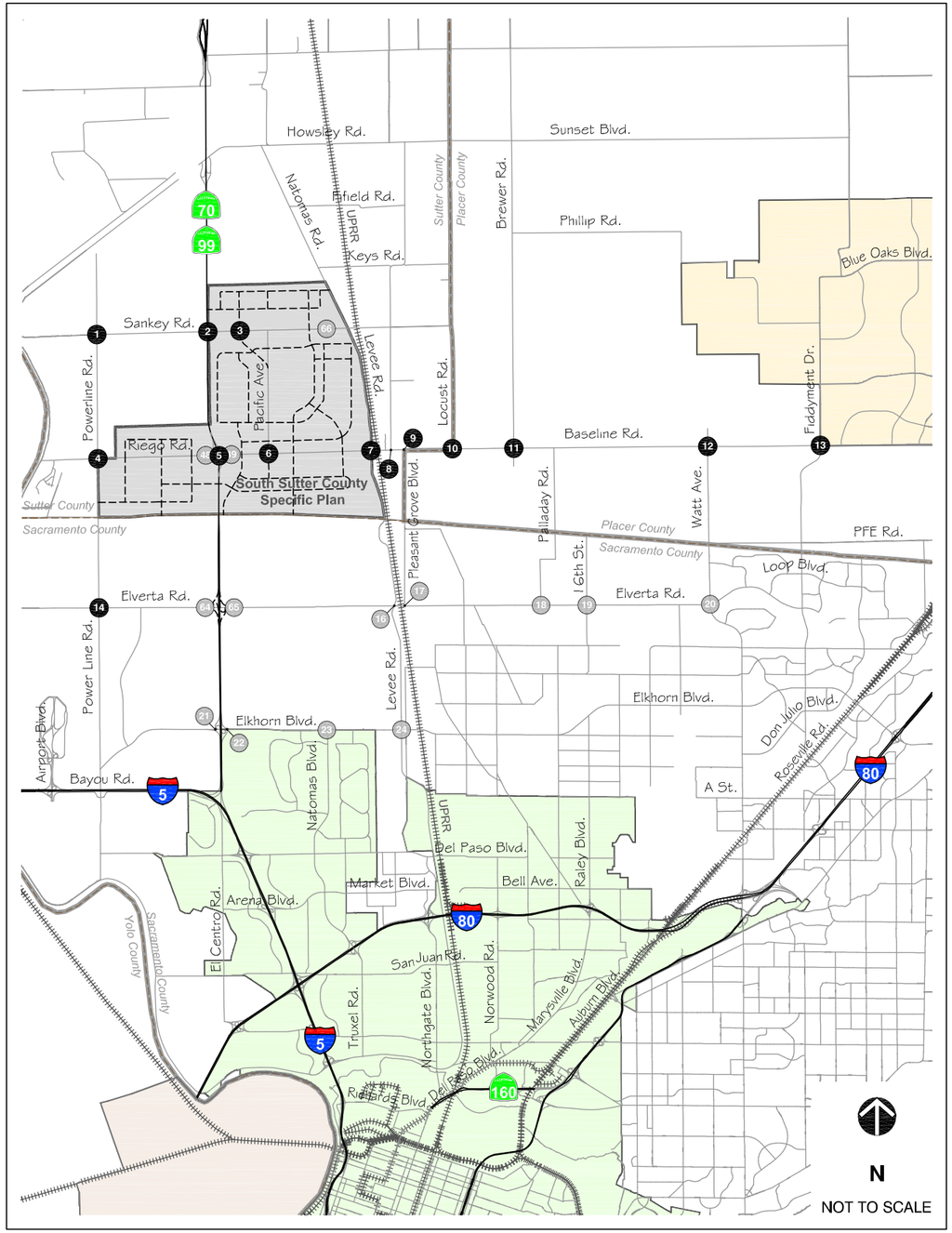


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TRANSPORTATION CONSULTANTS

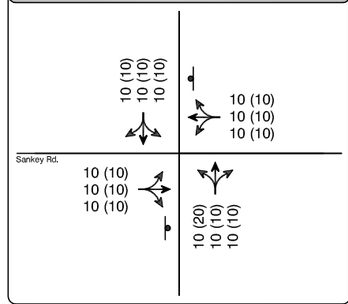
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY

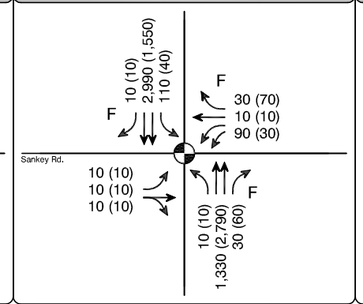
FIGURE 3.3-18



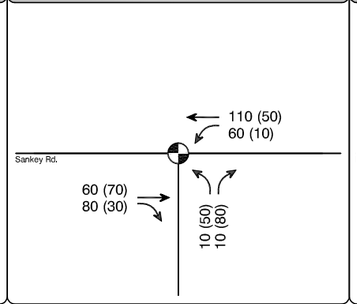
1. Sankey Rd./Powerline Rd.



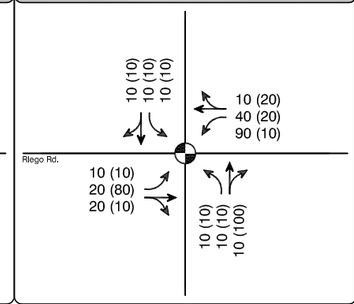
2. Sankey Rd./SR 99



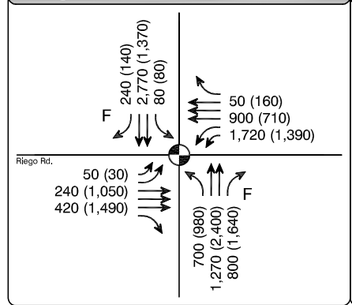
3. Sankey Rd./Pacific Ave.



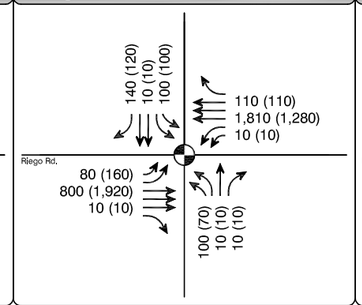
4. Riego Rd./Powerline Rd.



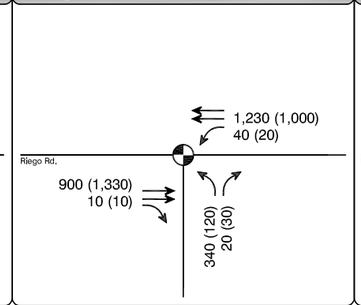
5. Riego Rd./SR 99



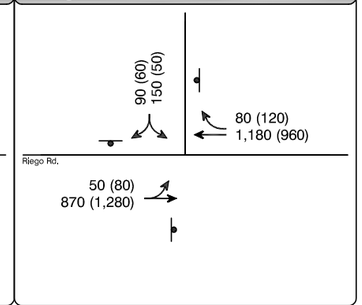
6. Riego Rd./Pacific Ave.



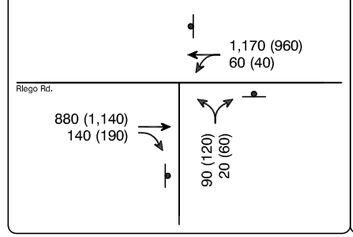
7. Riego Rd./Natomas Rd.



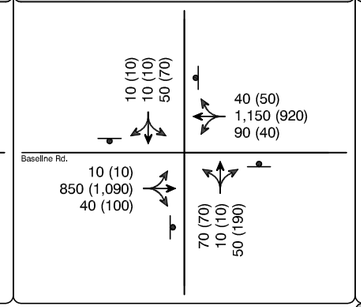
8. Riego Rd./Pleasant Grove Rd. N.



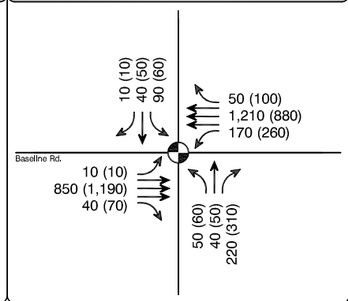
9. Riego Rd./Pleasant Grove Rd. S.



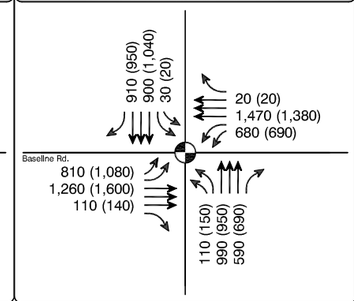
10. Baseline Rd./Locust Rd.



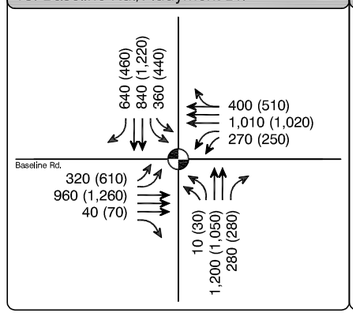
11. Baseline Rd./Brewer Rd.



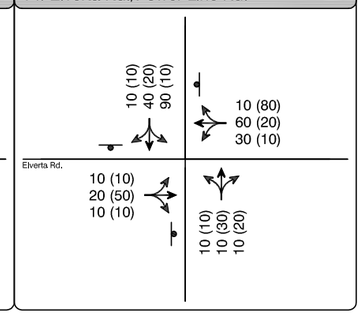
12. Baseline Rd./Watt Ave.



13. Baseline Rd./Fiddyment Dr.



14. Elverta Rd./Power Line Rd.



LEGEND

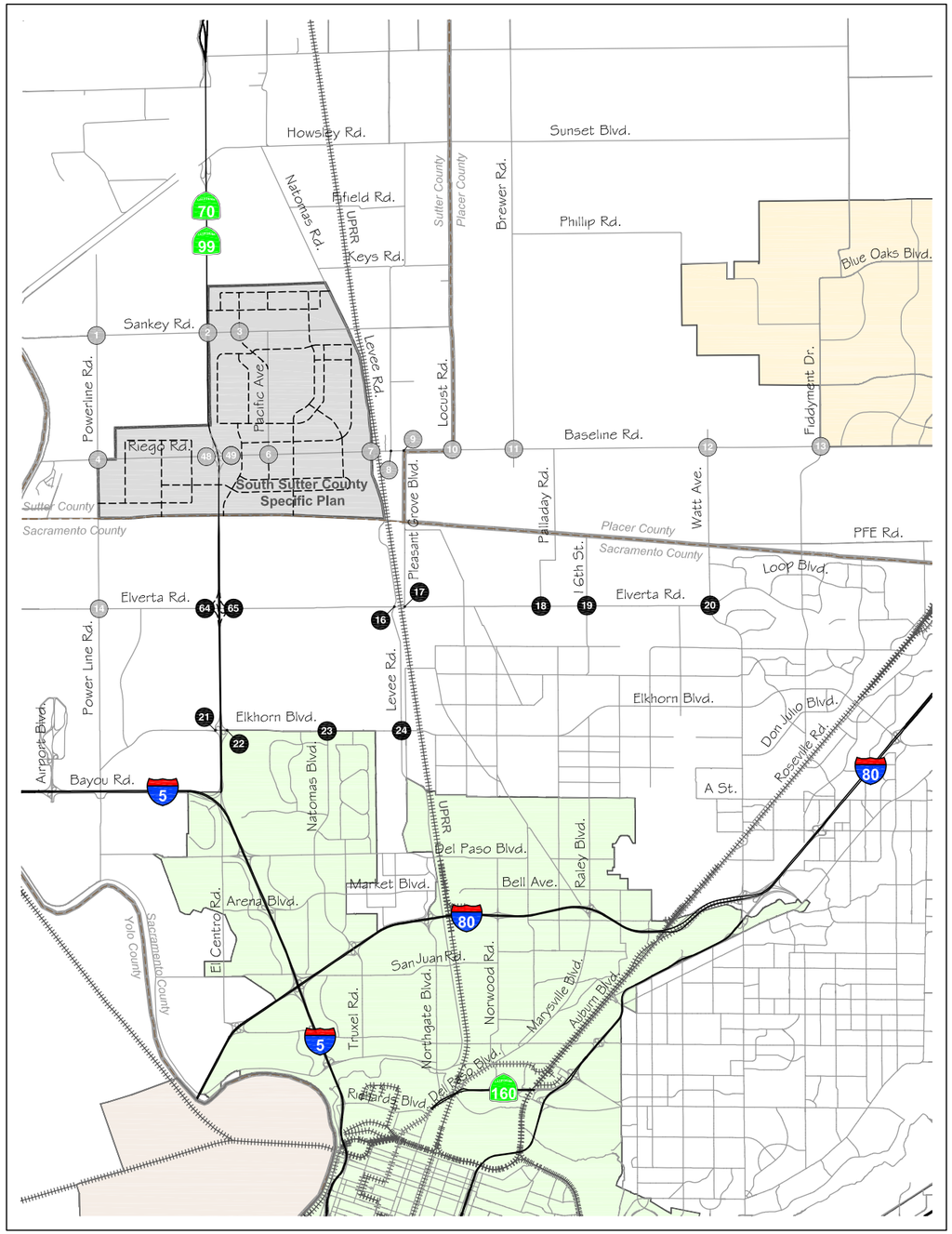
	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume		Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-19B, 19C, 19D)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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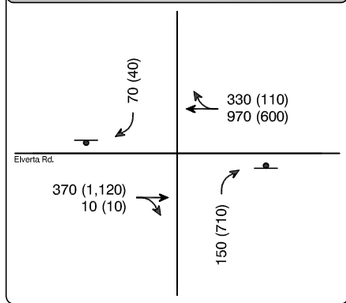
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY

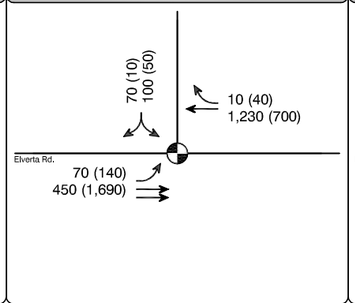
FIGURE 3.3-19A



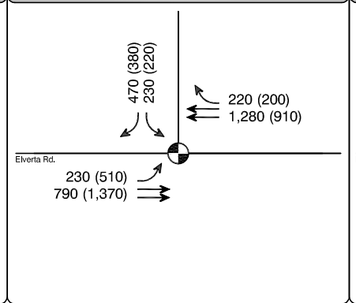
16. Elverta Rd./E. Levee Rd.



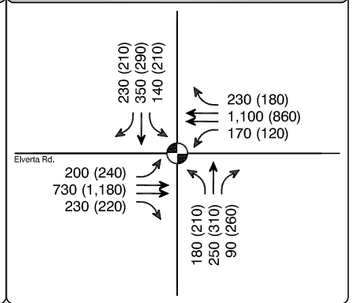
17. Elverta Rd./Sorento Rd.



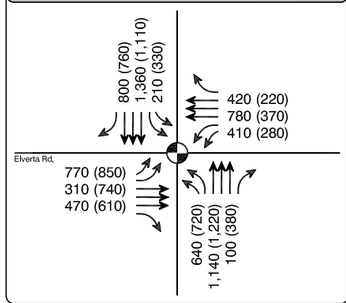
18. Elverta Rd./Palladay Rd.



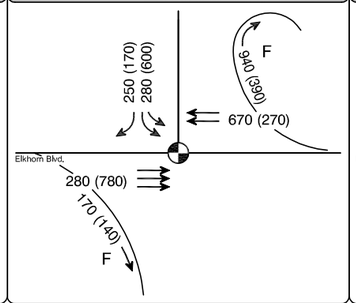
19. Elverta Rd./16th St.



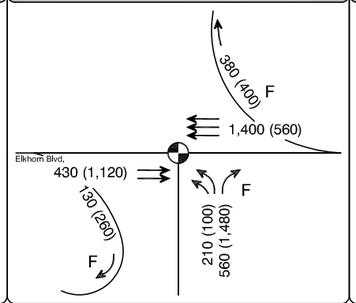
20. Elverta Rd./Watt Ave.



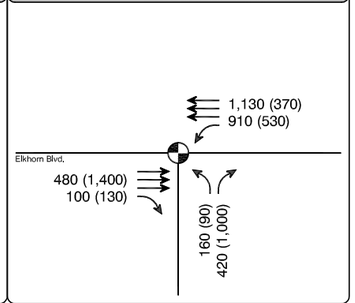
21. Elkhorn Blvd./SR 99 SB Ramps



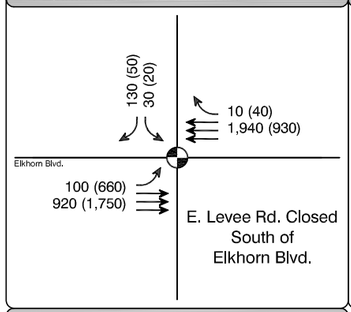
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



E. Levee Rd. Closed South of Elkhorn Blvd.

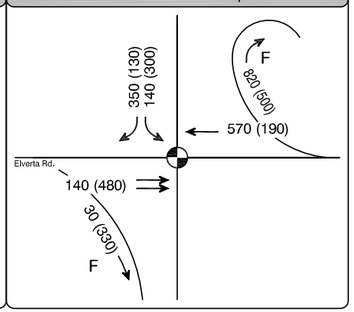
48. Riego Rd./SR 99 SB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

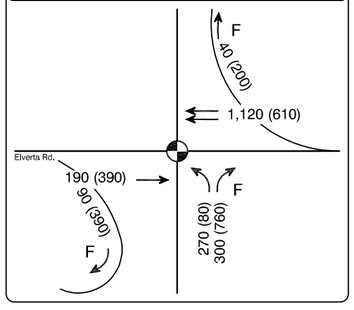
49. Riego Rd./SR 99 NB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

64. Elverta Rd./SR 99 SB Ramps



65. Elverta Rd./SR 99 NB Ramps



LEGEND

Turn Lane		F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-19A, 19C, 19D)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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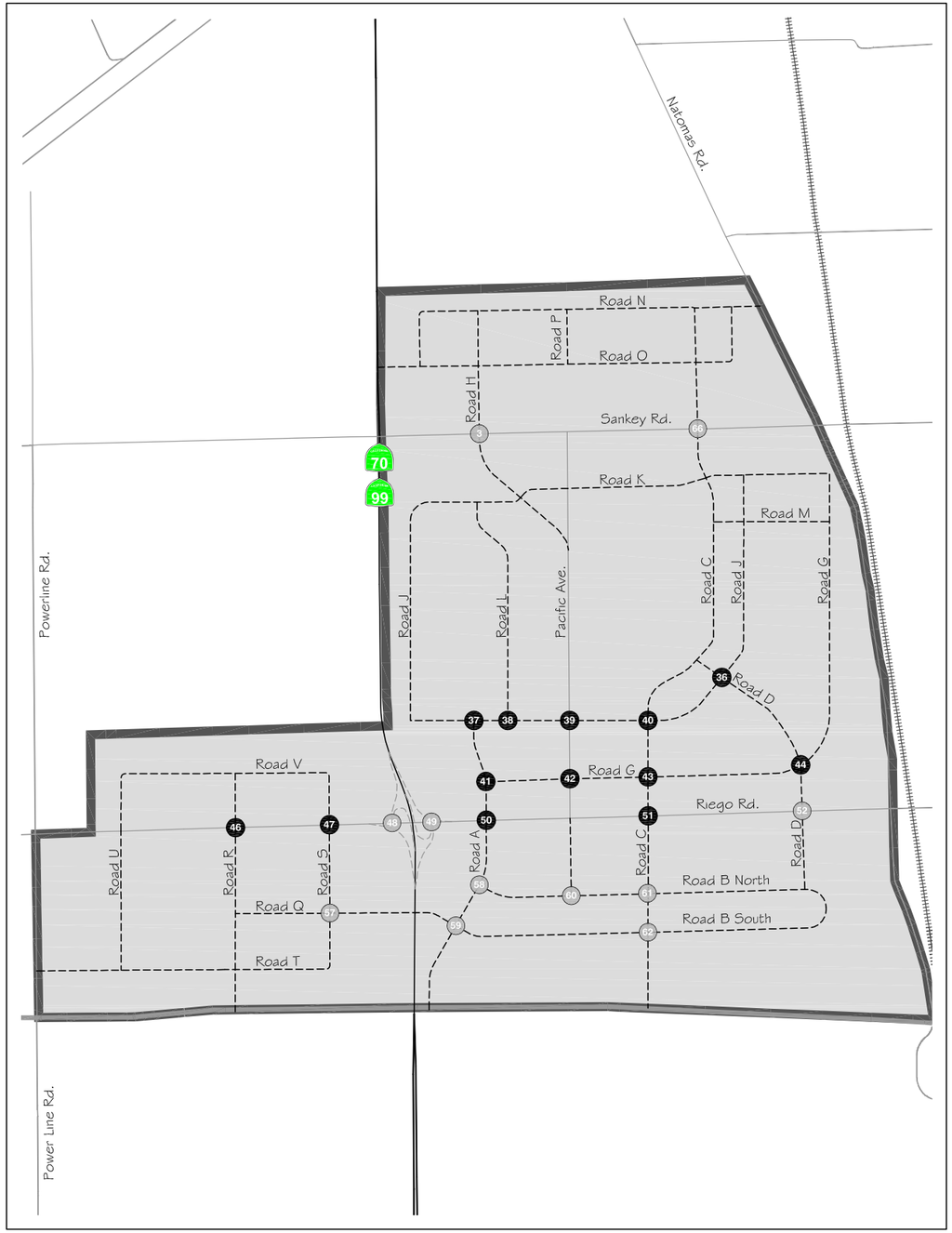
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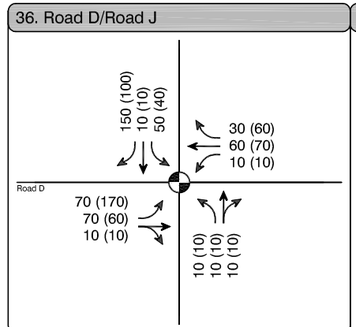
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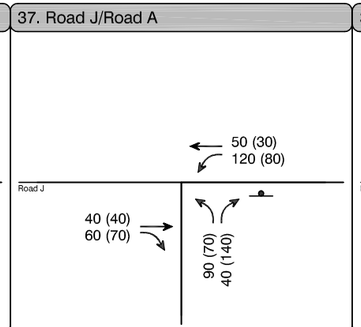
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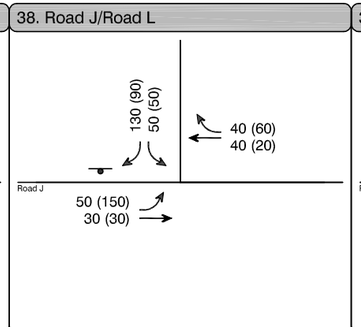
INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY

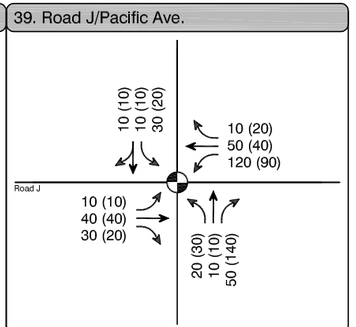
FIGURE 3.3-19B

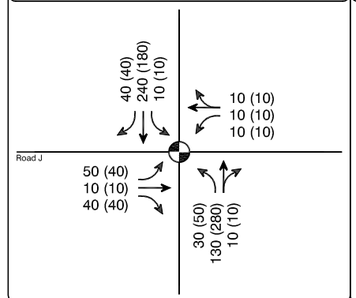


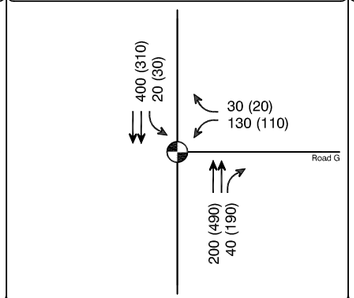


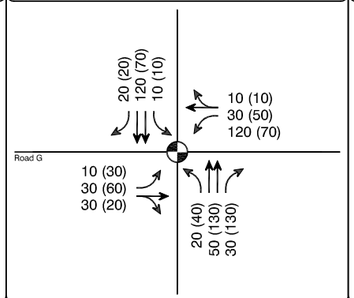


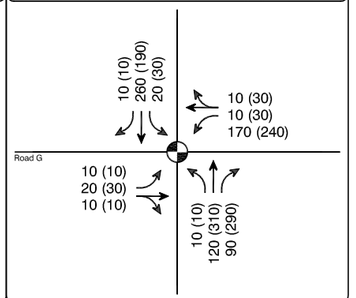


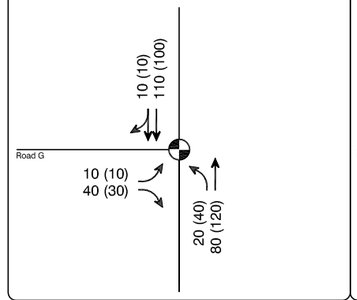


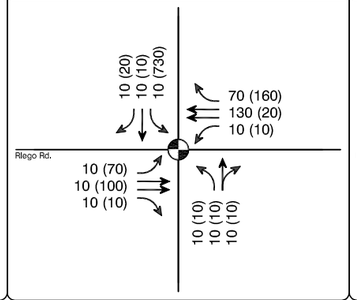


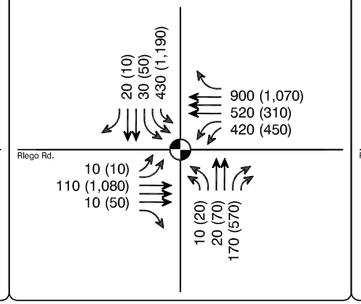


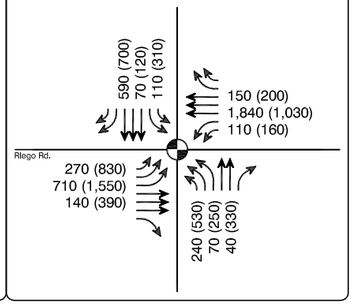


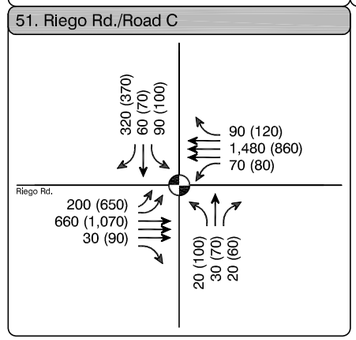












LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	-----	Planned Roadway
	Study Intersection (Grey: See Figure 3.3-19A, 19B, 19D)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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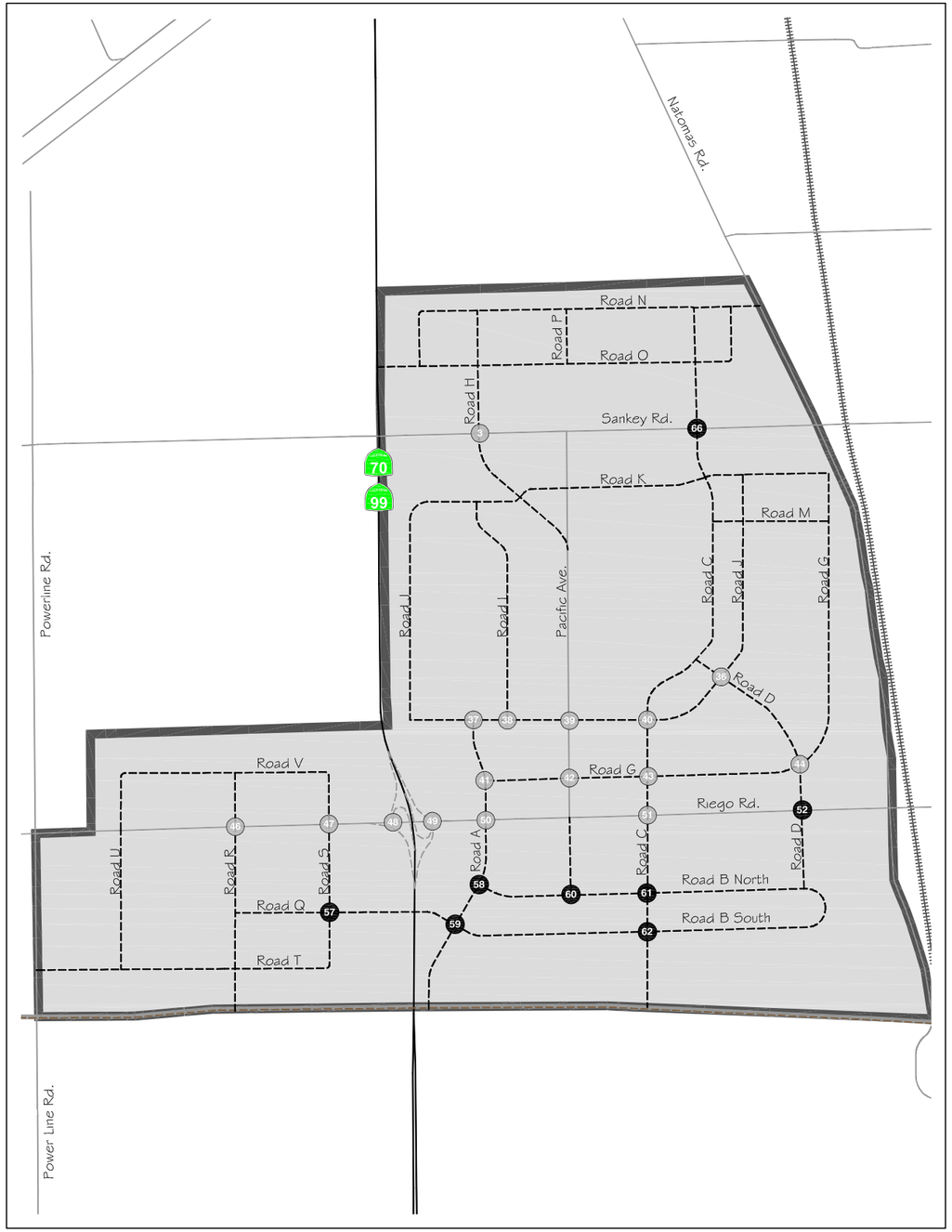
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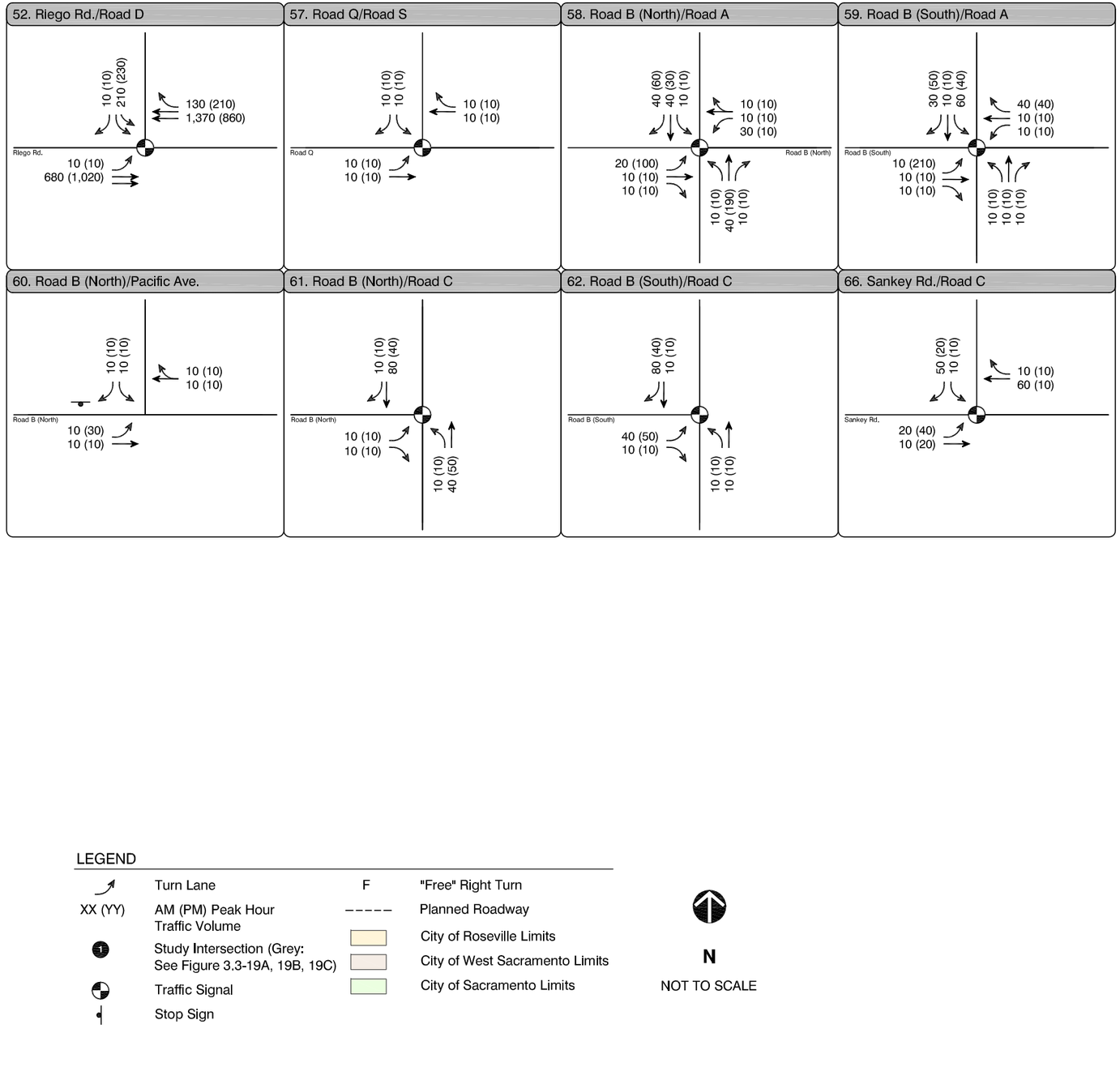
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY

FIGURE 3.3-19C





LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume		Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-19A, 19B, 19C)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY

FIGURE 3.3-19D

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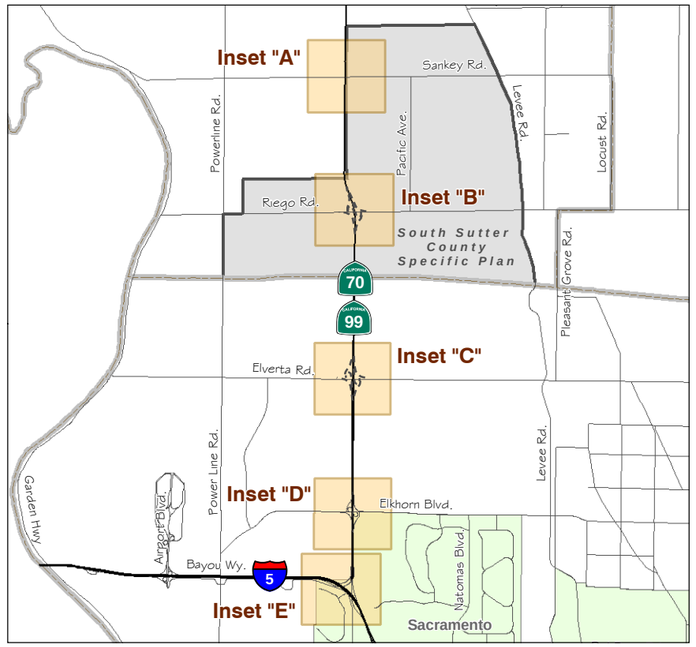
Through Lane

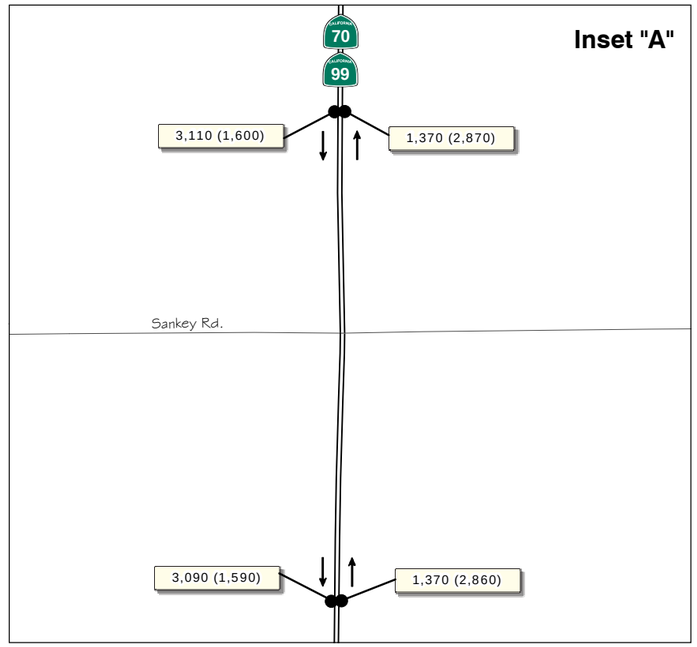
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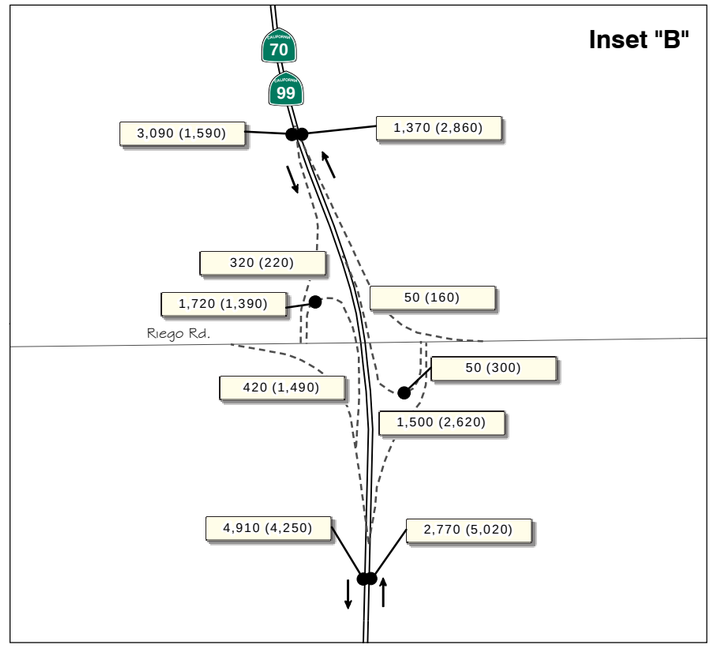
100 (100) AM (PM) Traffic Volume

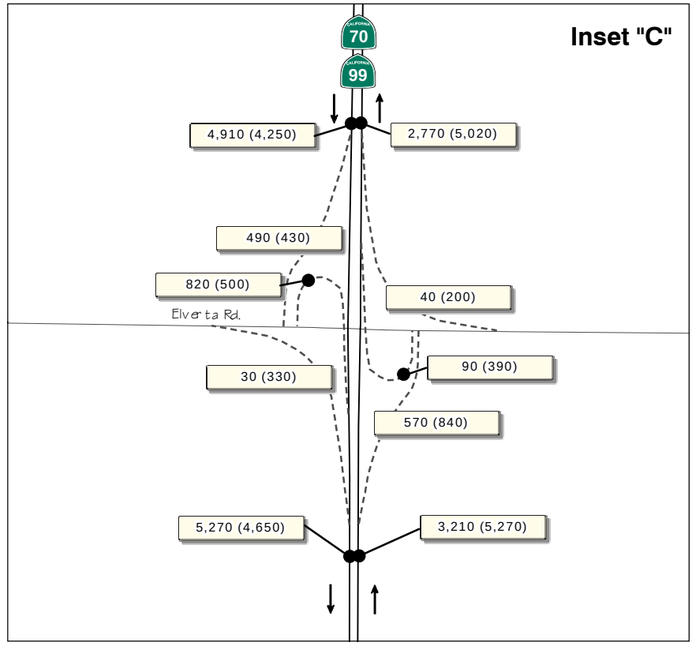
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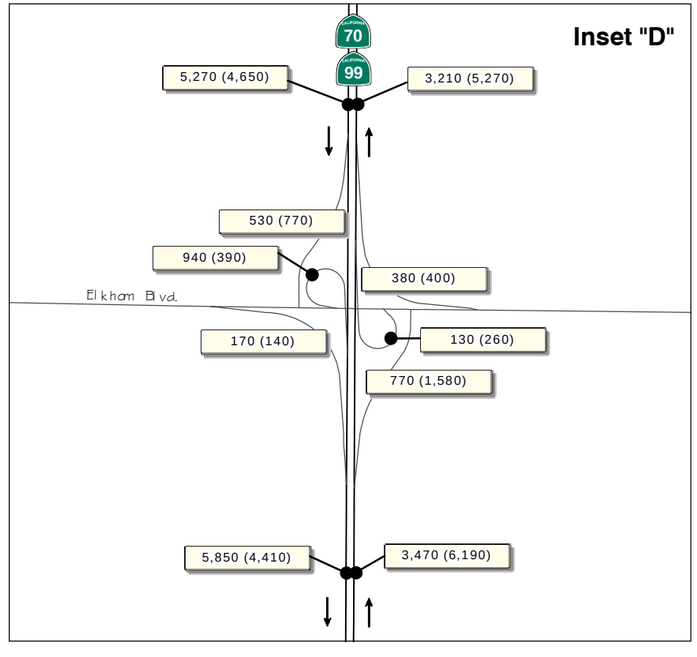
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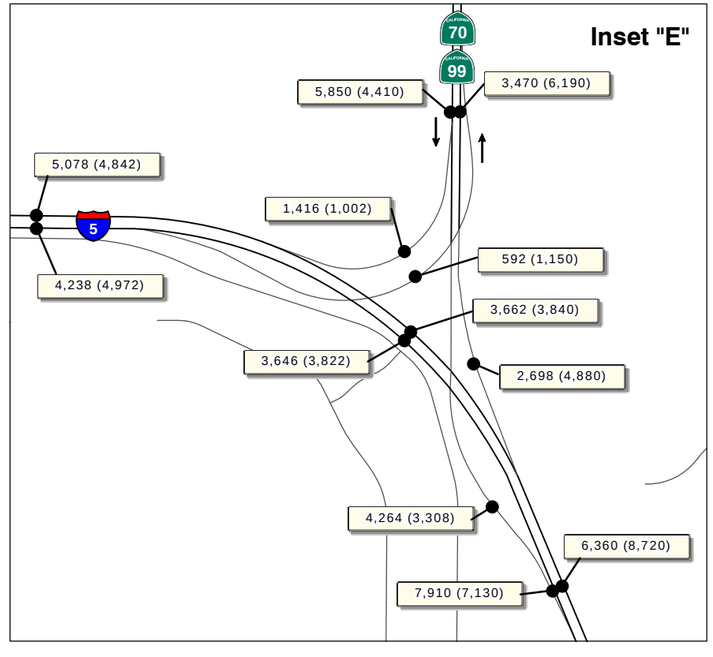










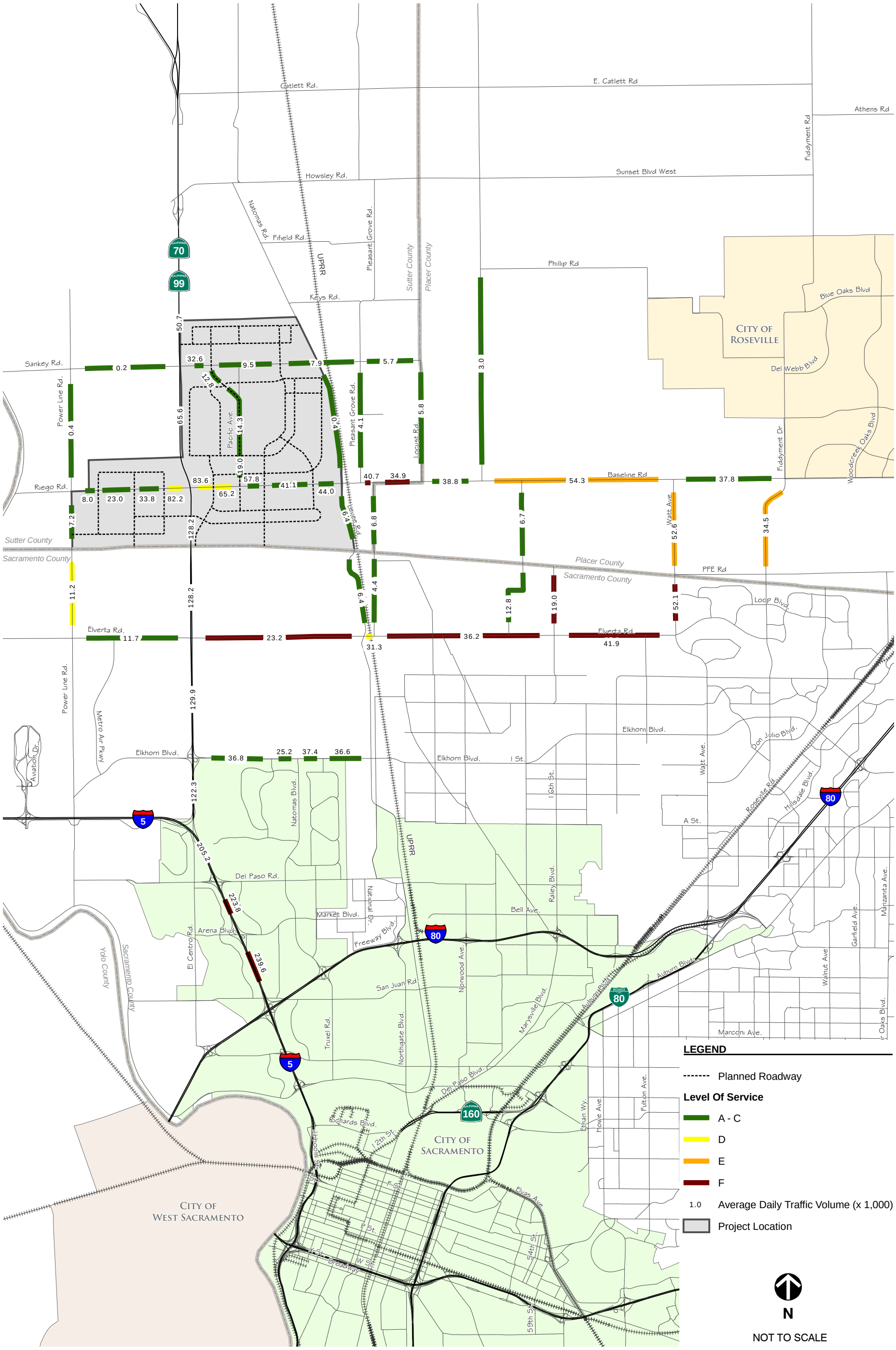


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY

FIGURE 3.3-20

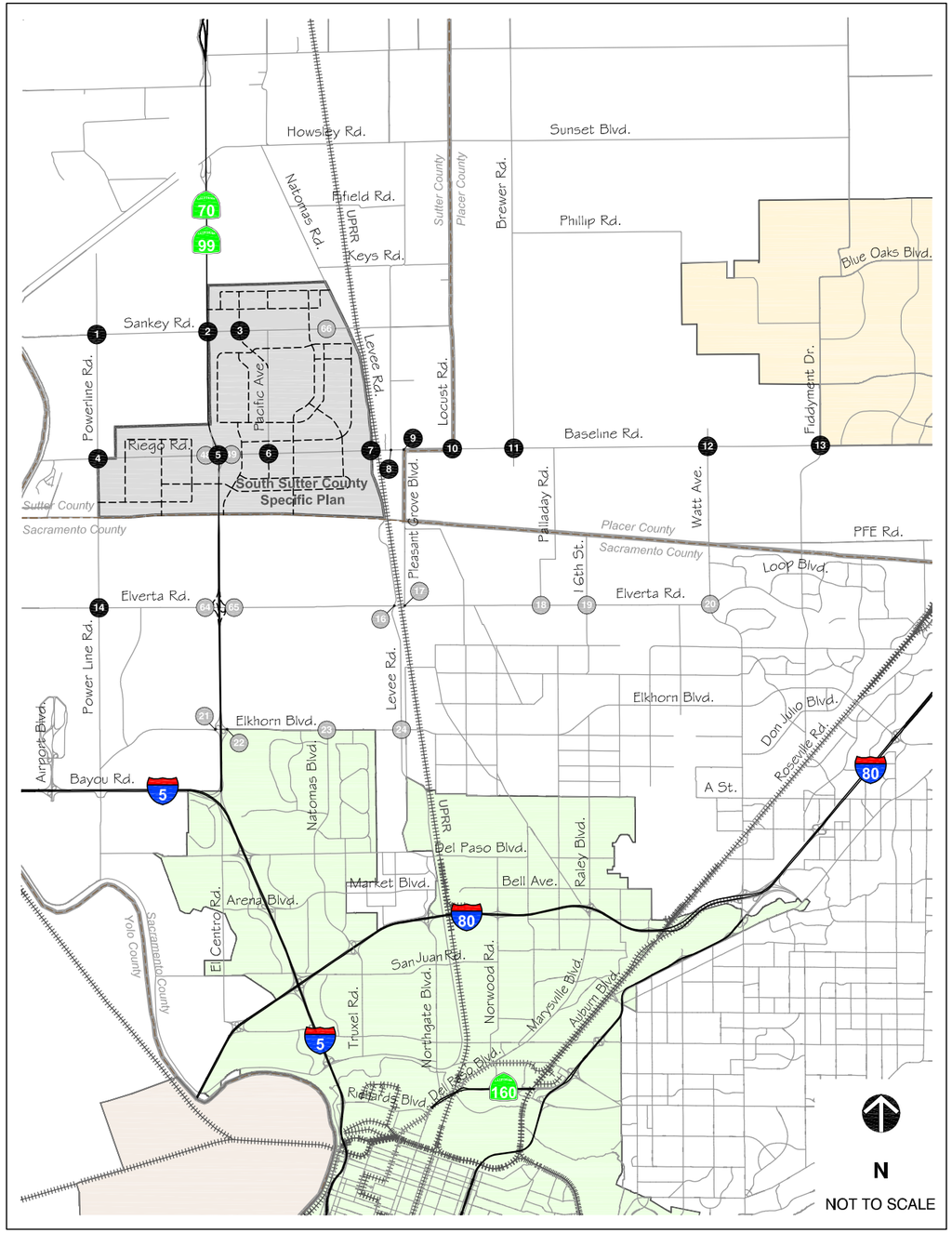


FEHR & PEERS
TRANSPORTATION CONSULTANTS

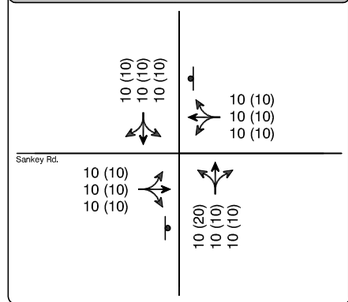
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

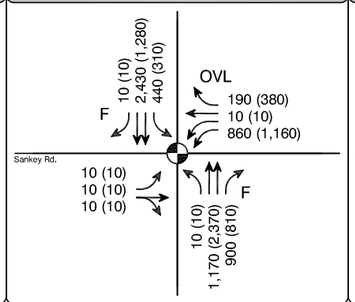
FIGURE 3.3-21



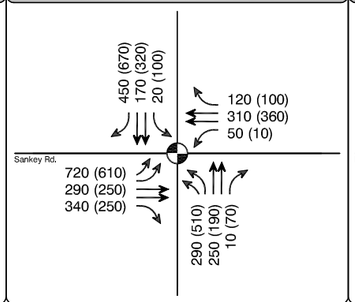
1. Sankey Rd./Powerline Rd.



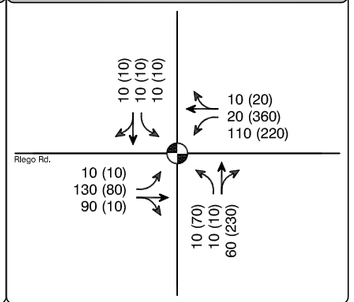
2. Sankey Rd./SR 99



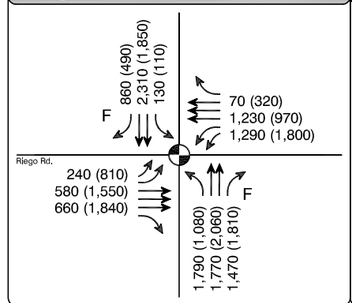
3. Sankey Rd./Pacific Ave.



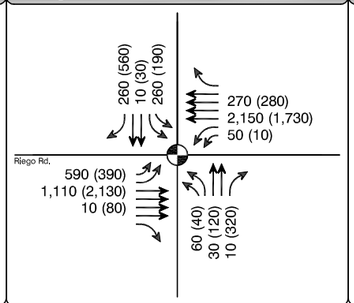
4. Riego Rd./Powerline Rd.



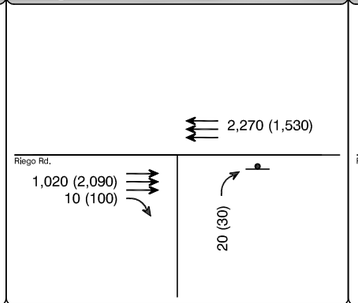
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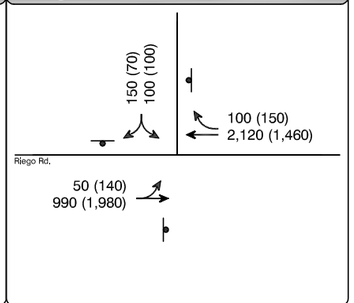
6. Riego Rd./Pacific Ave.



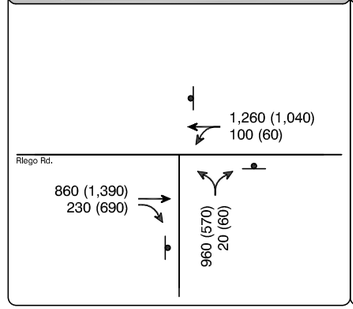
7. Riego Rd./Natomas Rd.



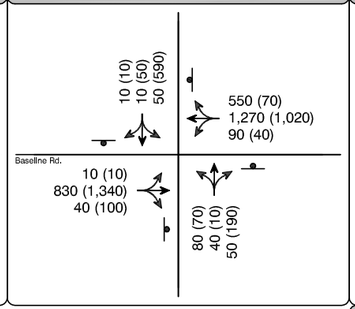
8. Riego Rd./Pleasant Grove Rd. N.



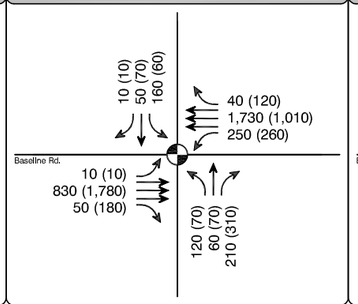
9. Riego Rd./Pleasant Grove Rd. S.



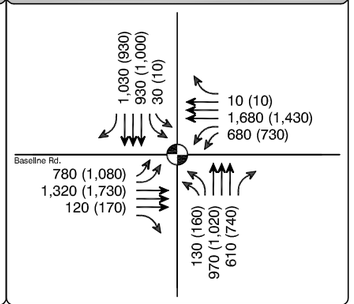
10. Baseline Rd./Locust Rd.



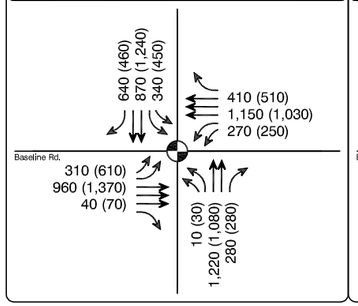
11. Baseline Rd./Brewer Rd.



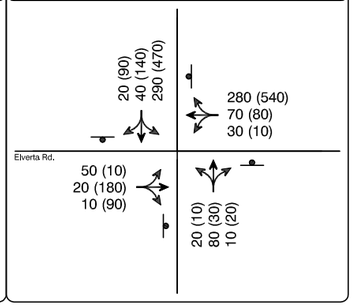
12. Baseline Rd./Watt Ave.



13. Baseline Rd./Fiddyment Dr.



14. Elverta Rd./Power Line Rd.



LEGEND

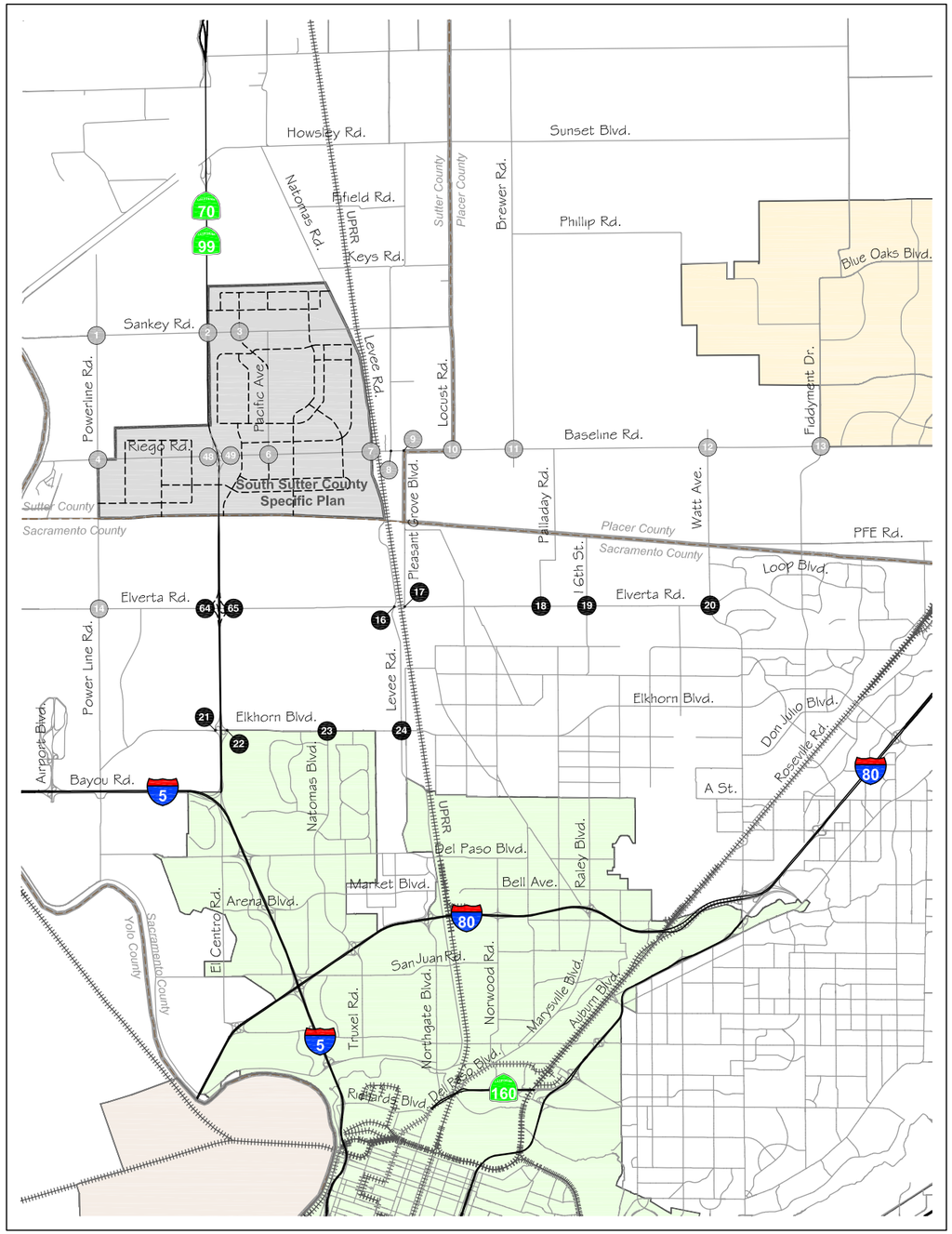
	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	OVL	Overlap Phasing
1	Study Intersection (Grey: See Figure 3.3-22B, 22C, 22D, 22E)		Planned Roadway
	Traffic Signal		City of Roseville Limits
	Stop Sign		City of West Sacramento Limits
			City of Sacramento Limits

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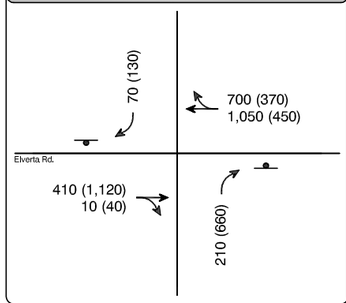
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

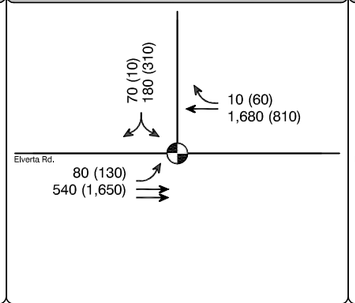
FIGURE 3.3-22A



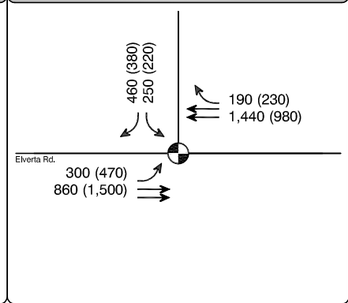
16. Elverta Rd./E. Levee Rd.



