

# Chapter 1- Proposed Project

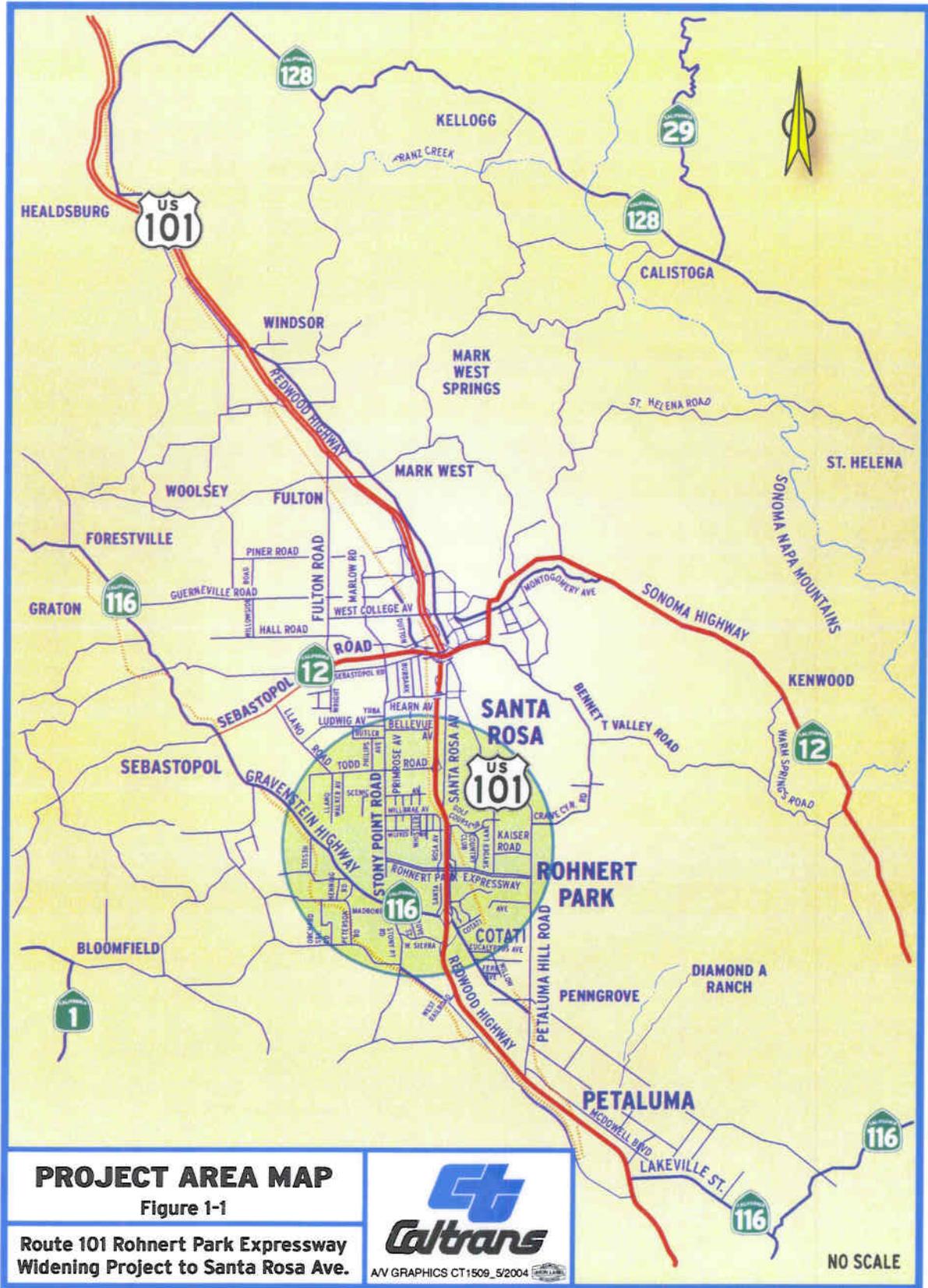
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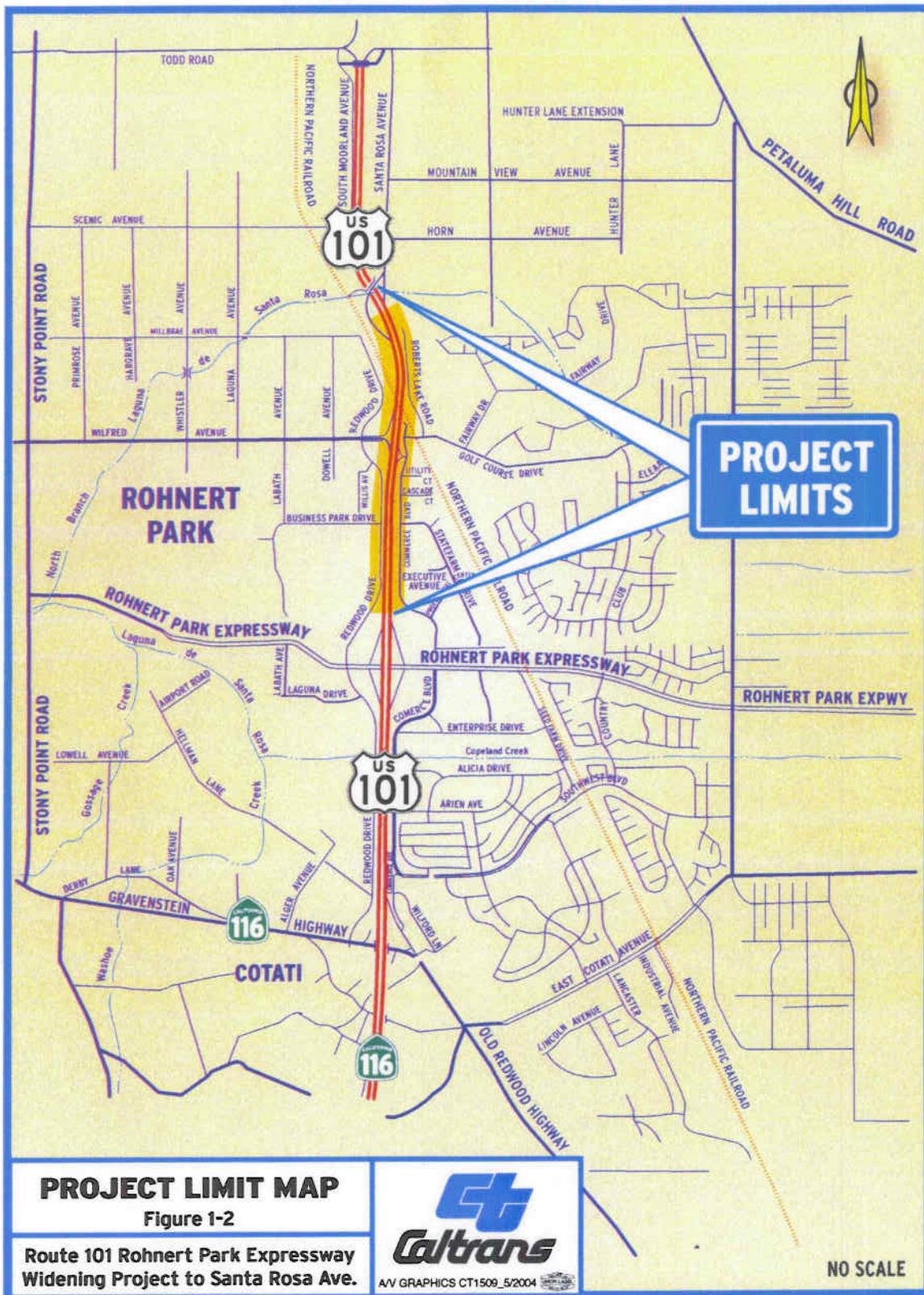
## 1.1. Summary and Background

Located in Rohnert Park, Sonoma County, this project proposes to modify the Wilfred Avenue/Golf Course Drive Interchange to include a new bridge undercrossing structure to linking Wilfred Avenue to Golf Course Drive and closing the existing link via Commerce Boulevard. Route 101 will also be widened from 4 to 6 lanes for High Occupancy Vehicle (HOV) lanes from the Rohnert Park Expressway Overcrossing to the Santa Rosa Avenue Overcrossing, a length of approximately 2 kilometers or 1.6 miles (See Figures 1-1 and 1-2).