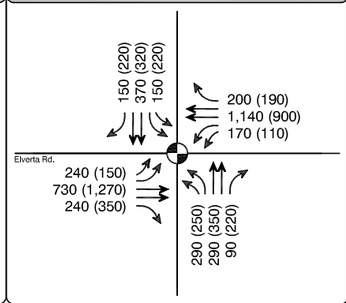
17. Elverta Rd./Sorento Rd.



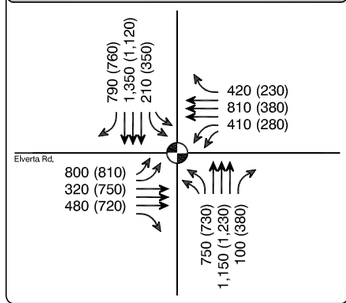
18. Elverta Rd./Palladay Rd.



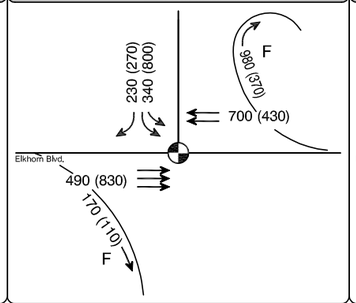
19. Elverta Rd./16th St.



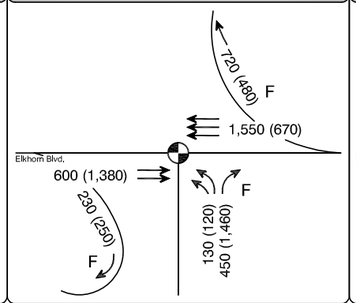
20. Elverta Rd./Watt Ave.



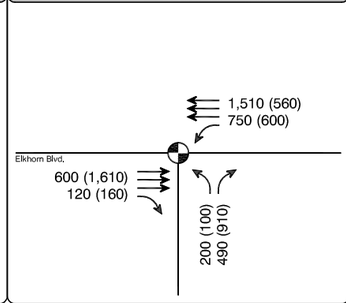
21. Elkhorn Blvd./SR 99 SB Ramps



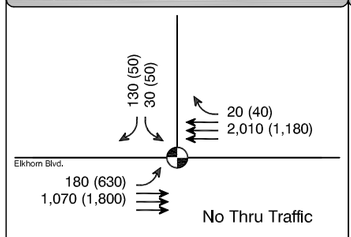
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



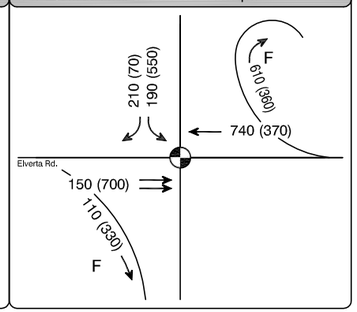
48. Riego Rd./SR 99 SB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

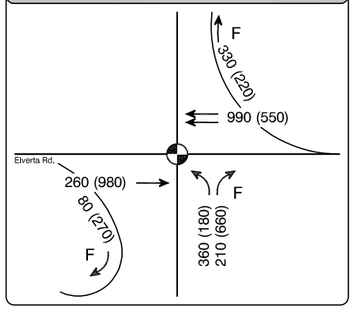
49. Riego Rd./SR 99 NB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

64. Elverta Rd./SR 99 SB Ramps



65. Elverta Rd./SR 99 NB Ramps



LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-22A, 22C, 22D, 22E)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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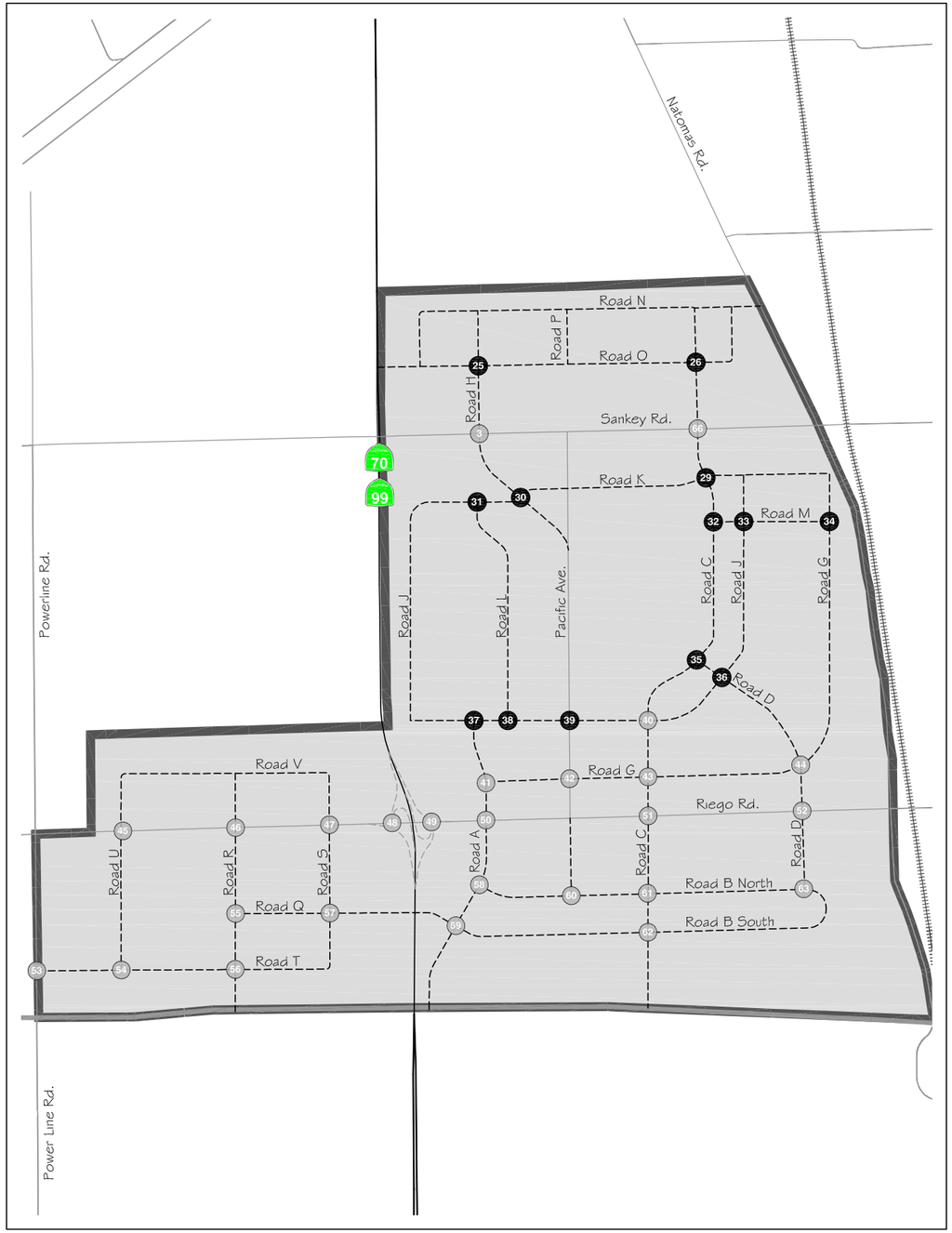
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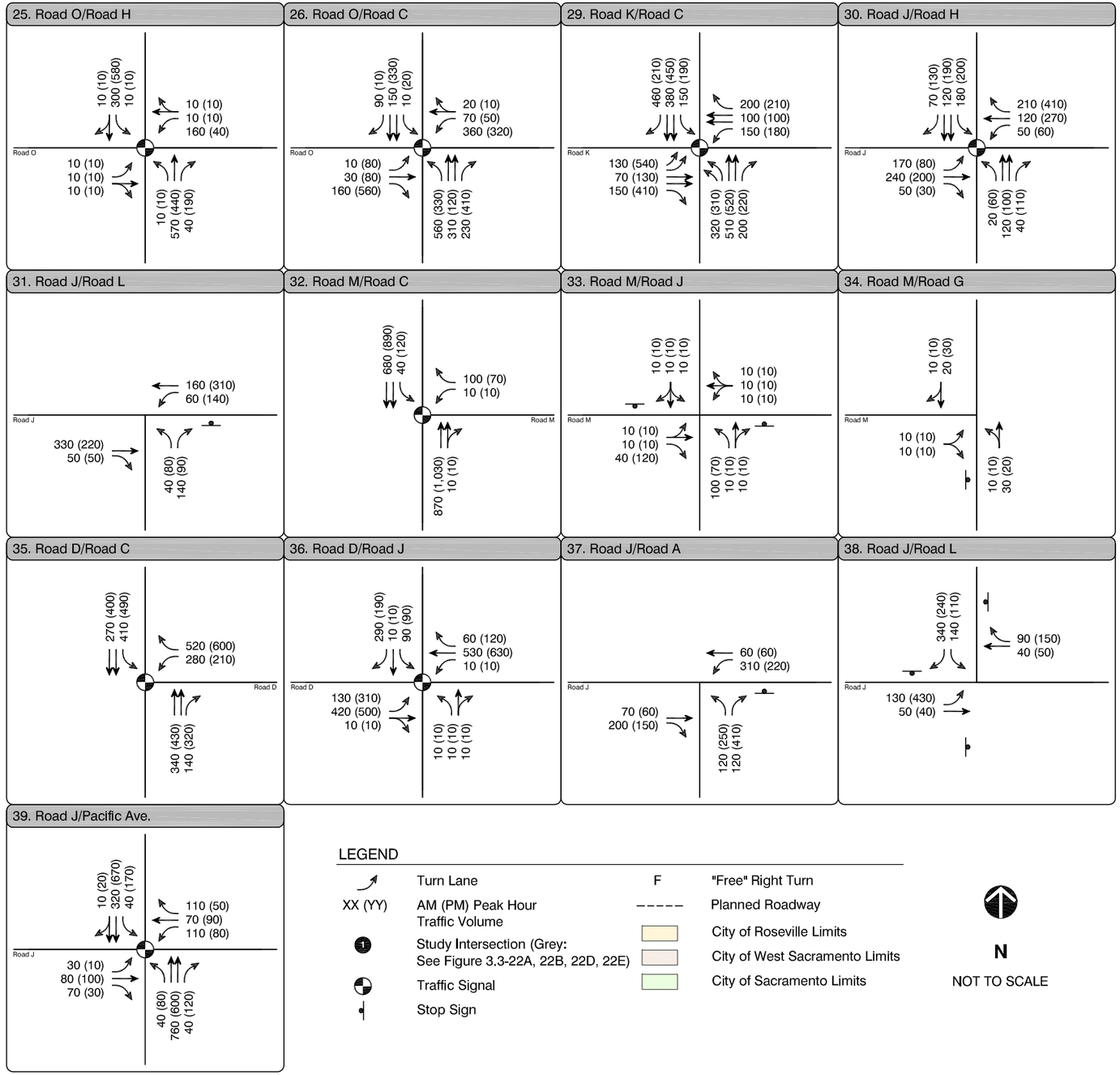
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

FIGURE 3.3-22B





LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume		Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-22A, 22B, 22D, 22E)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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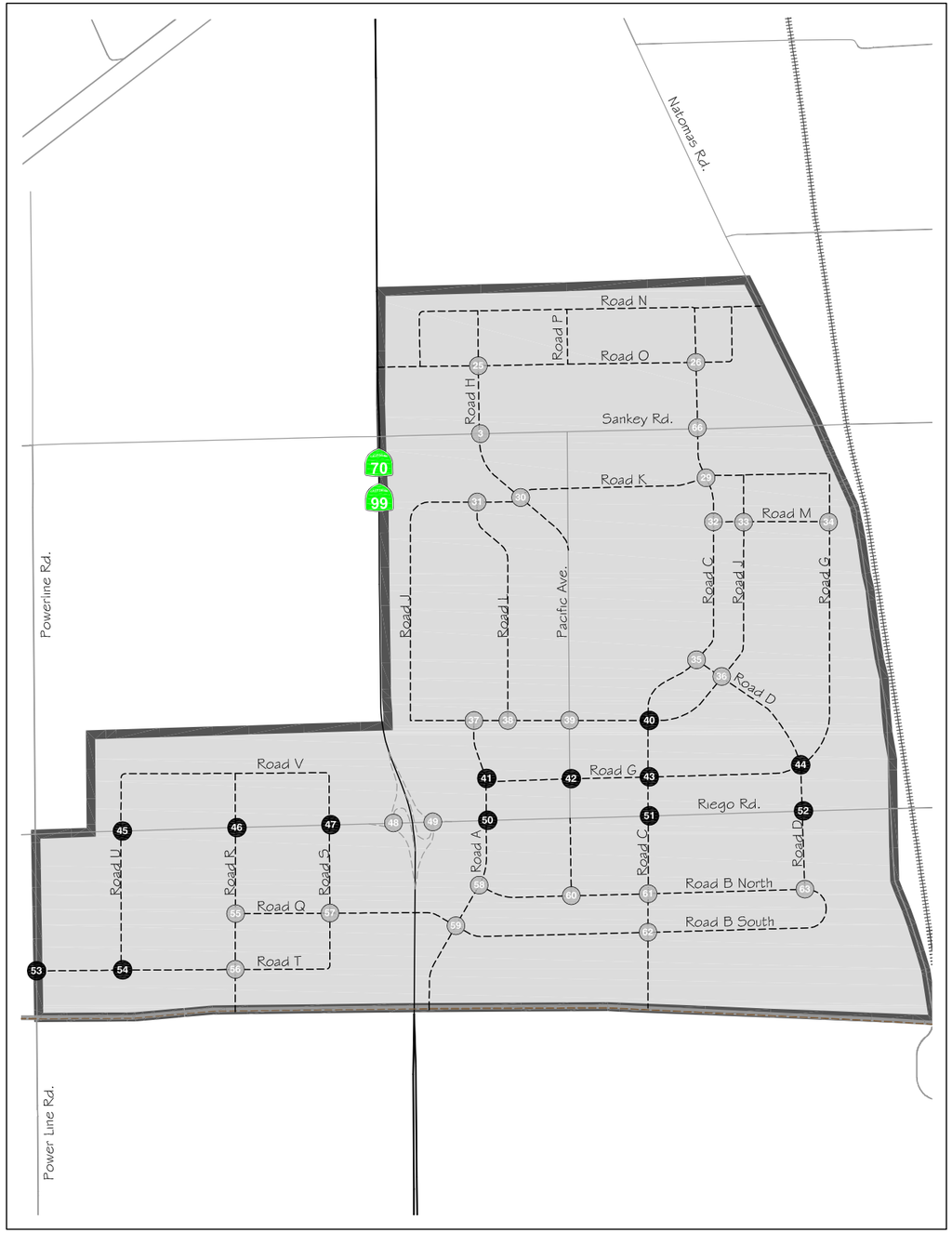
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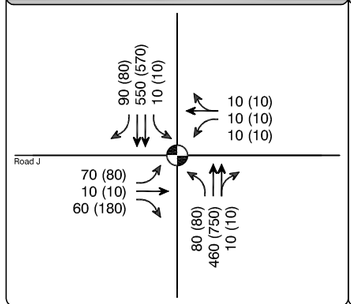
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

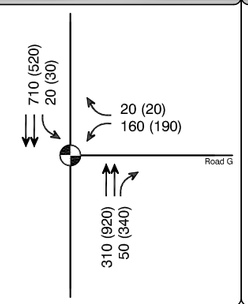
FIGURE 3.3-22C



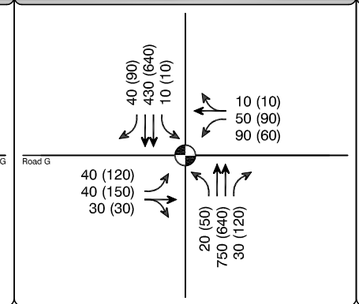
40. Road J/Road C



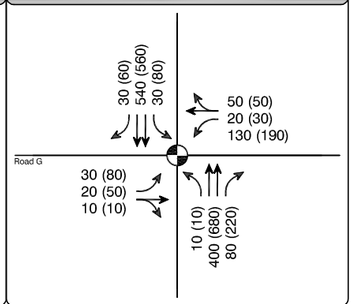
41. Road G/Road A



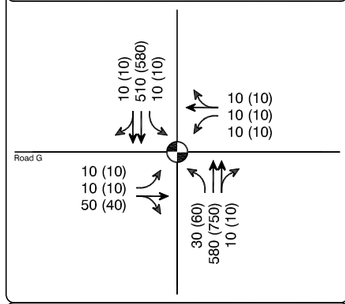
42. Road G/Pacific Ave.



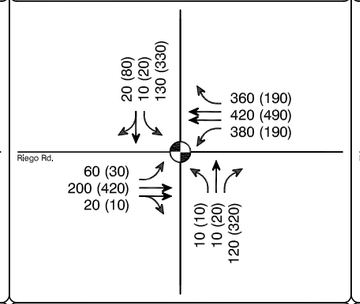
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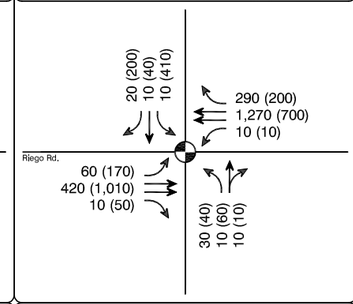
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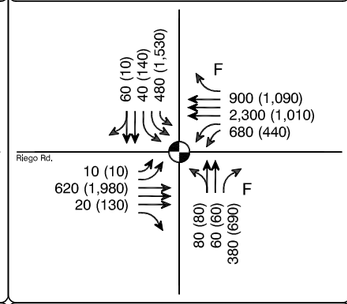
45. Riego Rd./Road U



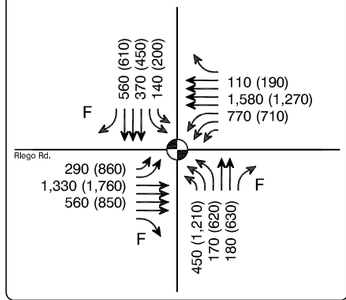
46. Riego Rd./Road R



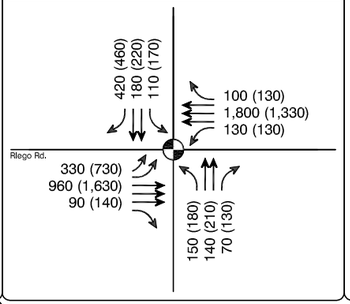
47. Riego Rd./Road S



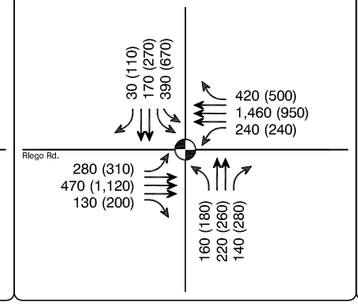
50. Riego Rd./Road A



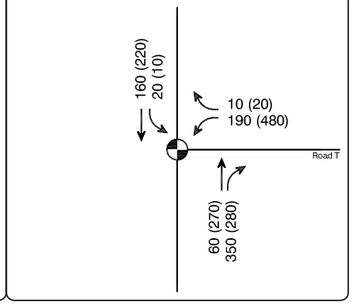
51. Riego Rd./Road C



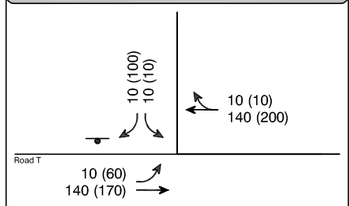
52. Riego Rd./Road D



53. Road T/Power Line Rd.



54. Road T/Road U



LEGEND

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- 1 Study Intersection (Grey: See Figure 3.3-22A, 22B, 22C, 22E)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

N

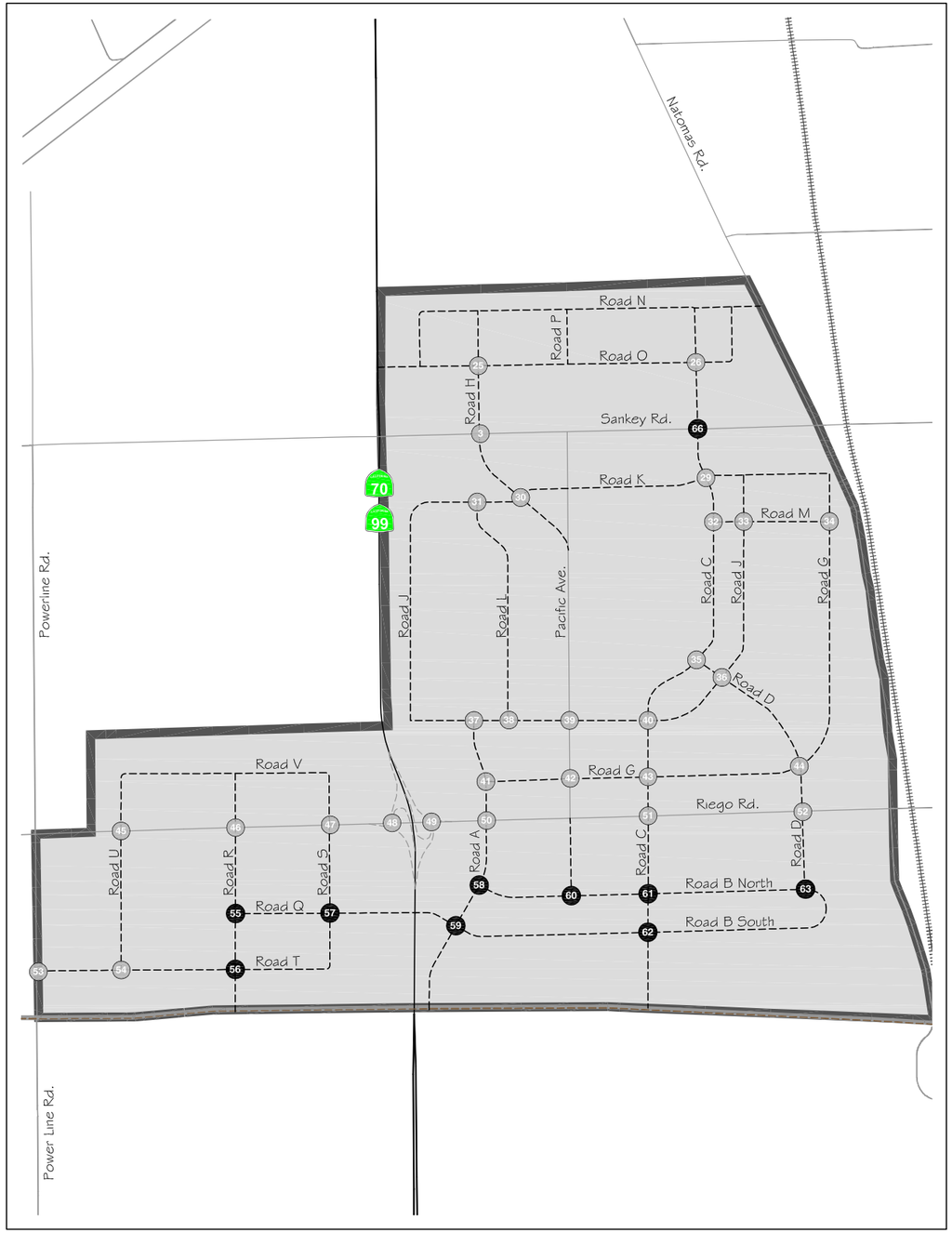
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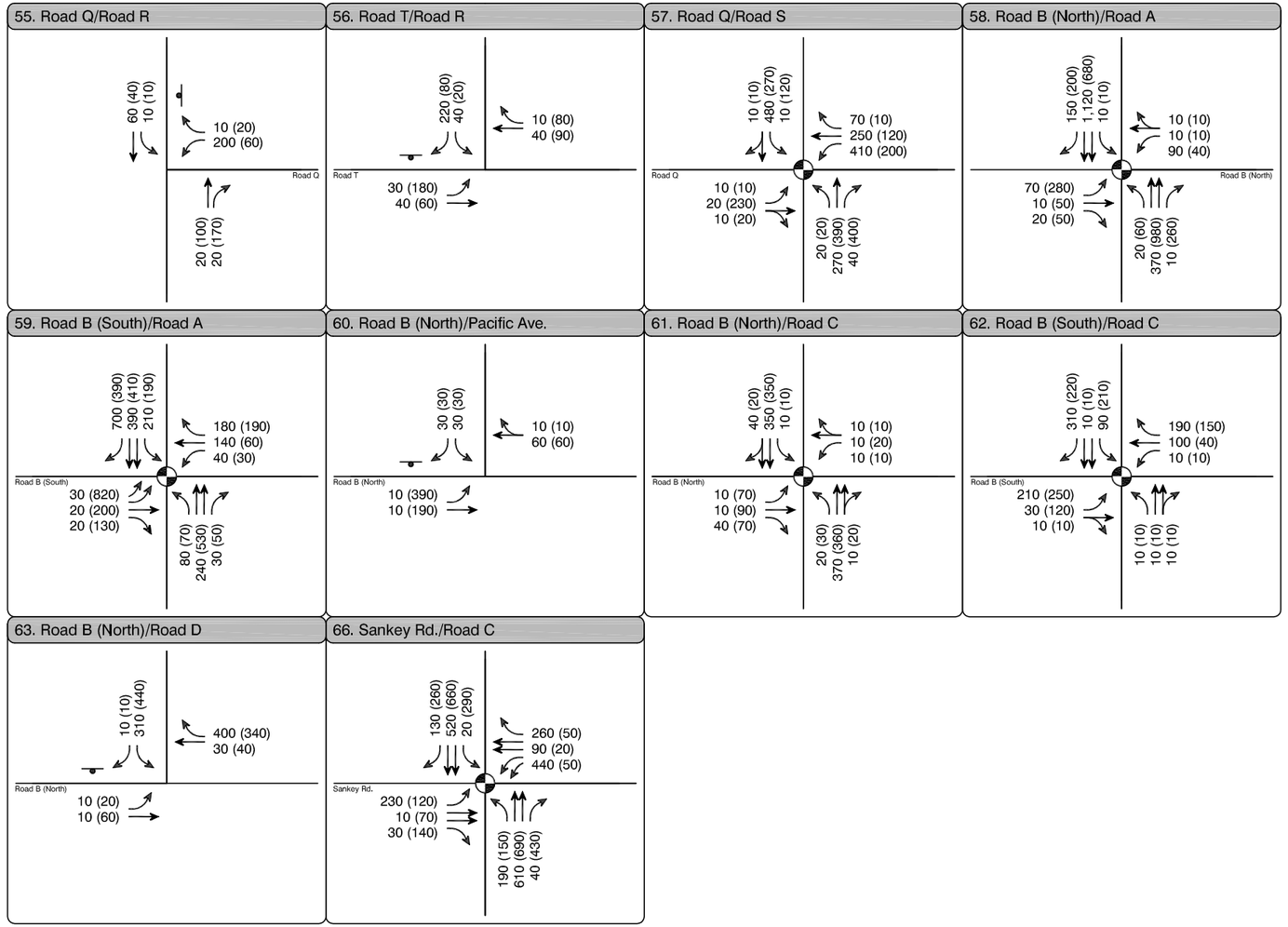
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

FIGURE 3.3-22D





LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	------	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-22A, 22B, 22C, 22D)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

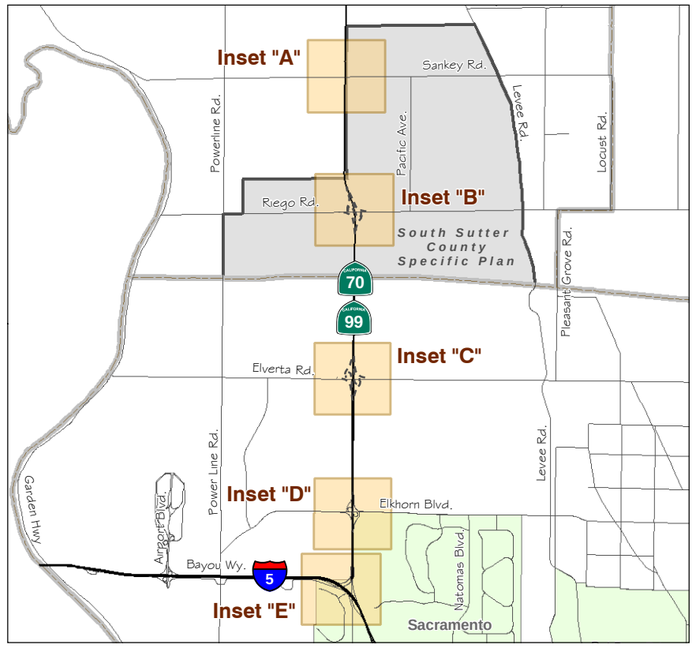
FIGURE 3.3-22E

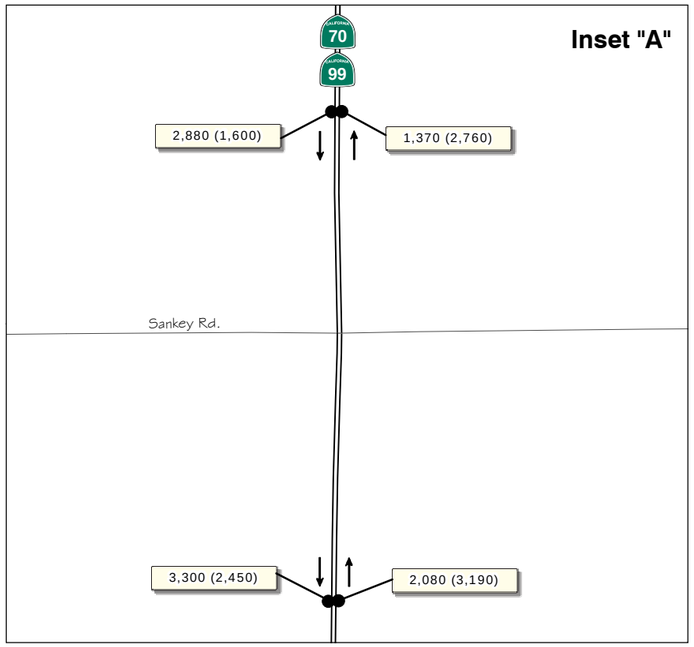
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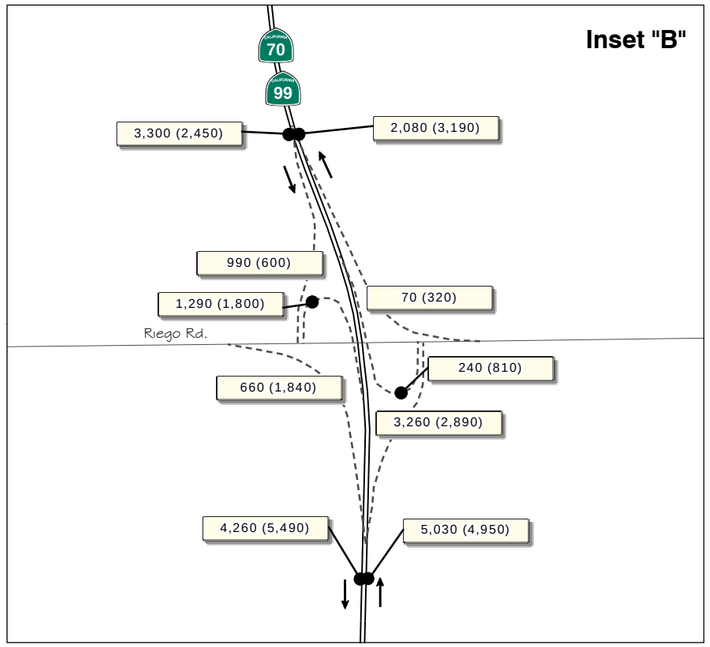
- Through Lane
- Future Ramp
- 100 (100) — AM (PM) Traffic Volume

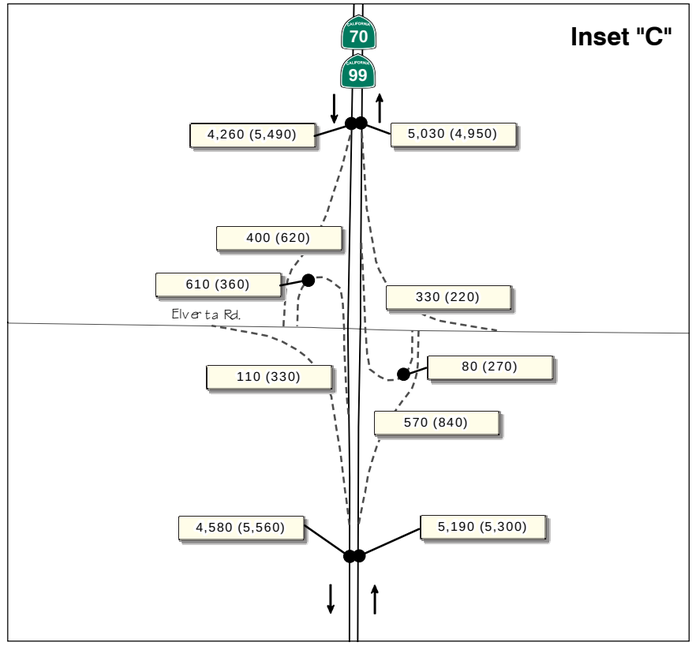
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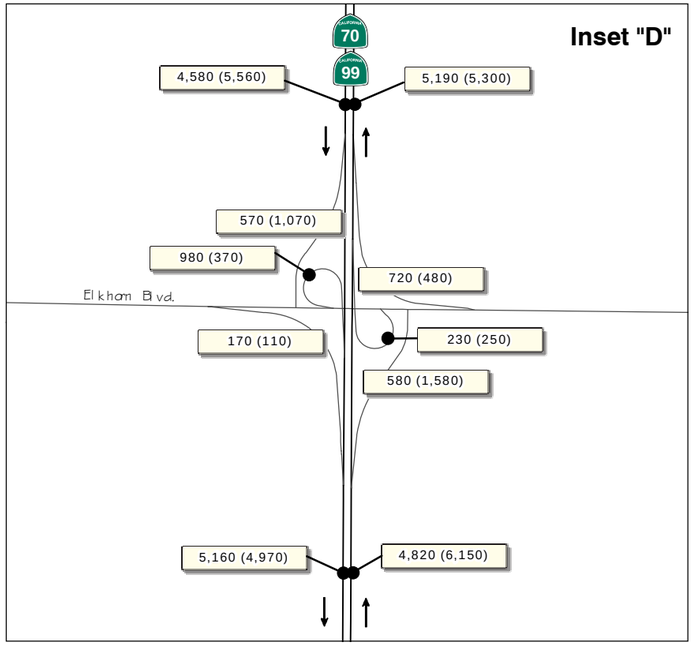
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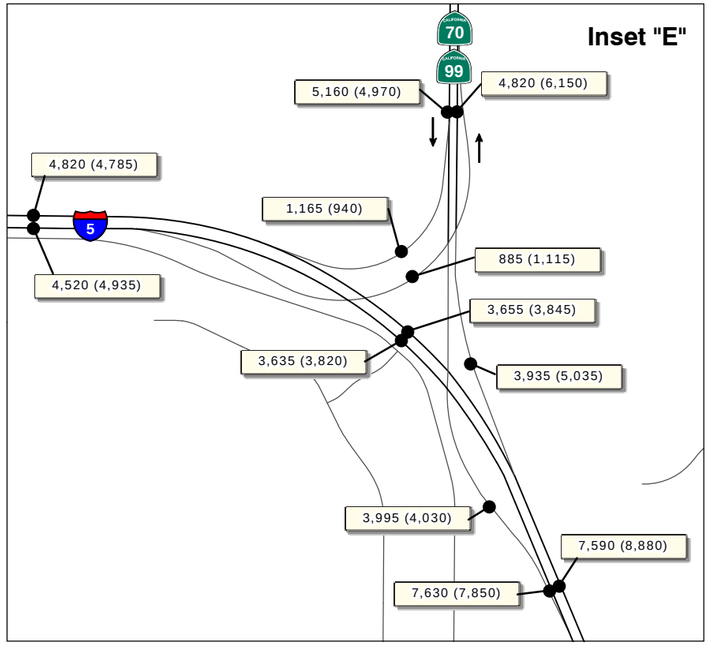










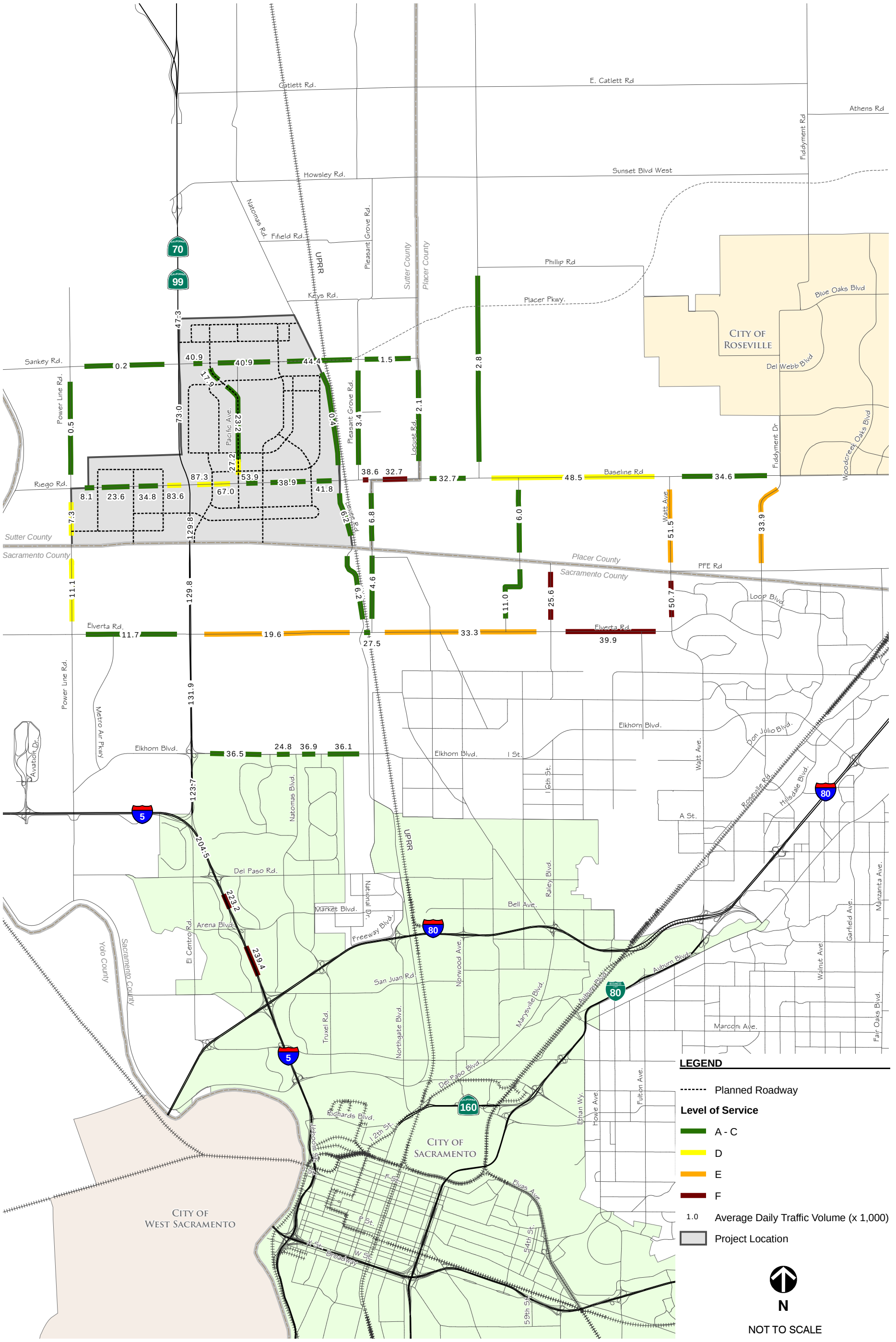


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY

FIGURE 3.3-23

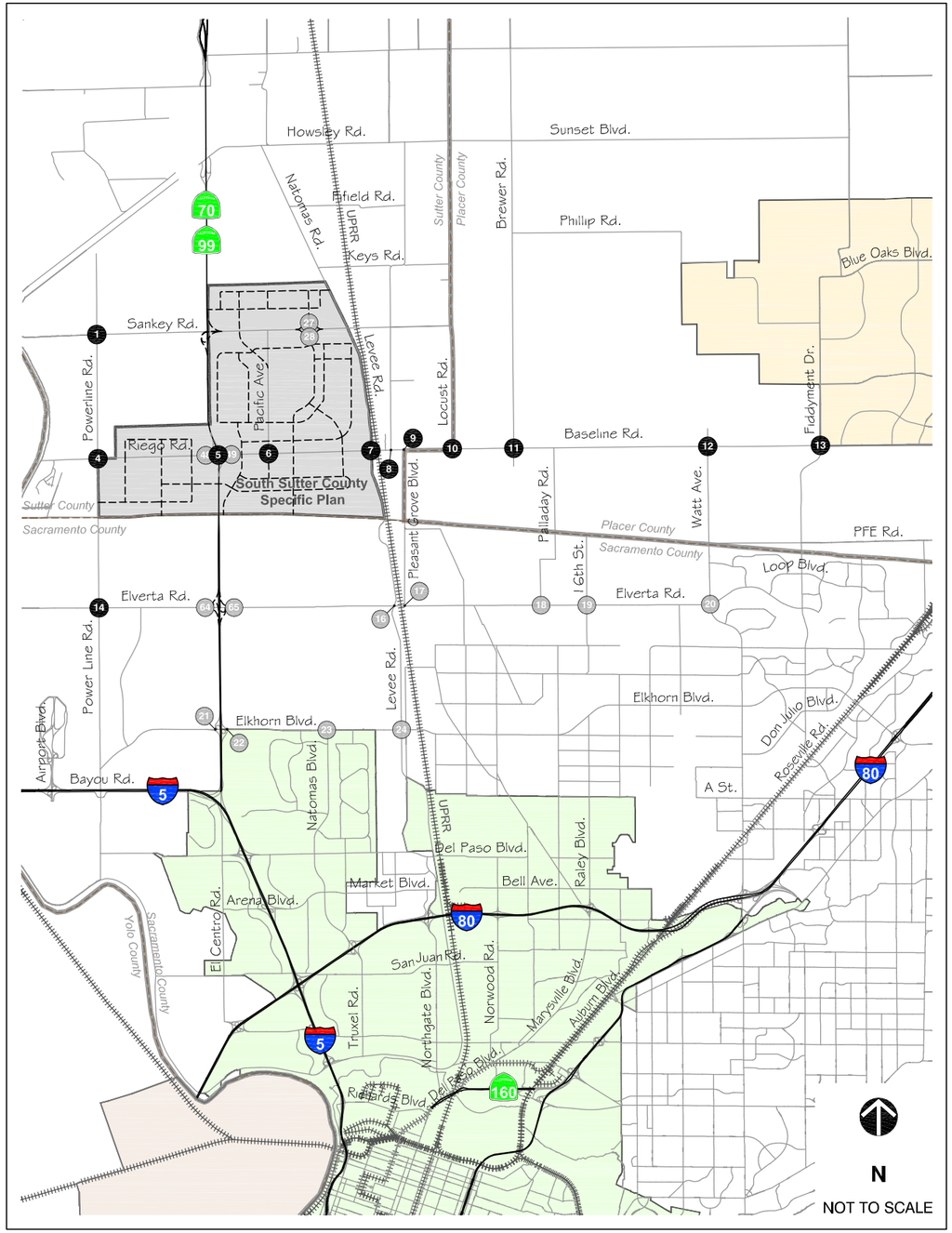


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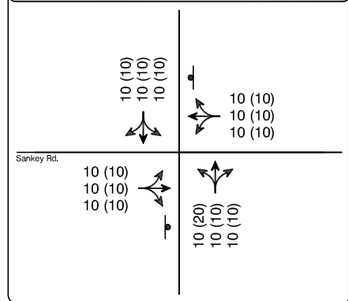
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AVERAGE DAILY TRAFFIC VOLUME AND LEVEL OF SERVICE - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

FIGURE 3.3-24



1. Sankey Rd./Powerline Rd.



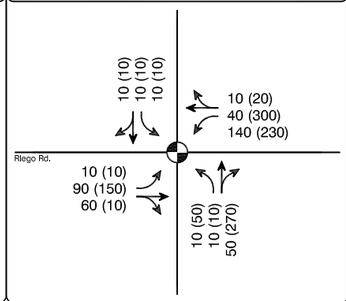
2. Sankey Rd./SR 99

NOW INTERCHANGE

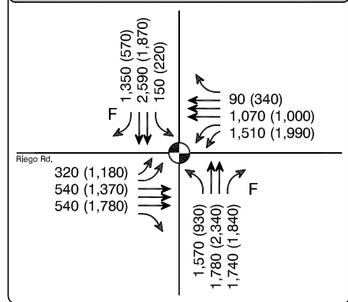
3. Sankey Rd./Pacific Ave.

NOW OVERPASS

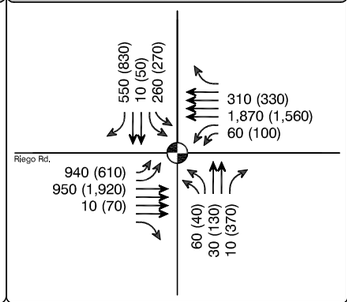
4. Riego Rd./Powerline Rd.



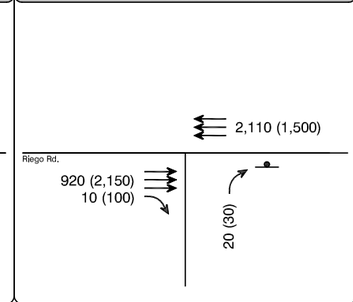
5. Riego Rd./SR 99



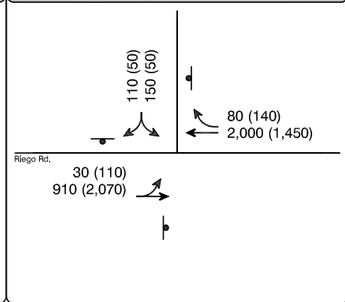
6. Riego Rd./Pacific Ave.



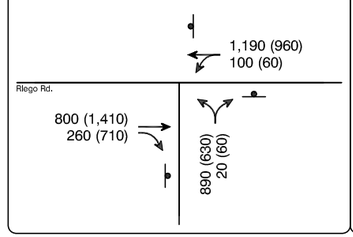
7. Riego Rd./Natomas Rd.



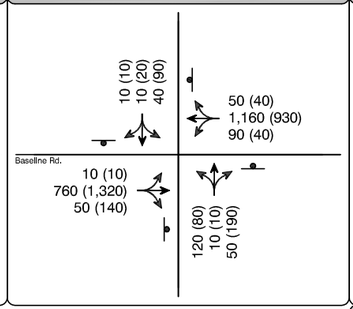
8. Riego Rd./Pleasant Grove Rd. N.



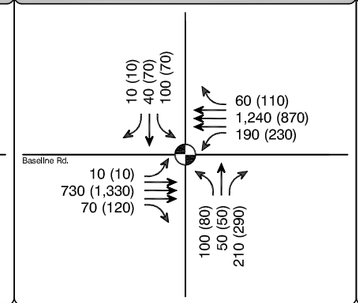
9. Riego Rd./Pleasant Grove Rd. S.



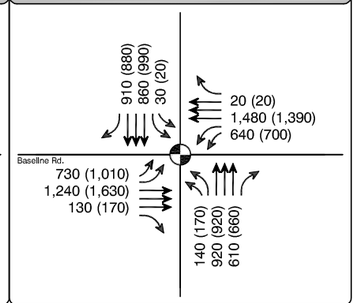
10. Baseline Rd./Locust Rd.



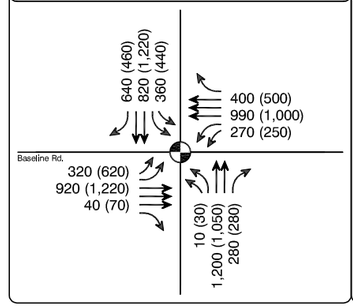
11. Baseline Rd./Brewer Rd.



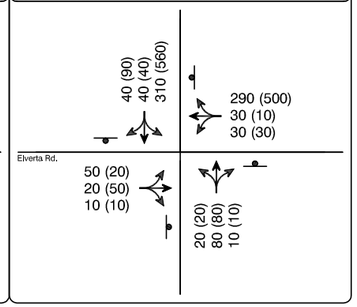
12. Baseline Rd./Watt Ave.



13. Baseline Rd./Fiddyment Dr.



14. Elverta Rd./Power Line Rd.



LEGEND

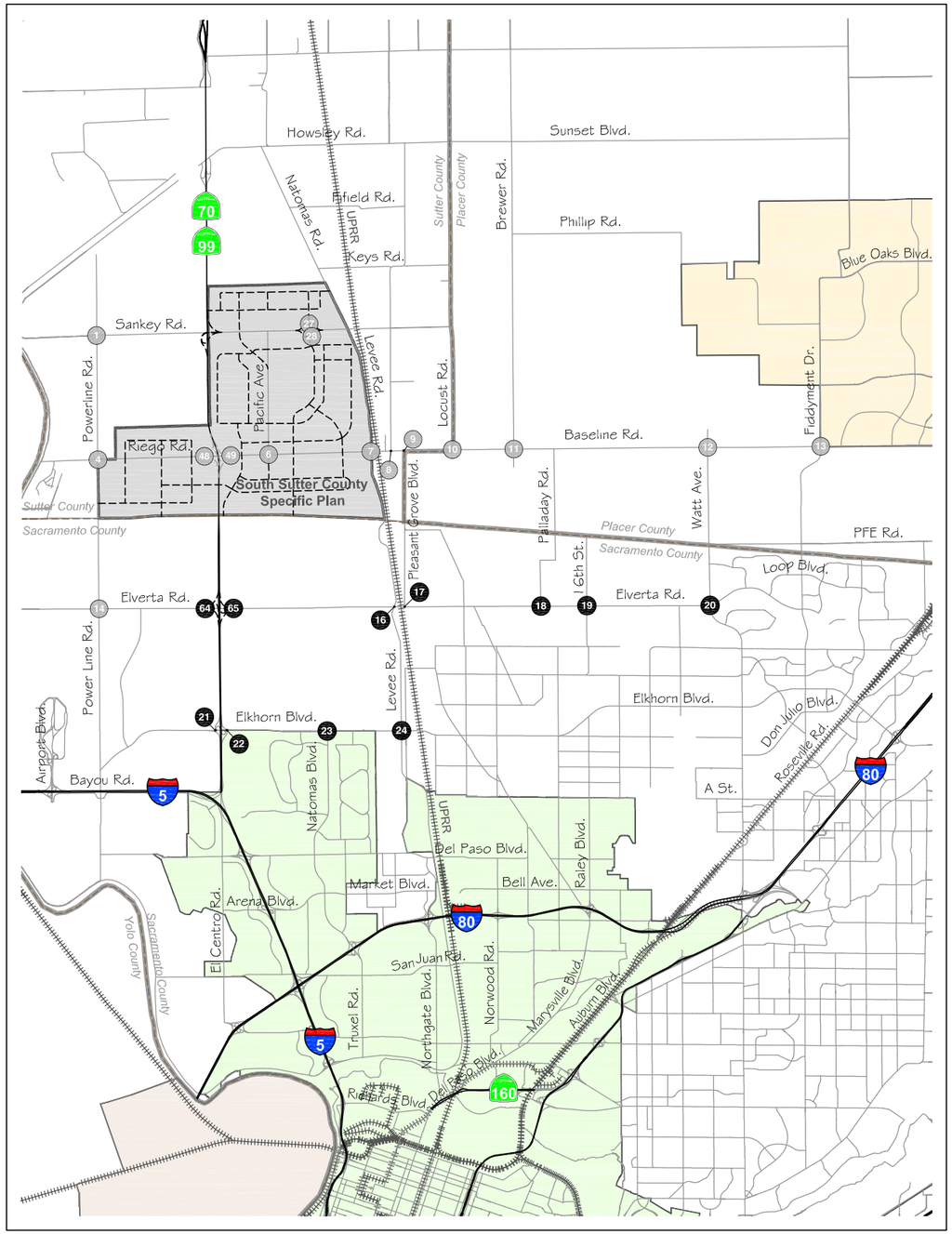
	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume		Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-25B, 25C, 25D, 25E)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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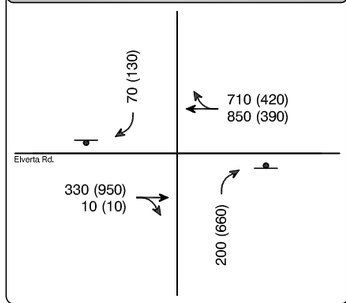
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

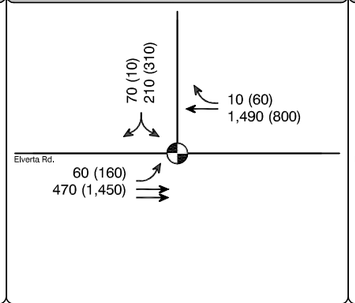
FIGURE 3.3-25A



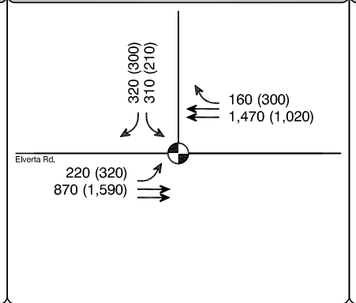
16. Elverta Rd./E. Levee Rd.



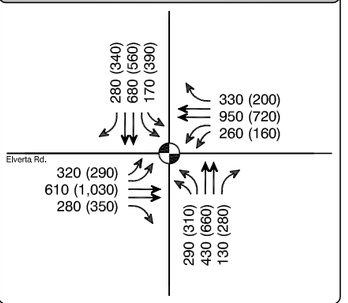
17. Elverta Rd./Sorento Rd.



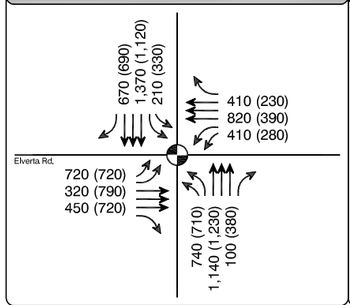
18. Elverta Rd./Palladay Rd.



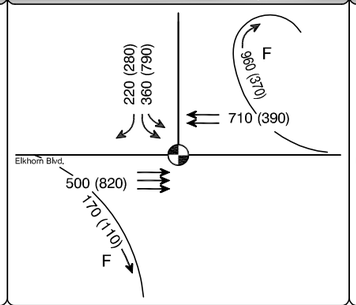
19. Elverta Rd./16th St.



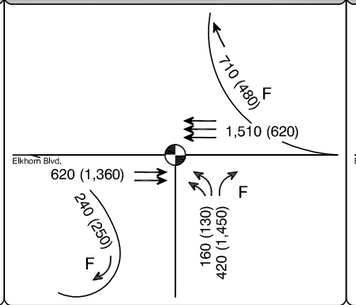
20. Elverta Rd./Watt Ave.



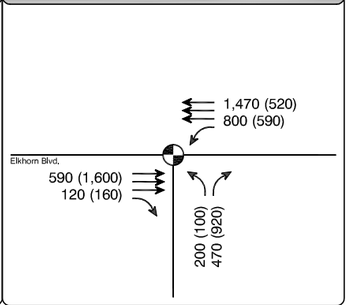
21. Elkhorn Blvd./SR 99 SB Ramps



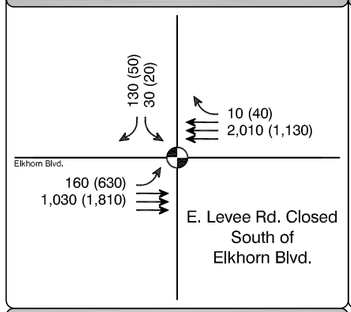
22. Elkhorn Blvd./SR 99 NB Ramps



23. Elkhorn Blvd./Natomas Blvd.



24. Elkhorn Blvd./E. Levee Rd.



E. Levee Rd. Closed South of Elkhorn Blvd.

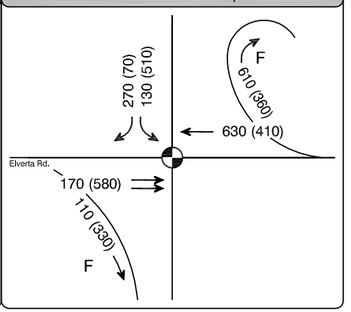
48. Riego Rd./SR 99 SB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

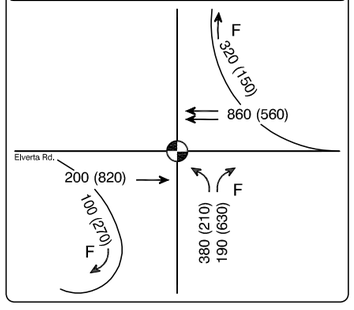
49. Riego Rd./SR 99 NB Ramps

INTERCHANGE IS MITIGATION FOR IMPACTS AT RIEGO RD./ SR 99 INTERSECTION

64. Elverta Rd./SR 99 SB Ramps



65. Elverta Rd./SR 99 NB Ramps



LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-25A, 25C, 25D, 25E)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

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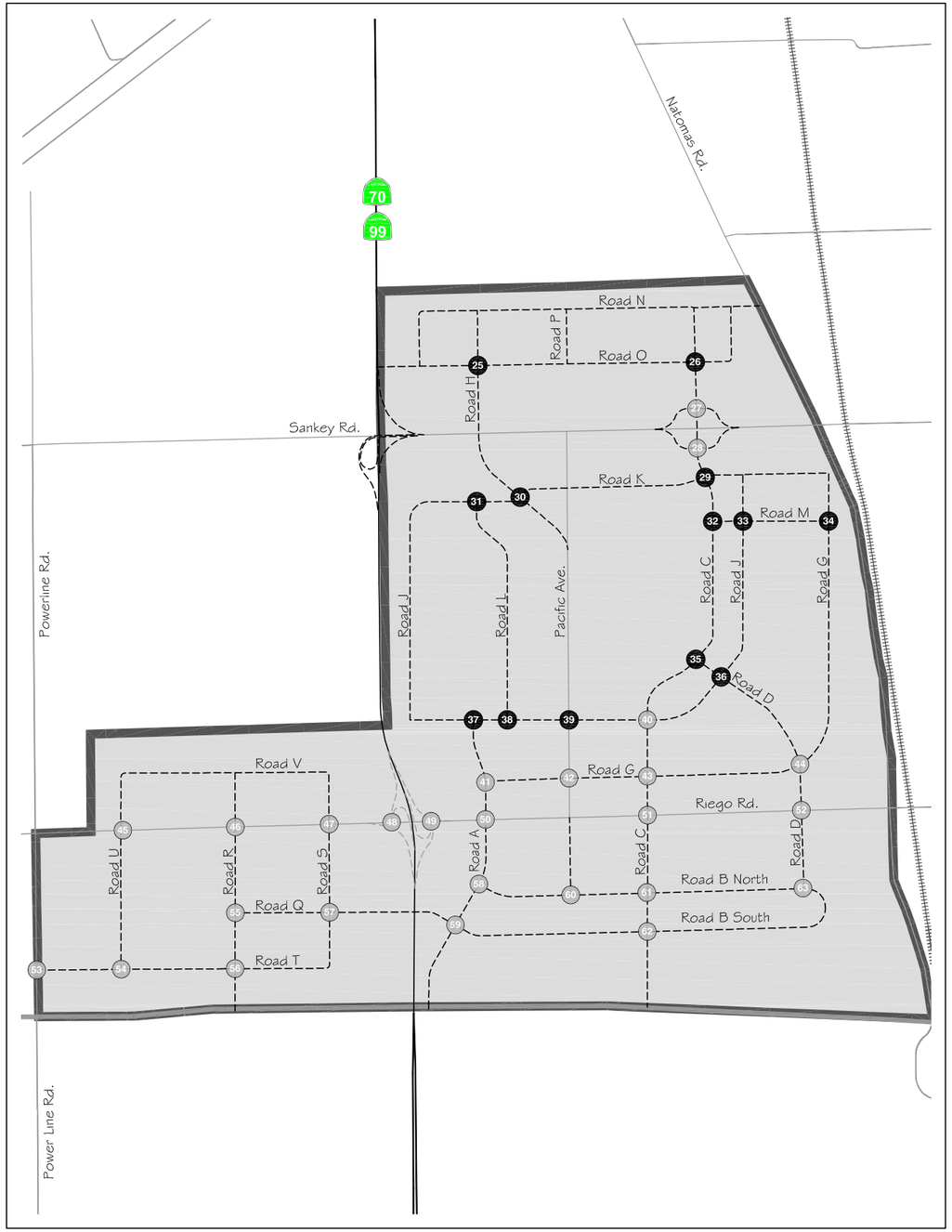
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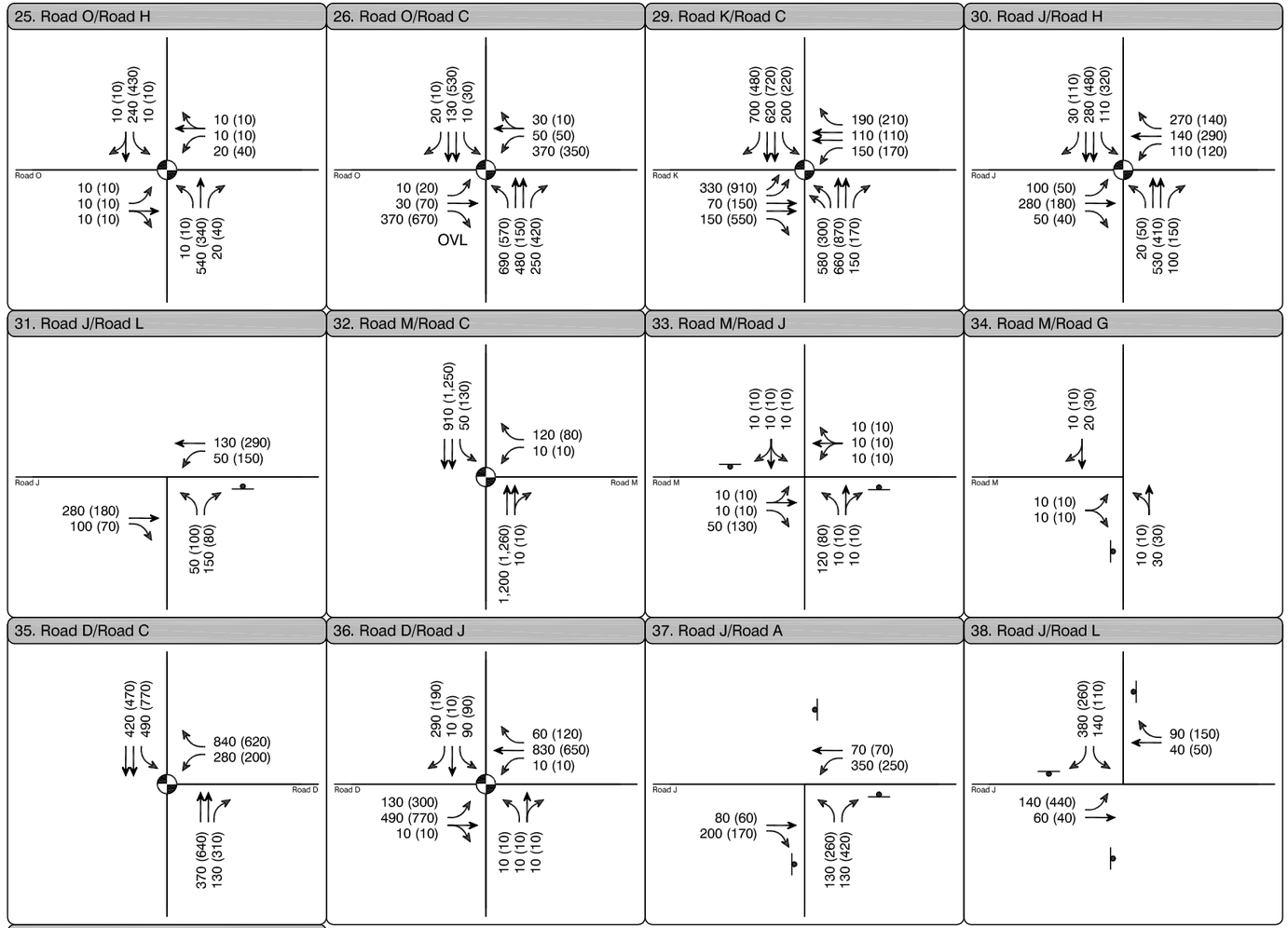
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

FIGURE 3.3-25B





LEGEND

	Turn Lane	F	"Free" Right Turn
XX (YY)	AM (PM) Peak Hour Traffic Volume	OVL	Overlap Phasing
		-----	Planned Roadway
1	Study Intersection (Grey: See Figure 3.3-25A, 25B, 25D, 25E)		City of Roseville Limits
	Traffic Signal		City of West Sacramento Limits
	Stop Sign		City of Sacramento Limits

N

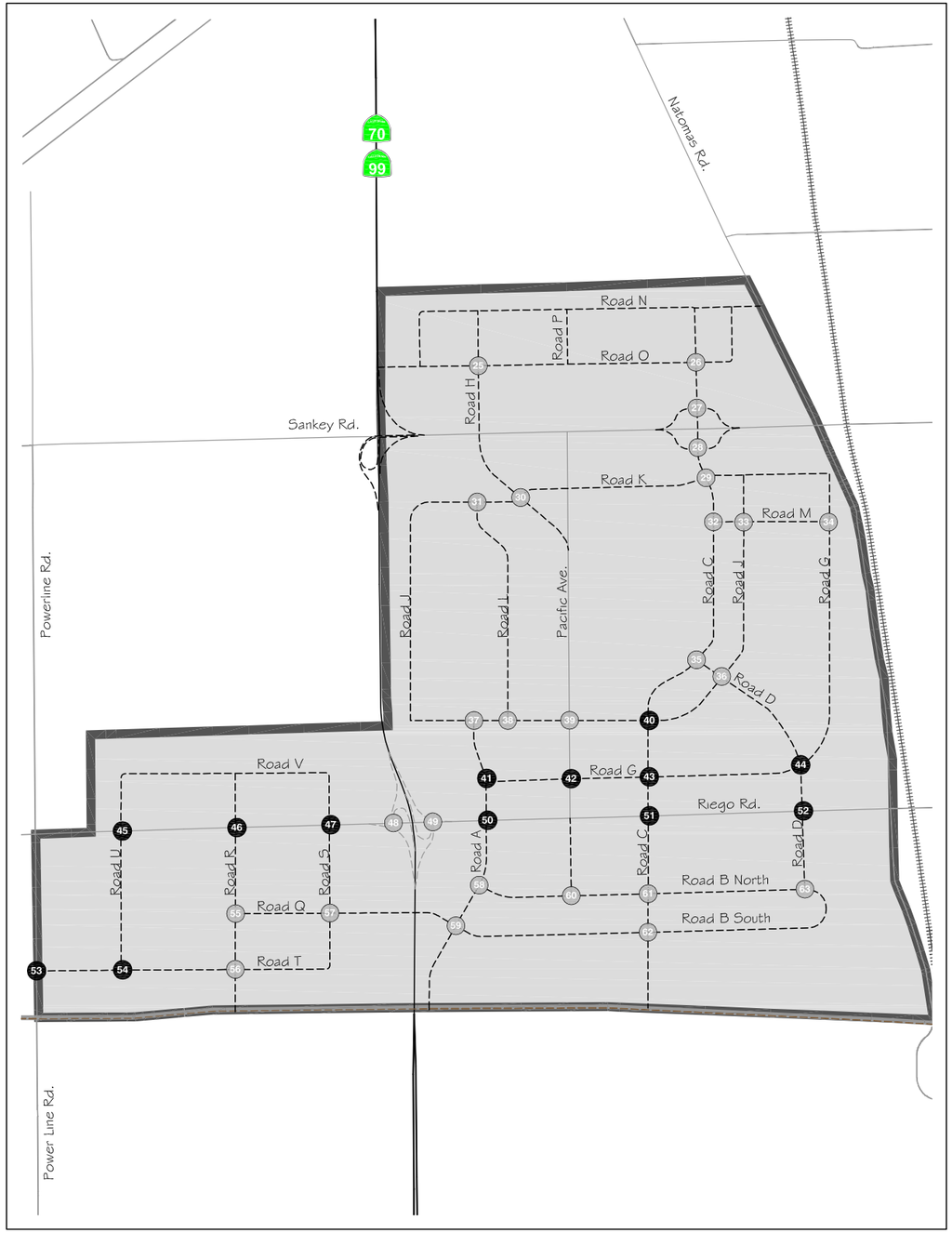
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FEHR & PEERS
TRANSPORTATION CONSULTANTS

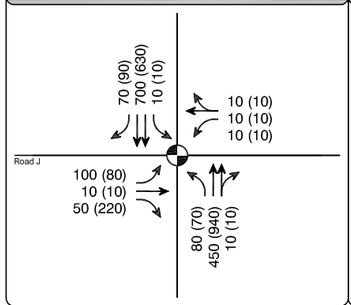
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

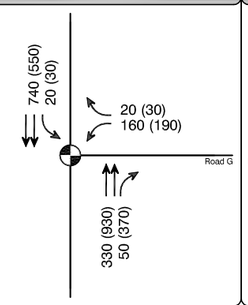
FIGURE 3.3-25C



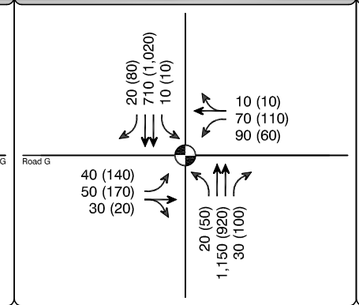
40. Road J/Road C



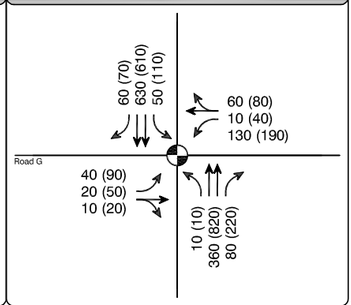
41. Road G/Road A



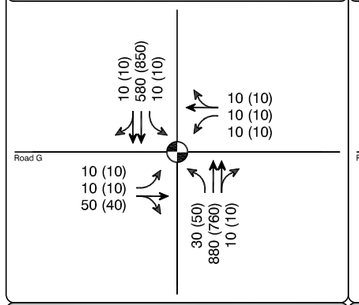
42. Road G/Pacific Ave.



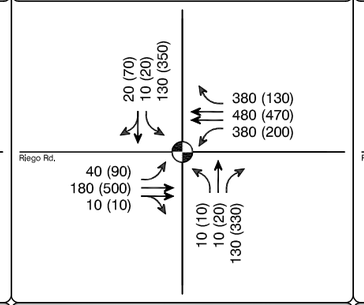
43. Road G/Road C



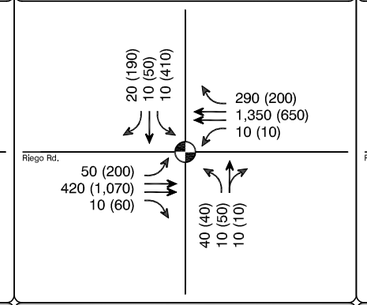
44. Road G/Road D



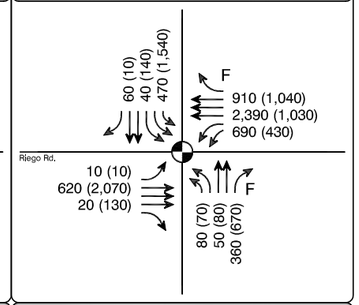
45. Riego Rd./Road U



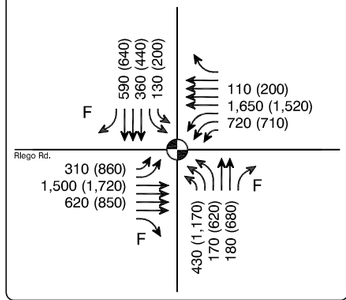
46. Riego Rd./Road R



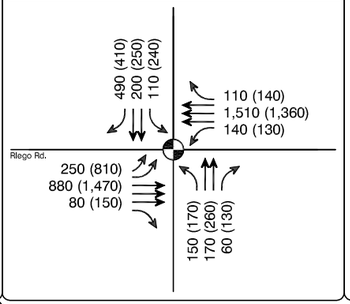
47. Riego Rd./Road S



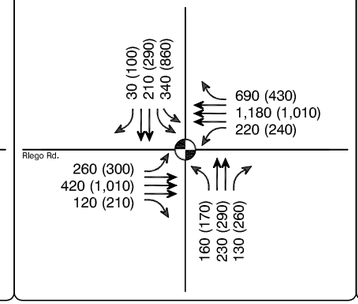
50. Riego Rd./Road A



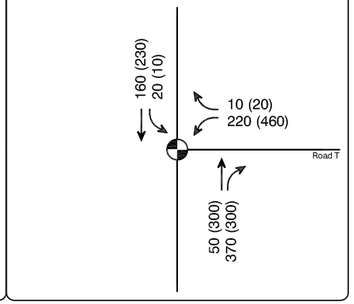
51. Riego Rd./Road C



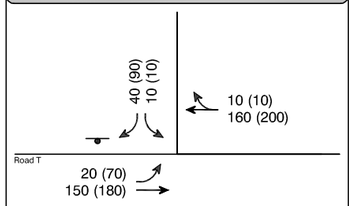
52. Riego Rd./Road D



53. Road T/Power Line Rd.



54. Road T/Road U



LEGEND

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- 1 Study Intersection (Grey: See Figure 3.3-25A, 25B, 25C, 25E)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

N

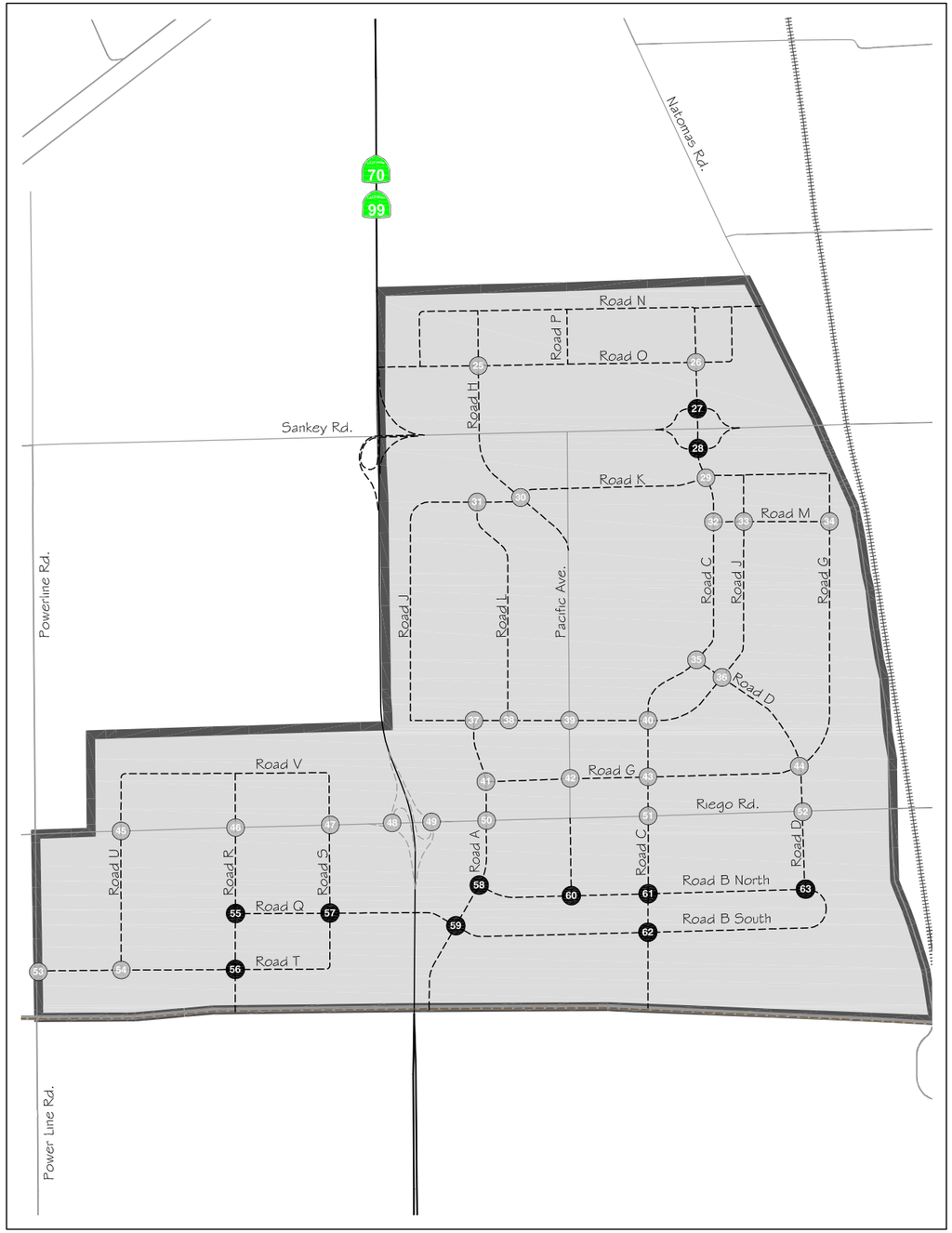
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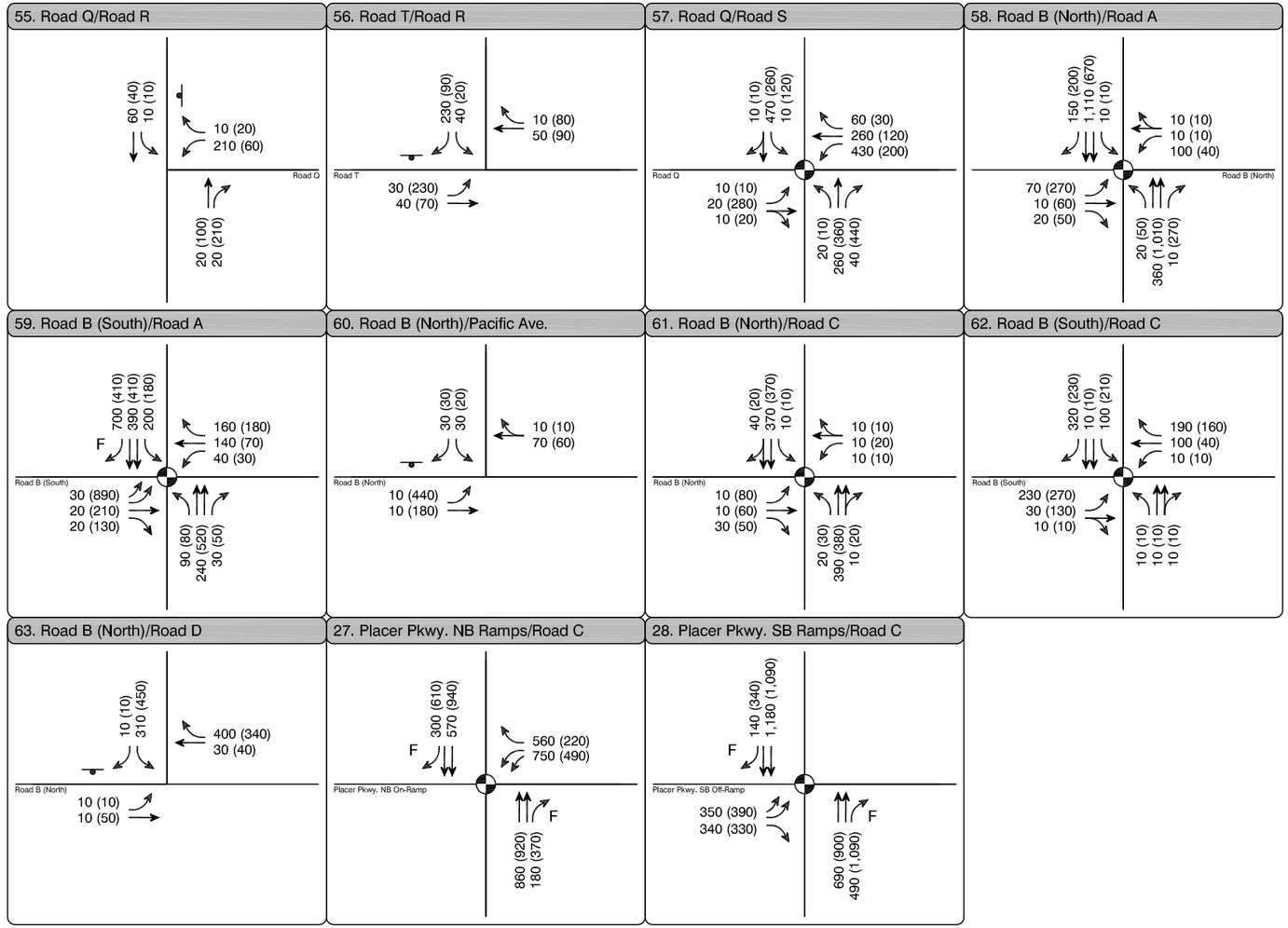
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

FIGURE 3.3-25D





LEGEND

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- 1 Study Intersection (Grey: See Figure 3.3-25A, 25B, 25C, 25D)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

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NOT TO SCALE

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES (ON-SITE INTERSECTIONS) - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

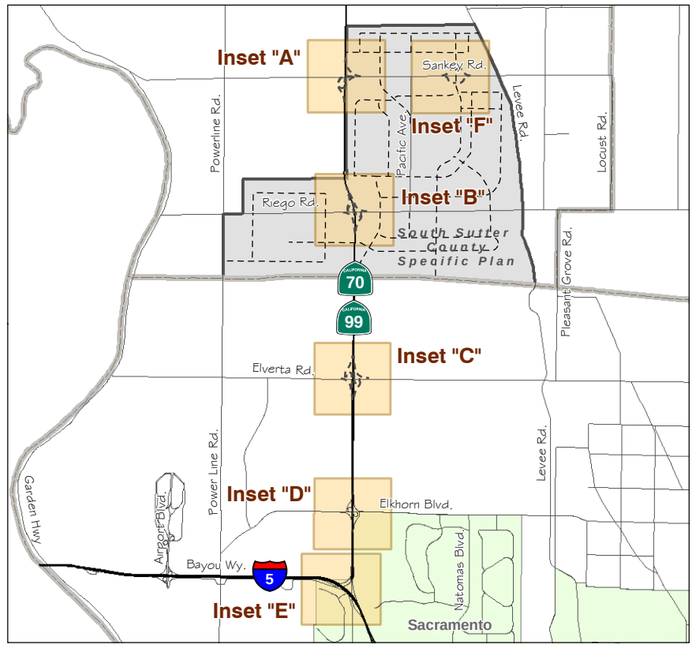
FIGURE 3.3-25E

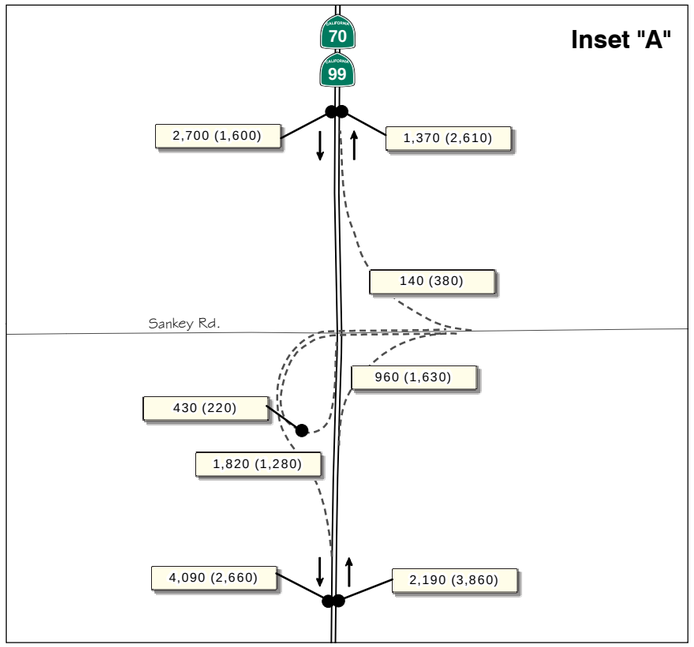
LEGEND

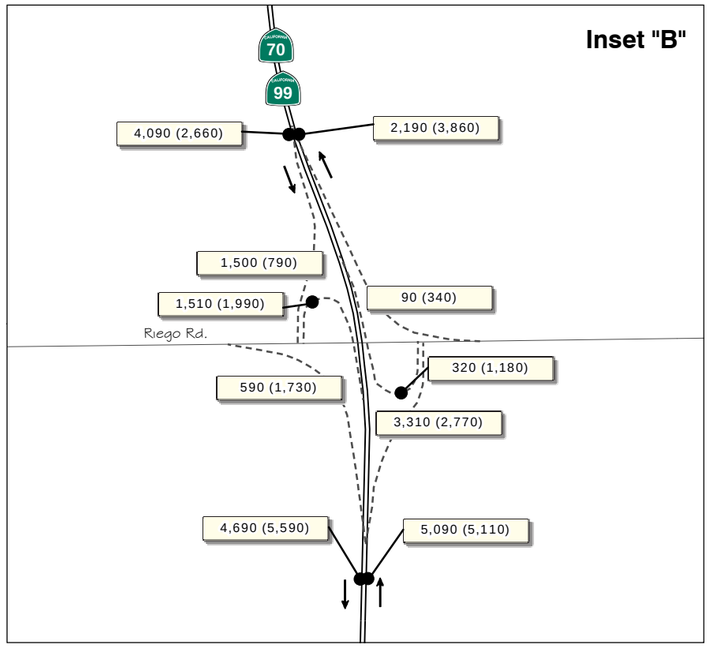
- Through Lane
- Future Ramp
- 100 (100) — AM (PM) Traffic Volume
- Planned Roadway

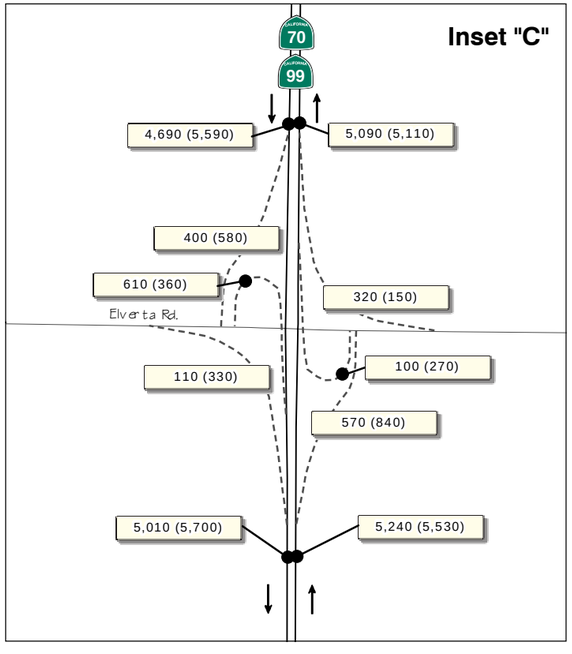
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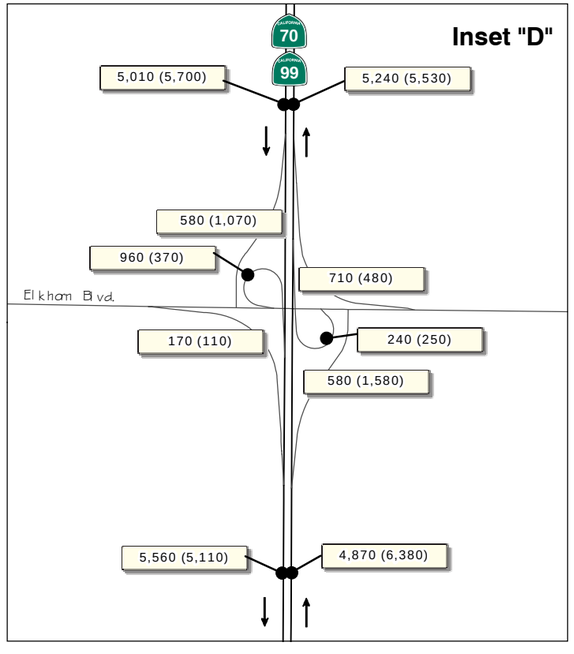
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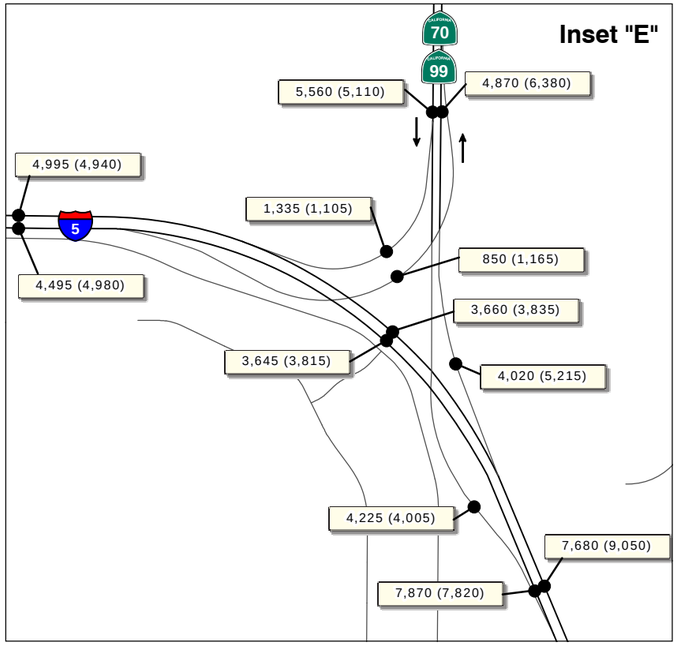


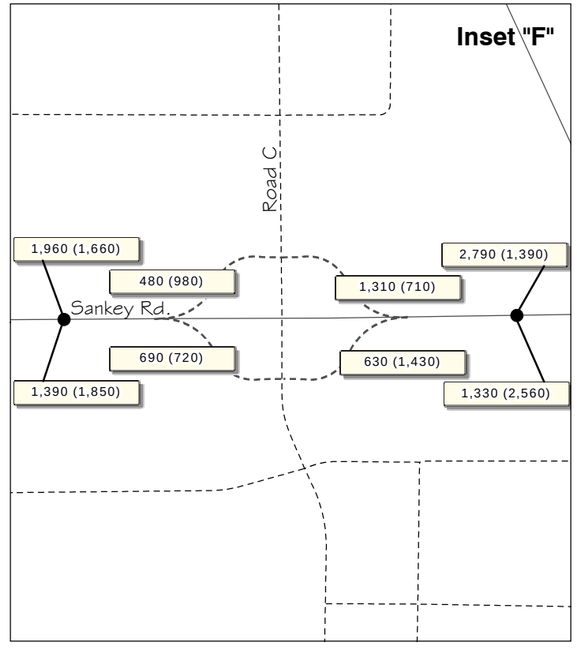










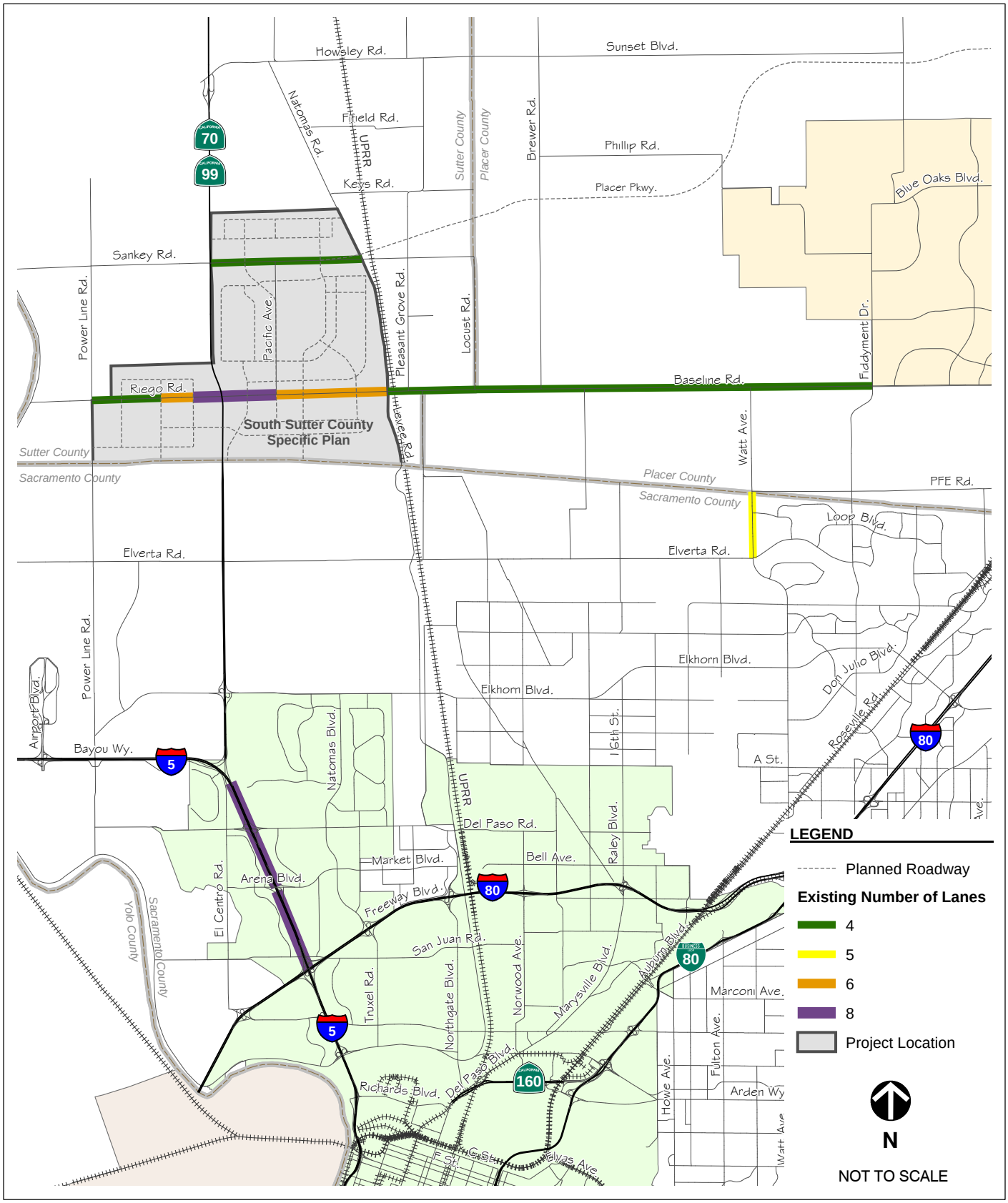


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PEAK HOUR RAMP AND MAINLINE TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY

FIGURE 3.3-26

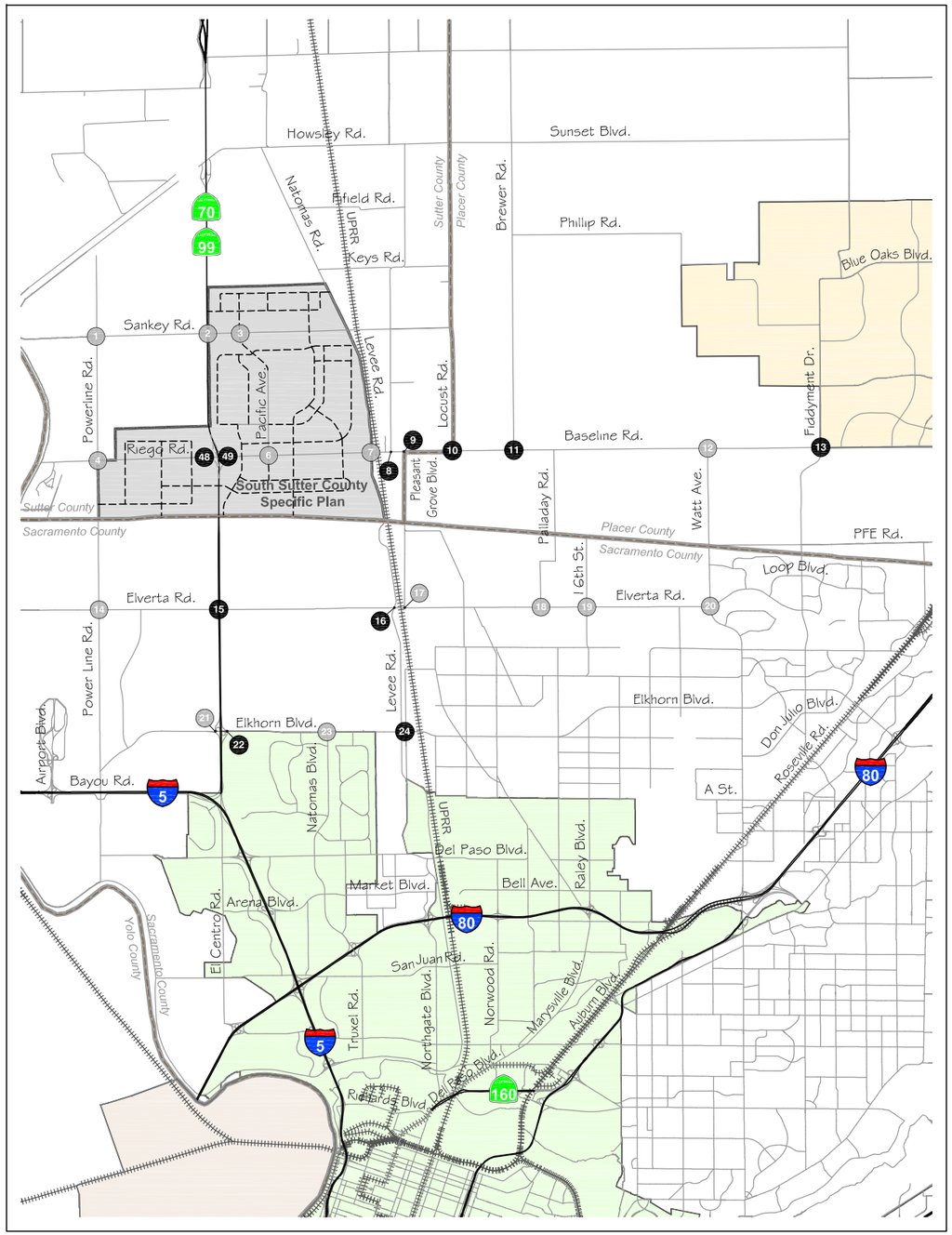


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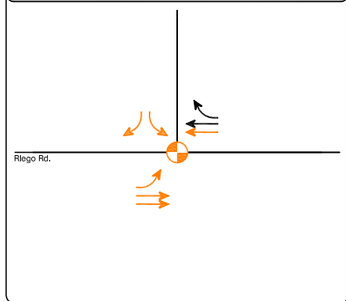
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NUMBER OF LANES - EXISTING PLUS PROJECT PHASE 1 CONDITIONS WITH MITIGATION

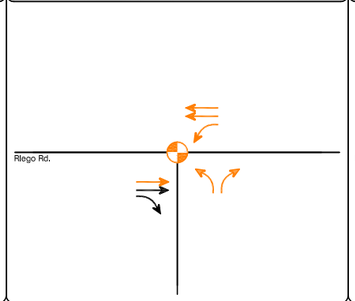
FIGURE 3.3-27



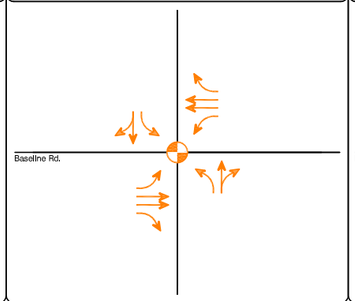
8. Riego Rd./Pleasant Grove Rd. N.



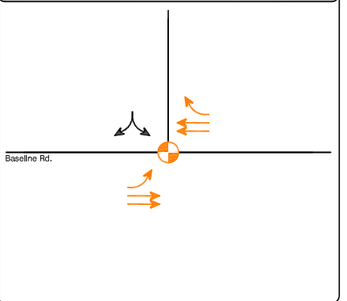
9. Riego Rd./Pleasant Grove Rd. S.



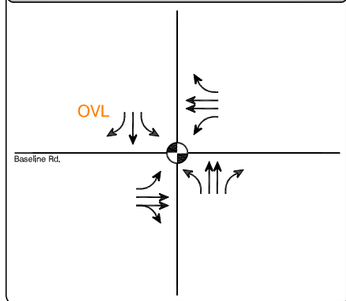
10. Baseline Rd./Locust Rd.



11. Baseline Rd./Brewer Rd.



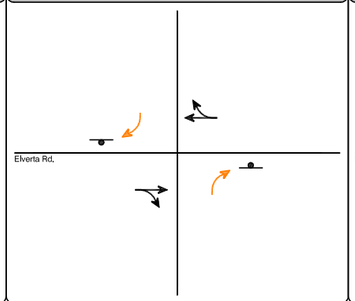
13. Baseline Rd./Fiddyment Dr.



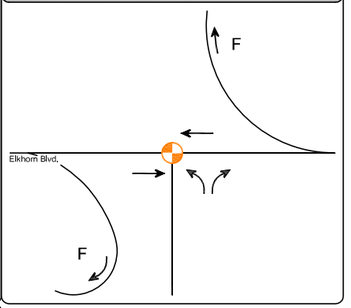
15. Elverta Rd./SR 99

CONSTRUCT INTERCHANGE, CUMULATIVE INTERSECTIONS 64, 65

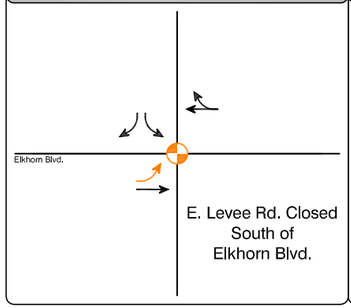
16. Elverta Rd./E. Levee Rd.



22. Elkhorn Blvd./SR 99 NB Ramps

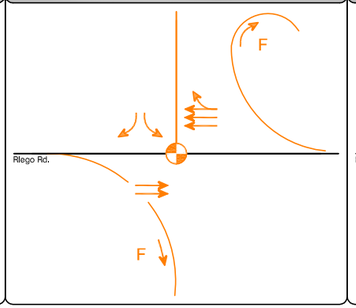


24. Elkhorn Blvd./E. Levee Rd.

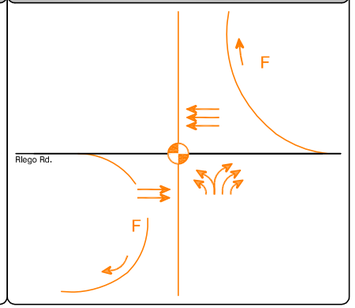


E. Levee Rd. Closed South of Elkhorn Blvd.

48. Riego Rd./SR 99 SB Ramps



49. Riego Rd./SR 99 NB Ramps



LEGEND

- Turn Lane
- Mitigation Measures
- Intersection Mitigation (Grey: Intersection Not Mitigated)
- Traffic Signal
- Stop Sign
- F — "Free" Right Turn
- OVL — Overlap Phasing
- ----- — Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

N

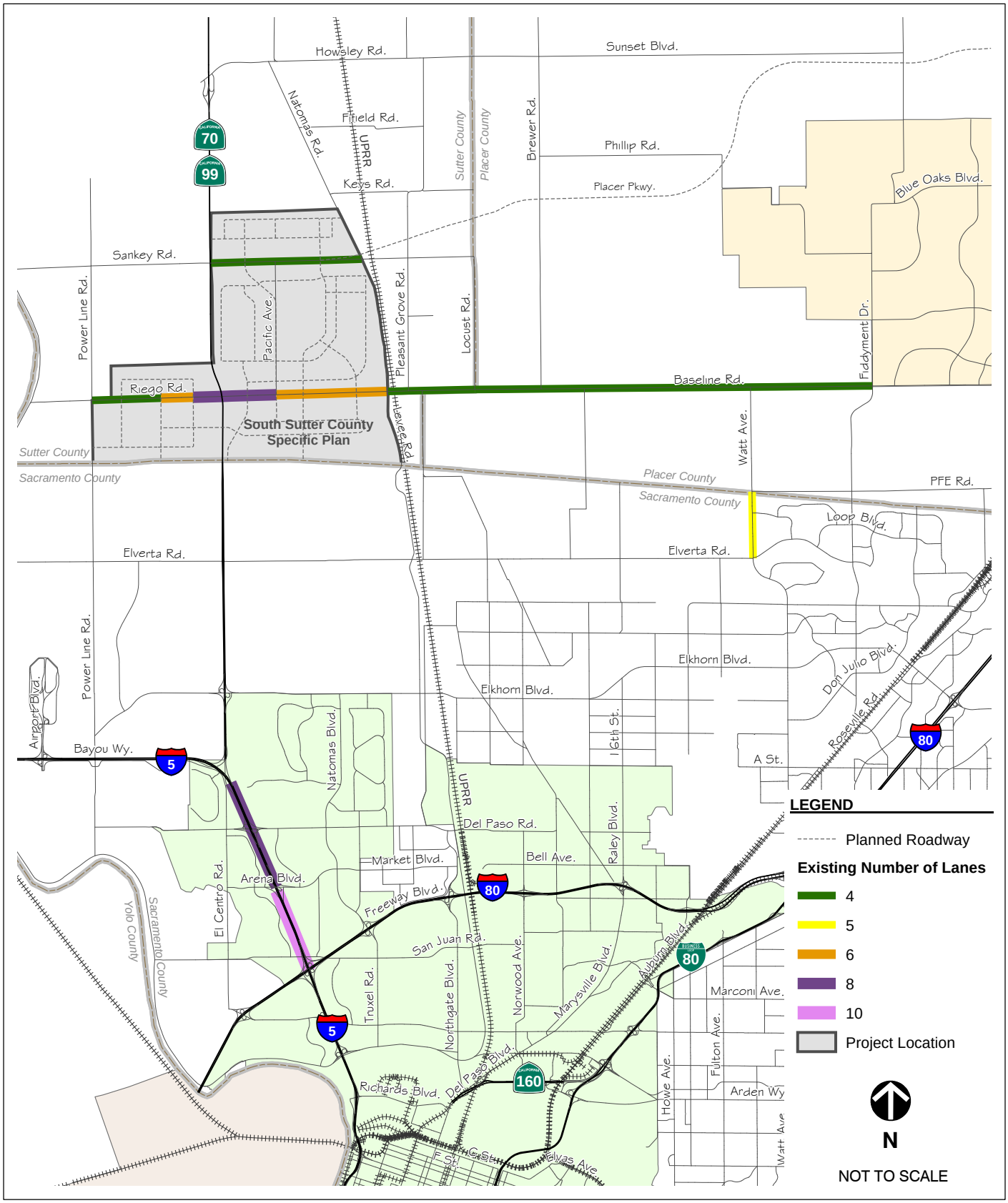
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT PHASE 1 CONDITIONS WITH MITIGATION

FIGURE 3.3-28

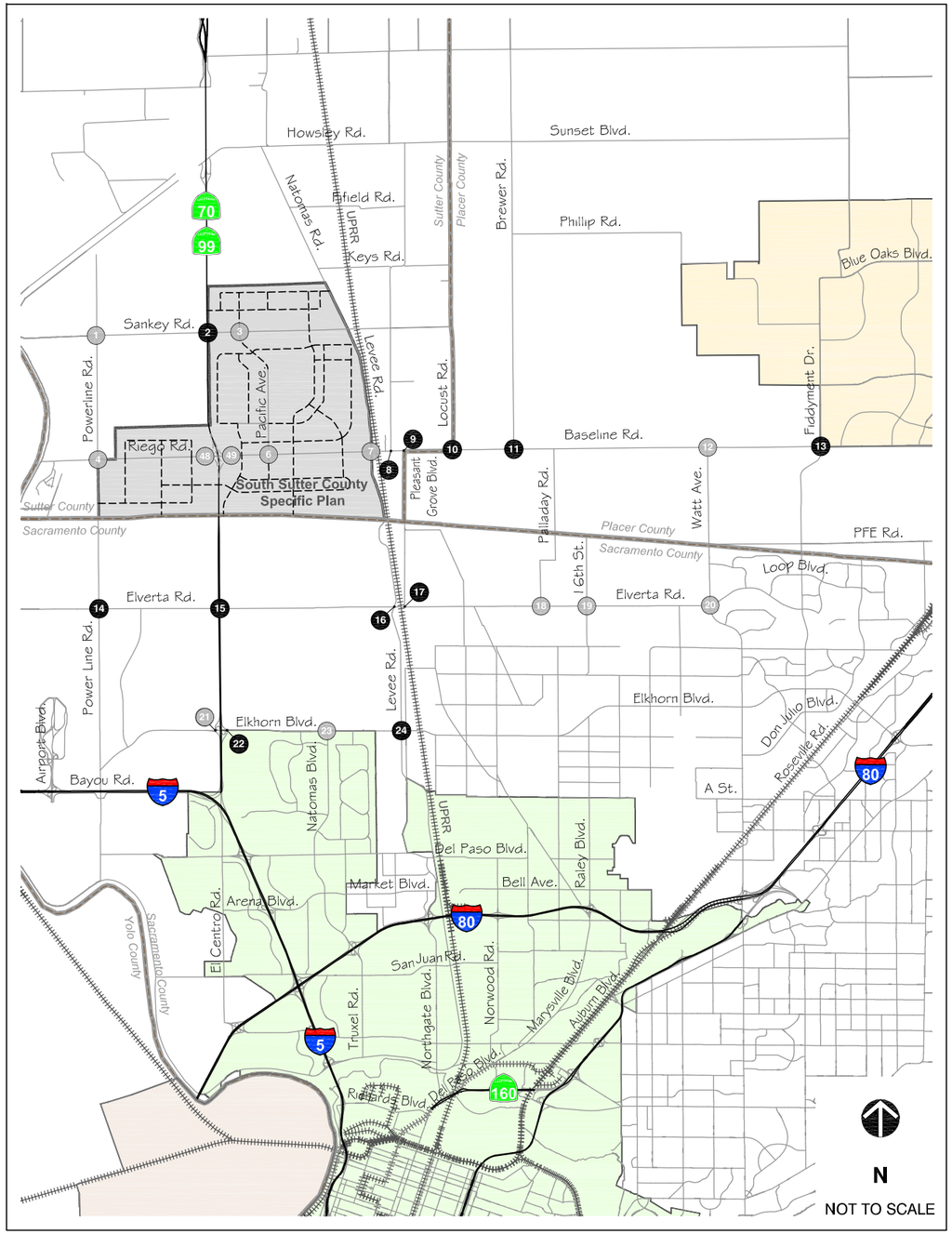


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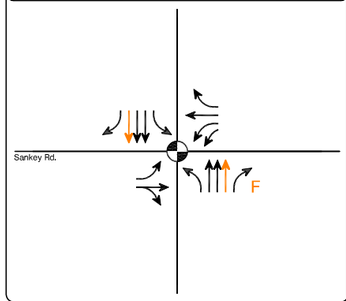
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NUMBER OF LANES - EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION

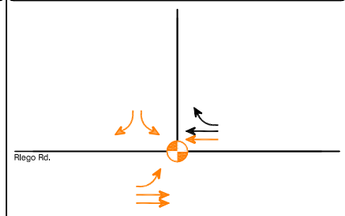
FIGURE 3.3-29



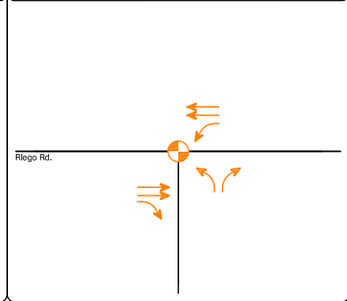
2. Sankey Rd./SR 99



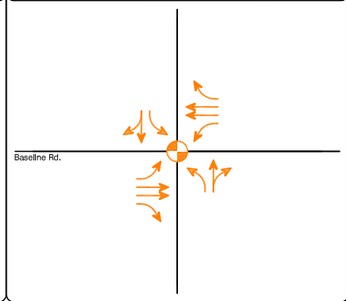
8. Riego Rd./Pleasant Grove Rd. N.



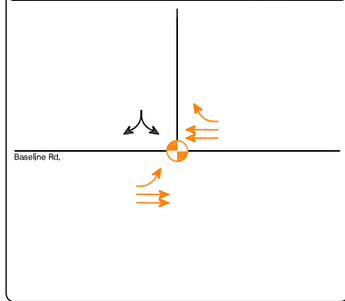
9. Riego Rd./Pleasant Grove Rd. S.



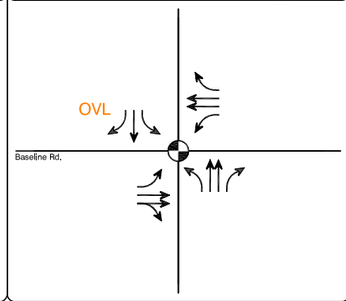
10. Baseline Rd./Locust Rd.



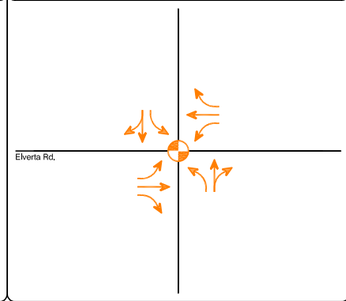
11. Baseline Rd./Brewer Rd.



13. Baseline Rd./Fiddyment Dr.



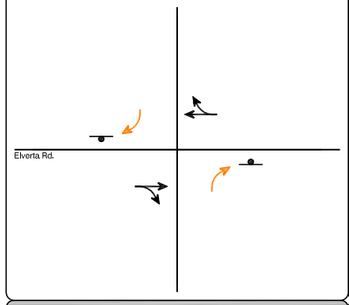
14. Elverta Rd./Power Line Rd.



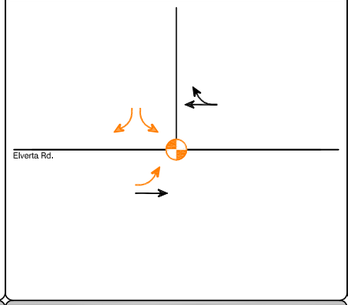
15. Elverta Rd./SR 99

CONSTRUCT INTERCHANGE, CUMULATIVE INTERSECTIONS 64, 65

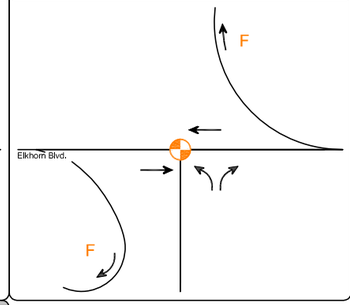
16. Elverta Rd./E. Levee Rd.



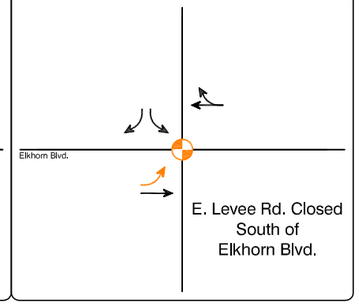
17. Elverta Rd./Sorento Rd.



22. Elkhorn Blvd./SR 99 NB Ramps

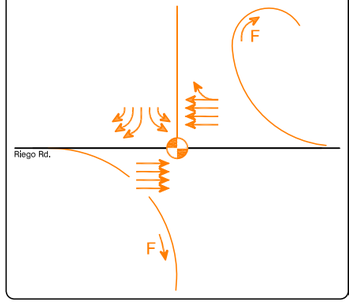


24. Elkhorn Blvd./E. Levee Rd.

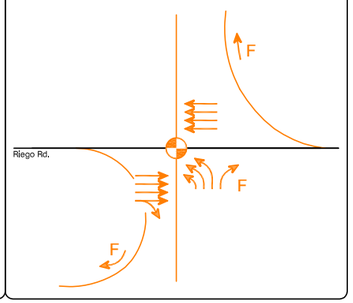


E. Levee Rd. Closed South of Elkhorn Blvd.

48. Riego Rd./SR 99 SB Ramps



49. Riego Rd./SR 99 NB Ramps



LEGEND

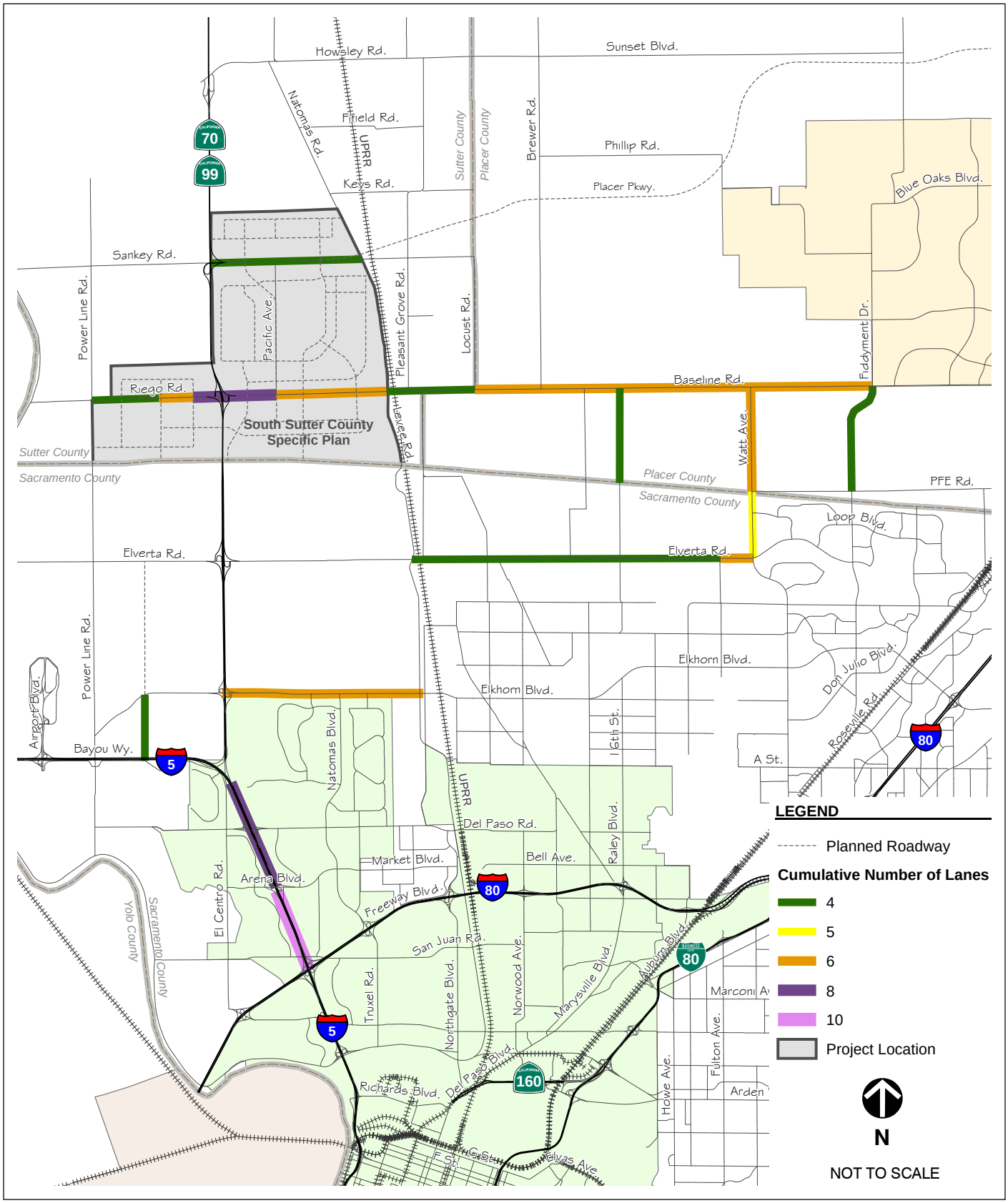
	Turn Lane	F	"Free" Right Turn
	Mitigation Measures	OVL	Overlap Phasing
1	Intersection Mitigation (Grey: Intersection Not Mitigated)	-----	Planned Roadway
	Traffic Signal		City of Roseville Limits
	Stop Sign		City of West Sacramento Limits
			City of Sacramento Limits

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION

FIGURE 3.3-30

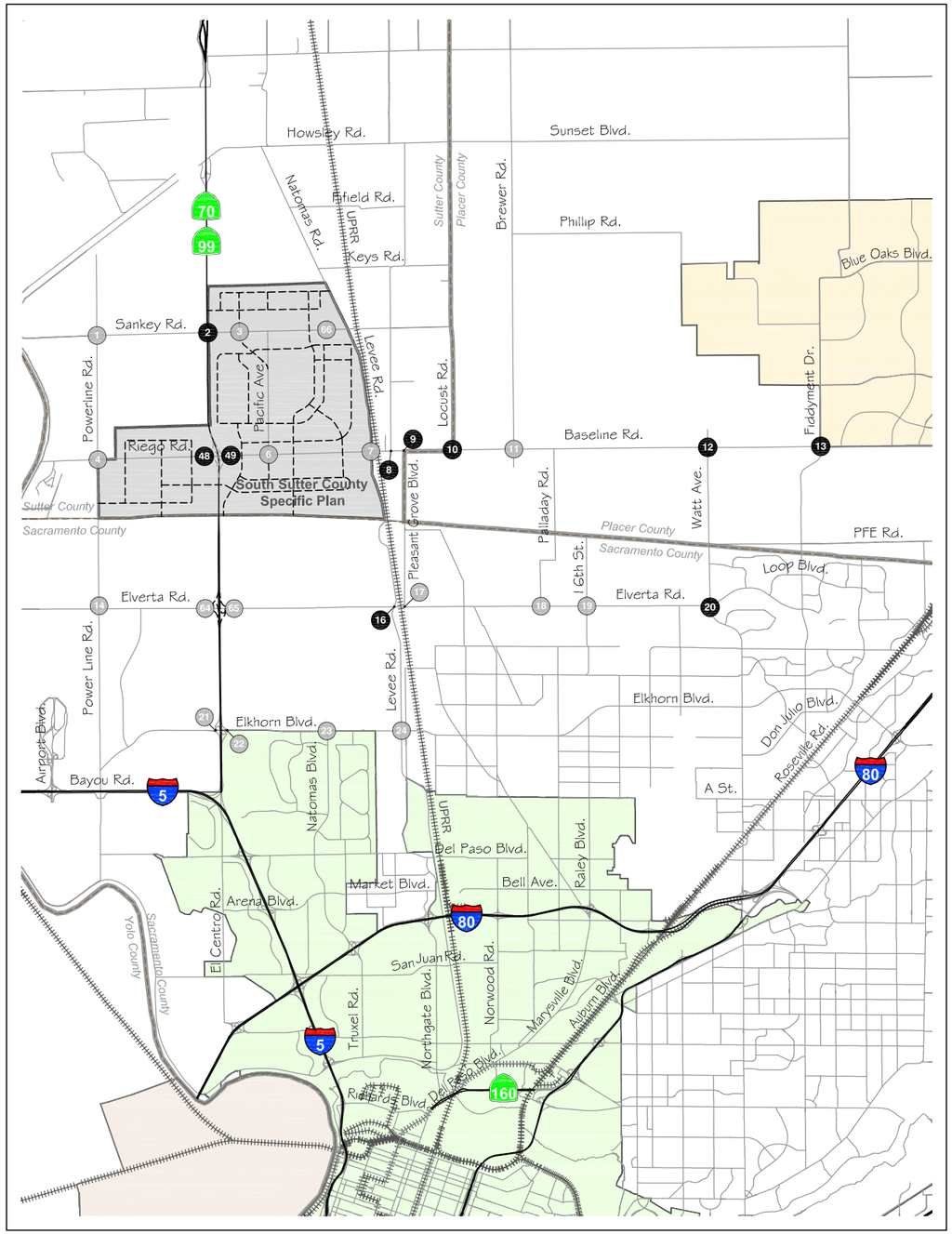


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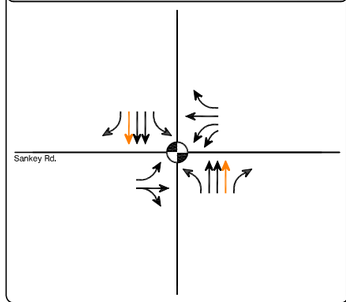
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NUMBER OF LANES - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITH MITIGATION

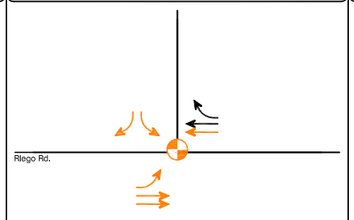
FIGURE 3.3-31



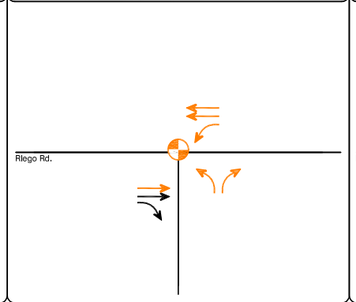
2. Sankey Rd./SR 99



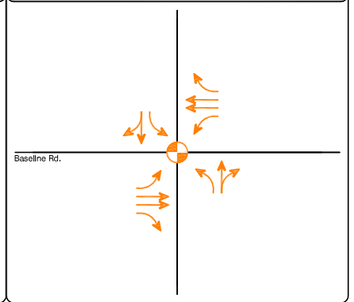
8. Riego Rd./Pleasant Grove Rd. N.