The project area represents the primary connector between the city of Petaluma to the south, and the city of Santa Rosa to the north. Past and anticipated future county-wide growth in population, jobs, and traffic have led the Sonoma County Transportation Authority (SCTA), the Metropolitan Transportation Commission (MTC), and Caltrans to recognize the need for major transportation improvements in the State Route 101 corridor. Phased corridor studies in 1984 and 1989 led to the creation of a Route 101 Corridor Plan recommending a continuous High Occupancy Vehicle (HOV) lane system through Marin and Sonoma Counties up to the Town of Windsor.

Concern for transportation issues also led to the development of the Sonoma-Marín Multi-Modal Transportation and Land Use Study in 1997. The purpose of this study was to identify the most efficient and cost effective alternatives for addressing congestion along the corridor. This study made a number of recommendations including the widening of Route 101 from four to six lanes for HOV between Petaluma and Windsor. Sonoma County has used this study to help prioritize its use of transportation funds. The total project cost is \$47.8 million to be funded by the federal Regional Transportation Improvement Program (RTIP). The project is in MTC's 2003 Transportation Improvement Program (TIP ID# SON950005 03-00).





## 1.2 Purpose Of and Need For the Project

### 1.2.1 Purpose

There are three main purposes to the Wilfred Avenue Interchange Project:

- Reduce recurrent congestion
- Improve access and circulation between local streets and Route 101
- Upgrade highway facility to current standards

### 1.2.2 Need

Caltrans has developed the proposed project in response to the following needs: Reduce congestion for AM/PM commuters, improve connections between Route 101 and local streets, enhance safety and operations.

#### **Needs Associated With Reducing Recurrent Congestion**

Year 2002 Bay Area Freeway Congestion Data indicates that congestion has increased over the last several years. For instance there were 4,400 hours of delay in Sonoma County compared to 1,700 hours in 1995<sup>1</sup>. A 2001 study noted that during AM Peak, a 7-minute travel delay exists on southbound Route 101 between River Road in Fulton and Route 116 in Cotati, while 9 minutes of delay is experienced during the PM peak period. Existing travel delay northbound for the same length is 9 minutes during the AM peak period and approximately 12 minutes during PM peak.<sup>2</sup>

Furthermore, Caltrans' projections indicate that maximum travel time delays would increase from 20.5 minutes in 2010 to 36.1 minutes in 2030 for southbound AM peak travelers. Similar increases would occur in the northbound PM peak direction (see Traffic and Transportation, Section 2.5 for further details).

These conditions illustrate the need for transportation improvements through the Sonoma 101 corridor. The Wilfred Avenue Interchange Project proposal is one proposal to address recurrent congestion. The project limits comprise logical termini and demonstrate independent utility [23 CFR 771.111(f)].

<sup>1</sup> Information Memorandum, Year 2002 Bay Area Freeway Congestion Data, California Department of Transportation, District 4, Office of Highway Operations.

<sup>2</sup> *Traffic Operations Analysis Report-Sonoma 101 Widening Project*, California Department of Transportation, June 2001, Pp. 5 and 6.

### **Needs Associated With Connections Between Local Streets and Route 101**

Currently, street connections leading to Route 101 are circuitous and indirect. From the east side of the freeway, travelers getting on the freeway to go southbound must take Commerce Boulevard through the Golf Course Drive Intersection, pass under Route 101, turn left at Redwood Boulevard intersection, and go through yet another intersection before entering the freeway onramp. Similarly, travelers getting on the freeway to go northbound from the western side of Route 101 follow the same movements in the opposite direction.