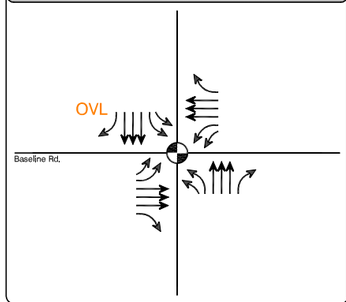
9. Riego Rd./Pleasant Grove Rd. S.



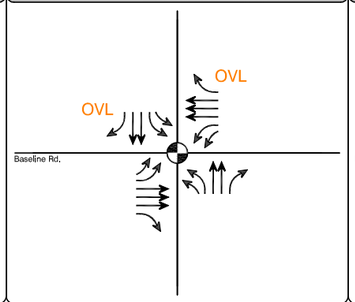
10. Baseline Rd./Locust Rd.



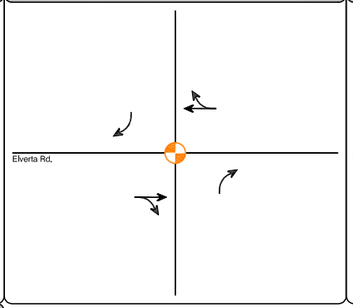
12. Baseline Rd./Watt Ave.



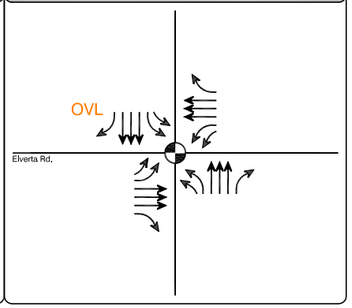
13. Baseline Rd./Fiddyment Dr.



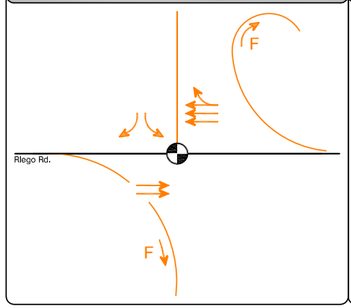
16. Elverta Rd./E. Levee Rd.



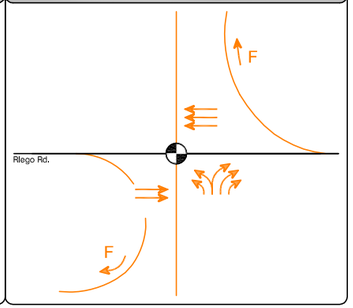
20. Elverta Rd./Watt Ave.



48. Riego Rd./SR 99 SB Ramps



49. Riego Rd./SR 99 NB Ramps



LEGEND

	Turn Lane	F	"Free" Right Turn
	Mitigation Measures	OVL	Overlap Phasing
1	Intersection Mitigation (Grey: Intersection Not Mitigated)	-----	Planned Roadway
	Traffic Signal		City of Roseville Limits
	Stop Sign		City of West Sacramento Limits
			City of Sacramento Limits

N

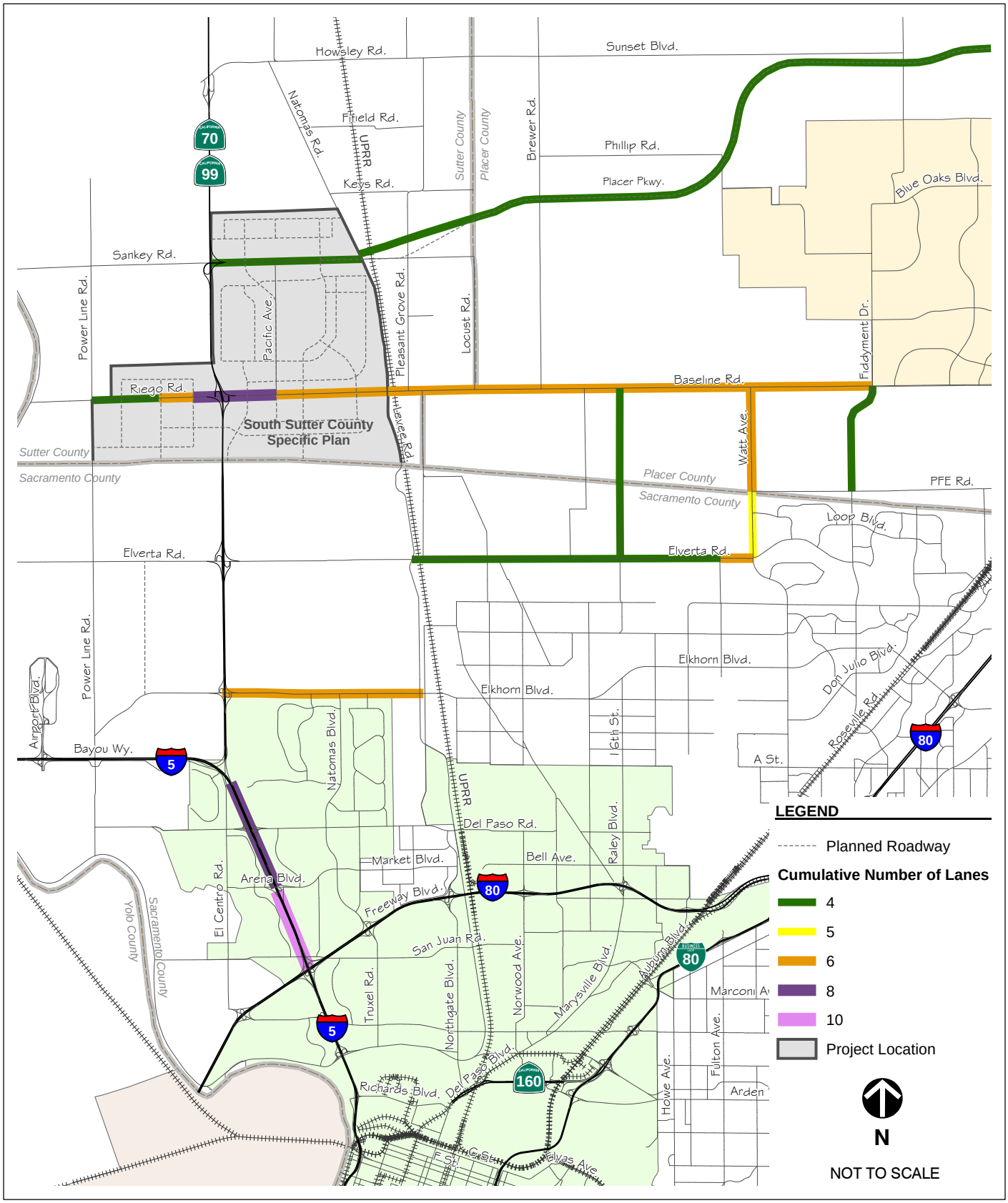
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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS WITHOUT PLACER PARKWAY WITH MITIGATION

FIGURE 3.3-32

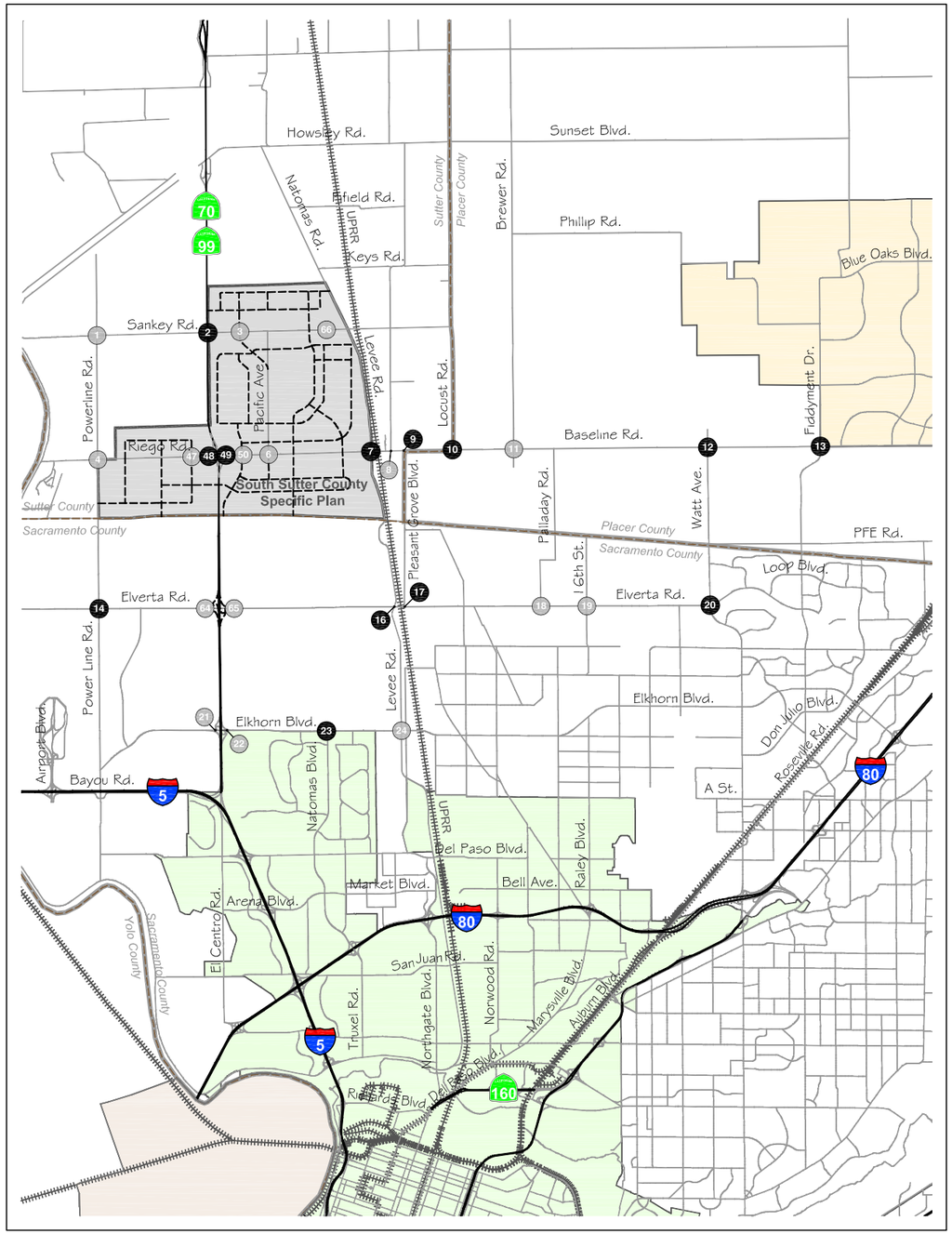


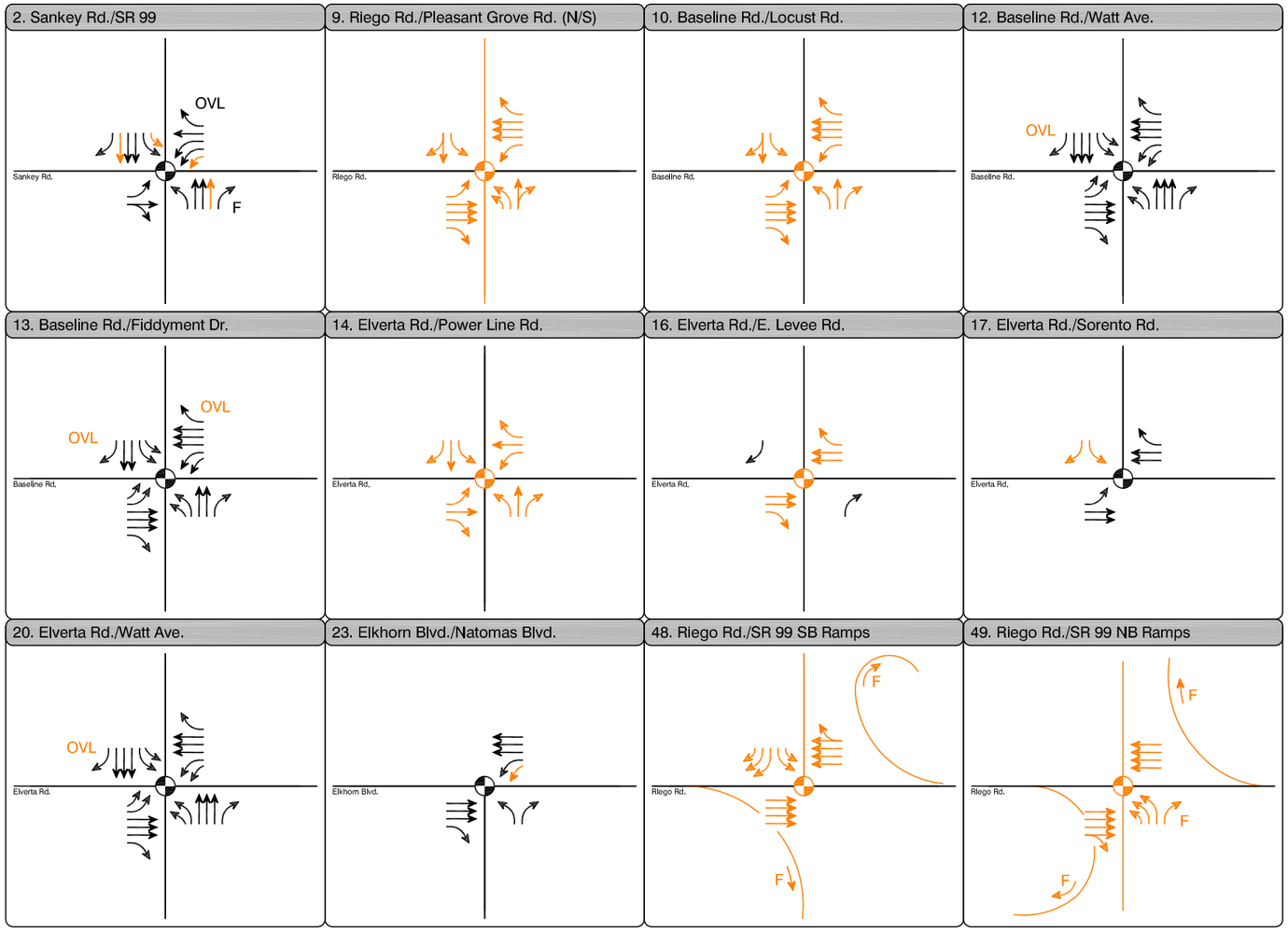
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NUMBER OF LANES - CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION

FIGURE 3.3-33





LEGEND

Turn Lane	F	"Free" Right Turn
Mitigation Measures	OVL	Overlap Phasing
Intersection Mitigation (Grey: Intersection Not Mitigated)	-----	Planned Roadway
Traffic Signal		City of Roseville Limits
Stop Sign		City of West Sacramento Limits
		City of Sacramento Limits

N

NOT TO SCALE

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITHOUT PLACER PARKWAY WITH MITIGATION

FIGURE 3.3-34

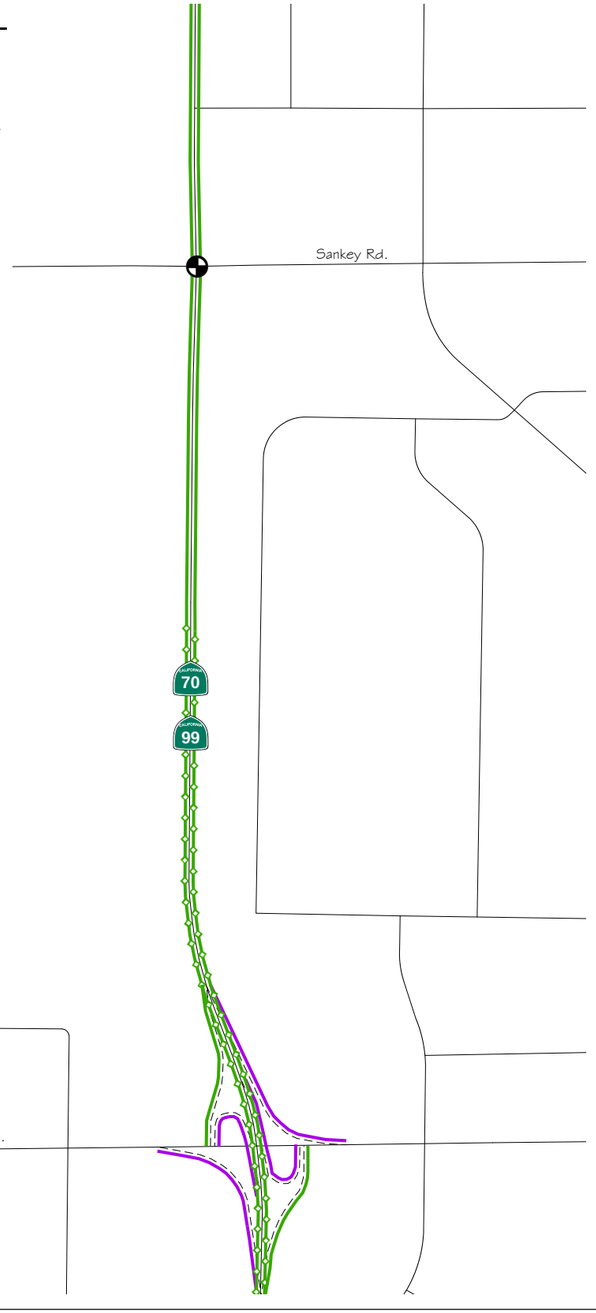
LEGEND

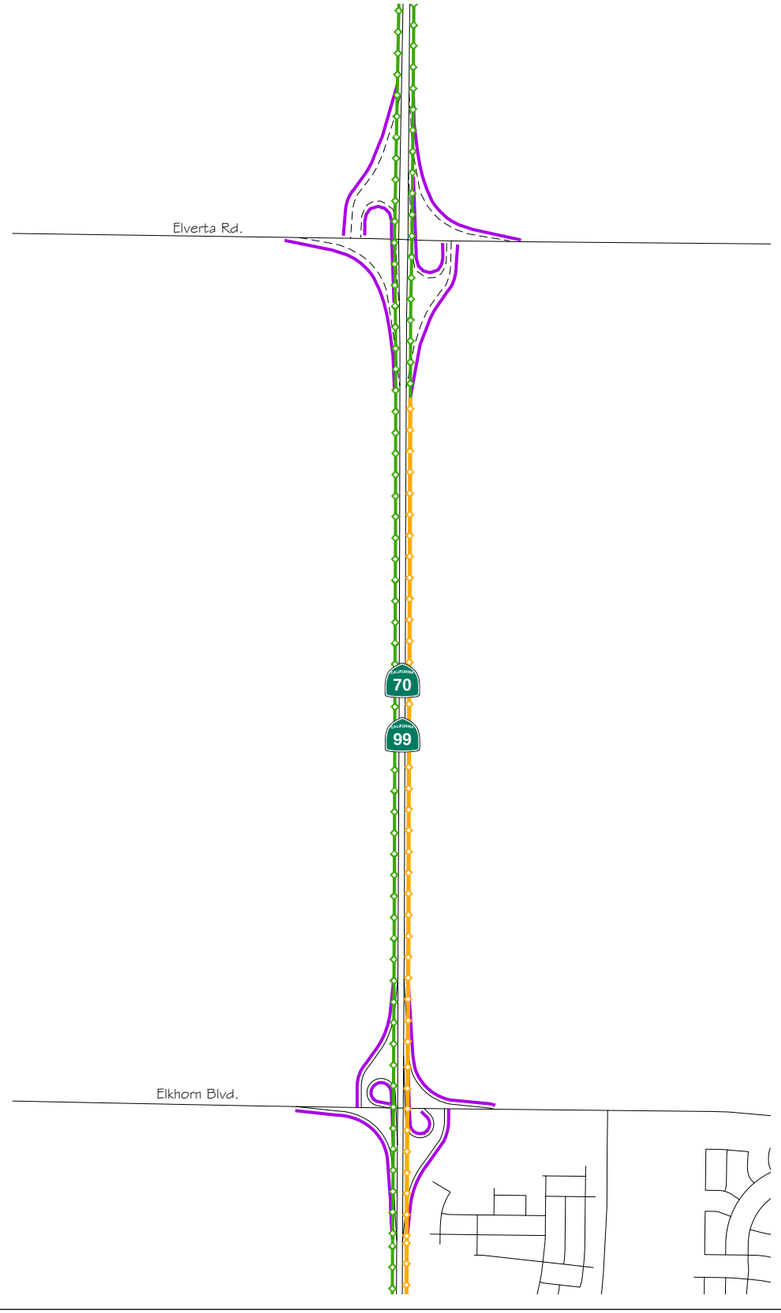
Lane Configuration

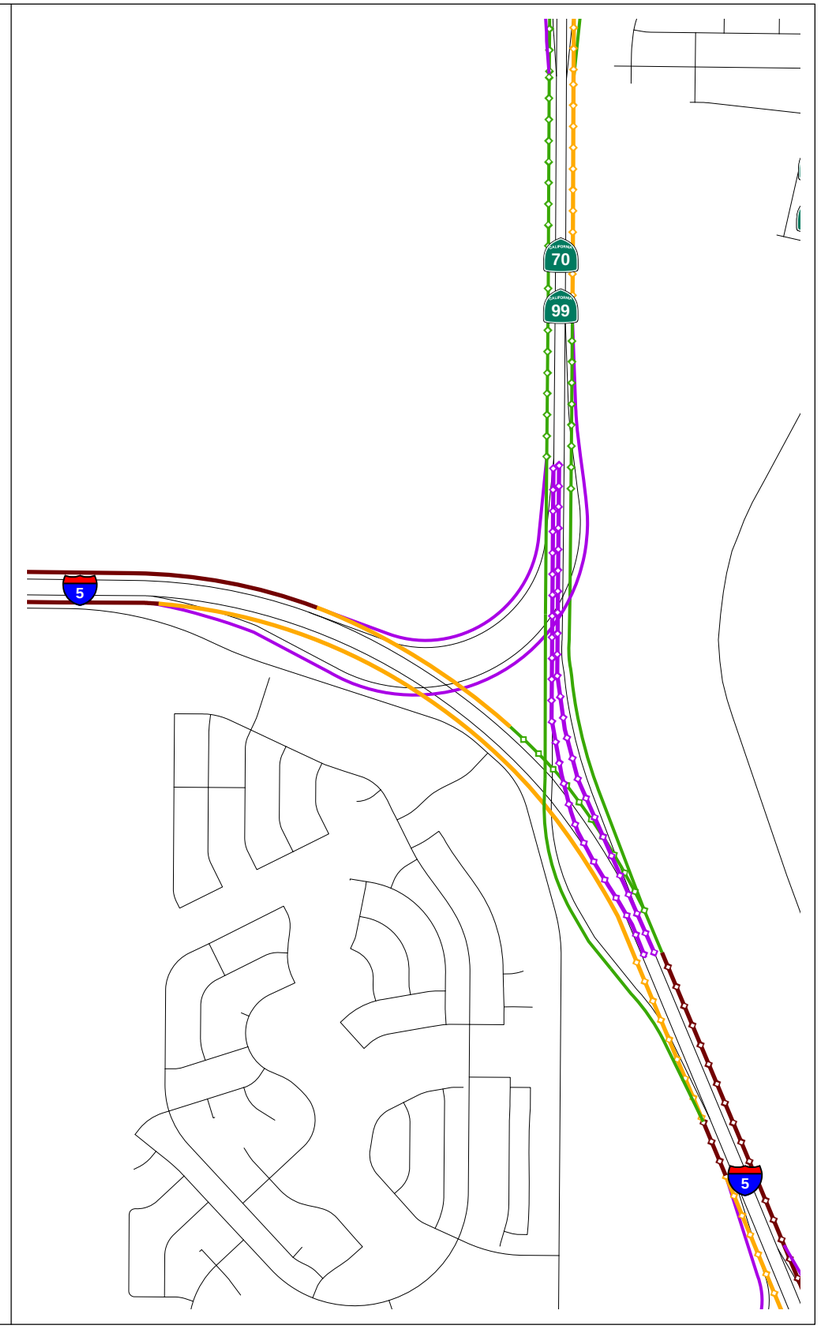
- 1
- HOV Connector
- 2
- 2 + HOV
- 3
- 3 + HOV
- 4
- 4 + HOV
- Future Ramp
- Traffic Signal

N

NOT TO SCALE







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FREEWAY MITIGATION -
CUMULATIVE PLUS PROJECT PHASE 1 CONDITIONS
WITHOUT PLACER PARKWAY

FIGURE 3.3-35

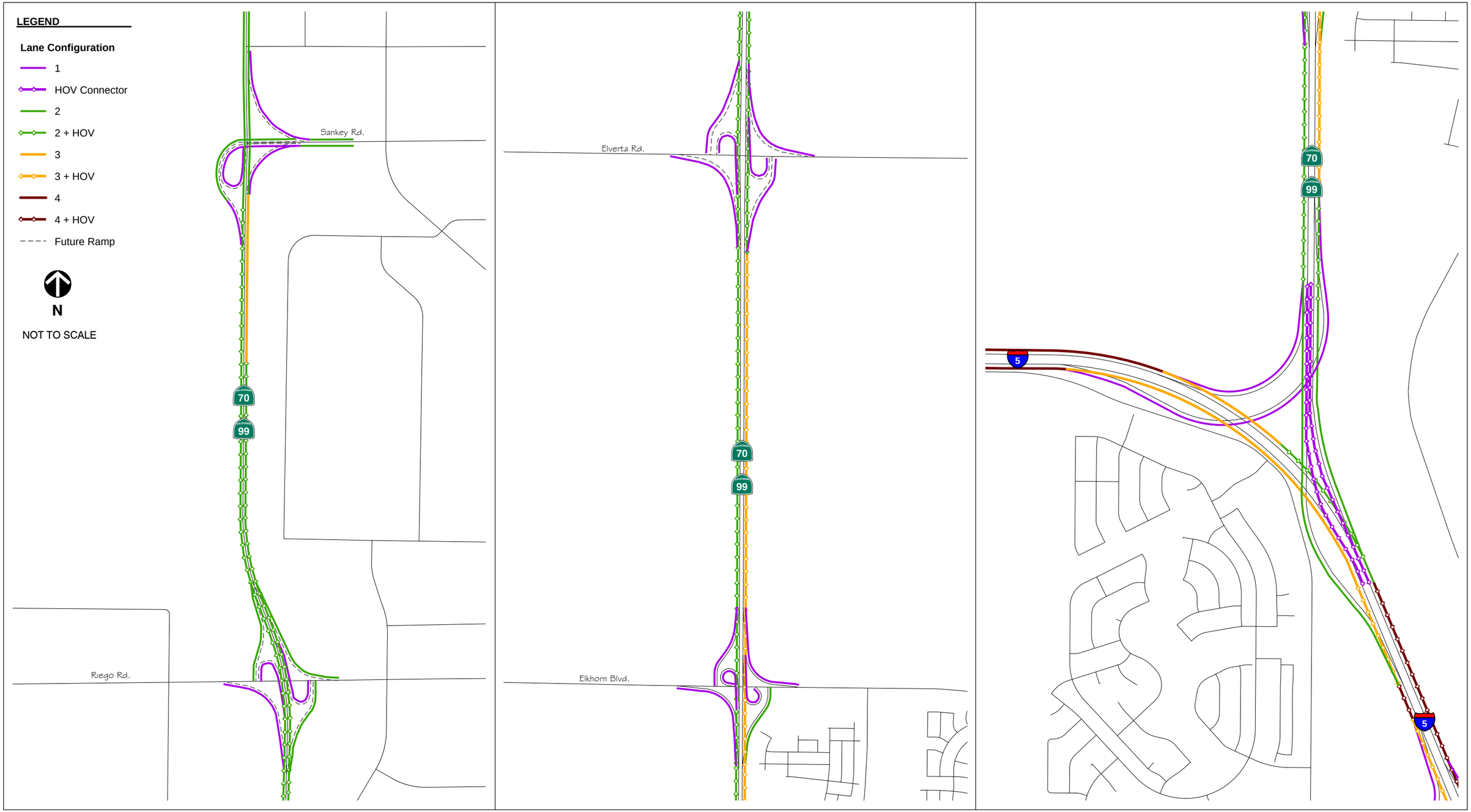
LEGEND

Lane Configuration

- 1
- HOV Connector
- 2
- 2 + HOV
- 3
- 3 + HOV
- 4
- 4 + HOV
- Future Ramp

N

NOT TO SCALE

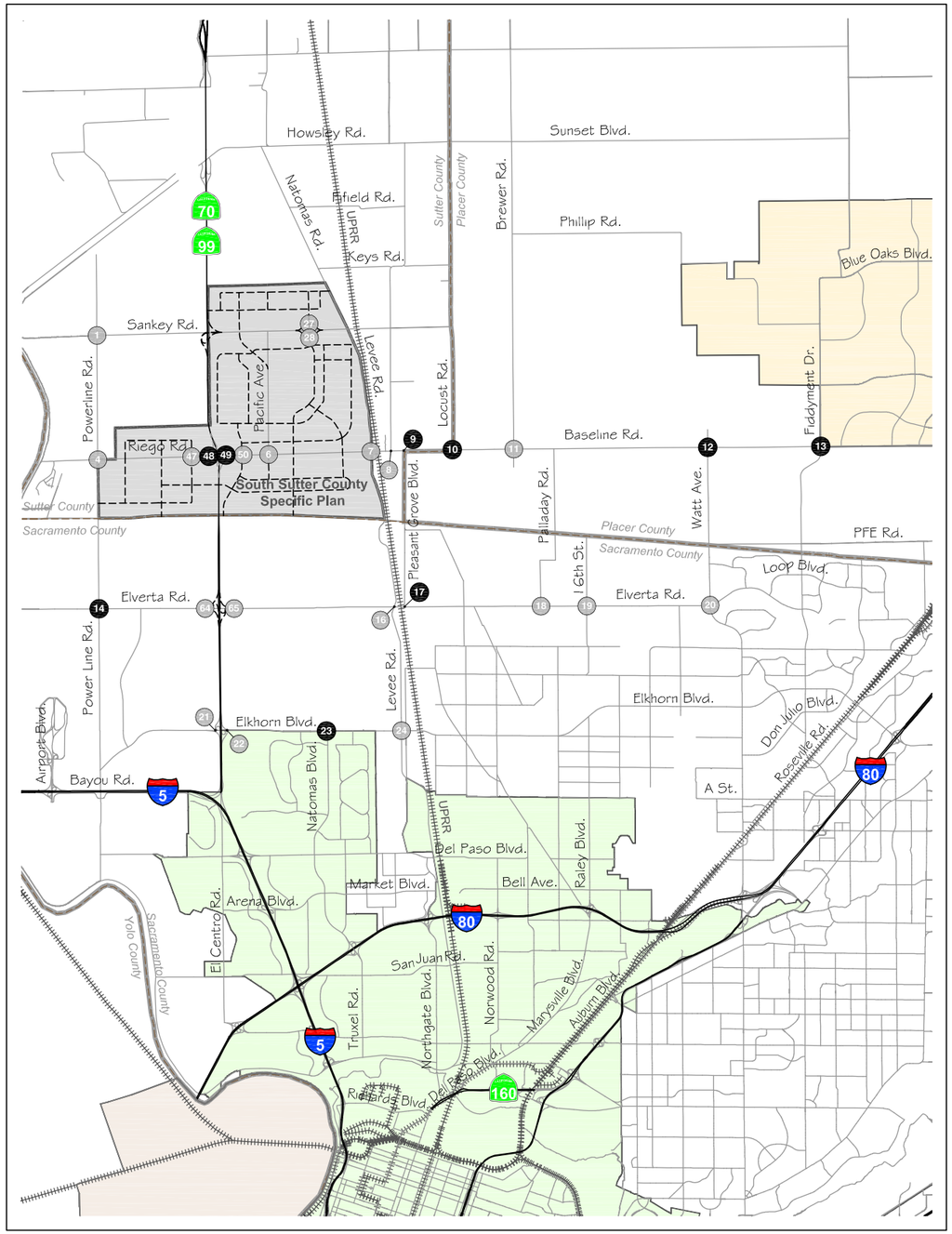


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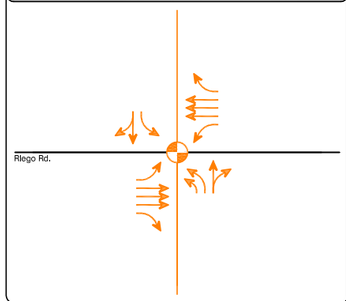
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FREEWAY MITIGATION -
CUMULATIVE PLUS PROJECT CONDITIONS
WITHOUT PLACER PARKWAY

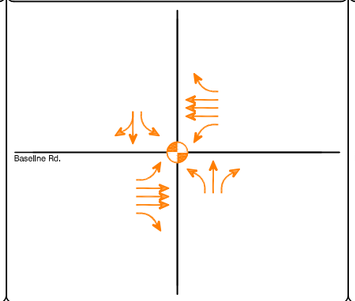
FIGURE 3.3-36



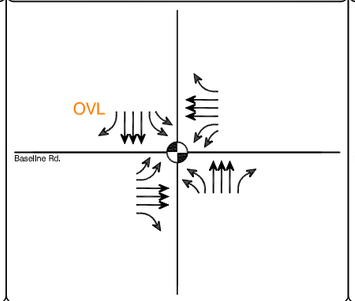
9. Riego Rd./Pleasant Grove Rd. (N/S)



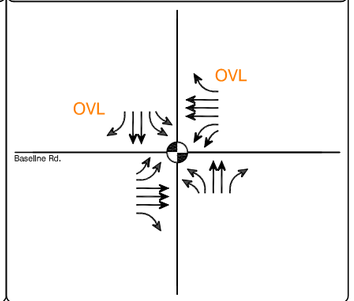
10. Baseline Rd./Locust Rd.



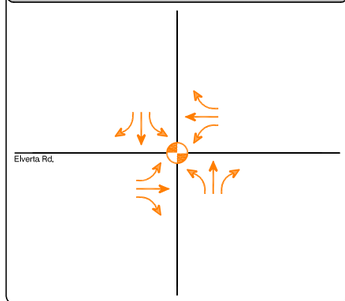
12. Baseline Rd./Watt Ave.



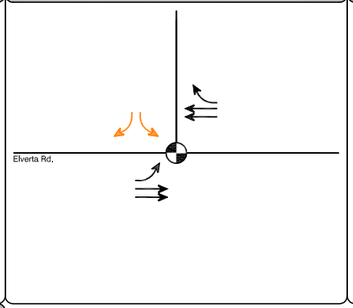
13. Baseline Rd./Fiddyment Dr.



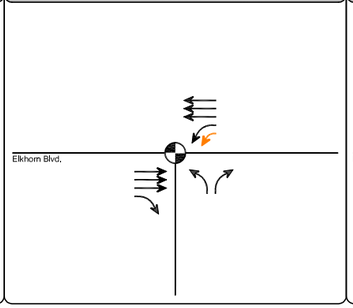
14. Elverta Rd./Power Line Rd.



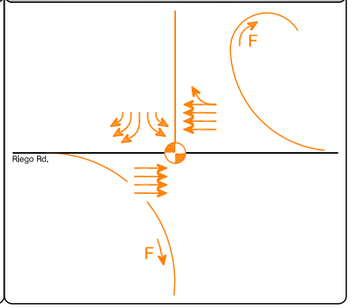
17. Elverta Rd./Sorento Rd.



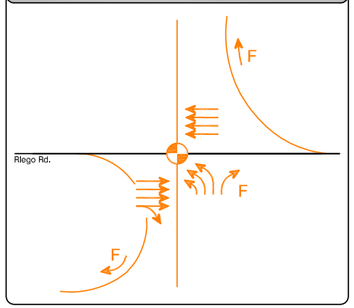
23. Elkhorn Blvd./Natomas Blvd.



48. Riego Rd./SR 99 SB Ramps



49. Riego Rd./SR 99 NB Ramps



LEGEND

- Turn Lane
- Mitigation Measures
- 1 Intersection Mitigation (Grey: Intersection Not Mitigated)
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- OVL Overlap Phasing
- ----- Planned Roadway
- City of Roseville Limits
- City of West Sacramento Limits
- City of Sacramento Limits

N

NOT TO SCALE

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INTERSECTION TRAFFIC CONTROLS, LANE CONFIGURATIONS, AND PEAK HOUR TRAFFIC VOLUMES - CUMULATIVE PLUS PROJECT CONDITIONS WITH PLACER PARKWAY WITH MITIGATION

FIGURE 3.3-37

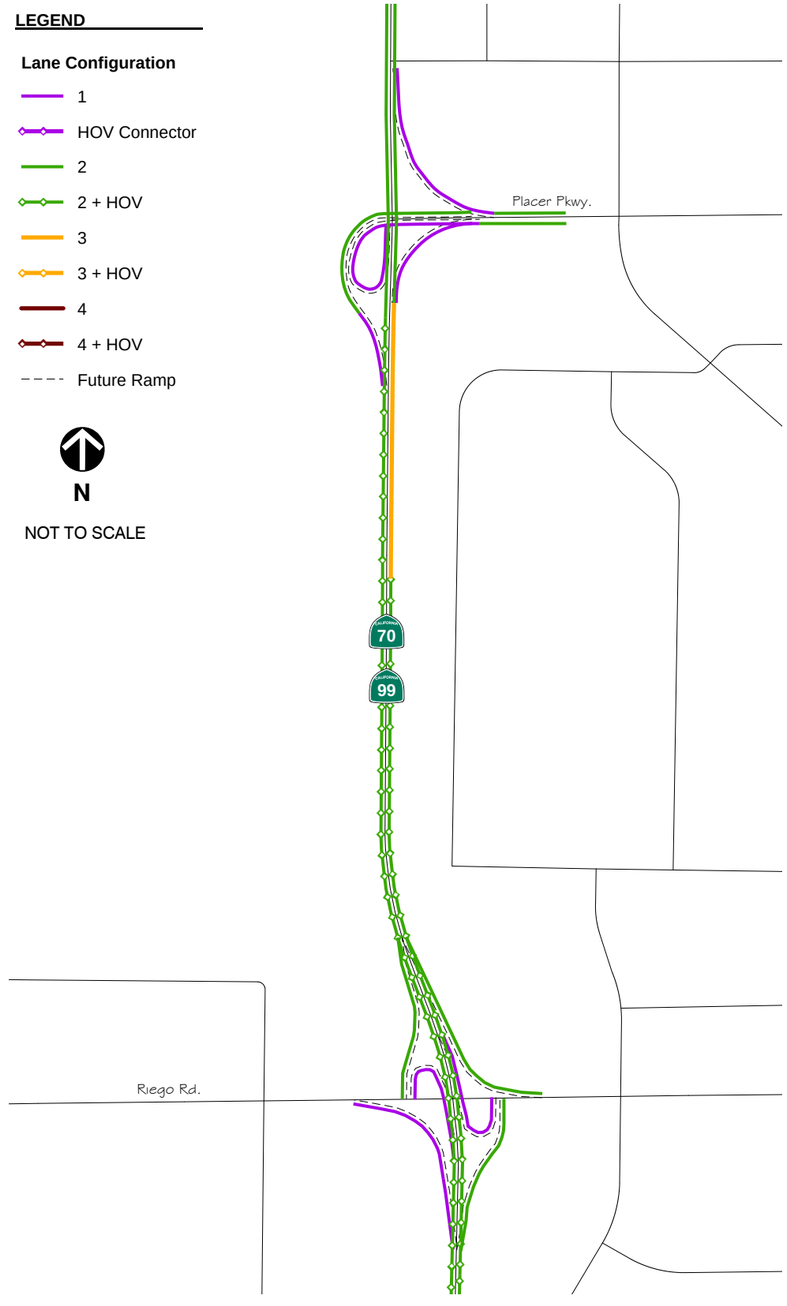
LEGEND

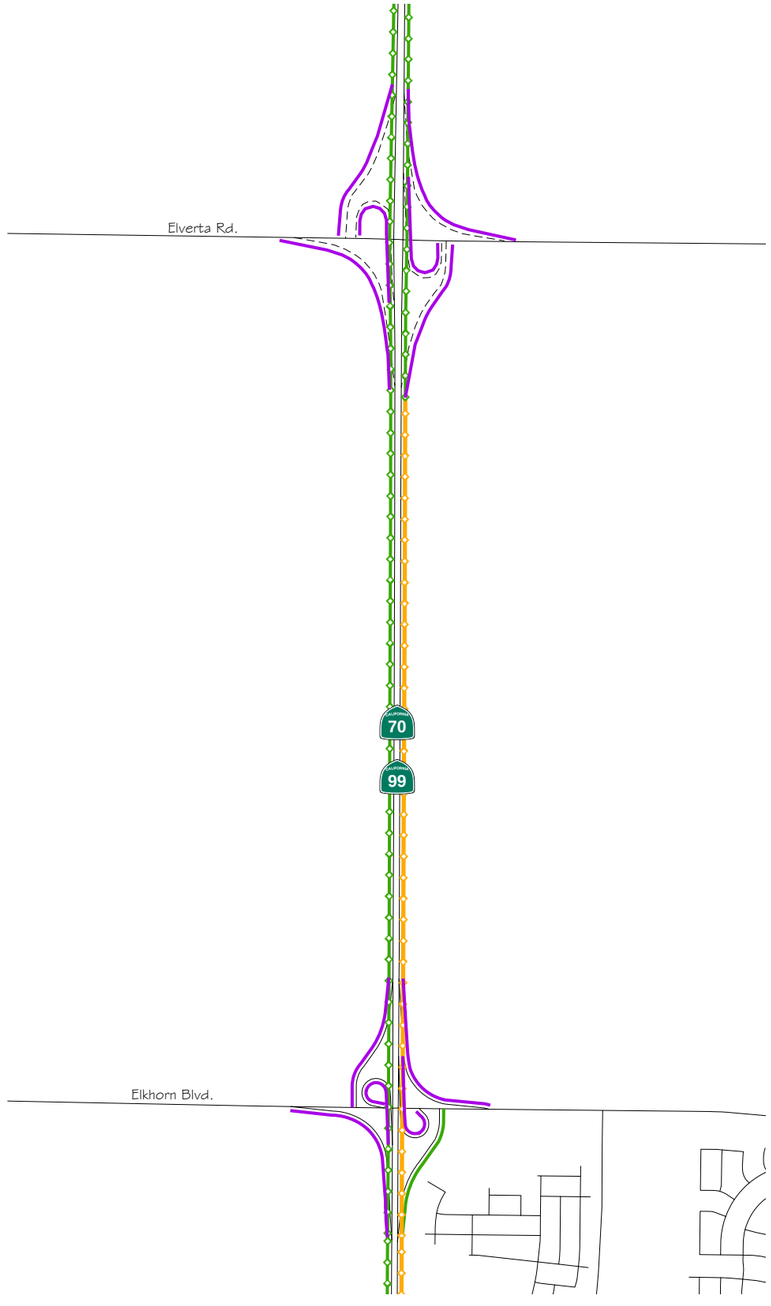
Lane Configuration

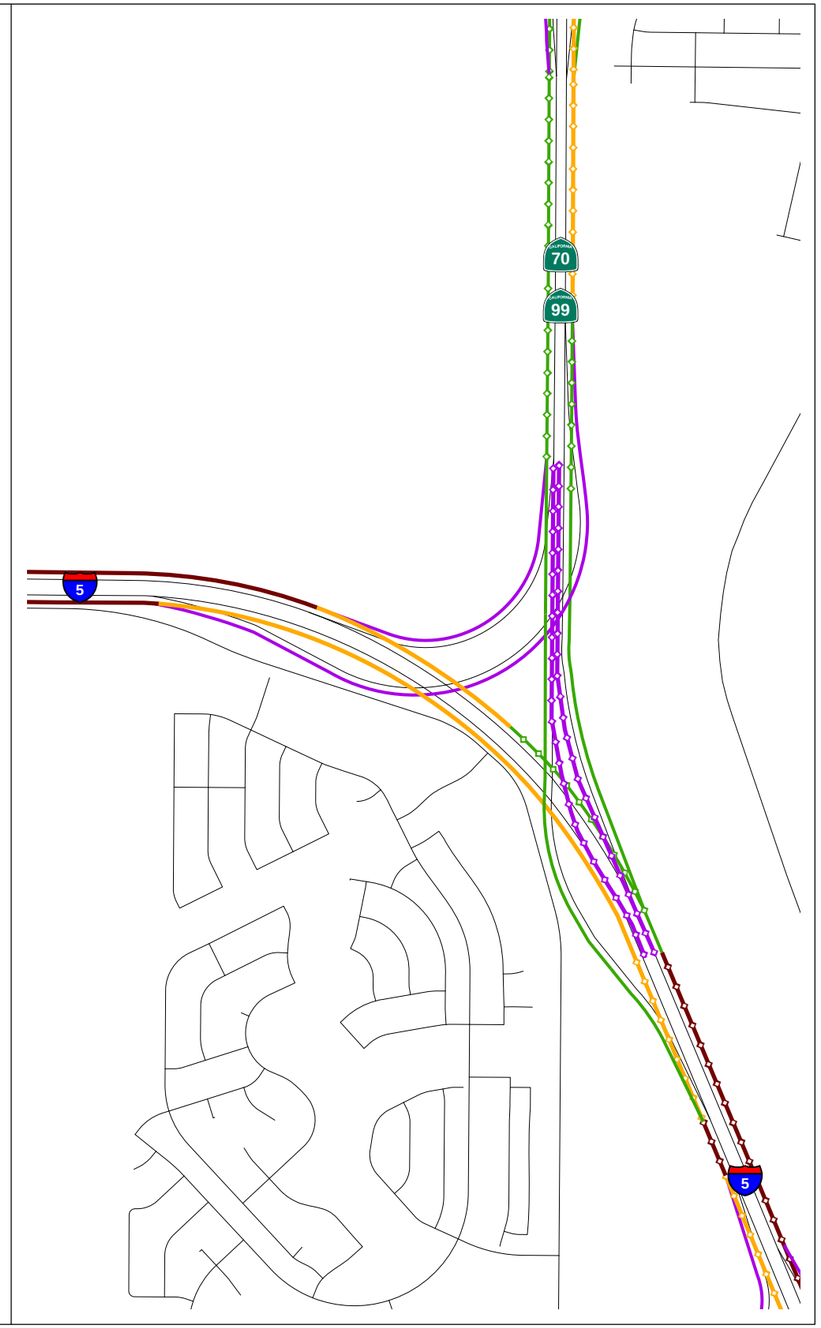
- 1
- HOV Connector
- 2
- 2 + HOV
- 3
- 3 + HOV
- 4
- 4 + HOV
- Future Ramp

N

NOT TO SCALE







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FREEWAY MITIGATION -
CUMULATIVE PLUS PROJECT CONDITIONS
WITH PLACER PARKWAY

FIGURE 3.3-38

3.4 AIR QUALITY

This section includes a summary of applicable regulations, a description of existing local and regional air quality conditions, and an analysis of potential air quality impacts related to implementing the proposed project. The methods of analysis for construction- and operation-related (i.e., regional and local) criteria air pollutant, toxic air contaminant (TAC), and odor emissions are consistent with local air district recommendations. Mitigation measures are recommended, as necessary, to reduce significant impacts on air quality, where feasible.

3.4.1 REGULATORY BACKGROUND

The project site is located in the southern portion of Sutter County, California, for which air quality is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), the Feather River Air Quality Management District (FRAQMD), and Sutter County. Off-site elements of the proposed project are located in Placer and Sacramento Counties, for which air quality is also regulated by EPA and ARB; at a local level, air quality in these two counties is regulated by the Placer County Air Pollution Control District (PCAPCD), and the Sacramento Metropolitan Air Quality Management District (SMAQMD), respectively. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent. Applicable regulations associated with criteria air pollutant, TAC, and odor emissions are described separately below.

CRITERIA AIR POLLUTANTS

Air quality regulations focus on the following air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable and fine particulate matter (PM_{10} and $PM_{2.5}$), and lead. Because these are the most prevalent air pollutants known to be deleterious to human health and extensive health-effects criteria documents on these pollutants are available, they are commonly referred to as "criteria air pollutants."

Federal Plans, Policies, Regulations, and Laws

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments were made by Congress in 1990.

The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table 3.4-1, EPA has established primary and secondary NAAQS for ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The primary standards protect the public health, and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan, referred to as a state implementation plan (SIP).

The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. EPA must review all SIPs to determine whether they conform to the mandates of the CAA and its amendments and to determine whether implementing them will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may cause sanctions to be applied to transportation funding and stationary air pollution sources in the relevant air basin.

Table 3.4-1
Summary of Ambient Air Quality Standards and Attainment Designations

Pollutant	Averaging Time	California		National Standards[1]		
		Standards[2,3]	Attainment Status (Sutter County)[4]	Primary[3,5]	Secondary[3,6]	Attainment Status (Sutter County)[7]
Ozone	1 hour	0.09 ppm (180 µg/m^3)	N	–	–	–
	8 hours	0.07 ppm (137 µg/m^3)	–	0.08 ppm (157 µg/m^3)	Same as primary standard	N
Carbon monoxide (CO)	1 hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	–	U/A
	8 hours	9 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)		
Nitrogen dioxide (NO_2)[8]	Annual arithmetic mean	0.030 ppm (56 µg/m^3)	–	0.053 ppm (100 µg/m^3)	Same as primary standard	U/A
	1 hour	0.18 ppm (338 µg/m^3)	A	–		–
Sulfur dioxide (SO_2)	Annual arithmetic mean	–	–	0.030 ppm (80 µg/m^3)	–	U
	24 hours	0.04 ppm (105 µg/m^3)	A	0.14 ppm (365 µg/m^3)	–	
	3 hours	–	–	–	0.5 ppm (1,300 µg/m^3)	
	1 hour	0.25 ppm (655 µg/m^3)	A	–	–	–
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	N	-	Same as primary standard	A
	24 hours	50 µg/m^3		150 µg/m^3		
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	U	15 µg/m^3	Same as primary standard	U
	24 hours	–	–	35 µg/m^3		
Lead[9]	30-day average	1.5 µg/m^3	A	–	–	–
	Calendar quarter	–	–	1.5 µg/m^3	Same as primary standard	
Sulfates	24 hours	25 µg/m^3	A	No national standards		
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m^3)	U			
Vinyl chloride[9]	24 hours	0.01 ppm (26 µg/m^3)	U/A			

Table 3.4-1
Summary of Ambient Air Quality Standards and Attainment Designations

Pollutant	Averaging Time	California		National Standards [1]		
		Standards [2,3]	Attainment Status (Sutter County) [4]	Primary [3,5]	Secondary [3,6]	Attainment Status (Sutter County) [7]
Visibility-reducing particle matter	8 hours	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) because of particles when the relative humidity is less than 70%.	U		No national standards	

Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million.

[1] National standards (other than those for ozone and particulate matter and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The $PM_{2.5}$ 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

[2] California standards for ozone, CO (except Lake Tahoe), SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[3] Concentration expressed first in units in which it was issued (i.e., parts per million [ppm] or micrograms per cubic meter [$\mu g/m^3$]). Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; "ppm" in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Unclassified (U): The data are incomplete and do not support a designation of attainment or nonattainment.
Attainment (A): The state standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment (N): There was at least one violation of a state standard for that pollutant in the area.

[5] National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[6] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Nonattainment (N): Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
Attainment (A): Any area that meets the national primary or secondary ambient air quality standard for the pollutant.
Unclassifiable (U): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

[8] On February 19, 2008, the Office of Administrative Law approved a new NO_2 ambient air quality standard that lowers the 1-hour standard to 0.19 ppm and establishes a new annual standard of 0.030 ppm. These changes became effective March 20, 2008.

[9] ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Sources: ARB 2008a, ARB 2008b

State Plans, Policies, Regulations, and Laws

ARB is responsible for coordinating and providing oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required ARB to establish California ambient air quality standards (CAAQS) (Table 3.4-1). ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the interpretation of the health effects studies considered during the standard-setting process. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources, and it provides districts with the authority to regulate indirect sources.

Among ARB's other responsibilities are overseeing local air districts' compliance with California and federal laws, approving local air quality plans, submitting SIPs to EPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels. There are 15 nonattainment areas for the national ozone standard and two nonattainment areas for the $PM_{2.5}$ standard. The SIPs prepared for each state with a nonattainment area must show how each area will attain the federal standards. To do this, the SIPs identify the amount of pollution emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions.

ARB and local air districts are developing plans for meeting new national air quality standards for ozone and $PM_{2.5}$. The draft State Strategy for California's 2007 SIP was released in April 2007 and the adopted version transmitted to EPA in November 2007 (ARB 2008c).

Regional and Local Plans, Policies, Regulations, and Ordinances

Feather River Air Quality Management District

FRAQMD attains and maintains air quality conditions in all of Sutter County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean-air strategy of FRAQMD includes the preparation of plans and programs for the attainment of ambient air-quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. FRAQMD also inspects stationary sources of air pollution, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAAA, and CCAA. Air quality plans applicable to the proposed project are discussed below.

Air Quality Plans

FRAQMD, in coordination with other nearby air quality management and air pollution control districts (e.g., PCAPCD and SMAQMD), prepared and submitted the 1991 Air Quality Attainment Plan (AQAP) in compliance with the requirements set forth in the CCAA, which specifically addressed the nonattainment status for ozone and, to a lesser extent, CO and PM_{10}.

The CCAA also requires a triennial assessment of the extent of air quality improvements and emission reductions achieved through the use of control measures. As part of the assessment, the attainment plan must be reviewed and, if necessary, revised to correct for deficiencies in progress and to incorporate new data or projections. The requirement of the CCAA for a first triennial progress report and revision of the 1991 AQAP was fulfilled with the preparation and adoption of the 1994 Ozone Attainment Plan (OAP). The OAP stresses attainment of

ozone standards and focuses on strategies for reducing reactive organic gases (ROG) and oxides of nitrogen (NO_X). It promotes active public involvement, enforcement of FRAQMD rules and regulations, public education in both the public and private sectors, development and promotion of transportation and land use programs designed to reduce vehicle miles traveled (VMT) in the region, and implementation of control measures for stationary and mobile sources. The OAP became part of the SIP in accordance with the requirements of the CAAA and amended the 1991 AQAP. However, at that time, the region could not show that the national ozone (1-hour) standard would be met by 1999. In exchange for moving the deadline to 2005, the region accepted a designation of "severe nonattainment" coupled with additional emissions requirements on stationary sources. Additional triennial reports were also prepared in 1997, 2000, 2003, and 2006 in compliance with the CCAA and act as incremental updates (FRAQMD 2008a).

The southern portion of Sutter County is also part of the Sacramento Federal Ozone Nonattainment Area (SFNA), which comprises all of Sacramento and Yolo Counties and portions of El Dorado, Placer, and Solano Counties. As a nonattainment area, the region is also required to submit rate-of-progress milestone evaluations in accordance with the CAAA. Milestone reports were prepared for 1996, 1999, 2002, and most recently in 2006 for the 8-hour ozone standard. These milestone reports include compliance demonstrations that the requirements have been met for the SFNA. The AQAPs and reports present comprehensive strategies to reduce emissions of ROG, NO_X, and PM_{10} from stationary, area, mobile, and indirect sources. Such strategies include the adoption of rules and regulations; enhancement of CEQA participation; implementation of a new and modified indirect-source review program; adoption of local air quality plans; and control measures for stationary, mobile, and indirect sources.

The Sacramento region was classified by EPA on June 15, 2004, as a "serious" nonattainment area for the national 8-hour ozone standard with an attainment deadline of June 15, 2013. Emission reduction needs to achieve the air quality standard were identified using an air quality modeling analysis. An evaluation of proposed new control measures and associated ROG and NO_X emission reductions concluded that no set of feasible controls was available to provide the needed emission reductions before the attainment deadline year. Given the magnitude of the shortfall in emission reductions and the schedule for implementing new control measures, the earliest possible attainment demonstration year for the Sacramento region is determined to be the "severe" area deadline of 2019.

Section 181(b)(3) of the CAA permits a state to request that EPA reclassify a nonattainment area to a higher classification and extend the time allowed for attainment. This process is appropriate for areas that must rely on longer term strategies to achieve the emission reductions needed for attainment.

The board of directors for each of the five air districts (including FRAQMD) that compose the SFNA requested that ARB submit a formal request for voluntary reclassification from "serious" to "severe" for the 8-hour ozone nonattainment area with an associated attainment deadline of June 15, 2019. ARB submitted that request on February 14, 2008.

On March 24, 2008, EPA published in the *Federal Register* a finding of Failure to Submit the 2011 Reasonable Further Progress Plan for the SFNA. The failure to submit finding triggered the following sanctions clocks:

- Offset sanctions: More stringent emission mitigation requirements for new and modified businesses, "major stationary sources" if a complete plan is not submitted within 18 months after EPA findings of failure to submit the plan.

- Federal highway funding sanctions: Prohibiting transportation projects from receiving federal transportation funding if a complete plan is not submitted within 24 months after EPA findings.

The sanctions clocks will stop after the air districts (including FRAQMD) submit the 2011 Reasonable Further Progress Plan and EPA accepts the plan as complete. The Sacramento Regional Nonattainment Area 8-Hour Attainment Demonstration Plan is scheduled to be published winter 2008 (SMAQMD 2008a).

Rules and Regulations

As mentioned above, FRAQMD adopts rules and regulations. All projects are subject to FRAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the proposed project may include, but are not limited to:

- Rule 3.0—Visible Emissions

  As provided by Section 41701 of the California Health and Safety Code, a person shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:

  - As dark or darker in shade as that designated as No. 2 on the Ringlemen Chart, as published by the United States Bureau of Mines; or

  - Of such opacity as to obscure an observers view to a degree equal to or greater than does smoke described above.

- Rule 3.15—Architectural Coatings

  The purpose of this rule is to limit the quantity of volatile organic compounds (VOCs) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use.

- Rule 3.16—Fugitive Dust Emissions

  The purpose of this rule is to reasonably regulate operations which periodically may cause fugitive dust emissions into the atmosphere. A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line, from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to:

  - Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, construction of roadways, or the clearing of land;

  - Application of asphalt, oil, water, or suitable chemical on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts; and

  - Other means approved by the air pollution control officer (APCO).

- Rule 3.17—Wood Stove Heating

  - All wood-heating devices used for the first time in existing buildings and those used in all new residential and commercial building projects constructed after the effective date of this rule within the boundaries of the FRAQMD shall meet emission and performance requirements equivalent to EPA Phase II devices as set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations, February 26, 1988.

  - No person shall cause or allow materials to be burned in a fireplace or wood-heating device such that the discharge of air contaminants would cause a public nuisance, pursuant to Section 41700 of the California Health and Safety Code.

  - No person shall sell, offer for sale, supply, install, or transfer a used wood heating device unless it meets one of the following criteria:

- It is certified by EPA as meeting the performance and emission standards as set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations, February 26, 1988.

- It is exempted from certification by the EPA.

- It is a pellet-fueled wood heater.

- It has been rendered permanently inoperable as determined by the APCD.

- The APCO may issue an advisory through local communications media to voluntarily curtail the use of uncertified solid fuel appliances whenever conditions within the FRAQMD are projected to cause ambient air quality concentrations of PM_{10} that exceed 60 micrograms per cubic meter ($\mu g/m^3$).
The purpose of this rule is to reasonably regulate operations which periodically may cause fugitive dust emissions into the atmosphere. A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust.

- Rule 4—General Requirements

  - No person shall cause or permit the construction or modification of any source without first obtaining, as required by regulations, an Authority to Construct or modify from the APCO so as to comply with applicable rules and regulations and ambient air quality standards.

  - The APCO shall not approve such construction or modification unless the applicant demonstrates, to the satisfaction of the APCO, that the new or modified source can be expected to comply with all applicable regulations and will not prevent the attainment or maintenance of air quality standards.

- Rule 10.1—New Source Review

  The purpose of this rule is:

  - To establish preconstruction review requirements including offsets, best available control technology (BACT) and analysis of air quality impacts for new and modified stationary sources and to insure that the operation of such sources does not interfere with the attainment or maintenance of ambient air quality standards.

  - To provide for no net increase in emissions pursuant to Section 40918 and 40920 of the California Health and Safety Code.

Placer County Air Pollution Control District

PCAPCD attains and maintains air quality conditions in western portion of Placer County in a manner similar to that described above for FRAQMD (e.g., planning, regulation, and enforcement). PCAPCD, in coordination with other nearby air quality management and air pollution control districts, prepared and submitted the 1991 AQAP in compliance with the requirements set forth in the CCAA, and subsequent triennial progress reports. The western portion of Placer County, like Sutter County, is also part of the SFNA, for which the region is also required to submit rate-of-progress milestone evaluations in accordance with the CAAA. Refer to the discussion of FRAQMD above for further detail.

Specific PCAPCD rules applicable to the off-site elements may include, but are not limited to:

- Rule 202—Visible Emissions
- Rule 205—Nuisance
- Rule 217—Cutback and Emulsified Asphalt Paving Materials

- Rule 218—Application of Architectural Coatings
- Rule 228—Fugitive Dust
- Rule 501—General Permit Requirement

Sacramento Metropolitan Air Quality Management District

SMAQMD attains and maintains air quality conditions in Sacramento County in a manner similar to that described above for FRAQMD (e.g., planning, regulation, and enforcement). SMAQMD, in coordination with other nearby air quality management and air pollution control districts, prepared and submitted the 1991 AQAP in compliance with the requirements set forth in the CCAA, and subsequent triennial progress reports. Sacramento County, like Sutter County, is also part of the SFNA, for which the region is also required to submit rate-of-progress milestone evaluations in accordance with the CAAA. Refer to the discussion of FRAQMD above for further detail.

Specific SMAQMD rules applicable to the off-site elements may include, but are not limited to:

- Rule 201—General Permit Requirements
- Rule 403—Fugitive Dust
- Rule 442—Architectural Coatings
- Rule 902—Asbestos

In addition, effective October 10, 2005, if modeled construction-generated emissions for a project are not reduced to SMAQMD's threshold of significance (85 pounds per day [lb/day]) by the application of the standard construction mitigation, then an off-site construction mitigation fee is recommended. Payment of the fee is required before the issuance of a grading permit. This fee is used by SMAQMD to purchase off-site emissions reductions through its Heavy Duty Incentive Program. Under this program, select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.

Sutter County

The following goals and policies from the Sutter County General Plan (Sutter County 1996) related to air quality are applicable to the proposed project:

- **GOAL 4.I:** To protect, maintain and improve the air quality in Sutter County.

    - **Policy 4.I-1:** The County shall support FRAQMD in its development of improved ambient air quality monitoring capabilities and the establishment of appropriate standards and rules to address the air quality impacts of new development.

    - **Policy 4.I-2:** The County shall strive to submit development proposals to FRAQMD for review and comment in accordance with CEQA prior to consideration by the decision making body.

- **GOAL 4.J:** To integrate air quality planning with the land use and transportation planning process.

    - **Policy 4.J-1:** The County shall encourage the use of alternative modes of transportation by incorporating public transit, bicycle and pedestrian modes in County planning processes and by requiring new development to provide adequate pedestrian and biking facilities.

Placer County

The following goals and policies from the Placer County General Plan (Placer County 1994) regarding air quality are applicable to the proposed project:

- **GOAL 6.F:** To protect and improve air quality in Placer County.

  - **Policy 6.F.1:** The County shall cooperate with other agencies to develop a consistent and effective approach to air quality planning and management.

  - **Policy 6.F.2:** The County shall develop mitigation measures to minimize stationary source and area source emissions.

  - **Policy 6.F.3:** The County shall support the PCAPCD in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.

  - **Policy 6.F.4:** The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality.

  - **Policy 6.F.5:** The County shall encourage project proponents to consult early in the planning process with the County regarding the applicability of Countywide indirect and areawide source programs and transportation control measure (TCM) programs. Project review shall address energy-efficient building and site designs and proper storage, use, and disposal of hazardous materials.

  - **Policy 6.F.6:** The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.

  - **Policy 6.F.7:** The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.

  - **Policy 6.F.8:** The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.

  - **Policy 6.F.9:** In reviewing project applications, consider alternatives or amendments that reduce emissions of air pollutants.

  - **Policy 6.F.10:** The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 AQAP (or updated edition).

- **GOAL 6.G:** To integrate air quality planning with the land use and transportation planning process.

  - **Policy 6.G.1:** The County shall require new development to be planned to result in smooth flowing traffic conditions for major roadways. This includes traffic signals and traffic signal coordination, parallel roadways, and intra- and inter-neighborhood connections where significant reductions in overall emissions can be achieved.

  - **Policy 6.G.2:** The County shall continue and, where appropriate, expand the use of synchronized traffic signals on roadways susceptible to emissions improvement through approach control.

  - **Policy 6.G.3:** The County shall encourage the use of alternative modes of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.

- **Policy 6.G.4:** The County shall consider instituting disincentives for single-occupant vehicle trips, including limitations in parking supply in areas where alternative transportation modes are available and other measures identified by PCAPCD and incorporated into regional plans.

- **Policy 6.G.5:** The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.

- **Policy 6.G.6:** The County shall require large new developments to dedicate land for and construct appropriate improvements for park-and-ride lots, if suitably located.

- **Policy 6.G.7:** The County shall require stationary-source projects that generate significant amounts of air pollutants to incorporate air quality mitigation in their design.

Sacramento County

The following goals, objectives, and policies from the Sacramento County General Plan (Sacramento County 1993) regarding air quality are applicable to the proposed project:

- **GOAL:** Air Quality which protects and promotes the public health, safety, welfare, and environmental quality of the community.

  - **Objective:** The integration of air quality planning with the land use, transportation and energy planning processes.

  - **Objective:** A safe and healthful environment for pollution sensitive residential land uses and sensitive receptors.

  - **Objective:** A reduction in motor vehicle emissions through a decrease in the average daily trips and VMT.

  - **Objective:** Compliance with federal and state air quality standards.

  - **Objective:** A reduction in releases of ozone depleting compounds in order to ensure the protection of the stratospheric ozone layer.

  - **Objective:** A reduction in motor vehicle emissions through increasing reliance on electric and other clean alternative fuel and low emission vehicles.

    - **Policy AQ-1:** Minimize air pollutant emissions from Sacramento County facilities and operations.

    - **Policy AQ-2:** Use ARB, SMAQMD and Sacramento Area Council of Governments (SACOG) guidelines for Sacramento County facilities and operations in order to comply with mandated measures to reduce emissions from fuel consumption, energy consumption, surface coating operations, and solvent usage.

    - **Policy AQ-3:** Promote optimal air quality benefits through energy conservation measures in new development.

    - **Policy AQ-4:** Support SMAQMD's development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds and rules to more adequately address the air quality impacts of proposed project plans and proposals.

- **Policy AQ-5:** Require BACT to reduce air pollution emissions.

- **Policy AQ-6:** Provide disincentives for single-occupant vehicle trips through parking supply and pricing controls in areas where supply is limited and alternative transportation modes are available so as not to cause economic disruption, or through other measures identified by SMAQMD and incorporated into regional plans.

- **Policy AQ-7:** Support the use of demand management and pricing controls as near-term measures for attaining AQAP goals and policies.

- **Policy AQ-8:** Implement the Sacramento City/County Bikeways Master Plan.

- **Policy AQ-9:** Secure adequate funding for Regional Transit so that transit is a viable transportation alternative. Development shall pay its fair share of the cost of transit facilities required to serve the project.

- **Policy AQ-10:** Provide incentives for the use of transportation alternatives, including a program for the provision of financial incentives for builders that construct ownership housing within a quarter mile of existing and proposed light rail stations.

- **Policy AQ-11:** Require as a building standard the installation of electrical service in all new residential development that can be used for the overnight charging of electrical vehicles.

- **Policy AQ-12:** The County shall establish an incentive based program for the installation of electrical service for recharging electrical vehicles in public and private parking facilities sufficient to meet demand.

- **Policy AQ-13:** Require the consideration of high occupancy vehicle (HOV) lanes in all street and highway widening and new construction projects for arterials and wider rights-of-way.

- **Policy AQ-14:** Develop a model County employee trip reduction program which may include, but not be limited to, flexible and compressed work schedules, commuter matching services, telecommuting, preferential carpool/vanpool parking, carpool/vanpool and transit subsidies, and all other commute alternative incentives.

- **Policy AQ-15:** All new major indirect sources of emissions shall be reviewed and modified or conditioned to achieve a reduction in emissions. This indirect source review program will be developed in coordination with SACOG and SMAQMD, and include the following features:

    - A 15% reduction in emissions from the level that would be produced by a base-case project assuming full trip generation per the current Institute of Transportation Engineers (ITE) Trip Generation Handbook.

    - A focus on cost-effectiveness measured in terms of cost per ton of pollutant avoided.

    - A list of cost-effective measures to be developed, maintained, and annually reviewed by SMAQMD.

    - A maximum expenditure cap which will be computed for each indirect source on the basis of factors including, but not limited to, total emissions and project value.

- A process for obtaining a waiver from the 15% requirement if it is found that a lower level of reduction is all that can be achieved with cost-effective measures and offsets, or that achieving the full 15% reduction would cost more than expenditure cap.

- An exception for projects which have already undergone the indirect source review at some point in the development approval process.

- A procedure to give full credit for other measures required in a project that may also achieve a reduction in emissions.

- **Policy AQ-16:** Support intergovernmental efforts directed at stricter tailpipe emissions standards.

- **Policy AQ-17:** Require that development projects be located and designed in a manner which will conserve air quality and minimize direct and indirect emission of air contaminants.

- **Policy AQ-18:** Encourage employment-intensive development, having the potential to employ 200 or more employees, where adequate transit service is planned, and discourage such development where adequate transit service is not planned.

- **Policy AQ-19:** Identify the air quality impacts of development proposals to avoid significant adverse impacts and require appropriate mitigation measures or offset fees.

- **Policy AQ-20:** Submit development proposals to SMAQMD for review and comment in compliance with CEQA prior to consideration by the appropriate decision making body.

- **Policy AQ-21:** Provide for the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) at major employment centers for the purpose of reducing midday vehicle trips.

- **Policy AQ-22:** Provide for buffers between sensitive land uses and sources of air pollution or odor.

- **Policy AQ-23:** Promote mixed-use development to reduce the length and frequency of vehicle trips.

- **Policy AQ-24:** Provide for increased intensity of development along existing and proposed transit corridors.

- **Policy AQ-25:** Require that new development be designed to promote pedestrian and bicycle access and circulation.

- **Policy AQ-26:** Accommodate growth within existing urban areas (infill) as a priority over urban expansion.

- **Policy AQ-27:** Require that all employee parking areas for new development be designed with controllable access.

- **Policy AQ-28:** Require that large new developments dedicate land for use as park-and-ride lots if suitably located.

- **Policy AQ-29:** Require traffic counter loops and traffic management hardware at nonresidential garage entrances, driveways, new intersections, and other appropriate locations.

- **Policy AQ-30:** Require that new commercial and industrial projects adjacent to bus stops make provisions in their project design for park-and-ride spaces.

- **Policy AQ-31:** Preserve and ensure the dedication of rights-of-way and station sites along future light rail extensions.

- **Policy AQ-32:** Require that new and replacement fuel storage tanks at automobile and light duty truck refueling stations be clean-fuel compatible, if technically and economically feasible.

- **Policy AQ-33:** Require the recovery of chlorofluorocarbons (CFCs) when air conditioning and refrigeration units are serviced or disposed.

- **Policy AQ-34:** Support revisions to the AQAP to accelerate and strengthen market-based strategies consistent with the General Plan.

- **Policy AQ-35:** In conjunction with SMAQMD and SACOG, support and participate in a public education and outreach program dealing with air quality issues, with a goal of attaining a solid foundation of public support for needed air quality measures.

- **Policy AQ-36:** Coordinate air quality planning efforts with other local, regional, and state agencies.

- **Policy AQ-37:** Maximize air quality benefits through selective use of vegetation in landscaping and through revegetation of appropriate areas.

- **Policy AQ-38:** A conformity analysis shall be conducted to assure that transportation plans, programs, and projects will not impair efforts to meet air quality standards.

TOXIC AIR CONTAMINANTS

Air quality regulations also focus on TACs, or in federal parlance, hazardous air pollutants (HAPs). In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. EPA and ARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of control technologies to limit emissions. These statutes and regulations, in conjunction with additional rules set forth by FRAQMD, establish the regulatory framework for TACs.

Federal Hazardous Air Pollutant Programs

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP for major sources of HAPs may differ from those for area sources. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources.

The CAAA called on EPA to promulgate emissions standards in two phases. In the first phase (1992–2000), EPA developed technology-based emissions standards designed to reduce emissions as much as feasible. These standards are generally referred to as requiring maximum available control technology (MACT). For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA is required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

The CAAA also required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to

limit mobile-source emissions of benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAAA required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

State and Local Programs for Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act (AB 2588 [Chapter 1252, Statutes of 1987]). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter emissions from diesel exhaust (diesel PM) was added to the ARB list of TACs.

After a TAC is identified, ARB then adopts an airborne toxics control measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions; for example, the ATCM limits truck idling to 5 minutes (Title 13, Section 2485 of the California Code of Regulations).

The Air Toxics Hot Spots Information and Assessment Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

ARB has adopted control measures for diesel PM and more stringent emissions standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, ARB adopted a new rule for public-transit bus fleets and emissions standards for new urban buses. These new rules and standards include all the following elements:

- more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines;
- zero-emission bus demonstration and purchase requirements applicable to transit agencies; and
- reporting requirements, under which transit agencies must demonstrate compliance with the public-transit bus fleet rule.

Recent and future milestones include the low-sulfur diesel fuel requirement and tighter emissions standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide. Over time, replacing older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1,3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of ARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be reduced by 75% in 2010 and 85% in 2020 from the estimated year-2000 level. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

In addition, the *Air Quality and Land Use Handbook: A Community Health Perspective*, published by ARB, provides guidance on land use compatibility with sources of TACs (ARB 2005). The handbook is not a law or adopted policy but offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way.

Senate Bill (SB) 352 (Education Code Section 17213, Public Resources Code Section 21151.8) expands on previous requirements for the review of TAC sources near school sites. Accordingly, SB 352 requires that any school site located within 500 feet of the edge of the closest travel lane of a freeway or other busy traffic corridor be reviewed for potential health risks.

At the local level, air pollution control or management districts may adopt and enforce ARB control measures. Under Rule 10.7 (Toxic New Source Review), all sources that possess the potential to emit TACs must obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new-source review standards and air toxics control measures. PCAPCD limits emissions and public exposure to TACs through a number of programs. The district prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

Sources that require a permit are analyzed by FRAQMD (e.g., through a health risk assessment [HRA]) based on their potential to emit toxics. An HRA is a tool used to determine the exposure of sensitive receptors to TAC emissions based on a 70-year exposure period. If it is determined that the project will emit toxics in excess of FRAQMD's threshold of significance for TACs, as identified below, sources have to implement the best available control technology for TACs (T-BACT) to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after T-BACT has been implemented, FRAQMD will deny the permit required by the source. This helps to prevent new problems and reduces emissions from existing older sources by requiring them to apply new technology when retrofitting with respect to TACs. It is important to note that the air quality permitting process applies only to stationary sources; properties that may be exposed to elevated levels of TACs from nonstationary sources (e.g., vehicles) and the nonstationary sources themselves are not subject to this process or to any requirements of T-BACT implementation. Rather, emissions controls on nonstationary sources are subject to regulations implemented on the state and federal level. Local programs of PCAPCD and SMAQMD with respect to TACs in Placer and Sacramento Counties are similar to those above.

ODORS

FRAQMD has identified types of facilities that have been known to produce odors: wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause any physical harm and no requirements for their control are included in federal or state air quality regulations, FRAQMD has no specific rules or standards related to odor emissions. Any actions related to odors are based on citizen complaints to local governments and FRAQMD.

Two situations increase the potential for odor problems. The first occurs when a new odor source is located near existing sensitive receptors. The second occurs when new sensitive receptors are developed near existing sources of odors. In the first situation, FRAQMD recommends operational changes, add-on controls, process changes, or buffer zones where feasible to address odor complaints. In the second situation, the potential conflict is considered significant if the plan area is at least as close as any other site that has already experienced significant odor problems related to the odor source. For projects being developed near a source of odors where there is no nearby development that may have filed complaints, and for odor sources being developed near existing sensitive receptors, FRAQMD recommends that the determination of potential conflict be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar facility.

Odors in Placer and Sacramento Counties are regulated by PCAPCD and SMAQMD. Neither district has specific rules or standards related to odor emissions. Any actions related to odors are based on citizen complaints to local governments and PCAPCD and SMAQMD.

FRAQMD Rule 1.1 states that odors are a type of air contaminant by definition. FRAQMD's staff relies on this definition when enforcing California Health and Safety Code 41700 regarding Prohibited Discharges (Andersson,

pers. comm., 2008). Health and Safety Code 41700 does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

3.4.2 ENVIRONMENTAL SETTING

The project site and off-site elements are located in the Sacramento Valley Air Basin (SVAB), which comprises all of Butte, Colusa, Glenn, Sacramento, Sutter, Shasta, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County.

Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the ability of the atmosphere to transport and dilute such emissions. Terrain, wind, atmospheric stability, and the presence of sunlight all affect transport and dilution. Therefore, existing air quality conditions in the project area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

TOPOGRAPHY, CLIMATE, AND METEOROLOGY

Land in the SVAB is relatively flat, bordered by the northern Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay Area.

The Mediterranean climate of the project area is characterized by hot, dry summers and cool, rainy winters. During summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from many of the ocean breezes that keep the coastal regions moderate in temperature.

Most precipitation in the SVAB results from air masses that move in from the Pacific Ocean, usually from the west or northwest during winter. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Periods of dense and persistent low-level fog, which are most prevalent between storms, are common during winter in the SVAB. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry-land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Poor air movement occurs most frequently in fall and winter when high-pressure cells are present over the project area and meteorological conditions are stable. The lack of surface winds during these periods, combined with the reduced vertical flow caused by less surface heating, reduces the influx of air and results in the concentration of pollutants. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB and is characterized by poor air movement in the mornings and the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between ROG and NO_X, which in turn result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, during approximately half of the time, from July through September, a phenomenon known as the Schultz Eddy prevents this from occurring. The Schultz Eddy phenomenon causes the wind pattern to shift southward, blowing air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the air basin and contributes to violations of the ambient air quality standards.

The winds and unstable atmospheric conditions associated with the passage of winter storms result in periods of low air pollution and excellent visibility. Precipitation and fog tend to reduce or limit pollutant concentrations. For instance, clouds and fog block sunlight, which is required to fuel photochemical reactions that form ozone. Because CO is partially water soluble, precipitation and fog also tend to reduce concentrations of CO in the atmosphere. In addition, PM_{10} can be washed from the atmosphere through wet deposition processes, such as rain, snow, and fog. However, between winter storms, high pressure and light winds contribute to low-level temperature inversions and stable atmospheric conditions, resulting in the concentration of air pollutants (e.g., CO, PM_{10}).

The local meteorology of the project area is represented by measurements recorded at the Nicolaus, Rocklin, and McClellan Air Force Base stations. The normal annual precipitation, which occurs primarily from November through March, is approximately 17 inches (Western Regional Climate Center 2008). January temperatures range from an average minimum of 37.8°F to an average maximum of 53.3°F. July temperatures range from an average minimum of 58.2°F to an average maximum of 92.8°F (Western Regional Climate Center 2008). The predominant wind direction and speed is from the south-southwest at approximately 10 mph (ARB 1994).

EXISTING AIR QUALITY—CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutant are used as indicators of ambient air quality conditions. Source types, health effects, and future trends associated with each air pollutant are described below. along with the most current attainment area designations and monitoring data for the project area and vicinity.

Ozone

Ozone is a photochemical oxidant, a substance whose oxygen combines chemically with another substance in the presence of sunlight, and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_X in the presence of sunlight. ROG are VOCs that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_X are a group of gaseous compounds of nitrogen and oxygen that results from the combustion of fuels.

A highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROG and NO_X levels are present to sustain the ozone formation process. After the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional scale, ozone is a regional pollutant.

Ozone located in the upper atmosphere (stratosphere) acts in a beneficial manner by shielding the earth from harmful ultraviolet radiation that is emitted by the sun. However, ozone located in the lower atmosphere (troposphere) is a major health and environmental concern. Meteorology and terrain play a major role in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum conditions for ozone formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. In general, ozone concentrations over or near urban and rural areas reflect an interplay of emissions of ozone precursors, transport, meteorology, and atmospheric chemistry (Godish 1991).

The adverse health effects associated with exposure to ozone pertain primarily to the respiratory system. Scientific evidence indicates that ambient levels of ozone affect not only sensitive receptors, such as asthmatics and children, but healthy adults. Exposure to ambient levels of ozone ranging from 0.10 part per million (ppm) to 0.40 ppm for 1–2 hours has been found to substantially alter lung functions by increasing respiratory rates and pulmonary resistance, decreasing tidal volumes (the amount of air inhaled and exhaled), and impairing respiratory mechanics. Ambient levels of ozone above 0.12 ppm are linked to such symptoms as throat dryness, chest tightness, headache, and nausea. In addition to these adverse health effects, evidence exists relating ozone exposure to an increase in the permeability of respiratory epithelia; such increased permeability leads to an

increased response of the respiratory system to challenges and a decrease in the immune system's ability to defend against infection (Godish 1991).

On-road motor vehicles and other mobile sources are by far the largest contributors to NO_X emissions. More stringent mobile source emission standards and cleaner burning fuels have largely contributed to the decline in NO_X emissions. ROG emissions have been decreasing for the last 30 years because of more stringent motor vehicle standards and new rules for control of ROG from various industrial coating and solvent operations (ARB 2008d). Even so, the ozone problem in the SVAB ranks among the most severe in the state. Peak ozone values in the SVAB have not declined as quickly over the last several years as they have in other urban areas. The peak 8-hour indicator remained fairly constant from 1987 to 1990. Since 1990, the peak 8-hour indicator has decreased slightly, and the overall decline for the 20-year period is almost 13%. Looking at the number of days above the state and national standards, the trend is much more variable. However, the number of 8-hour exceedance days has declined by more than 50% since 1988 (ARB 2008d).

Carbon Monoxide

CO is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels, primarily from mobile (transportation) sources. In fact, 77% of the nationwide CO emissions are from mobile sources. The other 23% consists of CO emissions from wood-burning stoves, incinerators, and industrial sources.

CO enters the bloodstream through the lungs by combining with hemoglobin, which normally supplies oxygen to the cells. However, CO combines with hemoglobin much more readily than oxygen does, resulting in a drastic reduction in the amount of oxygen available to the cells. Adverse health effects associated with exposure to CO concentrations include such symptoms as dizziness, headaches, and fatigue. CO exposure is especially harmful to individuals who suffer from cardiovascular and respiratory diseases (EPA 2008a).

The highest CO concentrations are generally associated with cold, stagnant weather conditions that occur during winter. In contrast to problems caused by ozone, which tends to be a regional pollutant, CO problems tend to be localized.

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2 (EPA 2008a). The combined emissions of NO and NO_2 are referred to as NO_X and reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local NO_X emission sources.

Inhalation is the most common route of exposure to NO_2. Because NO_2 has relatively low solubility in water, the principal site of toxicity is in the lower respiratory tract. The severity of the adverse health effects depends primarily on the concentration inhaled rather than the duration of exposure. An individual may experience a variety of acute symptoms, such as coughing, difficulty with breathing, vomiting, headache, and eye irritation, during or shortly after exposure. After a period of approximately 4–12 hours, an exposed individual may experience chemical pneumonitis or pulmonary edema with breathing abnormalities, cough, cyanosis, chest pain, and rapid heartbeat. Severe, symptomatic NO_2 intoxication after acute exposure has occasionally been linked with prolonged respiratory impairment with such symptoms as chronic bronchitis and decreased lung function (EPA 2008a).

Sulfur Dioxide

SO_2 is produced by such stationary sources as coal and oil combustion, steel mills, refineries, and pulp and paper mills. The major adverse health effects associated with SO_2 exposure pertain to the upper respiratory tract. SO_2 is

a respiratory irritant; constriction of the bronchioles occurs with inhalation of SO_2 at 5 ppm or more. On contact with the moist mucous membranes, SO_2 produces sulfurous acid, which is a direct irritant. Concentration rather than duration of exposure is an important determinant of respiratory effects. Exposure to high SO_2 concentrations may result in edema of the lungs or glottis and respiratory paralysis.

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources; construction operations; fires and natural windblown dust; and particulate matter formed in the atmosphere by condensation and/or transformation of SO_2 and ROG (EPA 2008a). Fine particulate matter ($PM_{2.5}$) is a subgroup of PM_{10}, consisting of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less (ARB 2008d).

The adverse health effects associated with PM_{10} depend on the specific composition of the particulate matter. For example, health effects may be associated with metals, polycyclic aromatic hydrocarbons (PAH), and other toxic substances adsorbed onto fine particulate matter (referred to as the "piggybacking effect") or with fine dust particles of silica or asbestos. Generally, effects may result from both short-term and long-term exposure to elevated concentrations of PM_{10} and may include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, alterations to the immune system, carcinogenesis, and premature death (EPA 2008a). $PM_{2.5}$ poses an increased health risk because the particles can deposit deep in the lungs and may contain substances that are particularly harmful to human health. Direct emissions of PM_{10} and $PM_{2.5}$ increased in the SVAB 1975 and 2005 and are projected to continue increasing through 2020 (ARB 2008d).

Lead

Lead is a metal found naturally in the environment and in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline (discussed in detail below), metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. EPA banned the use of leaded gasoline in highway vehicles in December 1995 (EPA 2008a).

As a result of EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector have declined dramatically (95% between 1980 and 1999), and levels of lead in the air decreased by 94% between 1980 and 1999. Transportation sources, primarily airplanes, now contribute only 13% of lead emissions. A National Health and Nutrition Examination Survey reported a 78% decrease in the levels of lead in people's blood between 1976 and 1991. This dramatic decline can be attributed to the move from leaded to unleaded gasoline (EPA 2008a).

The decrease in lead emissions and ambient lead concentrations over the past 25 years is California's most dramatic success story with regard to air quality management. The rapid decrease in lead concentrations can be attributed primarily to phasing out the lead in gasoline. This phase-out began during the 1970s, and subsequent ARB regulations have virtually eliminated all lead from gasoline now sold in California. All areas of the state are currently designated as attainment for the state lead standard (EPA does not designate areas for the national lead standard). Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose "hot spot" problems in some areas. As a result, ARB identified lead as a TAC.

Monitoring Station Data and Attainment Area Designations

Concentrations of criteria air pollutants are measured at several monitoring stations in the SVAB. The Roseville–North Sunrise Avenue (less than 15 miles east of the project site) station and the North Highlands–Blackfoot Way (less than 10 miles to the southeast) station are the closest to the project site with recent data for ozone, NO_2, CO, PM_{10}, and $PM_{2.5}$. Table 3.4-2 summarizes the air quality data from these stations for the most recent 3 years.

Table 3.4-2
Summary of Annual Ambient Air Quality Data

	2005	2006	2007
OZONE			
Roseville—North Sunrise Avenue Monitoring Station			
Maximum concentration (1-hour/8-hour, ppm)	0.118/0.106	0.121/0.097	0.109/0.100
Number of days state standard exceeded (1-hour/8-hour)	13/27	16/38	4/20
Number of days national standard exceeded (1-hour/8-hour)	0/9	0/9	0/3
North Highlands—Blackfoot Way Monitoring Station			
Maximum concentration (1-hour/8-hour, ppm)	0.103/0.085	0.135/0.093	0.109/0.096
Number of days state standard exceeded (1-hour/8-hour)	3/11	15/42	1/4
Number of days national standard exceeded (1-hour/8-hour)	0/2	1/10	0/1
CARBON MONOXIDE (CO)			
Roseville—North Sunrise Avenue Monitoring Station			
Maximum concentration (1-hour/8-hour, ppm)	2.0/1.27	—	—
Number of days state standard exceeded (8-hour)	0	—	—
Number of days national standard exceeded (1-hour/8-hour)	0/0	—	—
North Highlands—Blackfoot Way Monitoring Station			
Maximum concentration (1-hour/8-hour, ppm)	8.0/2.86	7.5/2.70	25.1/1.73
Number of days state standard exceeded (8-hour)	0	0	0
Number of days national standard exceeded (1-hour/8-hour)	0/0	0/0	0/0
NITROGEN DIOXIDE (NO_2)			
Roseville—North Sunrise Avenue Monitoring Station			
Maximum concentration (1-hour, ppm)	0.079	0.063	0.058
Number of days state standard exceeded	0	0	0
Annual average (ppm)	0.013	0.013	0.012
North Highlands—Blackfoot Way Monitoring Station			
Maximum concentration (1-hour, ppm)	0.060	0.097	0.127
Number of days state standard exceeded	0	0	0
Annual average (ppm)	0.011	—	0.013
SULFUR DIOXIDE (SO_2)			
North Highlands—Blackfoot Way Monitoring Station			
Maximum concentration (24-hour, ppm)	0.002	0.003	0.004
Number of days state standard exceeded	0	0	0
Number of days national standard exceeded	0	0	0

Table 3.4-2
Summary of Annual Ambient Air Quality Data

	2005	2006	2007
FINE PARTICULATE MATTER ($PM_{2.5}$)			
Roseville—North Sunrise Avenue Monitoring Station			
Maximum concentration (µg/m^3) (national/California [1])	51.0/59.2	45.0/54.7	30.0/48.7
Number of days national standard exceeded (measured/calculated [2])	0/0	0/0	0/0
State annual average (µg/m^3)	10.0	10.5	12.2
RESPIRABLE PARTICULATE MATTER (PM_{10})			
Roseville—North Sunrise Avenue Monitoring Station			
Maximum concentration (µg/m^3) (national/California [1])	55/58	54/55	43/45
Number of days state standard exceeded (measured/calculated [2])	1/5.8	1/5.8	0/0
Number of days national standard exceeded (measured/calculated [2])	0/0	0/0	0/0
North Highlands—Blackfoot Way Monitoring Station			
Maximum concentration (µg/m^3) (national/California [1])	110/109	65/67	56/59
Number of days state standard exceeded (measured/calculated [2])	7/42.4	3/17.9	2/13.1
Number of days national standard exceeded (measured/calculated [2])	0/0	0/0	0/0

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; — = data not available

[1] State and national statistics may differ for the following reasons: State statistics are based on California-approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State statistics are based on local conditions, whereas national statistics are based on standard conditions. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

[2] Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

Sources: ARB 2008e, EPA 2008b

Both ARB and EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants published by the agencies. The purpose of these designations is to identify areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." The "unclassified" designation is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called "nonattainment-transitional." The "nonattainment-transitional" designation is given to nonattainment areas that are progressing and nearing attainment. The most recent attainment designations with respect to Sutter County are shown in Table 3.4-1 for each criteria air pollutant. With respect to Placer and Sacramento Counties, the attainment designations are the same as those for Sutter except that Sacramento and Placer Counties are currently designated as nonattainment areas for the state $PM_{2.5}$ standard, and Sacramento County also as a nonattainment area for the national PM_{10} standard.

With regard to the 1-hour ozone standard, the southern third of Sutter County (i.e., generally the area south of Subaco Road) is part of the Sacramento Federal Nonattainment Area (FRAQMD 2008b). Also, EPA issued a designation of "serious" nonattainment for the federal 8-hour ozone standard in the Broader Sacramento Area Basin, of which south Sutter County is a part (FRAQMD 2008b).

EMISSIONS INVENTORY

Mobile sources are the largest contributor to the estimated annual average levels of ROG, CO, and NO_X in Sutter County, accounting for approximately 40%, 72%, and 72%, respectively, of the total emissions. Areawide sources account for approximately 83% and 64% of the county's PM_{10} and $PM_{2.5}$ emissions, respectively. Stationary and mobile sources account for approximately 43% and 31%, respectively, of the County's emissions of sulfur oxides (SO_X) (ARB 2008f).

EXISTING AIR QUALITY—TOXIC AIR CONTAMINANTS

Concentrations of TACs are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to the *California Almanac of Emissions and Air Quality* (ARB 2008d), most of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel PM). Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and presence or absence of an emission control system.

Unlike for the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, ARB has made preliminary estimates of concentrations based on a PM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs. Based on receptor modeling techniques, ARB estimated the diesel PM health risk in the SVAB in 2000 to be 360 excess cancer cases per million people. The health risk of diesel PM in the SVAB was reduced by 52% between 1990 and 2000. In that time, levels of all TACs except para-dichlorobenzene, acetaldehyde, and formaldehyde have declined (ARB 2008d).

Existing Sources of TACs

Existing industrial land uses currently operating on the project site include the Sysco Corporation warehouse and distribution center, a Holt Tractor manufacturing facility, A&N Auto Repair, and AR Readymix. Stationary TAC emission sources associated with these operations include boilers, backup emergency diesel generators, spray painting operations, degreaser operations, aboveground fuel storage, and abrasive blasting operations. The sources operated by the Holt Tractor facility are permitted under FRAQMD Permit P16003, and the backup diesel generator at the Sysco facility falls under FRAQMD Permit P23035.

According to ARB's Community Health Air Pollution Information System, A. Teichert & Son, Inc. is located on Riego Road (ARB 2008g, 2008h). Vehicles on State Route (SR) 99/70 and other roads in the vicinity are sources of diesel PM and other TACs associated with vehicle exhaust.

Naturally Occurring Asbestos

Naturally occurring asbestos may be found in at least 44 of California's 58 counties. Asbestos is the name for a group of naturally occurring silicate minerals. Exposure to asbestos may result in inhalation or ingestion of

asbestos fibers, which over time may result in damage to the lungs or membranes that cover the lungs, leading to illness or even death.

According to the *General Location Guide for Ultramafic Rocks in California—Areas More Likely to Contain Naturally Occurring Asbestos* (Churchill and Hill 2000), the project site and off-site elements are not located in areas that are more likely to contain naturally occurring asbestos.

EXISTING AIR QUALITY—ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The human nose is the sole sensing device for odors. The ability to detect odors varies considerably among the population and is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may be sensitive to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person (e.g., an odor from a fast-food restaurant) may be perfectly acceptable to another. It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor with recognition occurring only with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the odor is quite difficult to detect or recognize. At some point during dilution, the concentration of the odorant reaches a detection threshold. When an odorant concentration is below the detection threshold, the concentration in the air is not detectable by the average human.

There are no notable sources of disagreeable odors in the vicinity of the project site. According to FRAQMD records, which go back 10 years, the Sysco and Holt Tractor facilities on the site have not received any complaints, odor or otherwise (Andersson, pers. comm., 2008).

3.4.3 IMPACTS AND MITIGATION MEASURES

ANALYSIS METHODOLOGY

Emissions of temporary, short-term construction-related and long-term operation-related (i.e., regional and local) criteria air pollutants and precursors, odors, and TACs associated with on-site activities were assessed in accordance with FRAQMD-recommended or -approved methodologies (FRAQMD 2008a). Emissions associated with the off-site infrastructure improvements were assessed in accordance with the recommended thresholds of the applicable air district (i.e., FRAQMD, PCAPCD, and/or SMAQMD).

Project-generated, construction-related emissions of criteria air pollutants (e.g., PM_{10}) and precursors (ROG and NO_X) were assessed in accordance with FRAQMD-recommended methods for the estimated peak year of construction activity that would occur under the proposed project. Where quantification was required pursuant to FRAQMD guidance, emissions were modeled using the ARB-approved URBEMIS 2007 Version 9.2.4 computer model (Rimpo and Associates 2008). Modeling was based on general information provided in the project description and default and FRAQMD-recommended settings and parameters attributable to the proposed land use types and site location. Emissions associated with the construction of the sewer force main connection to the

Sacramento Regional County Sanitation District (SRCSD) were estimated using SMAQMD's Road Construction Emissions Model, Version 6.2 (SMAQMD 2007). Although the model was developed by SMAQMD, it is also recommended by FRAQMD, PCAPCD, and other air districts in the state for estimating emissions generated by construction projects that are linear in nature (FRAQMD 2008a). Other off-site improvements, also linear in nature, were analyzed qualitatively. Modeled project-generated, construction-related emissions are compared with applicable FRAQMD thresholds for determination of significance.

Project-generated, operation-related (i.e., regional) emissions of criteria air pollutants and precursors (e.g., mobile and area sources) were evaluated with respect to the screening levels of FRAQMD's Indirect Source Review Guidelines (FRAQMD 2008c). For additional detailed analyses of Phase 1 and Phase A, operational emissions were quantified using the URBEMIS 2007 Version 9.2.4 computer model (Rimpo and Associates 2008). Modeling was based on project-specific data (e.g., size and type of proposed uses) and vehicle trip information from the traffic analysis prepared for the proposed project (Fehr & Peers 2008). Long-term stationary-source emissions were qualitatively assessed in accordance with FRAQMD-recommended methodologies. Modeled project-generated, long-term operation-related emissions were compared with applicable FRAQMD thresholds for determination of significance. Other off-site improvements were analyzed qualitatively at the program level. Modeled project-generated, operational-related emissions were compared with applicable air district thresholds for determination of significance.

At this time, FRAQMD has not adopted a methodology for analyzing temporary, short-term construction-related emissions of TACs and does not recommended the completion of HRAs for such emissions, with a few exceptions (e.g., where the construction phase would be the only phase of the project) (FRAQMD 2008a). Therefore, project-generated, construction-related emissions of TACs were assessed qualitatively.

Long-term operation-related exposure of sensitive receptors to emissions of TACs was assessed qualitatively using a number of tools and publications. The analysis examines the guidance contained in ARB's *Air Quality and Land Use Handbook: A Community Health Perspective,* which includes recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, dry cleaners, gasoline stations, and industrial facilities (ARB 2005). The analysis of health risk exposure to sensitive receptors proposed near off-site mobile sources (i.e., SR 99/70) also explores SMAQMD's *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadway, Version 1.0* (SMAQMD 2007), as authorized by FRAQAMD (as stated in HDR 2008). However, neither of these guidance documents is regulatory, and neither claims to provide significance thresholds for the analysis of health risk exposure levels at proposed sensitive receptors from nonpermitted sources of TACs; therefore, they are not used for that purpose. Although this impact is addressed qualitatively, the guidance parameters provided by these sources is acknowledged. Ultimately, the impact conclusion is based on whether the project would develop sensitive receptors in locations where they would be exposed to substantial levels of TAC-related health risk. Other important facets to this analysis are how the estimated health risk exposure levels at proposed sensitive receptors compare to background risk levels in the SVAB and the necessity to disclose an accurate understanding of the potential risk levels so they can be considered in the planning process. Health risk associated with airport-generated emissions of TACs is also discussed qualitatively based on the limited and recent research on the topic. A literature review is also provided on the risk exposure levels associated with development near freeways.

To date, FRAQMD has not adopted a method for evaluating impacts associated with emissions of $PM_{2.5}$. However, because project-generated, construction- and operation-related emissions of $PM_{2.5}$, by definition, would be a subset of PM_{10} emissions, FRAQMD-recommended methodologies and mitigation measures for PM_{10} would also be relevant to emissions of $PM_{2.5}$.

THRESHOLDS OF SIGNIFICANCE

For the purpose of this analysis, the following applicable thresholds of significance have been used to determine whether implementing the proposed project would result in a significant impact. These thresholds of significance are based on Appendix G of the State CEQA Guidelines and FRAQMD guidance. An air quality impact is considered significant if implementation of the proposed project would do any of the following:

- conflict with or obstruct implementation of the applicable air quality plan,
- violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable NAAQS or CAAQS (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations, or
- create objectionable odors affecting a substantial number or people.

As stated in Appendix G, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the above determinations. Thus, in accordance with FRAQMD-recommended thresholds for evaluating project-related air quality impacts (including FRAQMD's Indirect Source Review Guidelines), implementation of the proposed project would be considered significant if operation of the proposed project would (FRAQMD 2008a):

- exceed the project size screening levels of FRAQMD's Indirect Source Review Guidelines (FRAQMD 2008c) or, at a project level, emit (from all project sources, both stationary and mobile) greater than 25 lb/day for ROG or NO_X and 80 lb/day for PM_{10};
- contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards;
- result in exposure of sensitive receptors to a substantial incremental increase in TAC emissions (e.g., stationary or mobile source) that exceed 10 chances per million for excess cancer risk and/or a hazard index of 1 for noncancer risk at the Maximally Exposed Individual (MEI). As incremental increase thresholds, it is FRAQMD's implied intention that these standards also serve as cumulative contribution thresholds; or
- result in the frequent exposure of sensitive land uses to odorous emissions.

No significance thresholds have been established by the FRAQMD for exposure of sensitive receptors to mobile-source TAC emissions.

IMPACT ANALYSIS

Program-Level Impacts and Mitigation Measures

IMPACT 3.4-1 Generation of Temporary, Short-Term Construction Emissions of ROG, NO_X, and PM_{10}. *Construction activities associated with development of the proposed project would generate temporary, short-term emissions of PM_{10}, ROG, and NO_X. Because of the large size of the project, construction-generated emissions of NO_X, an ozone precursor, would exceed air district-recommended thresholds and would substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS.*

On-Site Elements

Construction-related emissions are generally short term in duration but may still cause adverse air quality impacts. Fine particulate matter (PM_{10}) and respirable particulate matter ($PM_{2.5}$) are among the pollutants of greatest concern with respect to construction activities. Particulate emissions from construction activities can lead to adverse health effects and nuisance concerns, such as reduced visibility and soiling of exposed surfaces. PM_{10} emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle and equipment exhaust. Construction emissions of PM_{10} can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors.

Development of the project site would occur over a very large area (7,528 acres), large portions of the project site would undergo construction at one time, and construction would require substantial amounts of earthwork and grading. Based on modeling performed for Phase 1 and Phase A (see Impact 3.4-6), construction-related emissions of the entire proposed project would cause substantial increases in localized concentrations of PM_{10} and $PM_{2.5}$ that would result in exceedances of the respective ambient air quality standards of 50 $\mu g/m^3$ and 35 $\mu g/m^3$ (24-hour). In addition, construction-generated PM_{10} emissions would also exceed FRAQMD's mass emission threshold of 80 lb/day. Furthermore, emissions of NO_X and ROG would also be generated in exhaust from heavy-duty off-road construction equipment, material transport, and worker commute trips. Off-gas emissions of ROG would also result from the application of architectural coatings. Because construction of the proposed project would involve the use of a substantial number of off-road equipment, truck trips, and construction workers at one time, emissions of NO_X and ROG would exceed FRAQMD's threshold of 25 lb/day.

Therefore, project-generated, construction-related emissions of criteria air pollutants and precursors would violate or contribute substantially to an existing or projected air quality violation, which is an **indirect, significant** impact. Also, construction emissions of criteria air pollutants and precursors could expose sensitive receptors to substantial pollutant concentrations, particularly when construction occurs near residential land uses that are already inhabited on the project site, which is a **direct, significant** impact. In addition, because FRAQMD's significance thresholds approximately correlate with reductions from heavy-duty vehicles and emission reduction requirements in the SIP for land use development projects, construction-generated emissions could also conflict with any air quality planning efforts (also an **indirect, significant** impact).

Off-Site Elements

To determine the approximate level of impact that could result from development of the off-site infrastructure, the proposed sewer force main that would connect the project site to the SRCSD system was chosen for modeling purposes. The approximately 5.5-mile-long sewer force main would be routed through Sutter, Placer, and Sacramento Counties, which are under the jurisdiction of FRAQMD, PCAPCD, and SMAQMD, respectively. Installation of the sewer force main would also result in emissions of criteria air pollutants (e.g., PM_{10}) and precursors (e.g., ROG and NO_X) from clearing, grading, and excavation; use of off-road equipment; importation of gravel; worker commutes; and other miscellaneous activities. Exact project-specific data (e.g., construction equipment types and quantities and construction schedule) were not available at the time of this analysis. To best characterize the construction-related emission levels that would likely be generated during this installation, maximum daily construction emissions were estimated using the Road Construction Emissions Model, Version 6.2 (SMAQMD 2008b). The model's estimates are based on the assumption that up to 1,500 feet of sewer conduit would be installed in a single day, the respective size of the disturbance area, and the amount of material imported and exported by haul truck. Table 3.4-3 summarizes the maximum daily construction emissions estimated by the model. Construction-related air quality effects were determined by comparing these modeling results with the applicable air district's significance thresholds. Refer to Appendix F of this DEIR for detailed modeling input assumptions, parameters, and results.

As shown in Table 3.4-3, total maximum daily construction emissions of ROG, NO_X, and PM_{10} would exceed the significance thresholds for NO_X of all three air districts. Because more than 1,500 feet of the sewer route lies within the jurisdiction of each of the three air districts, it is anticipated that each district's mass emissions threshold for NO_X would be exceeded at some point during construction. In addition, it should be noted that the areas in all three counties where construction activity would occur are part of the SFNA.

Each of the construction projects associated with the other off-site elements would be similar to the installation of the sewer force main connection. For instance, more than 2.8 million cubic yards of loose material may be excavated from the nearby Lutz property to create a basin for capturing the overflow from the Sankey Gap (Pritchard, per. comm., 2008), which would require multiple pieces of heavy-duty construction equipment and/or multiple haul truck trips. Also, the widening of SR 99/70 and the construction of parallel roadways east and west of SR 99/70 would involve a substantial amount of heavy-duty construction equipment and the importation of large quantities of substrate and other materials. Therefore, emissions associated with the construction of all project-related off-site improvements under the proposed project would likely exceed air district thresholds. Moreover, some or all of the installation of the off-site infrastructure facilities may occur at the same time as on-site construction activities.

Table 3.4-3
Summary of Modeled Maximum Daily Construction-Related Emissions of Criteria Air Pollutants and Precursors for Installation of Sewer Force Main

	ROG	NO_X	PM_{10}	$PM_{2.5}$ [1]
Maximum Daily Emissions (during excavation)	14	115	11	6
Air District Significance Thresholds				
FRAQMD	25	25	80	—[2]
PCAPCD	82	82	82	—[2]
SMAQMD	—[2]	85	—[2]	—[2]

Notes: Estimates were generated using the Road Construction Emissions Model, Version 6.2 (SMAQMD 2008b), assuming that as much as 1,500 linear feet of sewer pipe may be installed in a single day. See Appendix F of this DEIR for detailed input parameters and modeling results.

NO_X = oxides of nitrogen.
PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less.
$PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less.
ROG = reactive organic gases.
FRAQMD = Feather River Air Quality Management District.
PCAPCD = Placer County Air Pollution Control District.
SMAQMD = Sacramento Metropolitan Air Quality Management District.
lb/day = pounds per day.

[1] Emissions of $PM_{2.5}$ are shown for informational purposes only. $PM_{2.5}$ is a subset of PM_{10}.

[2] The respective air district has not identified mass emissions thresholds for construction-related emissions of this pollutant.

Source: Modeling performed by EDAW in 2008

Therefore, project-generated, construction-related off-site emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, which is an **indirect, significant** impact. Also, off-site construction emissions of criteria air pollutants and precursors could expose sensitive receptors to substantial pollutant concentrations, particularly when construction occurs near residential land uses that are already inhabited on the project site, which is a **direct, significant** impact. In addition, because FRAQMD's significance thresholds approximately correlate with reductions from heavy-duty vehicles and emission reduction requirements in the SIP for land use development projects, construction-generated off-site emissions could also conflict with any air quality planning efforts (also an **indirect, significant** impact).

Mitigation Measure 3.4-1: Develop and Implement Applicable Air District-Endorsed Air Quality Mitigation Plan for All Phases of Construction.

On-Site and Off-Site Elements

The project applicant(s) of all project phases shall require their construction contractors, at the time construction is performed, to implement those construction mitigation measures that are required by the respective air district that has jurisdiction over the area in which construction activity would occur. For all construction activity on the project site, the project applicant(s) shall require construction contractors to implement both FRAQMD's Standard Mitigation Measures and Best Available Mitigation Measures for Construction Activity to reduce emissions to the maximum extent feasible for all construction activity performed in Sutter County. For all construction activity that would occur in another air district (i.e., outside of Sutter County), such as the installation of the sewer force main connection to SRCSD and other off-site improvements, the project applicant(s) shall require construction contractors to comply with the best management practices and construction emission reduction measures required by the respective local air district. No project-related construction activity shall occur until an emissions reduction plan developed by the contractor(s) is reviewed and approved in writing by Sutter County in consultation with the respective air district (i.e., FRAQMD, PCAPCD, or SMAQMD), or, where air district approval is required by law, with the approval of the air district. The following list presents all of the FRAQMD-required measures. (Both PCAPCD and SMAQMD require similar measures.)

1. The applicant shall implement FRAQMD's Fugitive Dust Control Plan with the following mitigation measures:

   - All grading operations on a project shall be suspended when winds exceed 20 miles per hour (mph) or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.

   - Construction sites shall be watered as directed by the FRAQMD and as necessary to prevent fugitive dust violations.

   - An operational water truck shall be on-site at all times. Water shall be applied to control dust as needed to prevent visible emissions violations and off-site dust impacts.

   - On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind-blown dust emissions. The use of approved nontoxic soil stabilizers shall be incorporated according to manufacturers' specifications to all inactive construction areas.

   - All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.

   - Approved chemical soil stabilizers shall be applied according to the manufacturers' specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas.

   - To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed before each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks and prevent/diminish track-out.

   - Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom permitted) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.

- Temporary traffic control shall be provided as needed during all phases of construction to improve traffic flow, as deemed appropriate by the appropriate department of public works and/or California Department of Transportation (Caltrans), and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.

- Traffic speeds on all unpaved surfaces shall be reduced to 15 mph or less, and unnecessary vehicle traffic shall be reduced by restricting access. Appropriate training to truck and equipment drivers, on-site enforcement, and signage shall be provided.

- Ground cover shall be reestablished on the construction site as soon as possible and before final occupancy through seeding and watering.

- Open burning shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (e.g., trash, demolition debris) may be conducted at the project site. Vegetative wastes shall be chipped or delivered to waste-to-energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials off-site for disposal by open burning.

2. Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions Limitations (40% opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall take action to repair the equipment within 72 hours or remove the equipment from service. Failure to comply may result in a notice of violation from FRAQMD.

3. The primary contractor shall be responsible for ensuring that all construction equipment is properly tuned and maintained before and for the duration of on-site operation.

4. Idling time shall be minimized to 5 minutes in accordance with ARB airborne air toxic control measure 13 (CCR Chapter 10 Section 2485) unless more time is required per engine manufacturers' specifications or for safety reasons.

5. Existing power sources (e.g., power poles) or clean-fuel generators shall be used rather than temporary power generators.

6. A traffic plan shall be developed 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. Operations that affect traffic shall be scheduled for off-peak hours. Obstruction of through-traffic lanes shall be minimized. A flag person shall be provided to guide traffic properly and ensure safety at construction sites.

7. Portable engines and portable engine-driven equipment units used on the project site, with the exception of on-road and off-road motor vehicles, may require ARB Portable Equipment Registration with the state or a local district permit. The owner/operator of the equipment shall be responsible for arranging appropriate consultations with ARB or the FRAQMD to determine registration and permitting requirements before the equipment is operated at the site.

8. The project proponent shall assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that will be used an aggregate of 40 or more hours for the construction project and provide a plan for approval by FRAQMD demonstrating that the heavy-duty (equal to or greater than 50 horsepower) off-road equipment to be used for construction, including owned, leased, and subcontractor vehicles, will achieve a projectwide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction. These equipment emission reductions can be demonstrated using the most recent version of the Construction Mitigation Calculator developed by the SMAQMD.

Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology (Carl Moyer Guidelines), after-treatment products, voluntary off-site mitigation projects, the provision of funds for air district off-site mitigation projects, and/or other options as they become available. In addition, implementation of these measures would also result in a 5% reduction in ROG emissions from heavy-duty diesel equipment. FRAQMD shall be contacted to discuss alternative measures.

Implementation: The project applicant(s) of all project phases.

Timing: Before approval of final maps and building permits for all project phases or before approval of construction plans for utilities.

Enforcement: Feather River Air Quality Management District, Sacramento Metropolitan Air Quality Management District, Placer County Air Pollution Control District.

Significance after Mitigation

Implementation of the FRAQMD-required measures in Mitigation Measure 3.4-1 would result in a minimum 20% reduction in NO_X emissions and a 45% reduction in PM_{10} exhaust emissions from heavy-duty diesel equipment, as compared with statewide average emissions. In addition, implementation of these measures would also result in a 5% reduction in ROG emissions from heavy-duty diesel equipment exhaust, and the dust control measures would reduce fugitive PM_{10} dust emissions by approximately 75%. Implementation of these measures would reduce temporary, short-term, construction-related emissions of ROG, NO_X, and PM_{10} generated by project construction, but not to a less-than-significant level, because emissions would still potentially exceed the significance thresholds of the FRAQMD or the respective air district. In addition, implementation of these measures would reduce temporary, short-term, construction-related emissions of ROG, NO_X, and PM_{10}, in accordance with the applicable air district, generated by off-site phases of the proposed project, but not to a less-than-significant level, because emissions would still exceed the significance thresholds of each respective air district (Table 3.4-3). As a result, this impact (generation of construction-related ROG and NO_X emissions) is **significant and unavoidable**.

IMPACT 3.4-2 Generation of Long-Term Operational (Regional) Emissions of ROG, NO_X, and PM_{10}. *Operational area- and mobile-source emissions related to implementation of the proposed project would exceed the FRAQMD-recommended threshold of 25 lb/day for ROG and NO_X and 80 lb/day for PM_{10} and would result in or substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS. In addition, because of the large increase in emissions associated with buildout of the proposed project and the fact that the proposed project is not within an already approved plan (which means that increased emissions would not already be accounted for in applicable air quality plans), project implementation could conflict with air quality planning efforts.*

On-Site Elements

Operation of the proposed project would result in long-term regional emissions of ROG, NO_X, and PM_{10} associated with area sources, such as natural-gas emissions, landscaping, applications of architectural coatings, and use of consumer products, in addition to operational vehicle-exhaust emissions. Buildout under the proposed project would generate approximately 337,700 vehicle trips and 3,346,700 VMT, not accounting for intra-traffic area zone trips or construction of Placer Parkway (Fehr & Peers 2008). See Section 3.3, "Transportation and Circulation," for further discussion of roadway improvements.

FRAQMD has developed screening-level values for the size and type of land use development that would likely result in potentially significant emissions of NO_X, ROG, and/or PM_{10} during project operations. For example, 97 single-family residential units would typically exceed FRAQMD's 25 lb/day threshold for ROG, 119 units would

exceed FRAQMD's 25 lb/day threshold for NO_X, and 4,000 units would exceed FRAQMD's 80 lb/day threshold for PM_{10} (FRAQMD 2008c). Development of low-density and medium-density residential land uses under the proposed project would exceed the ROG, NO_X, and PM_{10} screening-level values by factors of 139, 113, and 3, respectively. Similarly, the number of apartment units that typically exceed FRAQMD's screening levels for ROG, NO_X, and PM_{10} is 136, 167, and 4,000, respectively (FRAQMD 2008c). Development of high-density land uses under the proposed project would exceed the screening-level values for ROG and NO_X by factors of 25 and 21, respectively. Among employment-supporting land use types, the sizes of "community shopping center" that typically exceed FRAQMD's screening levels for ROG, NO_X, and PM_{10} are 21,000, 22,000, and 615,000 square feet (FRAQMD 2008c). Development of high-density land uses under the proposed project would exceed the ROG and NO_X screening-level values by factors of 15 and 14, respectively. These comparisons are conservative because they do not account for all the additional types of land uses that would be developed under the proposed project. Thus, because of the large size of the proposed project (approximately 7,528 acres) and the associated mobile and area sources that would be introduced to the project area, operational emissions would exceed the FRAQMD-recommended thresholds for ROG, NO_X, and $PM_{10,}$ resulting in or substantially contributing to emissions concentrations that exceed the NAAQS or CAAQS. In addition, because of the large increase in emissions associated with buildout and the fact that the proposed project is not within an already existing approved plan (which means that increased emissions would not be accounted for in applicable air quality plans), implementation of the proposed project could conflict with air quality planning efforts.

The proposed project would likely include stationary sources of pollutants that would be required to obtain permits to operate under FRAQMD Regulation IV, "Stationary Emission Sources Permit System and Registration"; FRAQMD Rule 10.1, "New Source Review"; and FRAQMD Rule 3.21, "Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters." These sources could include, but would not be limited to, diesel-engine or gas turbine generators for emergency power generation; central heating boilers for commercial, industrial, or large residential buildings; process equipment for light industrial uses; kitchen equipment at restaurants and schools; service station equipment; and dry cleaning equipment. The permit process would ensure that these sources would be equipped with the required emission controls and that, individually, most of these sources would not cause a significant environmental impact. Nonetheless, the emissions from these sources would be additive to the estimated area- and mobile-source emissions described above.

In summary, operational area- and mobile-source emissions related to implementation of the proposed project would exceed the FRAQMD-recommended thresholds of 25 lb/day for ROG and NO_X and 80 lb/day for PM_{10}, resulting in or substantially contributing to emissions concentrations that exceed the NAAQS or CAAQS. In addition, because the project site is not within an approved plan area, project implementation could conflict with air quality planning efforts. As a result, this long-term, **direct** impact is **significant**. **No indirect** impacts would occur.

Off-Site Elements

Emissions of criteria air pollutants associated with operation of many of the off-site infrastructure improvements would be minimal. For instance, the communication lines installed by AT&T would not consume energy that is produced on-site, and systems used to maintain pressure in the natural gas line extension would be powered by electricity. Although the pumping stations that would be part of the additional water lines and the widened RD 1000 drainage canal would be powered by electricity, they would also likely include emergency diesel backup generators. These generators would not be operated for more than 1 or 2 hours at a time when they are periodically tested. Therefore, it is anticipated that the emissions of criteria air pollutants associated with the operation of these off-site infrastructure improvements would not exceed thresholds of the applicable local air district.

However, the road improvements anticipated to occur under the proposed project could potentially result in increased mobile-source emissions because these improvements could result in a substantial increase in vehicle miles travelled. As a result, this **indirect** impact is **significant**.

Mitigation Measure 3.4-2: Develop and Implement FRAQMD-Endorsed Air Quality Mitigation Plans to Reduce Operational Emissions.

On-Site and Off-Site Elements

An individual air quality mitigation plan (AQMP) shall be developed for each development phase of the proposed project, as prescribed by the Sutter Pointe Master AQMP prepared in June 2008 (as stated in HDR 2008), which offers a programmatic review of emission reduction measures. Each individual AQMP shall prescribe a percent reduction target for emissions of ozone precursors and PM_{10} as determined by Sutter County in consultation with FRAQMD. Individual AQMPs shall outline specific measures that reduce emissions of ozone precursors and PM_{10} to less-than-significant levels where feasible. These measures may include but would not be limited to those recommendations suggested by FRAQMD at the time each AQMP is prepared, and could also include measures suggested by the Sutter Pointe Master AQMP (HDR 2008), and others (e.g., industry standards or otherwise referenced measures). These potential measures are listed below. Where implementation of on-site mitigation measures would not be sufficient to reach FRAQMD's prescribed reduction target, voluntary FRAQMD-approved off-site mitigation projects may also be employed. The list of measures included in each AQMP shall be agreed to by the project applicant and the County, in consultation with FRAQMD.

FRAQMD Standard Mitigation Measures Applicable to All Projects

- Provide for the use of energy-efficient lighting and process systems, such as low-NO_X water heaters, furnaces, and boiler units.
- Use EPA Phase II-certified devices for all newly installed woodburning devices.
- Design streets to maximize pedestrian access to transit stops.
- Include bus shelters at transit access points where deemed appropriate by Yuba-Sutter Transit Authority in large residential, commercial, and industrial projects.

FRAQMD Supplemental Mitigation Measures for Residential Projects

- Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements) that reduce traffic congestion.
- Equip residential structures with electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.
- Provide for, or contribute to, dedication of land for off-site Class I and Class II bicycle trails linking the project to designated bicycle commuting routes in accordance with the regional bikeway master plan.
- Contribute to the provision of synchronized traffic signals on roadways affected by the project and as deemed necessary by the Department of Public Works.
- Provide transit-enhancing infrastructure that includes bus turnouts/bulbs, passenger benches, street lighting, route signs and displays, and shelters as demand and service routes warrant, subject to review and approval by local transportation planning agencies.
- Provide pedestrian-enhancing infrastructure that includes sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety designs/infrastructure, street furniture and artwork, street lighting, pedestrian signalization and signage, and/or access between bus service and major transportation points within the project. As described in the master AQMP, any uses that may impede pedestrian or bicycle circulation, such as berms, gates, walls, or other structures, shall be discouraged, except

in areas where the design of the community requires such structures, and if a residential area is separated from a retail/commercial area by a soundwall, openings and connections to such development must be provided to allow for bicycle and pedestrian travel.

- Include neighborhood park(s) or other recreational options, such as trails, within the development to minimize vehicle travel to off-site recreational and/or commercial uses.
- Install solar water heaters on at least 25% of the residential units.
- Incorporate mixed uses, where permitted by local development regulations, to achieve a balance of commercial, employment, and housing options on the project site.
- Include neighborhood telecommunications/telework centers.

FRAQMD Supplemental Mitigation Measures for Commercial Projects

- Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements) that reduce traffic congestion and do not substantially increase roadway capacity.
- Provide preferential parking spaces for carpool and vanpool vehicles, implement parking fees for single-occupancy vehicle commuters, and implement parking cash-out program for employees. As described in the Master AQMP, 10% of all employee parking spaces at employment (office/industrial) areas shall be reserved for carpools and vanpools. These spaces shall be covered or shaded. Other design features may include a separate parking lot for carpool and vanpool vehicles that is closer to the employee building entrance than the parking lot for single-occupancy vehicles and/or connecting the preferential parking lot to the employee entrance of the building with shaded, landscaped walkways or with open-air, covered walkways.
- Use clean fuel vehicles in the vehicle fleet.
- Require all employment centers to include an adequate number of on-site shower/locker facilities for bicycling and pedestrian commuters (typically one shower and three lockers for every 25 employees of a shift).
- Construct/contribute to bicycle and pedestrian facility improvements, such as trails linking commuter routes as identified in the Yuba Sutter Bikeway Master Plan and secure, covered bicycle parking. The Master AQMP states that Sutter Pointe's commercial projects will provide 20% more Class I and Class II bicycle parking than Sutter County Zoning Code requires.
- Provide ancillary services within walking distance of proposed development (no further than 1,500 feet), such as cafeterias, health clubs, automatic tellers, and a post office, as appropriate and in compliance with local development regulations.
- Provide park-and-ride lots as deemed feasible and appropriate by Yuba and Sutter transportation planning agencies.
- Employment centers that exceed a designated size, as measured by the number of employees, shall provide on-site child care and after-school facilities or contribute to off-site construction of such facilities within walking distance of employment land uses. For employment centers on or adjacent to industrial land uses, on-site child daycare centers shall be provided only if supported by the findings of a comprehensive HRA performed in consultation with the FRAQMD.
- Provide on-site pedestrian facility enhancements, such as walkways, benches, proper lighting, vending machines, and building access, that are physically separated from parking lot traffic.

- Feature alternative work schedules, where practical, that allow for work hours that are compressed into fewer than 5 days (e.g., 9/80, 4/40, or 3/36 schedules), or allow flextime schedules.
- Provide transit amenities (e.g., on-site/off-site bus turnouts, passenger benches, or shelters) where deemed appropriate by local transportation planning agencies.
- Contribute to the provision of synchronized traffic signals on roadways affected by the proposed project and as deemed necessary by the Department of Public Works.
- Install solar water heaters for at least 25% of the building floor area.
- Incorporate mixed uses, where permitted by local development regulations, to achieve a balance of commercial, employment, and housing options within the project site.
- Provide video conferencing facilities.
- Commit to support programs that include guaranteed ride home, subsidized transit passes, and rideshare matching.
- Use available emissions offset credits.
- Provide transportation (e.g., shuttles) to major transit stations and multimodal centers.

Additional Mitigation Measures

- Require each employer employment center (more than 25 employees) to assign a transportation coordinator for the Sutter Pointe Transportation Management Association (TMA) as prescribed by the Master AQMP.
- Require all employers to install a permanent display in employee common areas of alternate transit information, as determined by the requirements of the TMA.
- Require employers or employment centers (more than 25 employees) to implement a guaranteed ride home program. A described in the Master AQMP, this program is designed to provide a free ride home to any individual registered in the employee alternative commute or rideshare program in the event of a personal emergency or if the individual needs to work approved, unexpected overtime. Eligible employees include those who primarily commute via an alternative: by carpool, vanpool, transit, or bicycle or by walking. A guaranteed ride home program provides those who use an alternative commute option with the assurance that if they register in the program, they will have the peace of mind knowing that they always have a way to get home if an emergency arises.
- Require employers or employment centers (more than 25 employees) to implement an incentive program for riding transit, carpooling, vanpooling, biking, and walking instead of driving a single-occupancy vehicle to work. As described in the Master AQMP, incentives could include a cash subsidy, a gas card, prizes, or compensatory time off. Free public transit passes would also serve as an incentive.
- Design and locate buildings to facilitate transit access.
- Require employers or employment centers (more than 25 employees) to limit the number of employee parking spaces in their lots to discourage driving, as recommended by the Master AQMP.
- Require commercial and retail development on the project site to exceed Sutter County shading requirements by a minimum of 10%, as recommended by the Master AQMP. Implementing this measure results in a

requirement of 50% shading in parking areas with five to 24 vehicle spaces and 60% shading in parking areas with 25 or more spaces. These shade requirements can be met with trees and/or carports with solar panels.

- Install Energy Star (or equivalent) cool roofing systems on all buildings. As stated in the Master AQMP, the use of light-colored roof systems results in cooler building temperatures, which in turn leads to lower energy costs, reduced energy consumption, and reduced emissions associated with energy generation.
- Implement energy-efficient design features in all buildings.
- Establish shuttle service from worksite to transit stations/multimodal centers.
- Provide bicycle storage at apartment complexes or condos without garages.
- Design shuttle and transit exits to adjoining streets to reduce time to reenter traffic from the project site.
- Increase wall and attic insulation to 20% beyond Title 24 requirements (residential and commercial).
- Orient buildings to take advantage of solar heating and natural cooling, and use passive solar designs (residential, commercial, and industrial).
- Provide energy-efficient windows (double pane and/or Low-E) and awnings or other shading mechanisms for windows, porches, patios, and walkways.
- Consider passive solar cooling and heating designs, ceiling and whole house fans, and programmable thermostats in the design of heating and cooling systems.
- Use day lighting systems, such as skylights, light shelves, and interior transom windows.

Implementation: The project applicant(s) of all project phases.

Timing: Before approval of final maps and building permits for all project phases.

Enforcement: Feather River Air Quality Management District and Sutter County Community Services Department.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2 would reduce (regional) emissions of ROG, NO_X, and PM_{10} associated with operation of all phases of the proposed project, but not to a less-than-significant level, because emissions would likely still exceed the FRAQMD's significance thresholds because of the large size of the project site. As a result, this impact is **significant and unavoidable**.

IMPACT 3.4-3 Generation of Local Mobile-Source CO Emissions. *Project-generated local mobile-source CO emissions would not result in or substantially contribute to concentrations that exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm.*

On-Site Elements

The primary mobile-source pollutant of localized concern is CO. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. Under specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels with respect to local sensitive land uses, such as residential units, hospitals, schools, and childcare facilities.

Thus, high local CO concentrations are considered to have a direct influence on the receptors they affect. Modeling of CO concentrations is typically recommended for areas located near signalized roadway intersections that are projected to operate at an unacceptable level of service (LOS) (i.e., LOS E or F) during peak traffic hours (Garza, Graney, and Sperling 1997).

Intersections controlled by stop signs do not experience high enough traffic volumes and associated congestion to be the site of violations of the AAQS; therefore, CO modeling is not recommended for unsignalized intersections (Garza, Graney, and Sperling 1997). Because the intersections controlled by stop signs would accommodate fewer vehicles than signalized intersections, it is reasonable to conclude that congestion at the intersections controlled by stop signs would not result in CO concentrations that exceed the AAQS.

Based on the traffic analysis prepared for the proposed project (Table 3.3-20), some signalized intersections in the vicinity of the project site are predicted to operate at an unacceptable LOS under buildout conditions (Fehr & Peers 2008). Because of stricter vehicle emissions standards in newer cars, new technology, and increased fuel economy, future CO emission factors under future buildout conditions (analysis year 2035) would be substantially lower than those under existing conditions.

According to the traffic study prepared for the proposed project, several signalized intersections would operate at an unacceptable LOS with and without project implementation (see Section 3.3, "Transportation and Circulation") (Fehr & Peers 2008). Because these intersections would operate at an unacceptable LOS with or without the proposed project, it is not anticipated that the additional vehicles associated with the proposed project would result in or substantially contribute to a violation of the AAQS at these locations. In addition, a traffic signal would be installed at the intersection of Sankey Road and Pacific Avenue and would operate at LOS E during the p.m. peak hour under buildout conditions. Upon implementation of the improvements proposed in Section 3.3, "Transportation and Circulation," these affected intersections would operate at an acceptable LOS (i.e., D or better) with mitigation incorporated.

As mentioned previously, CO emission factors in future years would be lower than current levels because of more stringent vehicle emissions standards and improvements in vehicle emissions technology. Thus, ambient local CO concentrations under future conditions would continue to decline. Under cumulative conditions, the intersections of Elverta Road/Watt Avenue and Elkhorn Boulevard/Natomas Road would operate at an unacceptable LOS with and without the proposed project in place (see Section 3.3, "Transportation and Circulation") (Fehr & Peers 2008). These two intersections would continue to operate at an unacceptable LOS with implementation of proposed mitigation improvements; however, the delay encountered by vehicles passing through these intersections would be reduced as a result of implementing the proposed project. Thus, the proposed mitigation that would accompany project implementation would alleviate some traffic congestion at these two intersections. As a result, implementing the proposed project would reduce CO concentrations at these locations under cumulative conditions; therefore, the proposed project would not substantially contribute to this impact.

Thus, even though there would be more vehicle trips under the proposed project at buildout than under existing conditions, project-generated local mobile-source CO emissions would not result in or substantially contribute to concentrations that exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm. This **direct** impact is **less than significant**. **No indirect** impact would occur.

Off-Site Elements

Construction of the off-site road improvements would involve the use of heavy construction equipment that emits CO. However, it is unlikely that multiple pieces of construction equipment would idle close to sensitive receptors for an extended period. Furthermore, operation of the various road improvements is expected to relieve traffic congestion and therefore prevent extended queuing and idling of large volumes of vehicles. For this reason, CO emissions related to construction of the off-site road improvements would not expose sensitive receptors to high concentrations of CO. Construction and operation of the sewer force mains that would connect the proposed

project to the SRCSD system do not have the potential to generate substantial concentrations of CO. Pumps involved in the operation of the sewer force mains would be powered by electricity and therefore would not directly generate emissions. Moreover, these facilities would not be located close to sensitive receptors. Operation of the utility infrastructure improvements, including the water lines, communication lines, natural gas line, and sewer force main, not anticipated to generate high levels of CO emissions. As a result, this **direct** impact is **less than significant**. **No indirect** impacts would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.4-4 Exposure of Sensitive Receptors to Short- and Long-Term Emissions of Toxic Air Contaminants.

Project implementation would result in exposure of sensitive receptors to short- and long-term emissions of TACs from on-site mobile and stationary sources.

On-Site Elements

The exposure of sensitive receptors to TAC emissions can occur during both the construction and operational phases of the proposed project. Health-related impacts associated with short-term construction and long-term stationary- and mobile-source operational emissions are discussed separately below.

Temporary, Short-Term Emissions from Construction Equipment

Construction of the proposed project and associated infrastructure would result in temporary, short-term diesel exhaust emissions from on-site heavy-duty equipment. Diesel PM was identified as a TAC by ARB in 1998. Construction of the proposed project would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities. According to ARB, the potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential noncancer health impacts (ARB 2003).

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. It is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment (OEHHA), HRAs, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed project (Salinas, pers. comm., 2004). The use of mobilized equipment for project construction activities would be temporary, and there are no residential sensitive receptors located on or adjacent to the project site. However, new residents and schools would be occupying the site concurrently with on-site construction activities, and workers at the existing on-site industrial land uses (i.e., the Sysco Corporation warehouse and distribution center, Holt Tractor manufacturing facility, A&N Auto Repair, and AR Readymix) could be exposed to emissions for a substantial length of time because buildout of the proposed project would occur over an extended period. Even with the dispersive properties of diesel PM (Zhu et al. 2002), construction activities could expose sensitive receptors to levels that exceed applicable standards because of the close proximity of on-site heavy-duty equipment; existing workers; and future planned residents, schools, and workers. Therefore, this **direct** impact is **potentially significant**. **No indirect** impact would occur.

Stationary-Source Emissions

Existing industrial land uses currently operating on the project site include the Sysco Corporation warehouse and distribution center, the Holt Tractor manufacturing facility, A&N Auto Repair, and AR Readymix. Stationary TAC emission sources associated with these operations include boilers, backup emergency diesel generators, spray painting operations, degreaser operations, aboveground fuel storage, and abrasive blasting operations. The sources operated by the Holt Tractor facility are permitted under FRAQMD Permit P16003, and the backup diesel generator at the Sysco facility falls under FRAQMD Permit P23035. Because these facilities are permitted by FRAQMD and because no schools, residences, or other sensitive receptors would be developed adjacent to these facilities under the proposed project, emissions from these facilities are not expected to result in levels of health risk that exceed FRAQMD standards.

Long-term operation of other industrial and commercial uses developed under the proposed project would likely include the installation of additional stationary sources of TACs, such as dry cleaning establishments, gasoline-dispensing facilities, diesel-fueled backup generators, and medical incinerators. As is the case with the existing on-site industrial facilities, these types of stationary sources, in addition to any other stationary sources that may emit TACs, would be subject to FRAQMD rules and regulations, including FRAQMD Rule 4 (General Requirements), Rule 10.1 (New Source Review), T-BACT requirements, Title V-Federal Operating Permit Requirements, and NESHAPs. Thus, FRAQMD would analyze such sources (e.g., via a HRA) based on their potential to emit TACs. If it were determined that the sources would emit TACs in excess of FRAQMD's applicable threshold of significance, T-BACT would be implemented to reduce emissions. If the implementation of T-BACT would not reduce the risk below the applicable threshold, FRAQMD would deny the required permit (or deny the renewal of existing permits). Even if multiple permitted TAC sources located in close proximity to each other generated a combined incremental increase in health risk that exceeds FRAQMD's standards (i.e., 10 chances per million for excess cancer risk and/or a hazard index of 1 for noncancer risk at the MEI), these standards are incremental increase thresholds that inherently account for the possibility of receptors being exposed to risk from multiple TAC sources in addition to background risk levels. In other words, as incremental increase standards, they address the cumulative contribution of each individual stationary source of TACs. As a result, given compliance with applicable rules and regulations, operation of any stationary sources would not be expected to result in the exposure of sensitive receptors to TACs at levels exceeding FRAQMD's significance threshold. Therefore, this **direct** impact is **less than significant**. **No indirect** impact would occur.

Airport-Related Emissions

In recent years, there has been heightened scientific awareness and public debate over potential impacts that may result from the exposure of sensitive receptors to TACs generated for aircraft and ground support operations at and near airports. Sources of airport-related TACs include aircraft (e.g., air carriers, commuter and cargo aircraft, and general aviation), ground service equipment, and fuel storage and handling. TACs released by these sources include, but are not limited to, VOCs (acetaldehyde, formaldehyde, benzene, and 1,3-butadiene), chromium, dioxins, PAHs, tetrachloroethylene, nickel, and toluene.

Several studies and analyses have been performed in an effort to evaluate the risk posed from airport operations. In 1999 and 2000, public-initiated studies and analyses of toxic emissions from the O'Hare International Airport (Chicago) and associated health risks in surrounding residential communities were released. The overall findings of these analyses were that the cancer risks associated with operations at the airport exceed 10 in one million over an area of approximately 40 square miles and 1 in one million over an area of approximately 1,000 square miles, assuming 70 years of exposure (Environ 2000). These studies also identified the need for better assessment of the data used and recommended that comprehensive air monitoring be conducted around O'Hare International Airport to conduct a more complete and comprehensive analysis.

In response, the Illinois EPA monitored TACs in the vicinity of O'Hare International Airport and in other locations in the Chicago area from June to December 2000, focusing on toxic compounds identified in the EPA's

national strategy and on mobile-source emissions associated with airport operations (Illinois EPA 2002). The compounds of interest included volatile and semivolatile organics, carbonyls, and trace metals. The purpose of this program was to collect information that would be used to assess the relative impact of airport-generated emissions and toxic characteristics of large urban areas. One important objective of the monitoring program was to determine whether the emissions associated with O'Hare International Airport have a measurable impact on air quality in areas adjacent to the airport. A review and analysis of the accumulated monitoring results found that the levels of toxic compounds (e.g., acetaldehyde and formaldehyde) attributable to airport operations were detected at monitoring sites. However, the concentrations of such compounds were indistinguishable from (or lower than) typical urban background levels.

Overall, from the studies and analyses conducted to date, including those discussed above, uncertainties in data and methods have provided an inadequate foundation to perform airport-related heath studies. More recently, in an effort to improve available data, a multiagency aircraft particle emissions experiment (APEX) was established with participants from EPA, National Aeronautics and Space Administration (NASA), Federal Aviation Administration (FAA), the aviation industry (GE and Boeing), and the research community (Massachusetts Institute of Technology [MIT]). The main focus of APEX is to test aircraft engines for TACs. Data from this study are being analyzed with updated emission factors to follow. This study, along with further monitoring around airports and validation of modeling results, will allow the compilation of more accurate emissions data into EPA models and identification of the proper characterization methods.

Based on the above discussion, it can be ascertained that the proposed project, because of its proximity to the Sacramento International Airport, has the potential to expose sensitive receptors to toxic air emissions to an extent that health risks could result. However, this issue is not well understood and is the subject of ongoing research, and any conclusions regarding health risks associated with the airport would be speculative. Therefore, a conclusion on significance of the environmental impact cannot be reasonably reached. Section 15145 of the State CEQA Guidelines provides that, if after a thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impacts. That is the case here. **No impact conclusion** can be made based on research of this issue.

Off-Site Mobile-Source Emissions

Cancer Risk

The proposed project involves development of lands on both sides of SR 99/70 and includes a mix of land uses, including residential, senior housing, and schools. As explained in the regulatory setting above, ARB published a guidance document entitled *Air Quality and Land Use Handbook: A Community Health Perspective* that includes the recommendation to avoid siting new sensitive land uses (e.g., residences, schools) within 500 feet of freeways. In addition, SB 352 (Education Code Section 17213, Public Resources Code Section 21151.8) expands on previous requirements for the review of TAC sources near school sites. Accordingly, SB 352 requires that any school site located within 500 feet of the edge of the closest travel lane of a freeway or other busy traffic corridor be reviewed for potential health risks. All the school locations identified for the proposed project would be located further than 500 feet from SR 99/70 and therefore would be consistent with the above recommendations. Consequently, the impact associated with off-site mobile source TAC emissions at a school site is **less than significant**.

Under the proposed project, residences located in the area proposed for medium-density residential use would be as close as 400 feet east of the segment of SR 99/70 between Sankey Road and Riego Road. Also, residences in the mixed-use areas could be as close as 100 feet to the same highway segment (on both the east and west sides, respectively). Medium-density residential land uses would also be located within 400 feet of SR 99/70. At these distances, the location of the nearest proposed residencies would not be in concurrence with ARB recommendations. It should be noted, however, that the ARB guidance document is not regulatory. Although FRAQMD has not established any guidelines or thresholds for the assessment of such impacts or any applicable

thresholds, it has authorized use of SMAQMD's *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways* (SMAQMD 2007) to determine cancer risk levels and whether these levels necessitate the preparation of an HRA (as stated in HDR 2008). Thus, the SMAQMD protocol was applied using the average daily traffic volume for this highway segment from the traffic analysis. SMAQMD's protocol accounts for the orientation of the highway (i.e., north-south or east-west), the orientation of the receptors relative to the highway and the predominant wind direction, and the peak-hour traffic volume. According to the traffic analysis prepared for this report, the average daily traffic volume of the segment of SR 99/70 between Riego and Sankey Roads would be 29,600 vehicles per day (Fehr & Peers 2008). Assuming a standard K-factor (the proportion of the average daily traffic expected to occur during the peak traffic hour) of 12%, the peak-hour traffic volume would be approximately 3,552 vehicles per hour. According to the SMAQMD's screening table for north-south roadways, receptors located less than 400 feet east of the highway would have an incremental cancer risk of 48 in one million, receptors located less than 100 feet east of the highway would have an incremental cancer risk of 124 in one million, and receptors located less than 100 feet west of the highway would have an incremental cancer risk of 64 in one million. Using the projected traffic levels under full buildout of the proposed project, the risk levels at these three locations would increase to 92, 248, and 130 in one million, respectively. However, actual risk levels would likely be lower because TAC emission rates and the associated health risk of the future vehicle fleet are expected to be lower. According to the SMAQMD screening protocol, none of these projected risk levels would necessitate the preparation for a site-specific HRA (SMAQMD 2007).

Nonetheless, neither ARB nor the SMAQMD regards its respective guidance as a definitive approach to identifying a safe risk level or a regulatory threshold (ARB 2005, SMAQMD 2007). The 2000 total SVAB-wide average risk of 520 chances in one million (from all sources), as determined by ARB, accounts for emissions of 10 select TACs that pose the greatest risk in California based primarily on *ambient* air quality data from all sources (e.g., stationary, area, on-road mobile, other mobile, and natural). According to ARB's emissions inventory for 2000, approximately 23% of the total SVAB acetaldehyde emissions for that year, 43% of benzene, 39% of 1,3-butadiene, 31% of formaldehyde, and 28% of diesel PM were associated with on-road mobile sources (ARB 2008d). Based on these percentages and the individual health risks as determined by ARB in 2000 for each TAC, approximately 27.5% (143 chances in one million) of the total SVAB estimated risk of 520 chances in one million was associated with on-road mobile sources, 70% of the risk being attributable to diesel PM alone. According to ARB, implementation of the risk reduction plan to reduce diesel PM is estimated to drop 2010 and 2020 concentrations and associated health risk by 75% and 85%, respectively, from the estimated 2000 level (ARB 2008d).

Based on the above discussion, it can be ascertained that implementing the proposed project, because of its proximity to existing freeways, has the potential to expose sensitive receptors to TACs to an extent that health risks could result. On this basis, off-site mobile source TAC emissions at the nearby residences is a **direct, potentially significant** impact. It should be noted that this potential risk is related to existing sources of emissions (i.e., SR 99/70), not to emissions from the proposed project. The TAC risk management programs implemented by ARB and the FRAQMD have been extremely effective at reducing risks from TACs in the SVAB. It is also noted, however, that the background health risk is expected to continue to be dominated by the health risks associated with emissions from motor vehicles on nearby roadways.

Noncancer Health Risk

Vehicle emissions contain a number of substances that can be harmful, including TACs such as diesel PM, benzene, and 1,3-butadiene. A growing body of scientific evidence shows that living or going to school near roadways with heavy traffic volumes is associated with a number of adverse effects, including increased respiratory symptoms, increased risk of heart and lung disease, and elevated mortality rates (South Coast Air Quality Management District 2005, ARB 2005). Generally, children are more vulnerable to air pollutants because of higher inhalation rates, narrower airways, and less mature immune systems. Therefore, particular attention is applied to the effects of pollutants on children.

Although most of the initial studies were conducted in Europe, a number of research projects conducted in California and elsewhere in the United States are finding similar results. For example, as of 2005, the Children's Health Study, a 10-year study conducted by the University of Southern California, found strong evidence that exposure to pollutants related to vehicle emissions is linked to a slowing of lung function growth. The researchers concluded that the resulting deficits in lung function are likely permanent and may increase the risk for respiratory and other diseases later in life. The study also found that the children in the study who lived the nearest to roadways with heavy traffic, such as freeways, showed increased risk for having asthma (South Coast Air Quality Management District 2005).

A study of schoolchildren living in Alameda County found that traffic-related pollution is associated with respiratory symptoms. The researchers measured several traffic pollutants, including black carbon and nitrogen oxides. The pollutant concentrations at schools located within 300 meters (980 feet) downwind of a freeway were higher compared to schools upwind or farther from major traffic sources. Associations were observed between asthma and bronchitis symptoms and pollutant levels (South Coast Air Quality Management District 2005).

The studies described by the South Coast Air Quality Management District (SCAQMD) in the above paragraphs, along with other similar studies, were considered by ARB in the preparation of the handbook. The following key health findings are identified in the discussion of traffic emissions and health effects in the ARB handbook:

- Reduced lung function in children was associated with traffic density, especially density of trucks, within 1,000 feet, and the association was strongest within 300 feet (Brunekreef et al. 1997, cited in ARB 2005).
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume (Lin et al. 2002, cited in ARB 2005).
- Asthma symptoms increased with proximity to roadways, and the risk was greatest within 300 feet (Venn et al. 2001, cited in ARB 2005).
- Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality (Kim et al. 2004, cited in ARB 2005).
- A San Diego study found increased medical visits in children living within 550 feet of heavy traffic (English et al. 1999, cited in ARB 2005).

In these studies and other proximity studies, the distance from the roadway and truck traffic densities were key factors affecting the strength of the association with adverse health effect. The association of traffic-related emissions with adverse health effects was seen within 1,000 feet and was strongest within 300 feet.

A study published in 2006 examined the relationship of residences near a freeway and susceptibility to childhood asthma (McConnell et al. 2006). This study found that residence within 75 meters (245 feet) of a major road was associated with an increased risk of lifetime asthma, prevalent asthma, and wheeze. The higher risk of asthma near a major road decreased to background rates at 150–200 meters (490–655 feet) from the road. In children with a parental history of asthma and in children moving to the residence after 2 years of age, there was no increased risk associated with exposure. A similar pattern of effects was observed with traffic-modeled exposure. These results indicate that residence near a major road is associated with asthma.

One of the most recent studies was published in February 2007 (Gauderman et al. 2007). The study examined the pulmonary function of more than 3,500 children over a period of 8 years. The 12 California communities in which the study was conducted include San Dimas and Upland, which are east and west of Claremont, respectively. Health effects related to distance from freeways were divided into three groups: less than 500 meters (1,640 feet) from the freeway, 500–1,500 meters (1,640–4,920 feet) from the freeway, and greater than 1,500 meters (4,920 feet) from the freeway. The results of the study show that the residential proximity to freeway traffic is associated with substantial deficits in lung-function development in children. The effects were greater for those

children who lived within 500 meters (1,640 feet) of a freeway than for those who lived at least 1,500 meters (4,920 feet) from a freeway. Because lung development is nearly complete by age 18, an individual with a deficit at this time will probably continue to have less than healthy lung function for the remainder of his or her life. The study did not find any evidence that traffic effects varied depending on background air quality, which suggests that even in an area with low regional pollution, children living near a major roadway are at increased risk of health effects. The results also suggest that children who live close to a freeway in a high-pollution area experience a combination of adverse developmental effects because of both local and regional pollution (Gauderman et al. 2007).

A multiyear study in the Sacramento area, described in a 2006 report, analyzed atmospheric particulate matter at a school site downwind of a busy secondary road (Cahill 2006). The study was not a health effects study. The results of the study indicate that exhaust from automobiles may be a greater source of TACs than diesel PM. The study also emphasizes that the most important mitigation for exposure near roadways is the distance from the road to the receptor.

Impact Summary: Off-Site Mobile Sources

In short, based on what is known at the time of writing this EIR, sensitive receptors, the most sensitive of which are children, located near highways are exposed to higher risk levels than receptors located at more distant locations, and this is expected to continue to be the case as long as background risk levels are dominated by the health risks associated with emissions from motor vehicles on nearby roadways. For this reason, and because no level of incremental cancer risk is considered safe and because precise risk levels have not been estimated by a project-specific HRA that can be considered in the planning process, this **direct** impact is **significant**. **No indirect** impact would occur.

Emissions from On-Site Operational Mobile Sources

On-site mobile sources of TACs would be primarily associated with the operation of school buses transporting students to and from the proposed elementary school, as well as diesel-powered delivery trucks associated with proposed on-site commercial and industrial activities.

Emissions from school buses can vary, depending on various factors, including bus type, age, maintenance, and amount of time spent idling. Health impacts from exhaust exposure include eye and respiratory irritation, enhanced respiratory allergic reactions, asthma exacerbation, increased cancer risk, and immune system degradation. Generally, children are more vulnerable to air pollutants because of higher inhalation rates, narrower airways, and less mature immune systems.

In response to the above issue, the ARB adopted an ATCM as part of the Particulate Matter Risk Reduction Plan to specifically deal with diesel emissions from school buses. This ATCM became effective July 16, 2003. The school bus idling ATCM includes the following requirements:

(a) The driver of a school bus or vehicle, transit bus, or heavy-duty vehicle (other than a bus) shall manually turn off the bus or vehicle upon arriving at a school and restart no more than 30 seconds before departing. A driver of a school bus or vehicle shall be subject to the same requirement when operating within 100 feet of a school and shall be prohibited from idling more than 5 minutes at each stop beyond schools, such as parking or maintenance facilities, school bus stops, or school activity destinations. A driver of a transit bus or heavy-duty vehicle (other than a bus) shall be prohibited from idling more than 5 minutes at each stop within 100 feet of a school. Idling necessary for health, safety, or operational concerns shall be exempt from these restrictions.

(b) The motor carrier of the affected bus or vehicle shall ensure that drivers are informed of the idling requirements, track complaints and enforcement actions, and keep track of driver education and tracking activities.

According to ARB, implementation of the above requirements would eliminate unnecessary idling for school buses and other heavy-duty vehicles, protecting children from unhealthful exhaust emissions and thus reducing localized exposure to TACs and other harmful air pollution emissions at and near schools.

In addition to the school bus idling ATCM, ARB also adopted an idling restriction ATCM for large commercial diesel-powered vehicles, which became effective February 1, 2005. In accordance with this measure, affected vehicles are required to limit idling to no longer than 5 minutes under most circumstances. ARB is also evaluating additional ATCMs intended to further reduce TACs associated with commercial operations, including a similar requirement to limit idling of smaller diesel-powered commercial vehicles. Nonetheless, given that proposed on-site commercial and industrial land uses have not yet been identified and could potentially involve substantial volumes of truck activity (e.g., warehouses, distribution centers) and given the potential proximity of nearby sensitive receptors, exposure of nearby on-site receptors to mobile-source TACs associated with commercial and industrial activities is **direct** and **potentially significant**. **No indirect** impact would occur.

Off-Site Elements

Operation of some of the off-site improvements may include the installation of backup diesel generators or fuel storage tanks, particularly the pumping stations that would be part of the sewer force main, water line, and/or the expanded RD 1000 canal. As is the case with on-site stationary sources of TAC emissions, these facilities would be subject to the rules of the applicable air quality management district or air pollution control district. The applicable district would analyze such sources based on their potential to emit TACs. If it were determined that the sources would emit TACs in excess of applicable standards, T-BACT would be implemented to reduce emissions. If the implementation of T-BACT would not reduce the risk below the applicable threshold, the respective air district would deny the required permit. As a result, given compliance with applicable rules and regulations, operation of any stationary sources would not result in the exposure of sensitive receptors to TACs at levels exceeding standards established by the applicable air quality management district or air pollution control district. Furthermore, it is not anticipated that these facilities would be located close to any existing or future projected sensitive receptors. Therefore, this **direct** impact is **less than significant**. **No indirect** impact would occur.

Mitigation Measure 3.4-4a: Develop a Plan to Reduce Emissions Generated by Construction Activity and Implement Measures to Control Exposure of Sensitive Receptors to Toxic Air Emissions.

On-Site Elements

The project applicant(s) of all project phases shall develop a plan to reduce the exposure of sensitive receptors to TACs from project construction. The plan shall be submitted to the County for review and approval before the approval of any grading plans.

The plan may include such measures as scheduling construction activities when the residences are the least likely to be occupied, requiring equipment to be shut off when not in use, and prohibiting heavy trucks from idling. Applicable measures shall be included in all project plans and specifications for all project phases.

Implementation: The project applicant(s) of all project phases.

Timing: Each plan shall be approved by the County before the related construction work begins.

Enforcement: Sutter County Community Services Department, with input from the Feather River Air Quality Management District.

Mitigation Measure 3.4-4b: Perform a Site-Specific Health Risk Assessment for All Sensitive Receptors That Would Be Located within the Setback Distances Recommended by ARB.

On-Site Elements

The project applicant(s) of all project phases shall fund and implement the following measures:

- A site-specific HRA shall be conducted for all proposed sensitive receptors (e.g., residences, schools, overnight medical facilities) that would be located within the respective setback distances recommended in ARB's Air Quality and Land Use Handbook (ARB 2005) or any updated direction from ARB, as becomes available, that provides guidance on land use compatibility with sources of TACs. Each HRA shall be performed according to the standards set forth by the FRAQMD for the purpose of disclosure to the public and decision makers of Sutter County.

- If the incremental risk of cancer in the HRA exceeds 10 in 1,000,000, design mitigation shall be employed. The mitigation shall include tiered tree planting of fine-needle species, such as redwood, along the near side of the segments of SR 99/70 that are within 500 feet of proposed residential receptors and along the freeway 500 feet north and south of the initial planting to enhance the dispersion and filtration of mobile-source TACs associated with the adjacent freeway. These trees shall be planted at a density such that a solid visual buffer is achieved after the trees reach maturity, which breaks the line of sight between the freeway and the proposed homes. These trees shall be planted before occupation of any sensitive land uses located within 500 feet of SR 99/70. This measure encourages the planting of these trees in advance of the construction of these facilities to allow the trees to become established and progress toward maturity. It is consistent with the recommendation of the Master AQMP prepared for the proposed project (HDR 2008).

- To improve the indoor air quality, the following measures shall be implemented by the project applicant(s) of all project phases for the proposed project before the occupancy of the residences:

    - Equip all residences developed on the project site that are within 500 feet of SR 99/70 with High Efficiency Particle Arresting (HEPA) filter systems at all mechanical air intake points to the dwelling.

    - Use the heating, ventilation, and air conditioning (HVAC) systems to maintain all residential units under positive pressure at all times.

    - Locate air intake systems for HVAC as far away from roadway air pollution sources as possible.

    - Develop and implement an ongoing education and maintenance plan for filtration systems associated with HVAC.

Implementation: The project applicant(s) of all project phases.

Timing: The site-specific HRA shall be conducted before approval of final maps and building permits for all project phases. The tree planting and indoor air quality measures shall be implemented before occupation of the affected residences.

Enforcement: Sutter County Community Services Department, with input from the Feather River Air Quality Management District.

Mitigation Measure 3.4-4c: Develop and Implement Planning and Design Measures to Reduce the Potential for TAC Exposure from On-Site Mobile Sources.

On-Site Elements

The following mitigation measures shall be implemented to reduce the potential for TAC exposure and related health risk from on-site mobile sources, including diesel trucks:

- Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop and implement a plan to reduce emissions that may include such measures as scheduling such activities when the residential uses are the least occupied, requiring such equipment to be shut off when not in use, and prohibiting heavy-duty trucks from idling. Measures may also include using alternatively fueled vehicles to handle on-site operations (e.g., electric forklifts, yard trucks). The plan shall be submitted to and approved by the County before loading dock activities or other operations begin. For those facilities that include loading docks for trucks, copies of the plan shall be provided to all residential dwellings and schools located within 1,000 feet of loading dock areas.

- Proposed commercial/convenience land uses (e.g., loading docks) that have the potential to emit TACs shall be located as far away as feasibly possible from existing and proposed sensitive receptors.

Implementation: The project applicant(s) of all project phases.

Timing: Before approval of final maps and building permits for all project phases.

Enforcement: Sutter County Community Services Department.

Off-Site Elements

No mitigation measures are required.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-4a would reduce health-related risks associated with construction activity performed under the proposed project to a **less-than-significant** level because the exposure of sensitive receptors to construction-generated TAC emissions would be reduced to levels below the threshold for adverse human health effects with development and implementation of required site-specific reduction plans.

Implementation of Mitigation Measure 3.4-4b would require that an HRA be performed, which would provide Sutter County and the public with accurate information about the TAC exposure of proposed sensitive land uses. Implementation of the air filtration systems would reduce concentrations experienced in indoor areas of the proposed receptors. Implementation of tiered tree planting at strategic locations would reduce concentrations experienced at outdoor activity areas of the proposed receptors, and indoor air quality would also benefit because the indoor air is supplied by this outdoor air. These improvements to both indoor and outdoor air quality would also result in reduced health-related risks associated with off-site on-road mobile-source TACs. However, because of the lack of documented, quantifiable emissions reductions associated with the mitigation measures described above, the impact would not necessarily be reduced to a less-than-significant level because TAC exposure levels in areas close to SR 99/70 may continue to be substantially higher than background levels for the region. The impact of exposure to mobile-source hazardous pollutant emissions from nearby freeways is, therefore, **significant and unavoidable**. This conclusion may change as more detailed information becomes available regarding the health risk exposure levels posted by highways relative to background risk levels.

Implementation of Mitigation Measure 3.4-4c would reduce health-related risks associated with on-site mobile-source TACs, but not necessarily to a less-than-significant level because of the uncertainty associated with on-site

commercial land use activities and the proximity of sensitive receptors to such uses, particularly in the mixed-use areas. The impact of exposure to mobile-source TAC emissions from on-site mobile sources is, therefore, **significant and unavoidable**. This conclusion may change in the future, however, as more detailed information regarding proposed on-site commercial uses becomes available.

IMPACT 3.4-5 Possible Exposure of Sensitive Receptors to Odorous Emissions. *Temporary, short-term construction and long-term operation of the proposed project could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions.*

On-Site Elements

Temporary, Short-Term Construction-Related Odor Emissions

The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines, as well as emissions associated with asphalt paving and the application of architectural coatings, may be considered offensive to some individuals. These types of odor exposure may occur after some of the proposed land uses are inhabited or in operation while other land uses are still under construction. However, because odors would be temporary and would disperse rapidly with distance from the source, construction-generated odors would not result in the frequent exposure of on-site receptors to objectionable odor emissions. As a result, this **direct** impact is **less than significant**. **No indirect** impact would occur.

Long-Term Operation-Related Odor Emissions

Operation-related activities at the proposed industrial and commercial uses could result in project-generated emissions of odors. Specific uses are not yet known, and detailed site and grading plans have not yet been developed; however, these types of uses could entail chemical/fiberglass manufacturing, painting/coating operations (e.g., auto body shops), and fast-food restaurants close to proposed sensitive receptors. Thus, project-generated, on-site operation-related sources could directly expose existing and proposed receptors to emissions of objectionable odors. As a result, this **direct** impact is **significant**. **No indirect** impact would occur.

Off-Site Elements

Temporary, Short-Term Construction-Related Odor Emissions

Diesel-powered equipment used in the construction of the off-site improvements would also emit exhaust odors. However, because of the linear nature of these off-site improvements, this construction activity would not be located in any single location for an extended period. Also, these odors would be temporary and would disperse rapidly with distance from the source. Therefore, construction-generated odors would not result in the frequent exposure of receptors to objectionable odor emissions. As a result, this **direct** impact is **less than significant**. **No indirect** impact would occur.

Long-Term Operation-Related Odor Emissions

Use of the Barosso and the Lutz properties or other properties in the region as flood drainage basins to capture overflow from the Sankey Gap may result in sulfuric-type odors during times of stagnant water and anaerobic activity during periods when water on the site is drying up. However, the potential for this type of odor already exists in the project area because of flood irrigation practices associated with rice farming and seasonal flooding and drying up of wetlands. It is not expected that implementing the proposed project would increase odor strength or the frequency of odors beyond existing conditions.

Other potential odor sources associated with the operation of off-site improvements would be the emergency backup generators at the pumping stations. Although the diesel exhaust emitted by these generators can be

perceived as odiferous and offensive, regular operation of these generators would occur only during testing periods (e.g., a few hours each month). Because these odors would be short lived and generated infrequently, their **direct** impact is **less than significant**. **No indirect** impact would occur.

Mitigation Measure 3.4-5: Develop and Implement Planning and Design Measures to Reduce the Potential for Adverse Odor Exposure.

On-Site Elements

The project applicant(s) of all project phases shall implement the following measures:

- Proposed industrial/commercial/convenience land uses (e.g., fast-food restaurants, painting operations) that have the potential to emit objectionable odors shall be located as far away as feasibly possible from existing and proposed sensitive receptors and oriented where possible to place buildings or other obstructions between the odor source and downwind receptors.

- Truck delivery areas or other areas where trucks would regularly congregate shall be located as far away as feasibly possible from existing and proposed sensitive receptors.

- The odor-producing potential of land uses shall be considered when the exact type of facility that would occupy commercial/convenience areas is determined.

- If an odor-emitting facility is to occupy space in the industrial/commercial/convenience area, the odor-producing potential of the source and potential control devices shall be determined in coordination with the FRAQMD and shall be based on the number of complaints associated with existing sources of the same nature. Odor-control devices (e.g., wet chemical scrubbers, activated carbon scrubbers, biologically active filters, enclosures) shall be identified in the improvement plans before the approval of building permits by Sutter County. The odor-control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use.

Implementation: The project applicant(s) of all project phases.

Timing: Before approval of final maps and building permits for all project phases.

Enforcement: Sutter County Community Services Department.

Off-Site Elements

No mitigation measures are required.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-5 would reduce the possible exposure of sensitive receptors to odorous emissions to a **less-than-significant** level because odor-generating commercial/industrial development, including truck loading and unloading areas, would be located as far as practicable from sensitive receptors, and such facilities would have odor-control devices installed.

Additional Detailed Analysis of On-Site Elements – Impacts and Mitigation Measures

IMPACT 3.4-6 **Generation of Temporary, Short-Term Construction-Related Emissions of Criteria Air Pollutants and Precursors.** *Project-generated, construction-related Phase 1 and Phase A emissions of ROG and NO_X would exceed the FRAQMD's significance threshold of 25 lb/day, and emissions of PM_{10} would exceed the FRAQMD's significance threshold of 80 lb/day. Thus, project-generated, construction-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts.*

Emissions of PM_{10} and precursors (i.e., ROG and NO_X) would result from construction-related activities associated with development of Phase 1 and Phase A, including site preparation (e.g., clearing, grading, and excavation); off-road equipment operation, material transport, and commuting by workers; paving; application of architectural coatings; and other miscellaneous activities. Exact project-specific data (e.g., construction equipment types and quantities, maximum daily acreage disturbed, schedule) were not available at the time of this analysis. To best characterize the construction-related emission levels that would likely be generated during development of Phase 1 and Phase A, maximum daily emissions associated with a peak construction year under Phase 1 and Phase A were modeled using the ARB-approved URBEMIS 2007 Version 9.2.4 computer program (Rimpo and Associates 2008). This approach was used because the Sutter Pointe Specific Plan allows for flexibility in the exact type of land uses developed and the timing of their construction throughout the buildout of the development phases. URBEMIS is designed to model construction emissions for land use development projects based on building size and type and allows for the input of project-specific information. Thus, project-generated emissions of criteria air pollutants (e.g., PM_{10}) and precursors (i.e., ROG and NO_X) were modeled based on general information provided in the project description and default FRAQMD-recommended settings and parameters attributable to the proposed land use types and site location. A representative worst-case year was modeled based on the following assumptions, which were suggested by counsel representing the project applicant (Carpenter, per. comm., 2008):

- The earliest year when Phase 1 and Phase A could become fully operational is 2020.
- Construction of Phase 1 and Phase A would happen over an approximately 7-year period, and the first full year in which construction activity may take place is 2011, although some construction of underground infrastructure may begin in the end of 2010.
- The rate of construction would not necessarily be consistent during this 7-year period. For the sake of this analysis, it is assumed that up to 25% construction of Phase 1 and Phase A could occur in a single year (with 2011 being the earliest full year).
- Up to 75 acres would be graded on any single day.
- No demolition would occur.
- Some fill may be imported when the Lutz property is lowered for the Sankey Spill. The excavation and hauling associated with the importation of this fill is discussed in the analysis of emissions associated with the construction of off-site elements.

Table 3.4-4 summarizes the modeled project-generated, construction-related emissions of criteria air pollutants and precursors from initial site preparation and building construction activities for Phase 1 and Phase A of the proposed project. Construction-related air quality effects were determined by comparing these modeling results with applicable FRAQMD significance thresholds. Refer to Appendix F of this DEIR for detailed modeling input parameters and results.

Table 3.4-4
Summary of Modeled Maximum Daily Construction-Related Emissions of Criteria Air Pollutants and Precursors for Phase 1 and Phase A

Source	Emissions (lb/day) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$ [2]
Site Grading				
Fugitive dust	0.0	0.0	1,500.0	313.3
Off-road diesel exhaust	10.5	89.7	4.3	3.9
On-road diesel exhaust	0.0	0.0	0.0	0.0
Worker trips	0.1	0.2	0.0	0.0
Subtotal	10.6	89.9	1,504.3	317.2
Asphalt Paving				
Off-gas emissions	1.3	0.0	0.0	0.0
Off-road diesel exhaust	0.8	4.6	0.4	0.4
On-road diesel exhaust	0.2	3.8	0.2	0.1
Worker trips	0.0	0.0	0.0	0.0
Subtotal	2.3	8.4	0.6	0.5
Building Construction				
Off-road diesel exhaust	0.9	5.5	0.4	0.4
Vendor trips	7.9	100.8	4.4	3.5
Worker trips	24.7	39.3	3.8	2.0
Subtotal	33.5	145.6	8.6	5.9
Architectural Coatings				
Off-gas emissions	481.2	0.0	0.0	0.0
Worker trips	0.3	0.5	0.0	0.0
Subtotal	481.5	0.5	0.0	0.0
Total, unmitigated[3]	2,080.3	707.0	1,540.8	342.8
Total, mitigated[4]	527.4	224.2	386.1	—[5]
FRAQMD significance threshold	25	25	80	—[6]

Notes: ROG = reactive organic gases.
NO_X = oxides of nitrogen.
PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less.
$PM_{2.5}$ = respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less.
FRAQMD = Feather River Air Quality Management District.
lb/day = pounds per day.

[1] Because the specific plan allows for flexibility in the exact type of land use development that would take place, assumptions about specific land use types that would be developed under Phase 1 and Phase A were used in the URBEMIS modeling. The detailed breakdown of land use types and other input parameters are included in Appendix F, along with other input parameters and modeling results.

[2] Emissions of $PM_{2.5}$ are shown for informational purposes only. $PM_{2.5}$ is a subset of PM_{10}.

[3] The total assumes that among different individual construction sites in Phase 1 and Phase A, all four construction phases could occur simultaneously.

[4] The mitigated total reflects a 75% reduction in fugitive PM_{10} dust emissions, a 45% reduction in PM_{10} exhaust emissions from off-road diesel equipment, and a 20% reduction in NO_X emissions from off-road diesel equipment. Reduction levels that would result from other measures listed under Mitigation Measure 3.4-1 cannot be quantified.

[5] A mitigated total is not reported for $PM_{2.5}$ because the reduction that would result from the measures of Mitigation Measure 3.4-1 cannot be quantified.

[6] FRAQMD has not identified mass emissions thresholds for construction-related emissions of PM_{10} or $PM_{2.5}$.

Source: Modeling performed by EDAW in 2008

As shown in Table 3.4-4, total maximum daily construction emissions of ROG, NO_X, and PM_{10} would exceed the FRAQMD's significance thresholds. Moreover, emissions associated with building construction would alone exceed the ROG and NO_X thresholds, whereas emissions associated with architectural coatings would alone exceed the ROG threshold, and emissions associated with asphalt paving would exceed the NO_X threshold. Therefore, project-generated, construction-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, which is an **indirect significant** impact. Also, construction emissions of criteria air pollutants and precursors could expose sensitive receptors to substantial pollutant concentrations, particularly when construction occurs near residential land uses that are already inhabited on the project site, which is a **direct significant** impact. In addition, because the FRAQMD's significance thresholds approximately correlate with reductions from heavy-duty vehicles and land use project emission reduction requirements in the SIP, construction-generated emissions could also conflict with air quality planning efforts (also an **indirect significant** impact). Therefore, temporary, short-term construction-related emissions of criteria air pollutants and precursors would result in both **direct** and **indirect significant** impacts.

Mitigation Measures

Implement Mitigation Measure 3.4-1.

Implementation: The project applicant(s) of Phase 1 and Phase A.

Timing: Before approval of final maps and building permits for Phase 1 and Phase A or before approval of construction plans for utilities within Phase 1 and Phase A.

Enforcement: Feather River Air Quality Management District, Sacramento Metropolitan Air Quality Management District, Placer County Air Pollution Control District.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-1 would require construction contractors (by way of the applicants) to implement those construction mitigation measures required by the FRAQMD during construction. For all construction activity on the project site, project applicant(s) for all project phases shall require contractors to implement both the FRAQMD's Standard Mitigation Measures and Best Available Mitigation Measures for Construction Activity to reduce emissions to the maximum extent feasible. No project-related construction activity shall begin until contractors develop an emissions reduction plan that is reviewed and approved in writing by the FRAQMD. The current list of FRAQMD-required measures is presented in the discussion of Mitigation Measure 3.4-1.

Implementation of the FRAQMD-required measures would result in a minimum 20% reduction in NO_X emissions and a 45% reduction in PM_{10} exhaust emissions from heavy-duty diesel equipment, compared with statewide average emissions. In addition, implementation of these measures would result in a 5% reduction in ROG emissions from heavy-duty diesel equipment exhaust, and the dust control measures would reduce fugitive PM_{10} dust emissions by approximately 75%. Implementation of these measures would reduce temporary, short-term, construction-related emissions of ROG, NO_X, and PM_{10} generated by construction during development of Phase 1 and Phase A, but not to a less-than-significant level because emissions would still potentially exceed the significance thresholds of the FRAQMD. As a result, this impact is **significant and unavoidable**.

IMPACT 3.4-7 **Generation of Long-Term Operation-Related (Regional) Emissions of Criteria Air Pollutants and Precursors.** *Operation-related activities associated with the land uses developed in Phase 1 and Phase A would result in mass emissions of ROG, NO_X, and PM_{10} that exceed the FRAQMD's significance thresholds of 25 lb/day, 25 lb/day, and 80 lb/day, respectively. Thus, project-generated, operation-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation and/or expose sensitive receptors to substantial pollutant concentrations, especially considering the nonattainment status of Sutter County with respect to ozone and PM_{10}. In addition, because the FRAQMD's significance thresholds approximately correlate with reductions from heavy-duty vehicles and land use project emission reduction requirements in the SIP, project-generated emissions could also conflict with air quality planning efforts.*

Regional area- and mobile-source emissions of ROG, NO_X, and PM_{10} associated with implementation of Phase 1 and Phase A were estimated using the URBEMIS 2007 Version 9.2.4 computer program, which is designed to model emissions for land use development projects. URBEMIS allows land use selections that include project location specifics and trip generation rates. URBEMIS accounts for area-source emissions associated with the use of natural gas, wood stoves, fireplaces, landscape maintenance equipment, and consumer products and mobile-source emissions associated with vehicle trips. Regional area- and mobile-source emissions were estimated based on proposed land use types and sizes for Phase 1 and Phase A that are identified in Chapter 2, "Project Description"; the increase in trip generation and VMT from the traffic analysis prepared for the proposed project (Fehr & Peers 2008); and default and the FRAQMD-recommended settings and parameters attributable to the operational period and site location.

Table 3.4-5 summarizes the modeled project-generated, operation-related (regional) emissions of criteria air pollutants and precursors from area and mobile sources for Phase 1 and Phase A. Operation-related air quality effects were determined by comparing these modeling results with applicable FRAQMD significance thresholds. Refer to Appendix F of this DEIR for detailed modeling input parameters and results.

Based on the modeling conducted, development of the land uses proposed under Phase 1 and Phase A would result in operational emissions of ROG and NO_X that exceed the FRAQMD's significance threshold of 25 lb/day (for each ozone precursor) and emissions of PM_{10} that exceed the FRAQMD's significance threshold of 80 lb/day (Table 3.4-5). Thus, project-generated, operation-related emissions of criteria air pollutants and precursors during Phase 1 and Phase A could violate or contribute substantially to an existing or projected air quality violation, which is an **indirect significant** impact, especially considering the nonattainment status of Sutter County. Also, the operational emissions of criteria air pollutants and precursors could expose sensitive receptors to substantial pollutant concentrations, which is a **direct significant** impact. In addition, because the FRAQMD's significance thresholds approximately correlate with reductions from heavy-duty vehicles and land use project emission reduction requirements in the SIP, project-generated emissions could also conflict with air quality planning efforts (also an **indirect significant** impact). As a result, the generation of long-term operation-related (regional) emissions of criteria air pollutants and precursors would result in both **direct** and **indirect significant** impacts.

Phase 1 and Phase A would likely include stationary sources of pollutants that would be required to obtain permits to operate under FRAQMD Regulation IV, "Stationary Emission Sources Permit System and Registration"; FRAQMD Rule 10.1, "New Source Review"; and FRAQMD Rule 3.21, "Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters." These sources could include, but not be limited to, diesel engine or gas turbine generators for emergency power generation; central heating boilers for commercial, industrial, or large residential buildings; process equipment for light industrial uses; kitchen equipment at restaurants and schools; service station equipment; and dry cleaning equipment. The permit process would require that these sources be equipped with the required emission controls and that, individually, these sources would not cause a significant environmental impact.

Table 3.4-5
Summary of Modeled Project-Generated, Operation-Related (Regional) Emissions of Criteria Air Pollutant and Precursor Emissions of Phase 1 and Phase A

Source	Daily Mass Emissions (lb/day)[1]		
	ROG	NO_X	PM_{10}
Area Sources			
Natural gas	10	138	0
Hearth (winter only)	1,563	182	1,322
Landscaping (summer only)	28	2	1
Consumer products	380	–	–
Architectural coatings	137	–	–
Mobile Sources[2]	786	1,351	2,303
Total, unmitigated	2,876	1,671	3,625
FRAQMD significance threshold	25	25	80

Notes:
NO_X = oxides of nitrogen.
PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less.
ROG = reactive organic gases.
FRAQMD = Feather River Air Quality Management District.
lb/day = pounds per day.
[1] Because the specific plan allows for flexibility in the exact type of land use development that would take place, assumptions about specific land use types were used in the URBEMIS modeling. The detailed breakdown of land use types and other input parameters are included in Appendix F of this DEIR, along with other input parameters and modeling results.
[2] The estimation of mobile-source emissions is based on projected VMT and trip starts provided by the traffic analysis (Fehr & Peers 2008) and does not account for trip reductions that would result from the transit infrastructure that is proposed as part of the project.
Source: Modeling conducted by EDAW in 2008

Mitigation Measure

Implement Mitigation Measure 3.4-2.

Implementation: The project applicant(s) of Phase 1 and Phase A.

Timing: Before approval of final maps and building permits for Phase 1 and Phase A.

Enforcement: Feather River Air Quality Management District and Sutter County Community Services Department.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2 would reduce Phase 1- and Phase A-generated, operation-related (regional) emissions of ROG, NO_X, and PM_{10}, but not to a less-than-significant level because emissions would likely still exceed the FRAQMD's significance thresholds because of the large size of Phase 1 and Phase A. As a result, this impact is **significant and unavoidable**.

IMPACT 3.4-8 Generation of Local Mobile-Source CO Emissions. *Project-generated Phase 1 and Phase A local mobile-source CO emissions would not result in or substantially contribute to concentrations that exceed the 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm.*

Based on the traffic analysis prepared for the proposed project (Section 3.3, "Traffic and Circulation"), there would be no signalized intersections in the project area that would operate at an unacceptable LOS with Phase 1 and Phase A of the proposed project and proposed improvements in place under Existing-Plus-Phase 1/A conditions (Fehr & Peers 2008). The signalized intersection of Elverta Road and SR 99/70 would operate at LOS F under Existing-Plus-Phase 1/A conditions (analysis year 2020). However, implementation of improvements and mitigation strategies proposed in Section 3.3, "Transportation and Circulation," including construction of a grade-separated interchange on SR 99/70 at Elverta Road, would improve the LOS to acceptable levels (i.e., D or better) during the a.m. and p.m. peak hours (Fehr & Peers 2008). All remaining signalized intersections in the project vicinity would operate at acceptable levels of service during peak hours under Existing-Plus-Phase 1/A conditions (Fehr & Peers 2008). Because no significant, unmitigable impacts (i.e., intersections operating at an unacceptable LOS) would occur at the intersections affected by Phase 1 and Phase A, no significant CO concentrations would be anticipated at nearby sensitive receptors. As a result, this **direct** impact is **less than significant**. **No indirect impact** would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.4-9 Exposure of Sensitive Receptors to Temporary, Short- and Long-Term Emissions of Toxic Air Contaminants. *Implementation of Phase 1 and Phase A would result in exposure of receptors to temporary, short- and long-term emissions of TACs from on-site mobile and stationary sources.*

Impacts under Phase 1 and Phase A would be the same as under the program-level analysis. Refer to Impact 3.4-4 for further discussion of this impact.

Implementation of Mitigation Measure 3.4-4a would reduce health-related risks associated with construction activity performed under the proposed project to a **less-than-significant** level because the exposure of sensitive receptors to construction-generated TAC emissions would be reduced to levels below the threshold for adverse human health effects with development and implementation of required site-specific reduction plans.

Implementation of Mitigation Measure 3.4-4b would require that an HRA be performed, which would provide Sutter County and the public with accurate information about the TAC exposure of proposed sensitive land uses. Implementation of the air filtration systems would reduce concentrations experienced in indoor areas of the proposed receptors. Implementation of tiered tree planting at strategic locations would reduce concentrations experienced at outdoor activity areas of the proposed receptors, and indoor air quality would also benefit because indoor air is supplied by this outdoor air. These improvements to both indoor and outdoor air quality would also result in reduced health-related risks associated with off-site on-road mobile-source TACs. However, because of the lack of documented, quantifiable emissions reductions associated with the mitigation measures described previously, the impact would not necessarily be reduced to a less-than-significant level because TAC exposure levels in areas close to SR 99/70 may continue to be substantially higher than background levels for the region. The impact of exposure to mobile-source hazardous pollutant emissions from nearby freeways is, therefore, **significant and unavoidable**. This conclusion may change as more detailed information becomes available regarding the health risk exposure levels posted by highways relative to background risk levels.

Implementation of Mitigation Measure 3.4-4c would reduce health-related risks associated with on-site mobile-source TACs, but not necessarily to a less-than-significant level because of the uncertainty associated with on-site commercial land use activities and the proximity of sensitive receptors to such uses, particularly in the mixed-use areas. The impact of exposure to mobile-source TAC emissions from on-site mobile sources is, therefore,

significant and unavoidable. This conclusion may change in the future, however, as more detailed information regarding proposed on-site commercial uses becomes available.

IMPACT 3.4-10 Possible Exposure of Sensitive Receptors to Odorous Emissions. *Short-term construction and long-term operation of Phase 1 and Phase A could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions.*

Impacts under Phase 1 and Phase A would be the same as under the program-level analysis. Refer to Impact 3.4-5 for further discussion of this impact.

Implementation of Mitigation Measure 3.4-5 would reduce the possible exposure of sensitive receptors to odorous emissions to a **less-than-significant** level because odor-generating commercial/industrial development, including truck load and unloading areas, would be located as far as practicable from sensitive receptors, and such facilities would have odor-control devices installed.

3.4.4 RESIDUAL SIGNIFICANT IMPACTS

Implementation of mitigation measures contained in this section would reduce impacts associated with temporary, short-term construction-related emissions of criteria air pollutants and precursors; long-term operation-related (regional) emissions of criteria air pollutants and precursors; and exposure to TACs, but not to a less-than-significant level, because emissions and exposure levels would still exceed applicable thresholds and therefore residual significant impacts would occur. All other air quality impacts would be less than significant.

3.5 NOISE

This section of the EIR was prepared by Bollard Acoustical Consultants

This section discusses the existing and projected future noise environments in the Sutter Point Specific Plan Area (proposed project), and evaluates potential noise and vibration impacts and mitigation measures because of and upon development within the project site (BAC 2008). The proposed project site is shown in Exhibit 3.5-1. Exhibit 2-3 shows the proposed land use plan. The off-site analysis was prepared by EDAW.

3.5.1 REGULATORY BACKGROUND

BACKGROUND AND TERMINOLOGY

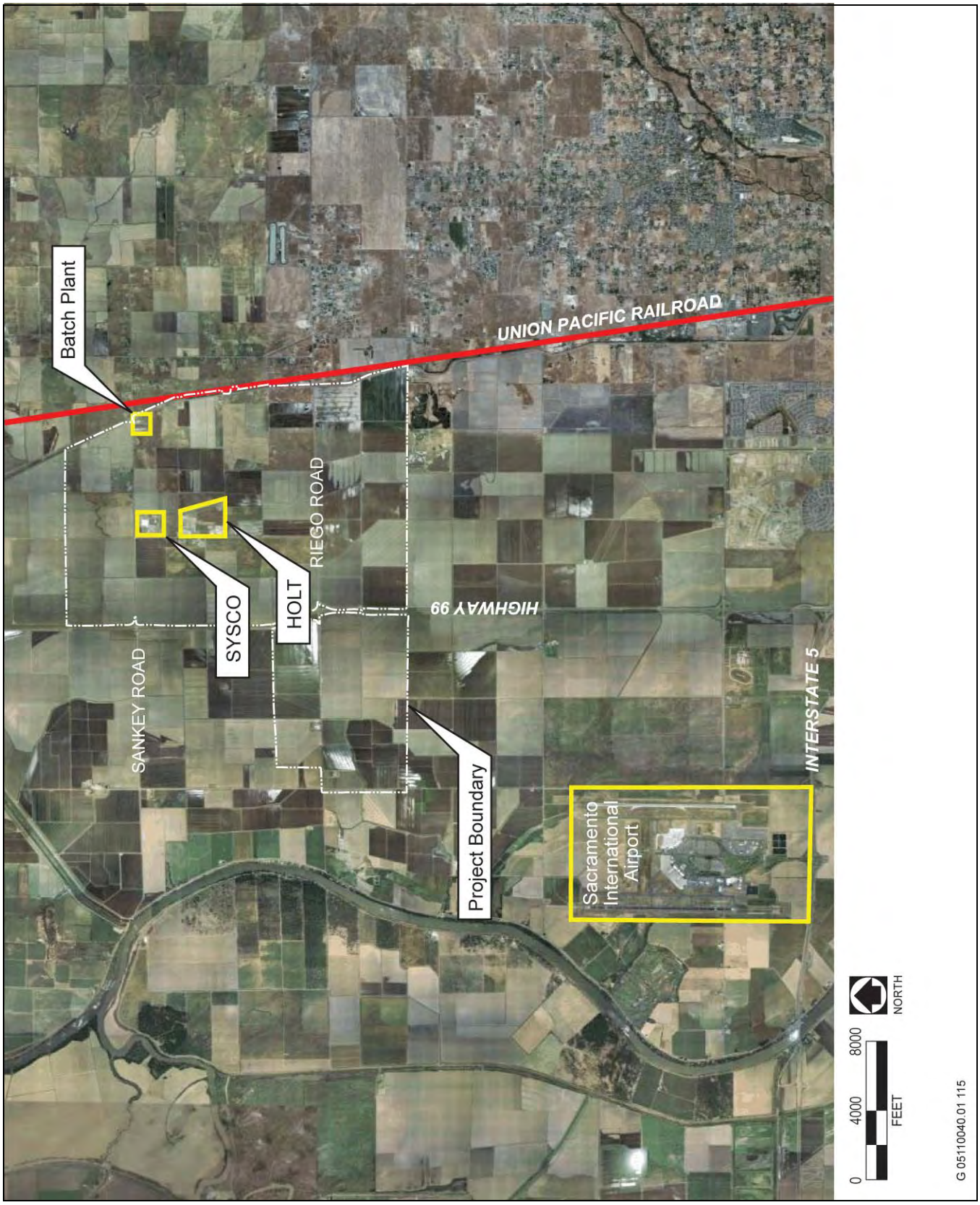
Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E, and are denoted by a corresponding suffix (e.g., dBA, dBC). There is a strong correlation between the way humans perceive sound (e.g., community response) and A-weighted sound levels. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise. Definitions of acoustical terminology are provided in Appendix A of Appendix G of this DEIR.

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

The L_{dn} is based upon the average noise level over a 24-hour day, with a +10 dB weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. Where short-term noise sources are an issue, noise impacts may be assessed in terms of maximum noise levels, hourly averages, or other statistical descriptors.

Another common descriptor is the CNEL. The CNEL is similar to the L_{dn}, except it has an additional weighting factor. Both average noise energy over a 24-hour period. The CNEL applies a +5 dB weighting to events that occur between 7:00 p.m. and 10:00 p.m., in addition to the +10 dB weighting between 10:00 p.m. and 7:00 a.m. associated with L_{dn}. Typically, the CNEL and L_{dn} result in similar results for the same noise events, with the CNEL sometimes resulting in reporting a 1 dB increase compared to the L_{dn} to account for noise events between 7–10 p.m. that have the additional weighting factor.



Source: Bollard Acoustical Consultants 2008

Project Site Location and Major Noise Sources **Exhibit 3.5-1**

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No Federal plans, policies, regulations, or laws related to noise are applicable to the project. The environmental review of Federal projects generally defers to State, county, or other local guidelines. Vibration guidelines from the U.S. Department of Transportation, Federal Transit Administration (FTA) are discussed below as a means to guide the consideration of vibration impacts. Federal research on the effects of single event noise levels (SEL) incidents is discussed below to establish standards for aircraft overflights and railroad passbys. The SEL (Single Event Noise Level) describes a receiver's cumulative noise exposure from a single impulsive-noise event, which is defined as an acoustical event of short duration and which involves a change in sound pressure above some reference value.

U.S. Department of Transportation, Federal Transit Administration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPV) in inches per second (in/sec). The vibration velocity (VdB), is a logarithmic scaling of vibration magnitude, and it allows relative measurements to be easily made

To address the human response to groundborne vibration, FTA has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These criteria include 65 VdB for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, and laboratory facilities), 80 VdB for residential uses and buildings where people normally sleep, and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, and offices) (FTA 2006).

Standards have also been established to address the potential for groundborne vibration to cause structural damage to buildings. These standards were developed by the Committee of Hearing, Bio Acoustics, and Bio Mechanics (CHABA) at the request of the U.S. Environmental Protection Agency (EPA) (FTA 2006). For fragile structures, CHABA recommends a maximum limit of 0.25 in/sec PPV (FTA 2006).

Speech and Sleep Interference Criteria for Single Aircraft and Railroad Events

There is currently an on-going nationwide debate regarding the appropriateness of SEL criteria as a supplement or replacement for cumulative noise level metrics such as L_{dn} and CNEL, 24-hour noise descriptors. Because SEL describes a receiver's total noise exposure from a single impulsive event, SELs are often used to characterize noise from aircraft takeoffs and flyovers, as well as noise from individual railroad passages.

Sutter County has not established any SEL standards and no definitive, widely-recognized, SEL guidelines currently exist nationwide. To the extent that there is any guidance regarding acceptable SELs, the emphasis has been on physiological effects, not on land use planning (California Division of Aeronautics 2002). For example, the Federal Aviation Administration (FAA) has suggested that the threshold of speech interference is 60 dBA. Exposure to high SELs would result in speech interference at proposed residential dwellings and school facilities. Similarly, the Federal Interagency Committee on Aviation Noise (FICAN) has provided estimates of the percentage of people expected to be awakened when exposed to specific SELs inside a home (FICAN 1997). However, FICAN did not recommend a threshold of significance based on the percent of people awakened. One agency, the City of Los Angeles, adopted a significance threshold of 10% of the population being awakened once every 10 days (i.e., 1% of the population was awakened on any one day) for use in the Los Angeles International Airport (LAX) Master Plan Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (City of Los Angeles 2004). However, the document specifically cautioned that the threshold was for use in the LAX

EIR/EIS only and that the specific environment of LAX was used in the establishment of the thresholds. No other guidance or explanation of the rationale for this highly conservative threshold was provided.

According to the FICAN study, 10% of the population is estimated to be awakened when the SEL interior noise level of 81 dB. An estimated 5 to 10% of the population is affected when the SEL interior noise level is between 64.8 and 81 dB, and few sleep awakenings (less than 5%) are predicted if the interior SEL is less than 64.8 dB.

The threshold for sleep disturbance is not absolute because there is a high degree of variability from one person to another. Thus, the means of applying such research to land use decisions is not yet clear. As a result, no government agency has suggested what frequencies of awakenings or speech disruption are acceptable (California Division of Aeronautics 2002).

For these reasons, the Federal Interagency Committee on Noise (FICON) and the California Airport and Land Use Planning Handbook continue to use CNEL as the primary tool for the purpose of land use compatibility planning (California Division of Aeronautics 2002). In fact, the CNEL represents the cumulative exposure to all aircraft overflights; that is, the exposure of all SELs taken together, weighed to add penalties for evening and nighttime occurrences, and averaged over a 24-hour period. Thus, it can be argued that the CNEL standards already account for the individual impacts associated with the SELs.

In light of the disclosure statements, and the fact that interior SEL values between 65 and 81 dB can be expected to result in sleep interference for only 5–10% of the population, this analysis considers exceedance of 60 dB SEL for speech interference and 70 dB SEL for sleep interference to be significant for aircraft events.

Because of the relatively small number of daytime railroad events, and brief duration of warning horn usage during those events, speech interference during railroad passages is not considered to be a significant issue within either schools or residences. Because there are nighttime train passages, the same sleep interference criteria is applied to railroad events as is applied to aircraft events (70 dB SEL inside with windows closed).

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Governor's Office of Planning and Research

The Governor's Office of Planning and Research (OPR) published the *State of California General Plan Guidelines* (OPR 2003), which provides guidance for the acceptability of projects within specific L_{dn} contours. Table 3.5-1 summarizes acceptable and unacceptable community noise exposure limits for various land use categories.

Generally, residential uses (e.g., mobile homes) are considered to be acceptable in areas where exterior noise levels do not exceed 60 dB L_{dn} (or CNEL). Residential uses are normally unacceptable in areas exceeding 70 dB L_{dn} and conditionally acceptable within 55–70 dB L_{dn}. Schools are normally acceptable in areas up to 70 dB L_{dn} and normally unacceptable in areas exceeding 70 dB L_{dn}. Commercial uses are normally acceptable in areas up to 70 dB CNEL. Between 67.5 and 77.5 dB L_{dn}, commercial uses are conditionally acceptable, depending on the noise insulation features and the noise reduction requirements. The guidelines also present adjustment factors that may be used to arrive at noise-acceptability standards that reflect the noise-control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise issues.

Table 3.5-1
State Noise-Compatibility Guidelines by Land-Use Category

Land-Use Category	Community Noise Exposure (CNEL/L_{dn}, dB)			
	Normally Acceptable [a]	Conditionally Acceptable [b]	Normally Unacceptable [c]	Clearly Unacceptable [d]
Residential—Low-Density Single-Family, Duplexes, Mobile Homes	< 60	55–70	70–75	75+
Residential—Multifamily	< 65	60–70	70–75	75+
Transient Lodging—Motels, Hotels	< 65	60–70	70–80	80+
Schools, Libraries, Churches, Hospitals, Nursing Homes	< 70	60–70	70–80	80+
Auditoriums, Concert Halls, Amphitheaters		< 70	65+	
Sports Arenas, Outdoor Spectator Sports		< 75	70+	
Playgrounds, Neighborhood Parks	< 70		68–75	72.5+
Golf Courses, Riding Stables, Water Recreation, Cemeteries	< 75		70–80	80+
Office Buildings, Businesses, Commercial and Professional	< 70	68–78	75+	
Industrial, Manufacturing, Utilities, Agriculture	< 75	70–80	75+	

Notes:

[a] Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise-insulation requirements.

[b] 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.

[c] New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise-reduction requirements must be made and needed noise-insulation features included in the design. Outdoor areas must be shielded.

[d] New construction or development should generally not be undertaken.

Key:

CNEL = community noise equivalent level

dB = A-weighted decibels

L_{dn} = day-night noise level

Source: OPR 2003

California Department of Transportation

For the protection of fragile, historic, and residential structures, Caltrans recommends a more conservative threshold of 0.2 in/sec PPV for normal residential buildings and 0.08 in/sec PPV for old or historically significant structures (Caltrans 2002). These standards are more stringent than the federal standard established by CHABA, presented above.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Sutter County

Sutter County General Plan

The Sutter County General Plan standards pertaining to noise are designed to protect county residents from the harmful and annoying effects of exposure to excessive noise (Sutter County 1996). The County's Noise Element outlines the goals and policies geared towards reducing noise impacts at sensitive receptor locations. The County Standards which would be applicable to this project are listed below.

- **GOAL 8.A** To protect county residents from the harmful effects of exposure to excessive noise.

  - **Policy 8.A-1** The County shall not allow development of new noise-sensitive land uses where the noise level due to non-transportation noise sources will exceed the noise level standards shown on (Table 3.5-2) at the property line of the new noise sensitive land use unless noise mitigation measures have been incorporated into the project design to achieve the required standard.

  - **Policy 8.A-2** The County shall require that new non-transportation noise sources be mitigated to the noise level standards shown in (Table 3.5-2).

  - **Policy 8.A-3** The feasibility of proposed development projects with respect to existing and future transportation noise levels shall be evaluated against the noise guidelines in (Table 3.5-3).

  - **Policy 8.A-4** New development of noise-sensitive land uses shall not be permitted in areas exposed to noise levels from transportation noise sources which exceed the levels specified in (Table 3.5-4), unless the project design includes noise mitigation to achieve the required standard.

  - **Policy 8.A-5** Noise created by new transportation noise sources, including roadway improvement projects, should be mitigated so as not to exceed the levels specified in (Table 3.5-4).

  - **Policy 8.A-6** Where proposed non-residential development projects are likely to produce noise levels exceeding the performance standards of (Table 3.5-2) at existing or planned noise-sensitive uses, the County shall require the submission of an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design.

Table 3.5-2
Noise Level Standards – New Non-Transportation Sources

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

Notes: dB = A-weighted decibels, L_{eq} = average or equivalent sound level
Source: Sutter County 1996 (Noise Element Table 7)

Table 3.5-3
Land Use Compatibility Guidelines For Development – Sutter County General Plan Noise Element

Land Use Category		Community Noise Exposure L_{dn} or CNEL, dB					
		55	60	65	70	75	80
Residential, theaters, meeting halls, churches, auditoriums	A	■					
	CA		■	■			
	U				■	■	■
Transient lodging, hotels, motels	A	■					
	CA		■	■	■		
	U					■	■
Schools, libraries, hospitals, child care, museums	A	■					
	CA		■	■	■		
	U					■	■
Playgrounds, neighborhood parks, amphitheaters	A	■	■	■			
	CA				■		
	U					■	■
Office buildings, business, commercial, and professional	A	■					
	CA		■	■	■		
	U					■	■
Industrial, utilities, manufacturing, agricultural	A	■	■	■			
	CA				■	■	■
	U						
Golf courses, riding stables, outdoor spectator sports	A	■	■	■			
	CA				■		
	U					■	■

Notes:
CNEL = community noise equivalent level
dB = A-weighted decibels
L_{dn} = day-night noise level
A = acceptable
CA = conditionally acceptable
U = unacceptable
Source: Sutter County 1996 (Noise Element Table 8)

Table 3.5-4 Maximum Allowable Noise Exposure – Transportation Noise Sources			
Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq}, dB[2]
Residential	60 [3]	45	–
Transient lodging	60 [3]	45	–
Hospitals, nursing homes	60 [3]	45	–
Theaters, auditoriums	–	–	35
Churches, meeting halls	60 [3]	–	40
Office buildings	–	–	45
Schools, libraries, museums	–	–	45
Playgrounds, neighborhood parks	70	–	–

Notes: Source: EPA and California Sound Transmission Control Standards

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in the outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 62.5 dB L_{dn}/CNEL may be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Sutter County 2006 (Noise Element Table 9)

Placer County

Placer County General Plan

The Placer County General Plan Noise Element contains the following noise policies and standards (e.g., exterior and interior noise level performance standards for new projects affected by or including non-transportation noise sources, and maximum allowable noise exposure levels for transportation noise sources) (Placer County 1994):

- **Policy 9.A.1:** The County shall not allow development of new noise-sensitive uses where the noise level due to non-transportation noise sources will exceed the noise level standards of Table 9-1 (Table 3.5-5 of this document) as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve the standards specified in Table 9-1 (Table 3.5-5 of this document).

- **Policy 9.A.2:** The County shall require that noise created by new non-transportation noise sources be mitigated so as not to exceed the noise level standards of Table 9-1 (Table 3.5-5 of this document) as measured immediately within the property line of lands designated for noise-sensitive uses.

- **Policy 9.A.5:** Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 9-1 (Table 3.5-5 of this document) at existing or planned noise-sensitive uses, the County shall require submission of an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design.

Table 3.5-5
Placer County Allowable L_{dn} Noise Levels Within Specified Zone Districts[1]
Applicable to New Projects Affected by or Including Non-Transportation Noise Sources

Zone District of Receptor	L_{dn} (dB) at Property Line of Receiving Use	Interior Spaces (dB)[2]
Residential Adjacent to Industrial[3]	60	45
Other Residential[4]	50	45
Office/Professional	70	45
Transient Lodging	65	45
Neighborhood Commercial	70	45
General Commercial	70	45
Heavy Commercial	75	45
Limited Industrial	75	45
Highway Service	75	45
Shopping Center	70	45
Industrial	---	45
Industrial Park	75	45
Industrial Reserve	---	---
Airport	---	45
Unclassified	---	---
Farm	_[6]	---
Agriculture Exclusive	_[6]	---
Forestry	---	---
Timberland Preserve	---	---
Recreation & Forestry	70	---
Open Space	---	---
Mineral Reserve	---	---

Notes:

- Except where noted otherwise, noise exposures will be those which occur at the property line of the receiving use.
- Where existing transportation noise levels exceed the standards of this table, the allowable L_{dn} shall be raised to the same level as that of the ambient level.
- If the noise source generated by, or affecting, the uses shown above consists primarily of speech or music, or if the noise source is impulsive in nature, the noise standards shown above shall be decreased by 5 dBA.
- Where a use permit has established noise level standards for an existing use, those standards shall supersede the levels specified in Table 1 and Table 2. Similarly, where an existing use which is not subject to a use permit causes noise in excess of the allowable levels in Table 1 and Table 2, said excess noise shall be considered the allowable level. If a new development is proposed which will be affected by noise from such an existing use, it will ordinarily be assumed that the noise levels already existing or those levels allowed by the existing use permit, whichever are greater, are those levels actually produced by the existing use.
- Existing industry located in industrial zones will be given the benefit of the doubt in being allowed to emit increased noise consistent with the state of the art5 at the time of expansion. In no case will expansion of an existing industrial operation be cause to decrease allowable noise emission limits. Increased emissions above those normally allowable should be limited to a one-time 5 dBA increase at the discretion of the decision-making body.
- The noise level standards applicable to land uses containing incidental residential uses, such as caretaker dwellings at industrial facilities and homes on agriculturally zoned land, shall be the standards applicable to the zone district, not those applicable to residential uses.
- Where no noise level standards have been provided for a specific zone district, it is assumed that the interior and/or exterior spaces of these uses are effectively insensitive to noise.

[1] Overriding policy on interpretation of allowable noise levels: Industrial-zoned properties are confined to unique areas of the County, and are irreplaceable. Industries which provide primary wage-earner jobs in the County, if forced to relocate, will likely be forced to leave the County. For this reason, industries operating upon industrial zoned properties must be afforded reasonable opportunity to exercise the rights/privileges conferred upon them be their zoning. Whenever the allowable noise levels herein fall subject to interpretation relative to

Table 3.5-5
Placer County Allowable L_{dn} Noise Levels Within Specified Zone Districts[1]
Applicable to New Projects Affected by or Including Non-Transportation Noise Sources

industrial activities, the benefit of the doubt shall be afforded to the industrial use. Where an industrial use is subject to infrequent and unplanned upset or breakdown of operations resulting in increased noise emissions, where such upsets and breakdowns are reasonable considering the type of industry, and where the industrial use exercises due diligence in preventing as well as correcting such upsets and breakdowns, noise generated during such upsets and breakdowns shall not be included in calculations to determine conformance with allowable noise levels.

[2] Interior spaces are defined as any locations where some degree of noise-sensitivity exists. Examples include all habitable rooms of residences, and areas where communication and speech intelligibility are essential, such as classrooms and offices.

[3] Noise from industrial operations may be difficult to mitigate in a cost-effective manner. In recognition of this fact, the exterior noise standards for residential zone districts immediately adjacent to industrial, limited industrial, industrial park, and industrial reserve zone districts have been increased by 10 dBA as compared to residential districts adjacent to other land uses. For purposes of the Noise Element, residential zone districts are defined to include the following zoning classifications: AR, R-1, R-2, R-3, FR, RP, TR-1, TR-2, TR-3, and TR-4.

[4] Where a residential zone district is located within an -SP combining district, the exterior noise level standards are applied at the outer boundary of the -SP district. If an existing industrial operation within an -SP district is expanded or modified, the noise level standards at the outer boundary of the -SP district may be increased as described above in these standards. Where a new residential use is proposed in an -SP zone, an Administrative Review Permit is required, which may require mitigation measures at the residence for noise levels existing and/or allowed by use permit as described under “Notes” above, in these standards.

[5] State of the art should include the use of modern equipment with lower noise emissions, site design, and plant orientation to mitigate offsite noise impacts, and similar methodology.

[6] Normally, agricultural uses are noise insensitive and will be treated in this way. However, conflicts with agricultural noise emissions can occur where single-family residences exist within agricultural zone districts. Therefore, where effects of agricultural noise upon residences located in these agricultural zones is a concern, a CNEL/L_{dn} of 70 dBA will be considered acceptable outdoor exposure at a residence.

Source: Placer County 1994

Table 3.5-6
Placer County Maximum Allowable Noise Exposure Transportation Noise Sources

Land Use	Outdoor Activity Areas[1]	Interior Spaces (dB)	
	L_{dn}/CNEL (dB)	L_{dn}/CNEL	L_{eq}[2]
Residential	60 [3]	45	---
Transient Lodging	60 [3]	45	---
Hospitals, Nursing Homes	60 [3]	45	---
Theaters, Auditoriums, Music Halls	---	---	35
Churches, Meeting Halls	60 [3]	---	40
Office Buildings	---	---	45
Schools, Libraries, Museums	---	---	45
Playgrounds, Neighborhood Parks	70	---	---

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB CNEL/L_{dn} or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB CNEL/L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Placer County 1994

- **Policy 9.A.10:** Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 9-3 (Table 3.5-6 of this document) or the performance standards of Table 9-1 (Table 3.5-5 of this document), the County shall require submission of an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design.

  At the discretion of the County, the requirement for an acoustical analysis may be waived provided that all of the following conditions are satisfied:

  a. The development is for less than five single-family dwellings or less than 10,000 square feet of total gross floor area for office buildings, churches, or meeting halls;

  b. The noise source in question consists of a single roadway or railroad for which up-to-date noise exposure information is available. An acoustical analysis will be required when the noise source in question is a stationary noise source or airport, or when the noise source consists of multiple transportation noise sources;

  c. The existing or projected future noise exposure at the exterior of buildings which will contain noise-sensitive uses or within proposed outdoor activity areas (other than outdoor sports and recreation areas) does not exceed 65 dB L_{dn} (or CNEL) prior to mitigation. For outdoor sports and recreation areas, the existing or projected future noise exposure may not exceed 75 dB L_{dn} prior to mitigation;

  d. The topography in the project site is essentially flat; that is, noise source and receiving land use are at the same grade; and

  e. Effective noise mitigation, as determined by the County, is incorporated into the project design to reduce noise exposure to the levels specified in Table 9-1 (Table 3.5-5 of this document) or 9-3 (Table 3.5-6 of this document).

- **Policy 9.A.11:** The County shall implement one or more of the following mitigation measures where existing noise levels significantly impact existing noise-sensitive land uses, or where the cumulative increase in noise levels resulting from new development significantly impacts noise-sensitive land uses:

  a. Rerouting traffic onto streets that have available traffic capacity and that do not adjoin noise-sensitive land uses;

  b. Lowering speed limits, if feasible and practical;

  c. Programs to pay for noise mitigation such as low cost loans to owners of noise impacted property or establishment of developer fees;

  d. Acoustical treatment of buildings; or

  e. Construction of noise barriers.

- **Policy 9.A.12:** Where noise mitigation measures are required to achieve the standards of Table 9-1 (Table 3.5-5 of this document) and Table 9-3 (Table 3.5-6 of this document), the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

Placer County Noise Ordinance

The Placer County Noise Ordinance (Article 9.36 of the Placer County Code) defines sound level performance standards for sensitive receptors (refer to Table 3.5-7). The ordinance states that it is unlawful for any person at any location to create any sound, or to allow the creation of any sound, on property owned, leased, occupied, or otherwise controlled by such a person that causes the exterior sound level, when measured at the property line of any affected sensitive receptor, to exceed the ambient sound level by 5 dBA or exceed the sound level standards as set forth in Table 3.5-7, whichever is greater.

Table 3.5-7
Placer County Noise Ordinance Noise Level Standards (On-site)

Sound Level Descriptor (dB)	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly L_{eq}	55	45
L_{max}	70	65

Source: Placer County 2004

Each of the sound level standards specified in Table 3.5-7 shall be reduced by 5 dB for simple tone noises, consisting of speech and music. However, in no case shall the sound level standard be lower than the ambient sound level plus 5 dB.

According to section 9.36.030, "Exemptions," some noise-generating activities are exempt from the above noise ordinance standards, including construction that is performed between 6:00 a.m. and 8:00 p.m., Monday through Friday, and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday, provided that all construction equipment is fitted with factory-installed muffler devices and maintained in good working order (Placer County 2004).

Sacramento County

Sacramento County General Plan

The Noise Element of the Sacramento County General Plan contains the following policies applicable to the proposed project (Sacramento County 1993):

- **NO-2:** Noise created by new non-transportation noise sources shall be mitigated so as not to exceed any of the noise level standards of Table 1 (in this document Table 3.5-8), as measured immediately within the property line of any affected residentially-designated lands or residential land use situated in the unincorporated areas.

Table 3.5-8
Noise Level Performance Standards for Residential Areas Affected by Non-Transportation Noise

Statistical Noise Level Descriptor	Exterior Noise Level Standards (dB)	
	Day (7 a.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)
L_{50}[a]	50	45
L_{max}[b]	70	65

Notes: dB = A-weighted decibels

[a] The noise level exceeded 50% of the time in any one hour.

[b] The maximum instantaneous noise level during a specific period of time.

Source: Sacramento County 1993

- **NO-3.** Where proposed nontransportation noise sources are likely to produce noise levels exceeding the performance standards of Table II-1 (in this document Table 3.5-8) at existing or planned residential uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. (Requirements for the content of an acoustical analysis are given by Table II-2 [in this document Table 3.5-9].)

Table 3.5-9
Requirements for an Acoustical Analysis

An acoustical analysis prepared pursuant to the Noise Element shall:
A. Be the responsibility of the applicant.
B. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
C. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
D. Estimate existing and projected (20 years) noise levels in terms of L_{dn} or CNEL and/or the standards of Table II-1 (Table 3.5-8 of this document), and compare those levels to the adopted policies of the Noise Element.
E. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms evaluating possible sleep disturbance.
F. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.
G. Describe a post-project assessment program which could be used to evaluate the effectiveness of the proposed mitigation measures.
Source: Sacramento County 1993

Sacramento County Noise Ordinance

The Sacramento County Ordinance Chapter 6.68 Noise Control sets limits for exterior noise levels on designated agricultural and residential property and interior noise levels pertaining to multiple dwelling units (Table 3.5-10). The ordinance states that exterior noise shall not exceed 55 dB during any cumulative 30-minute period in any hour during the day (7 a.m. to 10 p.m.) and 50 dB during any cumulative 30-minute period in any hour during the night (10 p.m. to 7 a.m.). The ordinance sets somewhat higher noise limits for time intervals of shorter duration; however, noise in agricultural and residential areas must never exceed 75 dB during the day and 70 dB at night. In addition, the following ordinance relates to construction noise (Sacramento County 2006).

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of 8 p.m. and 6 a.m. on weekdays and Friday commencing at 8 p.m. through and including 7 a.m. on Saturday; Saturdays commencing at 8 p.m. through and including 7 a.m. on the next following Sunday and on each Sunday after the hour of 8 p.m. Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

Table 3.5-10 Sacramento County Noise Ordinance for Agricultural and Residential Property	
Cumulative Period	Standards (dB) Day (7 a.m.-10 p.m.)/Night (10 p.m.-7 a.m.)
Exterior Noise Standards [1, 3]	
30 min/hr	55 / 50
15 min/hr	60 / 55
5 min/hr	65 / 60
1 min/hr	70 / 65
Never to exceed	75 / 70
Cumulative Period	Standards (dB) Night (10 p.m.-7 a.m.)
Interior Noise Standards [2, 4]	
5 min/hr	45
1 min/hr	50
Any period of time	55

Notes:

1 Noise created over the designated period at any location may not cause the noise levels on a designated agricultural or residential property to exceed these standards.

2 Noise created over the designated period in an apartment, condominium, townhouse, duplex, or multiple dwelling units may not cause the noise level in a neighboring unit to exceed these standards.

3 Exterior noise limits must be reduced by 5 dBA for impulsive or simple tone noises, or for noises consisting of speech or music.

4 If the ambient level exceeds the fifth noise level category for exterior noise standards, the maximum ambient noise level shall be the noise limit for the category.

Source: Sacramento County 2006

3.5.2 ENVIRONMENTAL SETTING

EFFECTS OF NOISE ON PEOPLE

The perceived loudness of sounds and corresponding reactions to noise are dependent upon many factors, including sound pressure level, duration of intrusive sound, frequency of occurrence, time of occurrence, and frequency content. As mentioned above; however, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. Table 3.5-11 shows examples of noise levels for several common noise sources and environments.

It is generally recognized that an increase of at least 3 dB of similar sources is usually required before most people will perceive a change in noise levels in the community, and an increase of 5 dB is required before the change will be clearly noticeable. A common practice is to assume that a minimally perceptible increase of 3 dB represents a significant increase in ambient noise levels. This approach is very conservative; however, as applied to noise conditions substantially below levels deemed acceptable in general plan noise elements or invoice ordinances.

Table 3.5-11 Typical A-Weighted Sound Levels of Common Noise Sources	
Decibels	Description
130	Threshold of pain
120	Jet aircraft take-off at 100 feet
110	Riveting machine at operators position
100	Shotgun at 200 feet
90	Bulldozer at 50 feet
80	Diesel locomotive at 300 feet
70	Commercial jet aircraft interior during flight
60	Normal conversation speech at 5 - 10 feet
50	Open office background level
40	Background level within a residence
30	Soft whisper at 2 feet
20	Interior of recording studio
Source: Egan 1972	

Table 3.5-12 is based upon recommendations made in August 1992 by FICON to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these criteria have been applied to other sources of noise similarly described in terms of cumulative noise exposure metrics such as the L_{dn}. This metric is generally applied to transportation noise sources, and defines noise exposure in terms of average noise exposure during a 24-hour period with a penalty added to noise that occurs during the nighttime.

Table 3.5-12 Significance of Changes in Cumulative Noise Exposure	
Ambient Noise Level Without Project, L_{dn}	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more
Source: FICON 1997	

According to Table 3.5-12, an increase in traffic noise levels of 5 dB or more would be noticeable where the ambient level is less than 60 dB, an increase of 3 dB or more would be noticeable where the ambient level is between 60 and 65 dB, and 1.5 dB or more would be noticeable where the ambient noise level exceeds 65 dB L_{dn}. The rationale for the Table 3.5-12 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

Effects of Vibration on People and Structures

Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV and are outlined in Table 3.5-13. For this project, vibration is a concern during the passage of trains on the nearby tracks. A detailed analysis of railroad-related vibration levels is contained within Impact 3.5-4.

Table 3.5-13 General Human and Structural Responses to Vibration Levels	
Effects on Structures & People	Peak Vibration Threshold (in/sec)
Structural damage to commercial structures	6
Structural damage to residential buildings	2
Architectural damage	1.0
General threshold of human annoyance	0.1
General threshold of human perception	0.01
Sources: *Survey of Earth-borne Vibrations due to Highway Construction and Highway Traffic*, Caltrans 1976. *Final Environmental Impact Report: Richmond Transport Project*, Orion Environmental Associates 1990. *Weekly Progress Report for Vibration Monitoring for Richmond Transport*, Wilson, Ihrigg & Associates 1994.	

Existing Noise Sources Affecting the Project Site

The existing ambient noise environment in the project area is defined primarily by traffic on State Route (SR) 99 and local roadways, frequent Union Pacific Railroad (UPRR) operations, seasonal agricultural activities, local industry, and aircraft operations associated with Sacramento International Airport.

A combination of visual and noise level measurement surveys, use of existing acoustical literature, and application of accepted noise prediction methodologies were used to quantify the existing ambient noise environment in the project study area resulting from the identified major noise sources. A separate discussion of the effects of each of these major noise sources on the project site is included below.

Existing Roadway Traffic Noise Levels

To describe noise levels because of traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

Average daily traffic (ADT) volumes were obtained from the traffic study prepared for this project. The FHWA Model inputs and detailed results are contained in Appendices B–D of Appendix G of this DEIR. Table 3.5-14 shows the predicted existing traffic noise levels at a reference distance of 100 feet from the roadway centerlines, as well as the distances to the L_{dn} contours. It should be noted that the Table 3.5-14 data do not include any shielding which may be present from existing structures or topography. Nor do the Table 3.5-14 data include adjustment for atmospheric absorption of sound or excess ground attenuation which, when combined, generally provide an additional noise reduction of 1.5 dB per thousand feet from the roadway.

Table 3.5-14
Predicted Existing Traffic Noise Levels – South Sutter County Project Sutter County, California

Segment	Roadway	Segment Description		L_{dn} @ 100 feet (dB)	Distance to L_{dn} Contour (feet)		
		From	To		70	65	60
1	Sankey Road	Powerline Road	SR 99	47	3	6	14
2	Sankey Road	SR 99	Pacific Avenue	56	11	24	51
3	Sankey Road	Pacific Avenue	Road C	55	9	20	44
4	Sankey Road	Road C	Pleasant Grove Road N	–	–	–	–
5	Sankey Road	Pleasant Grove Road N	Locust Road	56	12	25	54

Table 3.5-14
Predicted Existing Traffic Noise Levels – South Sutter County Project Sutter County, California

Segment	Roadway	Segment Description		L_{dn} @ 100 feet (dB)	Distance to L_{dn} Contour (feet)		
		From	To		70	65	60
6	Riego Road	Powerline Road	Road U	53	8	16	35
7	Riego Road	Road U	Road R	–	–	–	–
8	Riego Road	Road R	Road S	–	–	–	–
9	Riego Road	Road S	SR 99	–	–	–	–
10	Riego Road	SR 99	Road A	64	40	86	185
11	Riego Road	Road A	Pacific Avenue	–	–	–	–
12	Riego Road	Pacific Avenue	Road C	63	36	77	165
13	Riego Road	Road C	Road D	–	–	–	–
14	Riego Road	Road D	Pleasant Grove Road N	–	–	–	–
15	Riego Road	Pleasant Grove Road N	Pleasant Grove Road S	64	43	92	199
16	Riego Road	Pleasant Grove Road S	Locust Road	64	43	92	198
17	Base Line Road	Locust Road	Brewer Road	65	46	100	216
18	Base Line Road	Brewer Road	Watt Avenue	65	44	95	205
19	Base Line Road	Watt Avenue	Fiddyment Drive	65	48	103	222
20	Elverta Road	Powerline Road	SR 99	54	9	19	41
21	Elverta Road	SR 99	East Levee Road	62	29	63	137
22	Elverta Road	East Levee Road	Sorento Road	63	35	75	162
23	Elverta Road	Sorento Road	16th Street	64	37	80	173
24	Elverta Road	16th Street	Watt Avenue	66	55	118	253
25	Powerline Road	Sankey Road	Riego Road	50	5	10	22
26	Powerline Road	Riego Road	Sacramento County Line	49	4	9	18
27	Powerline Road	Sacramento County Line	Elverta Road	49	4	9	18
28	Powerline Road	Elverta Road	Elkhorn Boulevard	50	5	10	22
29	Road H	Road O	Sankey Road	–	–	–	–
30	Pacific Avenue	Sankey Road	Road K	54	8	18	38
31	Pacific Avenue	Road K	Road J	–	–	–	–
32	Pacific Avenue	Road J	Riego Road	–	–	–	–
33	Pacific Avenue	Riego Road	Road B	–	–	–	–
34	Natomas Road	Sankey Road	Riego Road	50	5	10	22
35	Natomas Road	Riego Road	Sacramento County Line	53	7	15	32
36	East Levee Road	Sacramento County Line	Elverta Road	53	7	15	32
37	Pleasant Grove Road N	Sankey Road	Riego Road	56	13	27	58
38	Pleasant Grove Road S	Riego Road	Sacramento County Line	57	13	28	61
39	Sorento Road	Sacramento County Line	Elverta Road	57	13	28	61
40	Locust Road	Sankey Road	Baseline Road	56	12	25	54
41	Brewer Road	Phillip Road	Baseline Road	52	6	14	29
42	Palladay Road	Baseline Road	Sacramento County Line	47	3	6	14
43	Palladay Road	Sacramento County Line	Elverta Road	47	3	6	14
44	16th Street	Kasser Road	Elverta Road	52	6	14	29
45	Watt Avenue	Baseline Road	PFE Road	63	33	70	151

Table 3.5-14 Predicted Existing Traffic Noise Levels – South Sutter County Project Sutter County, California							
Segment	Roadway	Segment Description		L_{dn} @ 100 feet (dB)	Distance to L_{dn} Contour (feet)		
		From	To		70	65	60
46	Watt Avenue	PFE Road	Elverta Road	64	41	89	191
47	Walerga Road	Baseline Road	PFE Road	66	53	115	248
48	Elkhorn Boulevard	SR 99	Northborough Drive	66	51	110	237
49	Elkhorn Boulevard	Northborough Drive	Natomas Boulevard	65	46	99	212
50	Elkhorn Boulevard	Natomas Boulevard	Sageview Drive	66	52	113	243
51	Elkhorn Boulevard	Sageview Drive	East Levee Road	66	53	114	246
52	SR 99	SR 99/SR 70 Interchange	Sankey Road	73	162	350	753
53	SR 99	Sankey Road	Riego Road	73	162	350	753
54	SR 99	Riego Road	Sacramento County NE	74	189	406	875
55	SR 99	Sacramento County Line	Elverta Road	74	189	406	875
56	SR 99	Elverta Road	Elkhorn Boulevard	75	210	452	973
57	SR 99	Elkhorn Boulevard	I-5	76	236	509	1,096
58	I-5	SR 99	Del Paso Road	79	420	905	1,951
59	I-5	Del Paso Road	Arena Boulevard	80	483	1,041	2,243
60	I-5	Arena Boulevard	I-80	80	461	993	2,140
Source: FHWA-RD-77-108 with inputs from, Caltrans, Fehr and Peers, and Bollard Acoustical Consultants 2008							

Existing Railroad Noise Levels

The UPRR tracks form the eastern boundary of much of the project site, as shown in Exhibit 3.5-1. To quantify railroad noise levels on the project site, BAC conducted noise level measurements near the project site between June 6–8, 2005 and August 29, 2007. Warning horn noise at the Riego Road grade crossing was included in the continuous (24-hour) June 6–8, 2005 measurements. The August 29, 2007 measurements were short-term and sufficiently removed from an at-grade crossing to exclude noise from the warning horn portion of the train passages.

The sound level meter was programmed to collect SEL data during train pass bys for both measurement dates. The SEL data indicated that the typical train operation resulted in levels of 104 dB and 99 dB, with and without horn noise, respectively, at a distance of 150 feet from the railroad track centerline.

During the 42-hour continuous railroad noise measurement survey, a total of 38 apparent railroad events were logged. This equates to approximately 22 train passages per day. In the Riego Road Conceptual Improvement Study (Dowling Associates 2007), it was reported that there are approximately 24 daily freight operations on this line, and two Amtrak operations. Because of normal fluctuations in rail activity, the level of activity recorded by BAC during the noise survey is generally consistent with that reported by Dowling Associates. For a conservative estimate of railroad noise exposure within the project site, noise levels in terms of L_{dn} were calculated assuming 26 daily operations. The predicted railroad noise levels are provided in Table 3.5-15, with distances to the 60, 65 and 70 dB L_{dn}, and 95 dB SEL contours also provided. The significance of the 95 dB SEL contour is provided later, as it relates to the assessment of sleep disturbance impacts during nighttime railroad events.

Table 3.5-15 Existing Union Pacific Railroad Noise Levels (June 6–8, 2005 and August 29, 2007)					
Affected by Horn Noise	Distance to Noise Contours (feet)[1]				Predicted L_{dn} at 150 feet
	60 dB L_{dn}	65 dB L_{dn}	70 dB L_{dn}	95 dB SEL	
Yes	1,200	600	300	600	75 dB
No	600	300	150	300	70 dB

Notes: Locations within ¼ mile of grade crossings are considered affected by horn noise.

[1] Predicted distances to noise level contours are from the railroad track centerline. Distances to contours were predicted assuming a 4.5 dB decrease for each doubling of distance and an additional attenuation rate of 1.5 dB per thousand feet for atmospheric absorption and excess ground attenuation.

Source: BAC 2008

Existing Railroad Vibration Levels

The only identified source of potentially significant vibration levels at the project site was the UPRR tracks located east of the project site. To quantify railroad vibration levels, BAC conducted vibration measurements of 5 train passages at the project site on August 29, 2007.

The vibration measurements consisted of PPV sampling at a distance of approximately 110 feet from the railroad tracks. The train passages consisted of five freight trains. The trains ranged from 2 to 5 locomotives and from 34 to 84 cars.

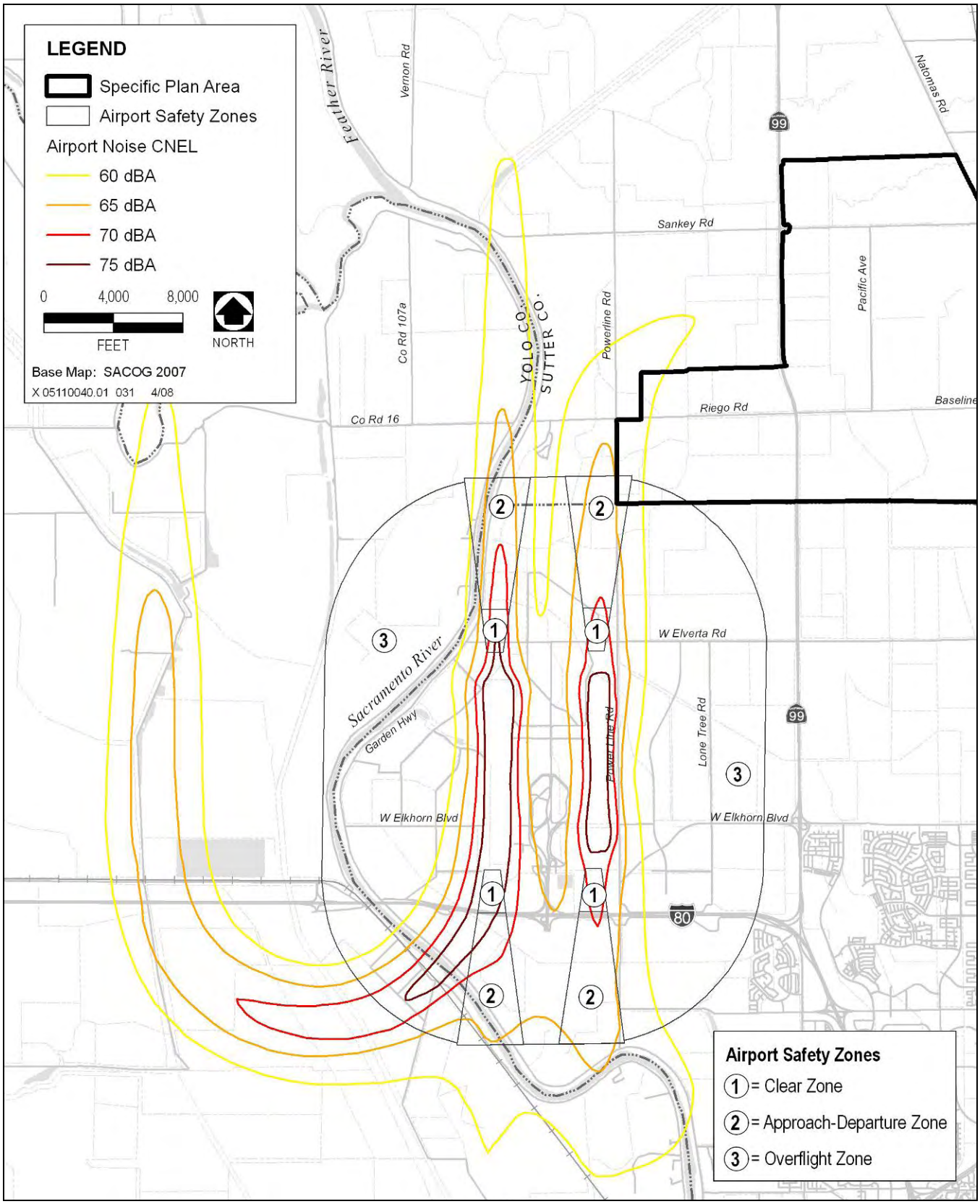
The measurements were conducted using a Larson-Davis Laboratories Model HVM-100 Vibration Analyzer with a PCB Electronics Model 353B51 ICP Vibration Transducer. The test system is a Type I instrument designed for use in assessing vibration as perceived by human beings, and meets the full requirements of ISO 8041:1990(E). Atmospheric conditions present during the tests were within the operating parameters of the instrument. The results of the vibration measurements are shown in Table 3.5-16.

Table 3.5-16 Railroad Vibration Measurement Results – 110 feet from UPRR Tracks (August 29, 2007)				
Time	Event Duration	# Engines	# Cars	Peak Vibration (in/sec)
8:09	1:18	3	60	0.015
10:01	1:28	2	80	0.012
10:13	1:38	2	84	0.009
10:29	1:31	5	80	0.013
10:45	1:53	2	34	0.014

Source: BAC 2008

Aircraft Noise

Sacramento International Airport is located southwest of the project site near Interstate 5 (I-5) and the Sacramento River. The runways for the airport run almost north south (16/34), with the main approach and departure corridors for aircraft in close proximity to the airport tracking with those runways. As a result, the noise exposure contours for Sacramento international Airport generally extend northerly and southerly away from the runways, as indicated in Exhibit 3.5-2.



Source: Adapted by EDAW 2008

Aircraft Noise Contours **Exhibit 3.5-2**

As indicated on Exhibit 3.5-2, portions of the project site are located within the modeled 60 dB CNEL noise level contours under the existing master plan conditions. A similar area of the project site lies within the 60 dB CNEL noise level contours under the theoretical capacity predicted with the inclusion of the northerly runway extension.

Although the majority of the project site is unaffected by the aircraft noise contours shown on Exhibit 3.5-2, BAC conducted SEL measurements at 4 locations within the project site for subsequent analysis of potential impacts associated with speech interference and sleep disturbance. The noise measurement locations are shown on Exhibit 3.5-3, and the results provided in Table 3.5-17.

Table 3.5-17
Sacramento International Airport Measurement Results (August 22, 2007)

Site[1]	Time of Day	Number of Aircraft Measured	Average SEL, dB	Measured L_{max}, dB
1	9:00	6	84	77
2	10:00	6	83	78
3	11:00	6	66	58
4	13:00	–[2]	–[2]	–[2]

Notes:
[1] See Exhibit 3.5-3 for noise measurement locations.
[2] Highway 99 traffic was dominant noise source. Could not measure SEL.
Source: BAC 2008

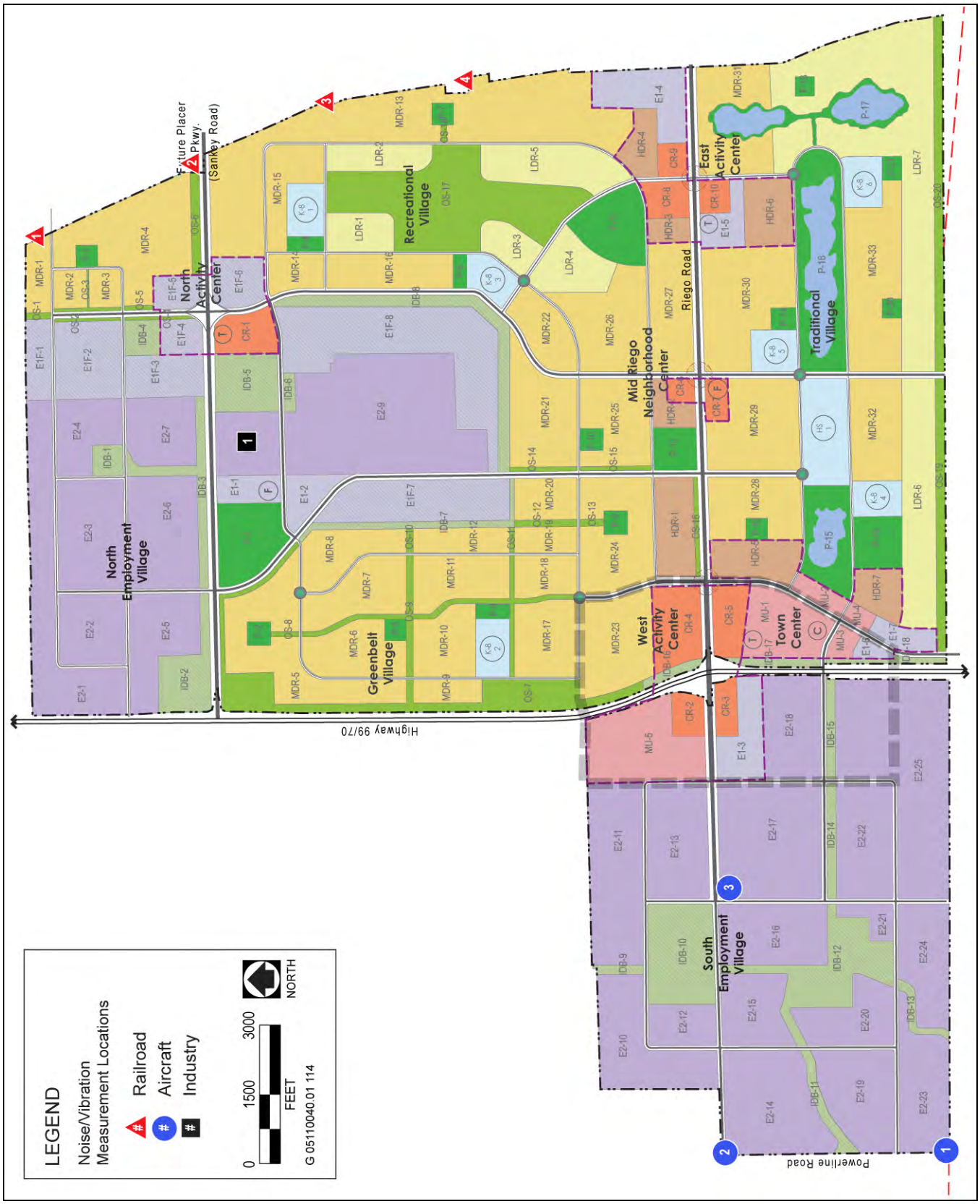
Industrial Noise

Agricultural Operations

Existing land uses in the project site are primarily agricultural in nature. However, the project proposes conversion of agricultural areas into residential, employment, and community facility uses. As a result, noise generated by on-site agricultural uses would ultimately be phased out. However, agricultural activities will likely continue to occur on neighboring properties as well as on-site properties not involved in the current phase of development.

Because of the wide array of equipment types and conditions under which equipment is used in the agriculture industry, noise generated by agricultural processes varies substantially. Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions. Noise generated by crop-dusting activities similarly varies, but can be expected to generate brief periods of localized elevated noise during dusting activities, depending on the type of aircraft used and the proximity of the receiver to the operating aircraft.

Because of the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated on properties which are actively being farmed, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. Because of this high degree of variability of agricultural activities, it is not feasible to reliably quantify the noise generation of agricultural uses in terms of noise standards commonly used to assess impacts of other noise sources.



Source: Adapted by EDAW 2008

Noise /Vibration Measurement Locations **Exhibit 3.5-3**

Industry along Pacific Avenue

Existing industrial uses located along Pacific Avenue include the Sysco Food Distribution facility at the corner of Pacific Avenue and Sankey Road, the Holt Equipment Company on the east side of Pacific Avenue, south of the Sysco facility and other smaller industrial/warehousing operations along Pacific Avenue. Industrial uses are also proposed along Pacific Avenue, immediately east of the Holt Facility (Exhibit 3.5-3).

Sysco Distribution Facility

A short-term noise measurement survey was conducted at the Sysco Distribution Facility during peak hours of operation on Thursday June 2, 2005. BAC measured an average noise level of 60 dB L_{eq} at the nearest property line along the truck yard. Facility noise levels in the northerly and westerly directions were greatly diminished because of shielding provided by the facility buildings. Based on the short-term noise measurement results and information provided by Sysco Management, BAC predicts that the future increase in operations at the Sysco facility could result in a 3 dB increase in truck yard noise levels over existing levels. Therefore, estimated future noise levels associated with Sysco's truck yard operations at the nearest property line could potentially be as high as 63 dB L_{eq}. From this level, it was determined that the location of the facility's 50 dB L_{eq} noise contour would be approximately 1,100 feet from the eastern and southern property lines.

Holt Equipment Company

Field observations conducted by BAC staff on July 16, 2008 indicated that the noise generation of the Holt facility consisted primarily of on-site movement and maintenance of heavy equipment. Because there was very little equipment being moved onsite during the BAC field inspections, the noise generation of that aspect of this facility was low. However, movement of heavy earthmoving equipment typically generates a noise level of up to 75 dB L_{eq} at a distance of 100 feet. At the boundary of the site, an ambient noise level of 48 dB L_{eq} and 57 dB L_{max} was measured, indicating that the equipment moving on site was a substantial distance from the property line and shielded by intervening building. The specific level of noise generation would depend on the number of units moving at any given time and their proximity to the project property boundary. Maintenance activities at the Holt facility occur adjacent to, or within, large buildings setback from Pacific Avenue. No appreciable maintenance activity noise levels were noted during BAC field observations, but noise from impact wrenches, grinders, pneumatic tools, etc., would be expected to generate noise levels similar to heavy equipment movement. Assuming a reference level of 75 dB L_{eq} is generated at a distance of 100 feet, the distance to the 50 dB L_{eq} noise contour would be approximately 1,400 feet from the noise source. However, measured ambient noise levels indicate that actual levels would likely be lower.

Industry on Sankey Road

There is an existing A&R Ready-Mix concrete batch plant at the southwest corner of Sankey and Natomas roads. Because of the presence of an existing residence located adjacent to the south side of the batch plant site, substantial noise mitigation measures were required of this industrial use. Those measures include the use of setbacks, noise barriers, and partial enclosures of the most-significant noise producing equipment. As a result, batch plant noise exposure is not anticipated to exceed 45 dB L_{eq} at the boundary of the batch plant site. The land use diagram indicates that the area containing the existing batch plant is proposed for medium density residential uses, so it is unclear whether or not the batch plant will remain following completion of development within the project site.

3.5.3 IMPACTS AND MITIGATION

ANALYSIS METHODOLOGY

Land use types and major noise sources in the vicinity of the project site were identified based on existing documentation (e.g., Sutter County General Plan) and site reconnaissance data. To assess potential short-term construction noise impacts, sensitive receptors and their relative exposure were identified. Noise levels of specific construction equipment were determined and resultant noise levels at those receptors were calculated.

Potential long-term (operational) traffic, area-source, and stationary-source noise impacts were assessed based on the number of vehicle trips and other potential operational noise sources introduced to the project site.

Groundborne vibration impacts were assessed based on existing documentation (e.g., vibration levels produced by specific construction equipment) and the distance of sensitive receptors from the given source.

Predicted noise levels were compared with applicable standards for determination of significance. Mitigation measures were developed for significant and potentially significant noise impacts. The following sections provide more detailed information pertaining to noise impact assessment methodology for the major noise sources affecting the project area.

Aircraft

As mentioned in the setting section, portions of the project site are located within the Sacramento International Airport 60 dB CNEL noise level contours. Significant noise impacts are identified for this project if aircraft noise levels in terms of CNEL would exceed the Sutter County noise standards (See **Table 8**) at noise-sensitive land uses proposed within the SPSP Area, or if Sound Exposure Levels (SEL) associated with Single Events would exceed 65 dB inside any habitable room with windows in their closed position.

Traffic Noise

Traffic noise impacts are identified where existing or future traffic noise levels with the project would significantly exceed existing or future traffic noise levels without the project. In addition, traffic noise impacts are identified if traffic on local roadways would cause noise levels to exceed the Sutter County noise standards at exterior or interior areas of the noise sensitive uses proposed within this project (residential).

To describe future noise levels because of traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

Average daily traffic volumes were provided by the traffic consultant, Fehr & Peers, for existing and future, project and no-project conditions. To determine the relative differences between project and no-project conditions, the predicted traffic noise levels at a standardized distance of 100 feet from each roadway centerline were computed using the data in the Appendix B-D. The predicted traffic noise levels at a representative distance of 100 feet from the roadway centerlines, along with the increase from the existing noise level, are contained in Table 3.5-19.

Railroad Noise

Based on the existing noise level measurements discussed earlier in the setting section, railroad noise impacts are considered significant where railroad noise levels would exceed the Sutter County noise standards shown in Table 3.5-4. Data in Table 3.5-15 provides the distances to the critical noise contours for locations within the SPSP Area

affected by railroad noise, including areas both affected by warning horn noise and those unaffected by warning horn noise.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in Table 3.5-18, ranging from 85 to 90 dB at a distance of 50 feet. Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would likely occur primarily during daytime hours. For this project, construction noise impacts are identified if construction activities would occur in close proximity to noise-sensitive receptors during nighttime hours. During daytime hours, it is recognized that there is decreased sensitivity to noise and that construction activities are temporary.

Vibration

Table 3.5-16 indicates that measured vibration levels were 0.009 to 0.015 inch per second peak particle velocity at the vibration measurement location (110 feet from the railroad tracks). The nearest residences in the proposed project site would be located farther away from the tracks than 110 feet, so vibration levels at those more distant locations are predicted to be lower than the 0.1 in./sec. ppv. recommended threshold of significance. Vibration impacts are identified if vibration levels are predicted to exceed 0.1 in./sec. ppv.

THRESHOLDS OF SIGNIFICANCE

The following significance criteria were developed based on guidance provided by the State CEQA Guidelines, and on other Federal, State, and local guidance. Impacts of an alternative on noise would be significant if project implementation would do any of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. As noted in Table 3.5-13, a threshold of 0.1 in/sec PPV represents the onset of annoyance and is, therefore, used as the significance threshold in this analysis.

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The criteria for assessing the significance of project-related traffic noise level increases are provided above in Table 3.5-12. Table 3.5-12 identifies project-related noise level increase thresholds of 1.5, 3 and 5 dB as being significant where existing, pre-project, noise levels are greater than 65 dB L_{dn}, between 60 and 65 dB L_{dn}, and less than 60 dB L_{dn}, respectively.

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Temporary increases are normally associated with construction related noise, and such activities are normally exempt, and are, thus, less than significant provided they occur during daytime hours.

- Exposure of people residing or working in the area to excessive noise levels from railroad and aircraft, including single event noise incidents that would result in speech interference or disturb sleep. The thresholds used herein for speech and sleep interference are 60 dB SEL and 70 dB SEL, respectively.

- Exposure of people attending schools or working in schools to excessive noise levels from railroad and aircraft, including single event noise incidents that would result in speech interference. The County standards

applied to school uses is 45 dB L_{eq} within classrooms (Table 3.5-4) and the recommended threshold used herein for speech interference is 60 dB SEL.

IMPACT ANALYSIS

Program-Level Impacts and Mitigation Measures

IMPACT 3.5-1 Exposure of Noise-Sensitive Land Uses to Community Noise Equivalent Level from Sacramento International Airport.

On-Site Elements

Portions of the project site are located within the Sacramento International Airport 60 dB CNEL noise level contours. Significant noise impacts are identified for this project if aircraft noise levels in terms of CNEL would exceed the Sutter County noise standards (Table 3.5-4) at noise-sensitive land uses proposed on the project site, or if Sound Exposure Levels (SEL) associated with Single Events would exceed 70 dB inside any habitable room with windows in their closed position.

The 60 dB CNEL noise contours shown on Exhibit 3.5-2 extend into a portion of the project site referred to as the South Employment Village. Land uses in this location would consist of a variety of industry, distribution technology, and service uses. Such uses are not normally considered to be noise sensitive, and Exhibit 3.5-2 indicates that only the westernmost portion of the South Employment Village would be exposed to aircraft noise levels in excess of 60 dB CNEL, and only then under long-term buildout of the airport with an extended runway. As a result, no significant noise impacts would be anticipated at future uses within the South Employment Village unless a transient lodging facility is ultimately proposed under the Service Use designation. If transient lodging facilities are proposed within the 60 dB CNEL noise contours shown on Exhibit 3.5-2, this impact would be considered **potentially significant.**

Off-Site Elements

Off-site elements of the project do not include any noise sensitive elements that are within the 60 dB CNEL noise contours of Sacramento International Airport. This would be **less than significant**.

Mitigation Measure 3.5-1: Prepare an Acoustical Study for any Transient Lodging within the 60 dB CNEL contour of Sacramento International Airport.

On-Site Elements

The project applicant shall prepare an acoustical analysis of proposed construction plans and building materials for any transient lodging facilities located within the 60 dB CNEL noise contours for Sacramento International Airport. All plans must meet interior noise levels within habitable rooms so they do not exceed 45 dB CNEL or 65 dB SEL during individual aircraft events.

Off-Site Elements

No mitigation measures are required.

Implementation: Project applicant(s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-1 noise emanating from Sacramento International Airport would be reduced to levels within the applicable county standard. As a result, this impact would be **less than significant.**

IMPACT 3.5-2 Exposure of Residential and School Uses Developed on the Project Site to Excessive Single-Event Noise from Sacramento International Airport Operations.

On-Site Elements

Because of the distance between proposed noise-sensitive land uses and the flight paths of Sacramento International Airport, it is unlikely that aircraft operations would have an appreciable effect on the development. Recorded deed notices will be required in areas affected by aircraft over-flights to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, particularly residential property, are informed that the project site is subject to routine overflights and associated noise by aircraft from Sacramento International Airport, that the frequency of aircraft overflights is routine and that aircraft events can be expected to increase through the year 2020 and beyond in accordance with the Sacramento International Airport Master Plan, and that such overflights could cause occasional speech interference, sleep disruption that could affect more than 10% of all residents at any one time, and other annoyances associated with exposure to aircraft noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to aircraft overflights (as well as all other prospective residents)—people who are highly annoyed by overflights—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of an airport's proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Table 3.5-17 indicates that the measured aircraft SEL at test location Site 3 on Exhibit 3.5-3 was 66 dB. This site is approximately 2,000 feet west of the nearest residential and school uses on the project site (Mixed Use are at northwest quadrant of the Highway 99 / Riego Road interchange). It should be noted that attempts were made to quantify aircraft Single Event noise closer to the proposed mixed-use and school site, but aircraft noise levels were too low to be measurable over background freeway (SR 99) noise levels at that location. However, because of the increased distance to the airport from where the 66 dB SEL value was measured, exterior SEL values at the nearest proposed school and residential sites are expected to be less than 60 dB. Because standard residential and school construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 60 would be reduced to 35 dB within residences and classrooms. This level is well below the recommended 70 dB SEL sleep disturbance and 60 dB SEL speech interference thresholds of significance for findings of noise impacts because of single events. As a result, this impact is considered **less than significant**.

Off-Site Elements

Off-site elements of the project do not include any noise sensitive elements that would be subject to SEL from Sacramento International Airport operations. This would be **less than significant**.

Mitigation Measures:

On-Site and Off-Site Elements

No mitigation measures are required.

IMPACT 3.5-3 Exposure of Noise-Sensitive Land Uses to Noise from Union Pacific Railroad Operations.

On-Site Elements

Recorded deed notices will be required in areas affected by railroad pass-bys to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, particularly residential property, are informed that the project site is subject to routine train passages, that the frequency of such passages is routine and may increase through the year 2020 and beyond, and that such passages could cause occasional speech interference, sleep disruption that could affect more than 10% of all residents at any one time, and other annoyances associated with exposure to railroad noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to train passages (as well as all other prospective residents)—people who are highly annoyed by train passages—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of the railroad's proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Based on the existing noise level measurements discussed earlier in the setting section, railroad noise impacts are considered significant where railroad noise levels would exceed the Sutter County noise standards shown in Table 3.5-4, or where SEL would exceed the recommended sleep interference criterion of 70 dB within residences. Data in Table 3.5-15 provide the distances to the critical noise contours for locations within the project site affected by railroad noise, including areas both affected by warning horn noise and those unaffected by warning horn noise.

The data in Table 3.5-15 indicate that the 60 dB L_{dn} contours for UPRR operations extend approximately 600 feet from the tracks at locations beyond ¼ mile from at-grade crossings, and approximately 1,200 feet from the tracks at locations within ¼ mile of an at-grade crossing. Table 3.5-15 also provides distances to the 95 dB SEL contours. The reason for the difference in distances to contours is that trains are required to sound their horns when approaching at-grade crossings, and the area of impact of the horns is effectively ¼ mile. The 95 dB SEL contour distances are provided because this line represents the locations within which interior SEL values could exceed the 70 dB SEL sleep disturbance threshold (assuming 25 dB building façade noise reduction with windows closed).

Because there are no school uses proposed within the railroad noise impact contours shown in Table 3.5-15, no adverse railroad noise impacts are identified for this project at school uses. However, because medium density residential uses are proposed along the eastern boundary within these impact zones, the Sutter County 60 dB L_{dn} noise level standard would be exceeded at unshielded exterior areas, as would the 45 dB L_{dn} Sutter County interior standard and the 70 dB SEL interior sleep disturbance criteria. As a result, this impact is considered **significant**.

Off-Site Elements

Off-site elements of the project do not include any noise sensitive elements that would be subject to railroad operations. This would be **less than significant**.

Mitigation Measure 3.5-3: Prepare an Acoustical Study for any Sensitive Uses within the 60 dB L_{dn} Contour of the UPRR Operations.

On-Site Elements

The project applicant shall prepare an acoustical analysis of proposed site plans, construction plans, and building materials for any residential uses proposed within the 60 dB L_{dn} contours shown in Table 3.5-15. The applicant shall ensure that adequate noise insulation features are included in the project design to reduce exterior noise

levels to 60 dB L_{dn} at primary outdoor activity areas and interior noise levels within habitable rooms to 45 dB L_{dn} and 70 dB SEL.

The appropriate exterior noise mitigation would depend on the type of residential product proposed (i.e., what form would the outdoor activity areas take), proximity of the outdoor space to an at-grade crossing, and the ultimate elevation of the outdoor spaces relative to the railroad tracks.

If a primary outdoor activity area is proposed approximately 150 feet from the railroad tracks, Table 3.5-15 indicates that the exterior noise exposure at that location would be approximately 70 or 75 dB L_{dn}, depending on whether or not the site is affected by warning horn usage. As such, a 10 to 15 dB exterior noise level reduction would be required to achieve satisfaction with the County's 60 dB L_{dn} exterior noise level standard (the County may permit exterior noise levels up to 65 dB L_{dn} in cases where 60 dB L_{dn} cannot be achieved through a practical application of the best available noise reduction technology). A 10 to 15 dB in railroad noise through the construction of noise barriers alone is very difficult to achieve, as the effective noise source height for railroad sources is placed 10 feet above the tracks for noise barrier calculations. As a result, outdoor activity areas should be set back from the railroad tracks the maximum extent practical, and shielded by intervening residential structures or solid noise barriers to accomplish the necessary attenuation. While it is feasible to mitigate exterior railroad noise exposure at the project site to a state of compliance with the County noise standards, more detailed recommendations for exterior noise mitigation measures cannot be provided until more detailed site and grading plans are available.

Interior noise mitigation would also depend on proximity of the habitable room to the tracks and whether the residential structure is affected by warning horn noise. If residences are proposed as close as 150 feet from the railroad tracks near a grade crossing, approximately 30 dB of building facade noise reduction would be required to achieve satisfaction with the 45 dB L_{dn} interior noise level standard of Sutter County, and 34 dB of building façade attenuation would be required to reduce interior SEL values to 70 dB or less. The design to achieve this degree of attenuation shall be specified in the prepared acoustical analysis and likely would take the form of upgraded windows and more massive construction of building walls. Such measures are feasible in noise environments up to 75 dB L_{dn}, but more specific measures for mitigating interior noise levels cannot be developed until site and building plans are available.

Off-Site Elements

No mitigation measures are required.

Implementation: Project applicant(s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-3 noise emanating from UPRR operations would be reduced to levels within the applicable county standard and recommended interior sleep interference levels by requiring the implementation of design features determined by the independent acoustical analysis. As a result, this impact would be **less than significant.**

IMPACT 3.5-4 Exposure of Residential Uses Developed within the Project Site to Excessive Vibration Levels During Passage of Trains on the UPRR Tracks.

On-Site Elements

Table 3.5-16 indicates that the measured vibration levels during passage of freight trains at the project site were 0.015 in/sec PPV or less. The recommended threshold for acceptable vibration levels is 0.1 in/sec. Because measured levels at the project site were well below the threshold of significance, this impact is considered **less than significant**.

Off-Site Elements

Off-site elements of the project do not include any vibration sensitive elements that would be subject to railroad induced vibration. This would be **less than significant**.

Mitigation Measures

On-Site and Off-Site Elements

No mitigation measures are required.

IMPACT 3.5-5 Noise Impacts Associated with Project Construction Activities.

On-Site Elements

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Although construction within the project area is not likely to affect existing noise-sensitive land uses off-site, new residences constructed within the project site would be occupied while construction is still ongoing, and those residents could be affected by construction noise. Activities involved in construction would generate maximum noise levels, as indicated in Table 3.5-18, ranging from 85 to 90 dB at a distance of 50 feet. Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. Although buildout of the project area would take 20-30 years, this noise increase would be of relatively short duration in any one area. As a result, the duration of time any given residence would be exposed to ongoing construction in the same neighborhood would be limited despite the overall length of project buildout. In addition, construction activities would likely occur primarily during daytime hours. For this project, construction noise impacts are identified if construction activities would occur in close proximity to noise-sensitive receptors (residences) during nighttime hours. During daytime hours, it is recognized that there is decreased sensitivity to noise and that construction activities are temporary.

Activities associated with construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. However, because construction activities would be temporary in nature and would typically occur during normal daytime working hours, significant adverse public reaction to construction noise is not anticipated. Nonetheless, because construction activities could result in periods of elevated noise levels, and because construction activities could occur at night, this impact is considered **significant**.

Off-Site Elements

Activities associated with construction of off-site utilities would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet (see Table 3.5-18). However, because construction activities would be temporary in nature and would occur during normal daytime working hours, significant adverse public reaction to

construction noise is not anticipated. Noise-sensitive receptors could potentially be affected by adjacent construction activities where new off-site infrastructure is installed. As a result, because construction activities could create periods of elevated noise levels and occur at night adjacent to noise-sensitive receptors, this impact is considered **significant**.

Table 3.5-18
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: *Environmental Noise Pollution*, Patrick R. Cunniff 1977

Mitigation Measure 3.5-5a: Construction activities taking place in Sutter County shall be restricted to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays, Sundays, and Federal Holidays.

On-Site and Off-Site Elements

This measure is consistent with many jurisdictions code requirements pertaining to permissible construction. The intent of this measure is to prevent construction activities during the more sensitive nighttime period.

Mitigation Measure 5-5b: Construction activities taking place in Placer and Sacramento Counties shall adhere to the applicable Counties ordinances and regulations regarding construction activity hours of operation.

On-Site Elements

All on-site Elements are located within Sutter County, so there would be no on-site construction activities occurring within Placer or Sacramento County.

Off-Site Elements

Although Sutter County does not have a specific provision within its ordinances pertaining to construction, Placer County exempts construction activities from the provisions of its noise ordinance provided it occurs between 6 a.m. and 8 p.m. Monday through Friday, and between 8 a.m. and 8 p.m. on Saturday and Sunday provided all construction equipment is fitted with factory-installed muffler devices and maintained in good working order. It is recommended that construction activity occurring on the project site (within Sutter County) be limited to those hours as well.

Mitigation Measure 3.5-5c: Measures to Minimize Potential for Sleep Disturbance and Speech Interference.

On-Site and Off-Site Elements

In addition to MM 3.5-5a and b, the following mitigation shall be incorporated into construction plans to ensure speech interference and sleep disturbance does not occur.

- All construction equipment and staging areas shall be located at the farthest distance practicable from nearby noise-sensitive land uses.

- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

- All motorized construction equipment shall be shut down when not in use to prevent idling.

- A disturbance coordinator shall be designated and the person's telephone number conspicuously posted around the project sites and supplied to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: During all construction phases

Enforcement: Sutter County Community Services Department, Sutter, Placer, Sacramento County Sheriff's Department

Significance after Mitigation

With implementation of Mitigation Measure 3.5-5 noise from construction activities would limited to less sensitive daytime hours, restricted to those hours exempted by the applicable county and be reduced to the extent feasible by using available setbacks and technology. As a result, this impact would be **less than significant.**

IMPACT 3.5-6 Agricultural Noise Levels at Future Residences within the Plan Area

On-Site Elements

It is unknown at this time whether residences constructed within the project site would be affected by agricultural noise levels, and if so, to what degree. Agricultural activities in the area include the use of various types of heavy equipment. Operation of heavy agricultural equipment typically generates noise levels of approximately 75 dB L_{eq} at 50 feet (EPA 1971). The closest proposed residences would not likely be exposed to this noise level for extended periods, given the mobile nature of agricultural operations (e.g., disking, plowing, haying). If, for instance, residences were exposed to for one full daytime hour in a day and ambient noise levels were 50 dB L_{eq} during the rest of the day, then the 24-hour noise level would be 57.0 dB L_{dn}, which is below the Sutter County standard for residential land uses (Table 3.5-3). Nonetheless, because of the fact that agricultural activities can result in periods of elevated noise exposure which may result in annoyance to new residents unfamiliar with agricultural operations, this impact is considered **potentially significant.**

Off-Site Elements

Off-site elements of the project do not include any noise sensitive elements that would be subject to agricultural noise. This would be **less than significant**.

Mitigation Measure 3.5-6a: Disclosure statements should be provided to all future residences located adjacent to active agricultural areas informing them of the likelihood of elevated noise levels during agricultural operations.

On-Site Elements

This measure will ensure that prospective residents of the developments located adjacent to agricultural areas are aware of the potential presence of periodic agricultural noises.

Off-Site Elements

No mitigation measures are required.

Mitigation Measure 3.5-6b: Ensure that residential construction provides minimum 30 dB noise reduction

On-Site Elements

All residences constructed adjacent to active agricultural areas shall be of sufficient construction to reduce noise levels by 30 dB within bedrooms to minimize the potential for sleep disturbance and ensure compliance with County noise standards during early morning agricultural operations. Construction "sufficient" to provide 30 dB of exterior to interior noise level reduction would consist of stucco siding and windows with a minimum Sound Transmission Class (STC) rating of at least 30.

Off-Site Elements

No mitigation measures are required.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans. During drafting of Covenants, Codes, and Restrictions documents.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-6 the potential for adverse public reaction to noise from agriculture activities would be significantly reduced due to notification and insurance that residential building construction would provide at least 30 dB of noise reduction. As a result, this impact would be **less than significant.**

IMPACT 3.5-7 Exposure of Noise Sensitive Land Uses on the Project Site to noise Generated by New Commercial, Industrial, Recreation, School, Utilities, and Public Facility Uses.

On-Site Elements

Noise-producing aspects of certain land uses developed within the Plan Area such as industry, commercial loading docks, school playing fields, etc, could generate elevated noise levels in the vicinity of proposed noise-sensitive land uses. Commercial loading docks and elementary school playgrounds typically generate average noise levels of 55-60 dB L_{eq}, and maximum levels of 75-80 dB L_{max} at a distance of 100 feet from the source. If constructed immediately adjacent to residential uses, the Sutter County noise level performance standards could be exceeded (Table 3.5-2). The project has generally been designed with buffers in the form of large setbacks between the most noise-producing and noise-sensitive types of land uses, which would greatly reduce the potential for incompatible land uses with respect to noise. Nonetheless, because noise associated with these types of uses could exceed applicable Sutter County noise limits at noise-sensitive areas, this impact is considered **potentially significant.**

Off-Site Elements

Typically utility infrastructure does not create noise; however, hubs that act as distribution centers of particular utilities can create additional noise. Proposed pumping and transfer stations, without proper noise control or

enclosure, could result in noise levels reaching approximately 100 dBA at 3–5 feet from the source depending on the exact type and size (EPA 1971). Based on this equipment noise level the operation of on-site stationary equipment could result in an exterior noise level that exceeds applicable county standards. Such equipment would likely be housed in buildings, enclosed, and/or equipped with interior sound insulation that may result in substantially lower noise levels. However, the specific design features for these stations are not known at this time; thus potential noise producing equipment, equipment locations, and the affected sensitive receptors are also unknown. As a result this impact is **potentially significant.**

Mitigation Measure 3.5-7a: Require acoustical analyses for new on-site commercial, industrial, recreation, school, utilities, and public facility uses constructed within Sutter County determined to have the potential to exceed applicable noise standards.

On-Site Elements

Sutter County shall make a determination upon review of applications for new noise producing land uses as to whether the proposed use would potentially impact existing or proposed noise-sensitive land uses in the vicinity of the proposed use. Where the County estimates that a project may generate significant levels of noise (i.e. above standards set by the Sutter County General Plan, see Table 3.5-2, 3), a noise analysis shall be required. The noise analysis shall include a detailed mitigation plan based on project level designs and may include, but is not limited to, the construction of noise barriers, modifications to site design, building façade upgrades, or any other means necessary to reduce noise levels that achieve compliance with the County noise standards. The mitigation from the noise analysis shall then be incorporated into the final construction plans before County approval and then built to the specifications designated by the noise analysis. Such mitigation is routinely included in the construction of new school and commercial developments and has been demonstrated to be feasible in mitigating noise impacts. Noise generated by new industry within the project site is typically considerably more variable and complicated, thereby triggering the requirement for a project-specific noise analysis.

Off-Site Elements

No mitigation measures are required.

Mitigation Measure 3.5-7b: Require acoustical analyses for new off-site utilities and public facility uses constructed within Placer or Sacramento Counties determined to have the potential to exceed applicable noise standards.

On-Site Elements

No mitigation measures are required.

Off-Site Elements

For all off-site noise producing infrastructure, such as pumping and transfer stations, all noise generating equipment that is in excess of the applicable county noise standards for new non-transportation noise sources at the property boundary of the nearest sensitive receptor would be required to have an acoustical analysis completed by a acoustical professional and appropriate measures would be required to reduce noise levels to within the applicable standard, such as but not limited to, encasing the equipment within a building or constructing a barrier around the noise generating equipment. Encasing equipment and/or properly constructed noise barriers can typically attenuate noise from 5 dB to complete attenuation depending on design.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-7 stationary source noise generated by stationary and area sources would be reduced to levels within the applicable county standards through incorporation of appropriate noise control measures determined from the project-level acoustical analysis to be appropriate. As a result, this impact would be **less than significant.**

IMPACT 3.5-8 Exposure of Noise Sensitive Land Uses on the Project Site to Noise Generated by Existing Industrial Uses within the Project Site.

On-Site Elements

Existing industrial land uses within the project site, including Sysco Distributing, Holt Equipment, A&R Ready Mix, and other uses along Pacific Avenue, generate noise levels which would likely be audible at times at future residential land uses developed within the project site. The project has been designed to recognize the noise-producing aspects of these uses and has included substantial noise buffer zones between these areas and proposed noise-sensitive areas. For example, the project land use plan indicates that the existing Sysco distribution facility at the corner of Sanky and Pacific will be bordered by a 1,250 foot wide industrial drainage basin to the east, a flood zone and 2,000 foot wide park to the west, and similarly noise-insensitive industrial uses to the north and south. Nonetheless, industrial land use designations and existing industrial uses are proposed within 500-1,000 feet of proposed residential uses, and approximately 1,000 feet from a proposed school site. Because of the noise-generating variability of these sources (i.e. 71 dB L_{eq} at 100 feet for Sysco), noise levels could exceed County noise standards (see Table 3.5-2, 3) or result in nuisance noise despite the large setbacks. As a result, this impact is considered **potentially significant**.

Off-Site Elements

Off-site elements of the project do not include any noise sensitive elements that would be affected by existing stationary source noise. This would be **less than significant**.

Mitigation Measure 3.5-8: Require acoustical analyses for residential uses within 1,500 feet of existing industrial uses.

On-Site Elements

When applications are filed for residential uses within 1,500 feet of an existing industrial use, an acoustical analysis of specific site, grading and construction plans shall be required to ensure that sufficient noise reduction measures are included in the project design to achieve satisfaction with Sutter County noise standards.

Off-Site Elements

No mitigation measures are required

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-8 existing stationary source noise would be reduced to levels within the applicable county standard. The 1,500 foot distance is based on the projected level of 50 dB L_{eq} at a distance of 1,100 feet from the Sysco facility, and the fact that the Sutter County nighttime noise level performance standard is 45 dB L_{eq}. It is likely that in most cases industrial noise will not exceed the County noise level limits at this distance, but this measure is nonetheless included to provide additional protection to the existing and proposed future industrial uses and residences of the development beyond that provided by the buffers alone. As a result, this impact would be **less than significant.**

IMPACT 3.5-9 Increase in Traffic Noise Levels Due to Project Buildout.

On-Site Elements

Development on the project site will result in changes in traffic on the existing roadway network. Relative to existing traffic noise levels within the project site, the increases in traffic noise levels on project-area roadways are predicted to range from 0 to 16 dB L_{dn}, as shown in Table 3.5-19**.**

Table 3.5-19
Traffic Noise Levels (Project Buildout)

Segment	Roadway	Segment Description		L_{dn} @ 100 feet, dB with Project Buildout (Change, dB)
		From	To	
1	Sankey Road	Powerline Road	SR 99	47 (0)
2	Sankey Road	SR 99	Pacific Avenue	68 (12)
3	Sankey Road	Pacific Avenue	Road C	63 (8)
4	Sankey Road	Road C	Pleasant Grove Road (N)	62 (n/a)
5	Sankey Road	Pleasant Grove Road (N)	Locust Road	59 (3)
6	Riego Road	Powerline Road	Road U	64 (11)
7	Riego Road	Road U	Road R	68 (n/a)
8	Riego Road	Road R	Road S	69 (n/a)
9	Riego Road	Road S	SR 99	73 (n/a)
10	Riego Road	SR 99	Road A	73 (9)
11	Riego Road	Road A	Pacific Avenue	72 (n/a)
12	Riego Road	Pacific Avenue	Road C	71 (8)
13	Riego Road	Road C	Road D	70 (n/a)
14	Riego Road	Road D	Pleasant Grove Road (N)	70 (n/a)
15	Riego Road	Pleasant Grove Road (N)	Pleasant Grove Road (S)	69 (5)
16	Riego Road	Pleasant Grove Road (S)	Locust Road	68 (4)
17	Base Line Road	Locust Road	Brewer Road	69 (4)
18	Base Line Road	Brewer Road	Watt Avenue	69 (4)
19	Base Line Road	Watt Avenue	Fiddyment Drive	67 (2)
20	Elverta Road	Powerline Road	SR 99	65 (11)
21	Elverta Road	SR 99	East Levee Road	64 (2)
22	Elverta Road	East Levee Road	Sorento Road	66 (3)

Table 3.5-19
Traffic Noise Levels (Project Buildout)

Segment	Roadway	Segment Description		L_{dn} @ 100 feet, dB with Project Buildout (Change, dB)
		From	To	
23	Elverta Road	Sorento Road	16th Street	66 (2)
24	Elverta Road	16th Street	Watt Avenue	67 (1)
25	Powerline Road	Sankey Road	Riego Road	50 (0)
26	Powerline Road	Riego Road	Sacramento County Line	64 (15)
27	Powerline Road	Sacramento County Line	Elverta Road	65 (16)
28	Powerline Road	Elverta Road	Elkhorn Boulevard	58 (8)
29	Road H	Road O	Sankey Road	63 (n/a)
30	Pacific Avenue	Sankey Road	Road K	65 (11)
31	Pacific Avenue	Road K	Road J	66 (n/a)
32	Pacific Avenue	Road J	Riego Road	67 (n/a)
33	Pacific Avenue	Riego Road	Road B	55 (n/a)
34	Natomas Road	Sankey Road	Riego Road	50 (0)
35	Natomas Road	Riego Road	Sacramento County Line	63 (10)
36	East Levee Road	Sacramento County Line	Elverta Road	63 (10)
37	Pleasant Grove Road (N)	Sankey Road	Riego Road	57 (1)
38	Pleasant Grove Road (S)	Riego Road	Sacramento County Line	63 (6)
39	Sorento Road	Sacramento County Line	Elverta Road	61 (4)
40	Locust Road	Sankey Road	Baseline Road	59 (3)
41	Brewer Road	Phillip Road	Baseline Road	53 (1)
42	Palladay Road	Baseline Road	Sacramento County Line	50 (3)
43	Palladay Road	Sacramento County Line	Elverta Road	50 (3)
44	16th Street	Kasser Road	Elverta Road	54 (2)
45	Watt Avenue	Baseline Road	PFE Road	5 (2)
46	Watt Avenue	PFE Road	Elverta Road	66 (2)
47	Walerga Road	Baseline Road	PFE Road	66 (0)
48	Elkhorn Boulevard	SR 99	Northborough Drive	66 (0)
49	Elkhorn Boulevard	Northborough Drive	Natomas Boulevard	65 (0)
50	Elkhorn Boulevard	Natomas Boulevard	Sageview Drive	66 (0)
51	Elkhorn Boulevard	Sageview Drive	East Levee Road	66 (0)
52	SR 99	SR 99/SR 70 Interchange	Sankey Road	73 (0)
53	SR 99	Sankey Road	Riego Road	75 (2)
54	SR 99	Riego Road	Sacramento County Line	78 (4)
55	SR 99	Sacramento County Line	Elverta Road	78 (4)
56	SR 99	Elverta Road	Elkhorn Boulevard	78 (3)
57	SR 99	Elkhorn Boulevard	I-5	78 (2)
58	I-5	SR 99	Del Paso Road	81 (2)
59	I-5	Del Paso Road	Arena Boulevard	81 (1)
60	I-5	Arena Boulevard	I-80	81 (1)

Table 3.5-19 Traffic Noise Levels (Project Buildout)				
Segment	Roadway	Segment Description		L_{dn} @ 100 feet, dB with Project Buildout (Change, dB)
		From	To	
61	Road A	Road J	Riego Road	63 (n/a)
62	Road A	Riego Road	Road B	67 (n/a)
63	Road D	Road C	Riego Road	63 (n/a)
64	Road D	Riego Road	Road B	61 (n/a)
65	Road C	Road O	Sankey Road	63 (n/a)
66	Road C	Sankey Road	Road K	64 (n/a)
67	Road C	Road K	Road D	64 (n/a)
68	Road C	Road D	Road J	63 (n/a)
69	Road C	Road J	Riego Road	63 (n/a)
70	Road C	Riego Road	Road B	60 (n/a)
71	Road K	Pacific Avenue	Road C	62 (n/a)
72	Road Q	Road S	Road A	60 (n/a)
Note that the values shown in parentheses represent the increase in traffic noise levels relative to existing no-project noise levels. Source: Modeling by BAC 2008, using FHWA-RD-77-108 with inputs from Fehr & Peers 2007.				

Pursuant to the significance criteria, as defined in Table 3.5-12, a substantial increase in traffic noise levels is defined as 1.5 to 5 dB, depending on the pre-project traffic noise level. Because of the relatively large change in overall trip generation associated with the project, traffic noise along 19 roadway segments is predicted to exceed the standards of significance.

Specifically, completion of the development is predicted to result in a significant increase in traffic noise levels along Sankey, Riego, Base Line, Elverta, Powerline, Natomas, Pacific, East Levee, Pleasant Grove, and SR99.

Although there are no residences located along some of the impacted roadway sections, there are residences along other segments. Therefore, the increase in traffic noise levels because of development of the entire project is considered to be **significant.**

Off-Site Elements

There would be no long term traffic as a result of off-site project elements. There would be **no impact**.

Mitigation Measure: no mitigation measures are available.

On-Site Elements

Development of the entire project would cause traffic noise levels to increase on the local roadway network. The extent to which existing land uses are affected by these increases will depend on their proximity to the roadways in question as well as their individual sensitivity to noise.

The reason no noise mitigation measures are available for this impact is that such mitigation would require modification to either the source of traffic noise, the transmission path between the road and the receivers, or the receiver.

Modification to the noise source would require the quieting of individual vehicles, which is preempted from local control by the State Motor Vehicle Code. While noise-reducing pavement materials have been shown to reduce traffic noise levels in some areas, such materials may not provide sufficient noise reduction to reduce this impact to a level of insignificance.

Treatment of the path of sound between the roadway and receiver would require the construction of noise barriers at impacted receptors along the impacted segments. Irrespective of the cost associated with such mitigation, barriers could not be constructed at all locations or would not be effective at all locations because of engineering and safety constraints, as well as topographic and vehicular access constraints.

Finally, treatment of the receptor would essentially consist of retrofitting the buildings of noise-sensitive receptors to provide additional attenuation of traffic noise by the amount which development of the project site would cause traffic noise to increase. The costs and other constraints associated with such retrofitting would render this option infeasible.

Off-Site Elements

No mitigation measures are necessary.

Significance after Mitigation

Mitigation of this impact is not feasible; potential mitigation measures are either unenforceable or infeasible, as described above. This impact would remain **significant and unavoidable**.

IMPACT 3.5-10 Traffic Noise Exposure at Noise-Sensitive Uses Proposed Within the Project Site.

On-Site Elements

The project proposes a mix of residential and other noise-sensitive development adjacent to significant noise-producing roadways. The distances to the critical noise contours for roadways within the project site are provided in Appendix D of Appendix G of this DEIR. Because residential land uses are designated adjacent to roadways for which the 60 dB L_{dn} contours would extend beyond the roadway right of way, this impact is considered **significant.**

Off-Site Elements

There would be no long term traffic as a result of off-site project elements. There would be **no impact**.

Mitigation Measure 3.5-10: Prepare Acoustical Analyses for Residential and Other Noise-Sensitive Development located within areas impacted by traffic noise.

On-Site Elements

When applications are filed for residential and other noise-sensitive uses within the 60 dB L_{dn} contours shown in Appendix D of Appendix G of this DEIR, or for other noise-sensitive land uses identified in Table 3.5-4, an acoustical analysis of specific site, grading and construction plans shall be required to ensure that sufficient noise reduction measures are included in the project design to achieve satisfaction with Sutter County noise standards.

Off-Site Elements

No mitigation measures are necessary.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-10 traffic noise generated within the project site would be reduced to levels within the applicable county standard because the project-level acoustical analyses which can be prepared once site and grading plans are available will include the necessary noise-control measures. As a result, this impact would be **less than significant.**

Additional Detailed Analysis of On-Site Elements – Impacts and Mitigation Measures

IMPACT 3.5-11 Exposure of Noise-Sensitive Land Uses to Community Noise Equivalent Level from Sacramento International Airport.

Phase 1 and Phase A do not include any noise sensitive elements that are within the 60 dB CNEL noise contours of Sacramento International Airport. In addition, no school uses are proposed within the airport's noise impact zones, so interior noise levels within classrooms will not exceed the County's 45 dB L_{eq} standard. This would be a **less than significant** impact.

IMPACT 3.5-12 Exposure of Residential and School Uses Developed on the Project Site to Excessive Single-Event Noise from Sacramento International Airport Operations.

Because of the distance between proposed noise-sensitive land uses and the flight paths of Sacramento International Airport, it is unlikely that aircraft operations would have an appreciable effect on the development. Recorded deed notices will be required in areas affected by aircraft over-flights to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, particularly residential property, are informed that the project site is subject to routine overflights and associated noise by aircraft from Sacramento International Airport, that the frequency of aircraft overflights is routine and that aircraft events can be expected to increase through the year 2020 and beyond in accordance with the Sacramento International Airport Master Plan, and that such overflights could cause occasional speech interference, sleep disruption that could affect more than 10% of all residents at any one time, and other annoyances associated with exposure to aircraft noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to aircraft overflights (as well as all other prospective residents)—people who are highly annoyed by overflights—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of an airport's proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Table 3.5-17 indicates that the measured aircraft SEL at test location Site 3 on Exhibit 3.5-3 was 66 dB. This site is approximately 2,000 feet west of the nearest residential and school uses on the project site (Mixed Use are at northwest quadrant of the Highway 99 / Riego Road interchange). It should be noted that attempts were made to quantify aircraft Single Event noise closer to the proposed mixed-use and school site, but aircraft noise levels were too low to be measurable over background freeway (SR 99) noise levels at that location. However, because of the increased distance to the airport from where the 66 dB SEL value was measured, exterior SEL values at the nearest proposed school and residential sites are expected to be less than 60 dB. Because standard residential and school construction would provide at least a 25 dB noise reduction with windows closed, an exterior SEL of approximately 60 would be reduced to 35 dB within residences and classrooms. This level is well below the

recommended 70 dB SEL sleep disturbance and 60 dB SEL speech interference thresholds of significance for findings of noise impacts because of single events. As a result, this impact is considered **less than significant**.

Off-Site Elements

Off-site elements of the project do not include any noise sensitive elements that would be subject to SEL from Sacramento International Airport operations. This would be **less than significant**.

Mitigation Measures:

No mitigation measures are required.

IMPACT 3.5-13 Exposure of Noise-Sensitive Land Uses to Noise from Union Pacific Railroad Operations.

Recorded deed notices will be required in areas affected by railroad pass-bys to ensure that initial and subsequent prospective buyers, lessees, and renters of property on the project site, particularly residential property, are informed that the project site is subject to routine train passages, that the frequency of such passages is routine and may increase through the year 2020 and beyond, and that such passages could cause occasional speech interference, sleep disruption that could affect more than 10% of all residents at any one time, and other annoyances associated with exposure to railroad noise.

The recorded deed notices would not change the noise environment; however, they would notify people with above-average sensitivity to train passages (as well as all other prospective residents)—people who are highly annoyed by train passages—that they are choosing to live in a location where such activities frequently occur. This strategy involves making people more aware of the railroad's proximity and current and future potential noise exposure before prospective buyers, lessees, and tenants move to the project site.

Based on the existing noise level measurements discussed earlier in the setting section, railroad noise impacts are considered significant where railroad noise levels would exceed the Sutter County noise standards shown in Table 3.5-4, or where SEL would exceed the recommended sleep interference criterion of 70 dB within residences. Data in Table 3.5-15 provide the distances to the critical noise contours for locations within the project site affected by railroad noise, including areas both affected by warning horn noise and those unaffected by warning horn noise.

The data in Table 3.5-15 indicate that the 60 dB L_{dn} contours for UPRR operations extend approximately 600 feet from the tracks at locations beyond ¼ mile from at-grade crossings, and approximately 1,200 feet from the tracks at locations within ¼ mile of an at-grade crossing. Table 3.5-15 also provides distances to the 95 dB SEL contours. The reason for the difference in distances to contours is that trains are required to sound their horns when approaching at-grade crossings, and the area of impact of the horns is effectively ¼ mile. The 95 dB SEL contour distances are provided because this line represents the locations within which interior SEL values could exceed the 70 dB SEL sleep disturbance threshold (assuming 25 dB building façade noise reduction with windows closed).

Because there are no school uses proposed within the railroad noise impact contours shown in Table 3.5-15, no adverse railroad noise impacts are identified for this project at school uses. However, because medium density residential uses are proposed along the eastern boundary within these impact zones, the Sutter County 60 dB L_{dn} noise level standard would be exceeded at unshielded exterior areas, as would the 45 dB L_{dn} Sutter County interior standard and the 70 dB SEL interior sleep disturbance criteria. As a result, this impact is considered **significant**.

The eastern residential portion of the Mid Riego Neighborhood Center under Phase 1 would be within 60 dB L_{dn} contours from railroad operations. As a result, this impact is considered **significant**.

Mitigation Measure 3.5-13: Apply Mitigation Measure 3.5-3 – Require Acoustical Analyses for residential uses constructed within the 60 dB Ldn contours.

The project applicant shall prepare an acoustical analysis of proposed site plans, construction plans, and building materials for any residential uses proposed within the 60 dB L_{dn} contours shown in Table 3.5-15. The applicant shall ensure that adequate noise insulation features are included in the project design to reduce exterior noise levels to 60 dB L_{dn} at primary outdoor activity areas and interior noise levels within habitable rooms to 45 dB L_{dn} and 70 dB SEL.

The appropriate exterior noise mitigation would depend on the type of residential product proposed (i.e., what form would the outdoor activity areas take), proximity of the outdoor space to an at-grade crossing, and the ultimate elevation of the outdoor spaces relative to the railroad tracks.

If a primary outdoor activity area is proposed approximately 150 feet from the railroad tracks, Table 3.5-15 indicates that the exterior noise exposure at that location would be approximately 70 or 75 dB L_{dn}, depending on whether or not the site is affected by warning horn usage. As such, a 10 to 15 dB exterior noise level reduction would be required to achieve satisfaction with the County's 60 dB L_{dn} exterior noise level standard (the County may permit exterior noise levels up to 65 dB L_{dn} in cases where 60 dB L_{dn} cannot be achieved through a practical application of the best available noise reduction technology). A 10 to 15 dB in railroad noise through the construction of noise barriers alone is very difficult to achieve, as the effective noise source height for railroad sources is placed 10 feet above the tracks for noise barrier calculations. As a result, outdoor activity areas should be set back from the railroad tracks the maximum extent practical, and shielded by intervening residential structures or solid noise barriers to accomplish the necessary attenuation. While it is feasible to mitigate exterior railroad noise exposure at the project site to a state of compliance with the County noise standards, more detailed recommendations for exterior noise mitigation measures cannot be provided until more detailed site and grading plans are available.

Interior noise mitigation would also depend on proximity of the habitable room to the tracks and whether the residential structure is affected by warning horn noise. If residences are proposed as close as 150 feet from the railroad tracks near a grade crossing, approximately 30 dB of building facade noise reduction would be required to achieve satisfaction with the 45 dB L_{dn} interior noise level standard of Sutter County, and 34 dB of building façade attenuation would be required to reduce interior SEL values to 70 dB or less. The design to achieve this degree of attenuation shall be specified in the prepared acoustical analysis and likely would take the form of upgraded windows and more massive construction of building walls. Such measures are feasible in noise environments up to 75 dB L_{dn}, but more specific measures for mitigating interior noise levels cannot be developed until site and building plans are available.

Implementation: Project applicant(s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-3 noise emanating from UPRR operations would be reduced to levels within the applicable county standard and recommended interior sleep interference levels by requiring the implementation of design features determined by the independent acoustical analysis. As a result, this impact would be **less than significant.**

IMPACT 3.5-14 Exposure of Residential Uses Developed within the Project Site to Excessive Vibration Levels During Passage of Trains on the UPRR Tracks.

Table 3.5-16 indicates that the measured vibration levels during passage of freight trains at the project site were 0.015 in/sec PPV or less. The recommended threshold for acceptable vibration levels is 0.1 in/sec. Because measured levels at the project site were well below the threshold of significance, this impact is considered **less than significant**.

Mitigation Measures

No mitigation measures are required.

IMPACT 3.5-15 Noise Impacts Associated with Project Construction Activities.

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Although construction within the project area is not likely to affect existing noise-sensitive land uses off-site, new residences constructed within the project site would be occupied while construction is still ongoing, and those residents could be affected by construction noise. Activities involved in construction would generate maximum noise levels, as indicated in Table 3.5-18, ranging from 85 to 90 dB at a distance of 50 feet. Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. Although buildout of the project area would take 20-30 years, this noise increase would be of relatively short duration in any one area. As a result, the duration of time any given residence would be exposed to ongoing construction in the same neighborhood would be limited despite the overall length of project buildout. In addition, construction activities would likely occur primarily during daytime hours. For this project, construction noise impacts are identified if construction activities would occur in close proximity to noise-sensitive receptors (residences) during nighttime hours. During daytime hours, it is recognized that there is decreased sensitivity to noise and that construction activities are temporary.

Activities associated with construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. However, because construction activities would be temporary in nature and would typically occur during normal daytime working hours, significant adverse public reaction to construction noise is not anticipated. Nonetheless, because construction activities could result in periods of elevated noise levels, and because construction activities could occur at night, this impact is considered **significant**.

Mitigation Measure 3.5-15a: Implement Measure 3.5-5a - Construction activities shall be restricted to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays, Sundays, and Federal Holidays.

This measure is consistent with many jurisdictions code requirements pertaining to permissible construction. The intent of this measure is to prevent construction activities during the more sensitive nighttime period.

Mitigation Measure 3.5-15b: Implement Measure 3.5-5c - Measures to Minimize Potential for Sleep Disturbance and Speech Interference.

In addition to MM 3.5-5a, the following mitigation shall be incorporated into construction plans to ensure speech interference and sleep disturbance does not occur.

- All construction equipment and staging areas shall be located at the farthest distance possible from nearby noise-sensitive land uses.

- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

- All motorized construction equipment shall be shut down when not in use to prevent idling.

- A disturbance coordinator shall be designated and the person's telephone number conspicuously posted around the project sites and supplied to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: During all construction phases.

Enforcement: Sutter County Community Services Department, Sutter, Placer, Sacramento County Sheriff's Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-15 noise from construction activities would limited to less sensitive daytime hours, restricted to those hours exempted by the applicable county and be reduced to the extent feasible by using available setbacks and technology. As a result, this impact would be **less than significant.**

IMPACT 3.5-16 Agricultural Noise Levels at Future Residences within the Plan Area

It is unknown at this time whether residences constructed within the project site would be affected by agricultural noise levels, and if so, to what degree. Agricultural activities in the area include the use of various types of heavy equipment. Operation of heavy agricultural equipment typically generates noise levels of approximately 75 dB L_{eq} at 50 feet (EPA 1971). The closest proposed residences would not likely be exposed to this noise level for extended periods, given the mobile nature of agricultural operations (e.g., disking, plowing, haying). If, for instance, residences were exposed to for one full daytime hour in a day and ambient noise levels were 50 dB L_{eq} during the rest of the day, then the 24-hour noise level would be 57.0 dB L_{dn}, which is below the Sutter County standard for residential land uses (Table 3.5-3). Nonetheless, because of the fact that agricultural activities can result in periods of elevated noise exposure which may result in annoyance to new residents unfamiliar with agricultural operations, this impact is considered **potentially significant.**

Mitigation Measure 3.5-16: Implement Measure 3.5-6a: Disclosure statements should be provided to all future residences located adjacent to active agricultural areas informing them of the likelihood of elevated noise levels during agricultural operations.

This measure will ensure that prospective residents of the developments located adjacent to residential areas are aware of the potential presence of periodic agricultural noises.

Mitigation Measure 3.5-16b: Implement Measure 3.5-6b - Ensure that residential construction provides minimum 30 dB noise reduction

All residences constructed adjacent to active agricultural areas shall be of sufficient construction to reduce noise levels by 30 dB within bedrooms to minimize the potential for sleep disturbance and ensure compliance with County noise standards during early morning agricultural operations. Construction "sufficient" to provide 30 dB

of exterior to interior noise level reduction would consist of stucco siding and windows with a minimum Sound Transmission Class (STC) rating of at least 30.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans. During drafting of Covenants, Codes, and Restrictions documents.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-16 the potential for adverse public reaction to noise from agriculture activities would be significantly reduced due to notification and insurance that residential building construction would provide at least 30 dB of noise reduction. As a result, this impact would be **less than significant.**

IMPACT 3.5-17 Exposure of Noise Sensitive Land Uses on the Project Site to noise Generated by New Commercial, Industrial, Recreation, School, Utilities, and Public Facility Uses.

Noise-producing aspects of certain land uses developed within the Plan Area such as industry, commercial loading docks, school playing fields, etc, could generate elevated noise levels in the vicinity of proposed noise-sensitive land uses. Commercial loading docks and elementary school playgrounds typically generate average noise levels of 55-60 dB L_{eq}, and maximum levels of 75-80 dB L_{max} at a distance of 100 feet from the source. If constructed immediately adjacent to residential uses, the Sutter County noise level performance standards could be exceeded (Table 3.5-2). The project has generally been designed with buffers in the form of large setbacks between the most noise-producing and noise-sensitive types of land uses, which would greatly reduce the potential for incompatible land uses with respect to noise. Nonetheless, because noise associated with these types of uses could exceed applicable Sutter County noise limits at noise-sensitive areas, this impact is considered **potentially significant.**

Mitigation Measure 3.5-17a: Implement Measure 3.5-7a: Require acoustical analyses for new on-site commercial, industrial, recreation, school, utilities, and public facility uses constructed within Sutter County determined to have the potential to exceed applicable noise standards.

Sutter County shall make a determination upon review of applications for new noise producing land uses as to whether the proposed use would potentially impact existing or proposed noise-sensitive land uses in the vicinity of the proposed use. Where the County estimates that a project may generate significant levels of noise (i.e. above standards set by the Sutter County General Plan, see Table 3.5-2, 3), a noise analysis shall be required. The noise analysis shall include a detailed mitigation plan based on project level designs and may include, but is not limited to, the construction of noise barriers, modifications to site design, building façade upgrades, or any other means necessary to reduce noise levels that achieve compliance with the County noise standards. The mitigation from the noise analysis shall then be incorporated into the final construction plans before County approval and then built to the specifications designated by the noise analysis. Such mitigation is routinely included in the construction of new school and commercial developments and has been demonstrated to be feasible in mitigating noise impacts. Noise generated by new industry within the project site is typically considerably more variable and complicated, thereby triggering the requirement for a project-specific noise analysis.

Mitigation Measure 3.5-17b: Implement Measure 3.5-7b - Require acoustical analyses for new off-site utilities and public facility uses constructed within Placer or Sacramento Counties determined to have the potential to exceed applicable noise standards.

For all off-site noise producing infrastructure, such as pumping and transfer stations, all noise generating equipment that is in excess of the applicable county noise standards for new non-transportation noise sources at the property boundary of the nearest sensitive receptor would be required to have an acoustical analysis completed by a acoustical professional and appropriate measures would be required to reduce noise levels to within the applicable standard, such as but not limited to, encasing the equipment within a building or constructing a barrier around the noise generating equipment. Encasing equipment and/or properly constructed noise barriers can typically attenuate noise from 5 dB to complete attenuation depending on design.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-17 stationary source noise generated by stationary and area sources would be reduced to levels within the applicable county standards through incorporation of appropriate noise control measures determined from the project-level acoustical analysis to be appropriate. As a result, this impact would be **less than significant.**

IMPACT 3.5-18 Exposure of Noise Sensitive Land Uses on the Project Site to Noise Generated by Existing Industrial Uses within the Project Site.

Existing industrial land uses within the project site, including Sysco Distributing, Holt Equipment, A&R Ready Mix, and other uses along Pacific Avenue, generate noise levels which would likely be audible at times at future residential land uses developed within the project site. The project has been designed to recognize the noise-producing aspects of these uses and has included substantial noise buffer zones between these areas and proposed noise-sensitive areas. For example, the project land use plan indicates that the existing Sysco distribution facility at the corner of Sanky and Pacific will be bordered by a 1,250 foot wide industrial drainage basin to the east, a flood zone and 2,000 foot wide park to the west, and similarly noise-insensitive industrial uses to the north and south. Nonetheless, industrial land use designations and existing industrial uses are proposed within 500-1,000 feet of proposed residential uses, and approximately 1,000 feet from a proposed school site. Because of the noise-generating variability of these sources (i.e. 71 dB L_{eq} at 100 feet for Sysco), noise levels could exceed County noise standards (see Table 3.5-2, 3) or result in nuisance noise despite the large setbacks. As a result, this impact is considered **potentially significant**.

Mitigation Measure 3.5-18: Implement Measure 3.5-8 - Require acoustical analyses for residential uses within 1,500 feet of existing industrial uses.

When applications are filed for residential uses within 1,500 feet of an existing industrial use, an acoustical analysis of specific site, grading and construction plans shall be required to ensure that sufficient noise reduction measures are included in the project design to achieve satisfaction with Sutter County noise standards.

Implementation: Project applicant(s) and Contractor (s) of all project phases.

Timing: Before submission of the detailed construction plans.

Enforcement: Sutter County Community Services Department.

Significance after Mitigation

With implementation of Mitigation Measure 3.5-18 existing stationary source noise would be reduced to levels within the applicable county standard. The 1,500 foot distance is based on the projected level of 50 dB L_{eq} at a distance of 1,100 feet from the Sysco facility, and the fact that the Sutter County nighttime noise level performance standard is 45 dB L_{eq}. It is likely that in most cases industrial noise will not exceed the County noise level limits at this distance, but this measure is nonetheless included to provide additional protection to the existing and proposed future industrial uses and residences of the development beyond that provided by the buffers alone. As a result, this impact would be **less than significant.**

IMPACT 3.5-19 Increase in Traffic Noise Levels Because of Phase I Development of Project Site

Traffic noise impacts are identified where existing or future traffic noise levels with the project would significantly exceed existing or future traffic noise levels without the project. In addition, traffic noise impacts are identified if traffic on local roadways would cause noise levels to exceed the Sutter County noise standards at exterior or interior areas of the noise sensitive uses proposed within this project (residential).

To describe future noise levels because of traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

Average daily traffic volumes were provided by the traffic consultant, Fehr & Peers, for existing and future, project and no-project conditions. To determine the relative differences between project and no-project conditions, the predicted traffic noise levels at a standardized distance of 100 feet from each roadway centerline were computed using the data in the Appendices B–D of Appendix G of this DEIR. The predicted traffic noise levels at a representative distance of 100 feet from the roadway centerlines, along with the increase from the existing noise level, are contained in Table 3.5-20.

Table 3.5-20
Traffic Noise Levels (Phase 1 Development)

Segment	Roadway	Segment Description		L_{dn} @ 100 feet, dB with Phase 1 Development (Change, dB)
		From	To	
1	Sankey Road	Powerline Road	SR 99	47 (0)
2	Sankey Road	SR 99	Pacific Avenue	57 (1)
3	Sankey Road	Pacific Avenue	Road C	56 (1)
4	Sankey Road	Road C	Pleasant Grove Road (N)	56 (n/a)
5	Sankey Road	Pleasant Grove Road (N)	Locust Road	56 (0)
6	Riego Road	Powerline Road	Road U	56 (3)
7	Riego Road	Road U	Road R	56 (n/a)
8	Riego Road	Road R	Road S	62 (n/a)
9	Riego Road	Road S	SR 99	71 (n/a)
10	Riego Road	SR 99	Road A	71 (7)
11	Riego Road	Road A	Pacific Avenue	70 (n/a)
12	Riego Road	Pacific Avenue	Road C	69 (6)

Table 3.5-20
Traffic Noise Levels (Phase 1 Development)

Segment	Roadway	Segment Description		L_{dn} @ 100 feet, dB with Phase 1 Development (Change, dB)
		From	To	
13	Riego Road	Road C	Road D	67 (n/a)
14	Riego Road	Road D	Pleasant Grove Road (N)	67 (n/a)
15	Riego Road	Pleasant Grove Road (N)	Pleasant Grove Road (S)	67 (3)
16	Riego Road	Pleasant Grove Road (S)	Locust Road	67 (3)
17	Base Line Road	Locust Road	Brewer Road	67 (2)
18	Base Line Road	Brewer Road	Watt Avenue	67 (2)
19	Base Line Road	Watt Avenue	Fiddyment Drive	66 (1)
20	Elverta Road	Powerline Road	SR 99	54 (0)
21	Elverta Road	SR 99	East Levee Road	63 (1)
22	Elverta Road	East Levee Road	Sorento Road	65 (2)
23	Elverta Road	Sorento Road	16th Street	65 (1)
24	Elverta Road	16th Street	Watt Avenue	66 (0)
25	Powerline Road	Sankey Road	Riego Road	50 (0)
26	Powerline Road	Riego Road	Sacramento County Line	54 (5)
27	Powerline Road	Sacramento County Line	Elverta Road	54 (5)
28	Powerline Road	Elverta Road	Elkhorn Boulevard	51 (1)
29	Road H	Road O	Sankey Road	n/a (n/a)
30	Pacific Avenue	Sankey Road	Road K	54 (0)
31	Pacific Avenue	Road K	Road J	54 (n/a)
32	Pacific Avenue	Road J	Riego Road	60 (n/a)
33	Pacific Avenue	Riego Road	Road B	53 (n/a)
34	Natomas Road	Sankey Road	Riego Road	50 (0)
35	Natomas Road	Riego Road	Sacramento County Line	56 (3)
36	East Levee Road	Sacramento County Line	Elverta Road	56 (3)
37	Pleasant Grove Road (N)	Sankey Road	Riego Road	56 (0)
38	Pleasant Grove Road (S)	Riego Road	Sacramento County Line	60 (3)
39	Sorento Road	Sacramento County Line	Elverta Road	58 (1)
40	Locust Road	Sankey Road	Baseline Road	56 (0)
41	Brewer Road	Phillip Road	Baseline Road	52 (0)
42	Palladay Road	Baseline Road	Sacramento County Line	47 (0)
43	Palladay Road	Sacramento County Line	Elverta Road	47 (0)
44	16th Street	Kasser Road	Elverta Road	55 (3)
45	Watt Avenue	Baseline Road	PFE Road	64 (1)
46	Watt Avenue	PFE Road	Elverta Road	65 (1)
47	Walerga Road	Baseline Road	PFE Road	66 (0)
48	Elkhorn Boulevard	SR 99	Northborough Drive	66 (0)
49	Elkhorn Boulevard	Northborough Drive	Natomas Boulevard	65 (0)
50	Elkhorn Boulevard	Natomas Boulevard	Sageview Drive	66 (0)

Table 3.5-20
Traffic Noise Levels (Phase 1 Development)

Segment	Roadway	Segment Description		L_{dn} @ 100 feet, dB with Phase 1 Development (Change, dB)
		From	To	
51	Elkhorn Boulevard	Sageview Drive	East Levee Road	66 (0)
52	SR 99	SR 99/SR 70 Interchange	Sankey Road	73 (0)
53	SR 99	Sankey Road	Riego Road	73 (0)
54	SR 99	Riego Road	Sacramento County Line	77 (3)
55	SR 99	Sacramento County Line	Elverta Road	77 (3)
56	SR 99	Elverta Road	Elkhorn Boulevard	77 (2)
57	SR 99	Elkhorn Boulevard	I-5	77 (1)
58	I-5	SR 99	Del Paso Road	80 (1)
59	I-5	Del Paso Road	Arena Boulevard	81 (1)
60	I-5	Arena Boulevard	I-80	80 (0)
61	Road A	Road J	Riego Road	61 (n/a)
62	Road A	Riego Road	Road B	62 (n/a)
63	Road D	Road C	Riego Road	55 (n/a)
64	Road D	Riego Road	Road B	n/a (n/a)
65	Road C	Road O	Sankey Road	48 (n/a)
66	Road C	Sankey Road	Road K	n/a (n/a)
67	Road C	Road K	Road D	n/a (n/a)
68	Road C	Road D	Road J	58 (n/a)
69	Road C	Road J	Riego Road	60 (n/a)
70	Road C	Riego Road	Road B	54 (n/a)
71	Road K	Pacific Avenue	Road C	n/a (n/a)
72	Road Q	Road S	Road A	50 (n/a)

Note that the values shown in parentheses represent the increase in traffic noise levels relative to existing no-project noise levels.
Source: Modeling by BAC 2008, using FHWA-RD-77-108 with inputs from Fehr & Peers 2007.

Phase 1 development on the project site would result in changes in traffic along the existing roadway network. Relative to existing traffic noise levels within the project site, the increases in traffic noise levels on project-area roadways are predicted to range from 0 to 7 dB L_{dn}, as shown in Table 3.5-20.

Pursuant to the significance criteria, as defined in Table 3.5-12, a substantial increase in traffic noise levels is defined as 1.5 to 5 dB, depending on the pre-project traffic noise level. Because of the relatively large change in overall trip generation associated with the project, traffic noise along 9 roadway segments is predicted to exceed the standards of significance. Specifically, Phase 1 project development is predicted to result in a significant increase in traffic noise levels along Riego Road (SR 99 to Locust Road), Base Line (Locust to Watt), SR 99 (Riego to Elkhorn Roads).

Although there are no residences located along the impacted portion of SR 99, there are residences along the impacted segments of Riego and Baseline Roads east of the project site. Therefore, the increase in traffic noise levels because of Phase 1 development is considered to be **significant**.

Mitigation Measure: No mitigation measures are available.

Development of the Phase I project would cause traffic noise levels to increase on the local roadway network. The extent to which existing land uses are affected by these increases would depend on their proximity to the roadways in question as well as their individual sensitivity to noise.

The reason no noise mitigation measures are available for this impact is that such mitigation would require modification to either the source of traffic noise, the transmission path between the road and the receivers, or the receiver.

Modification to the noise source would require the quieting of individual vehicles, which is preempted from local control by the State Motor Vehicle Code. While noise-reducing pavement materials have been shown to reduce traffic noise levels in some areas, such materials may not provide sufficient noise reduction to reduce this impact to a level of insignificance.

It is difficult to mitigate an increase in noise levels at existing residences because mitigation would either not be enforceable or physically infeasible. For example, funds could be provided to those affected residences to purchase acoustic insulation or new windows to help off-set the increase in traffic noise. However, this measure would not be considered feasible mitigation because it is not enforceable by the County: the County cannot require homeowners to retrofit their homes or landlords to retrofit their residential properties. Although money could be provided to the landowner for this purpose, no guarantee could be made that the landowner would use these funds for their intended purpose, and the County cannot require them use the funds in this way. Consequently, even if payment was made to affected residential landowners, this would not necessarily have the effect of reducing noise impacts for the existing or potential future residents of the property. Since many residential properties in the area are older, landowners that actually want to use a fee to upgrade their property may be constrained by the original construction materials or building design. These factors could limit the ability of the landowner to successfully insulate their property against traffic noise, and so the effectiveness of this mitigation cannot be ensured.

The other mitigation would be to construct sound walls to help off-set the increase in traffic noise. In many instances it may not be feasible or desirable for the homeowner to have a sound wall constructed on their property. Therefore, this would not be considered a feasible mitigation.

Treatment of the path of sound between the roadway and receiver would require the construction of noise barriers at impacted receptors along the impacted segments. Irrespective of the cost associated with such mitigation, barriers could not be constructed at all locations or would not be effective at all locations because of engineering and safety constraints, such as the creation of unsafe site distances, inability to construct barriers over utility easements or on private property, as well as topographic and vehicular access constraints.

Finally, treatment of the receptor would essentially consist of retrofitting the buildings of noise-sensitive receptors to provide additional attenuation of traffic noise by the amount which development of the project site would cause traffic noise to increase. The costs and other constraints associated with such retrofitting would render this option infeasible.

Significance after Mitigation

Mitigation of this impact is not feasible; potential mitigation measures are either unenforceable or infeasible, as described above. This impact would remain **significant and unavoidable**.

3.5.4 RESIDUAL SIGNIFICANT IMPACTS

With implementation of mitigation measures, impacts related to noise would be reduced to a less-than-significant level in all but two cases. There are no feasible mitigation measures available to reduce potentially significant impacts associated with increased traffic noise; therefore, these impacts (3.5-9 and 3.5-19) remain **significant and unavoidable**.