The City of Rohnert Park requested that the Wilfred Avenue Interchange Project include a feature connecting Wilfred Avenue and Golf Course Drive.<sup>3</sup> In addition, more opportunity for multi-modal connections could circulate more commuters through the Route 101/Wilfred Avenue Interchange area. For instance, plans are underway to locate a Sonoma-Marin Area Rail Transit (SMART)<sup>5</sup> station near Golf Course Drive and Roberts Lake Road. Golden Gate Transit is also expected to incorporate scheduled stops at Wilfred Interchange into their bus service route along Route 101.

Since the release of the IS/EA in July 2004, Caltrans has learned that the city of Rohnert Park is currently updating its general plan. This update will include an assessment of traffic impacts from a proposed Casino Hotel/Resort. In addition, the PUC has asked Caltrans to consider a grade separation with the SMART Rail Line. Therefore, Caltrans has decided to remove the 4-way intersection with at-grade rail crossing feature (please see Section 2.4.3 Traffic and Appendix D. Local Road and Intersection Reconfigurations). Caltrans will continue working with the city and county to solve local traffic circulation once potential impacts from the Casino and SMART commuter rail service are known.

<sup>3</sup> Letter to Caltrans from City of Rohnert Park dated 9/24/90 and 4/28/05.

<sup>4</sup> On January 1, 2003, a new regional transportation district was established to oversee the development and implementation of passenger rail service in Sonoma and Marin counties.

### **Needs Associated with Upgrading the Facility to Current Design Standards**

New construction projects mandate Caltrans upgrade facilities to current design standards. For the Wilfred Avenue Interchange Project, these would include correcting vertical and horizontal alignments and lengthening weaving distances.

### **Vertical Alignment Shift**

Figure 1-3 shows a comparison between the existing and proposed profile grade. Under the Build Alternative, Caltrans would correct the vertical alignment of the SMART (NWPRR) overcrossing to meet current standards. A profile correction would improve sight distances for motorists on the mainline.

# Sonoma Route 101-Wilfred Avenue Interchange Design Profile

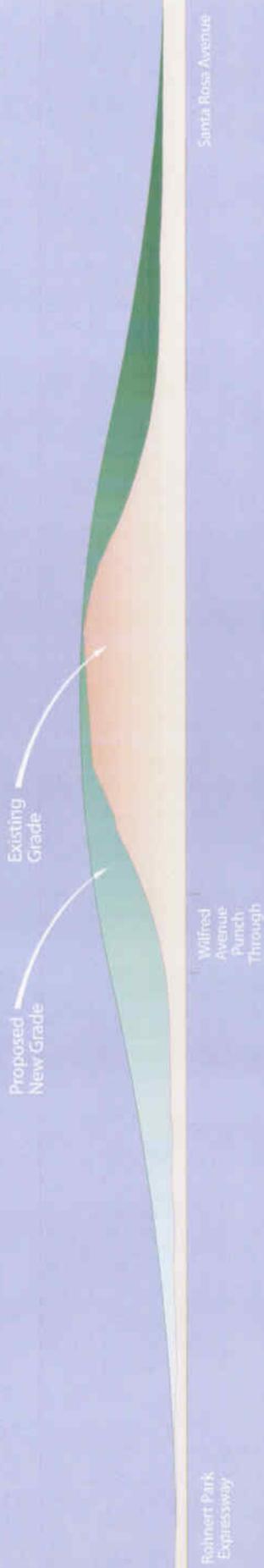


Figure 1-3

### **Weaving Distance**

In the southbound direction, there is a less than standard weaving distance between the Wilfred Avenue Interchange and the Santa Rosa Avenue Overcrossing. The collector-distributor road being proposed would increase the distance available for merging and weaving with southbound traffic exiting at Wilfred Avenue and southbound on ramp traffic entering from the Santa Rosa Avenue Overcrossing.

## **1.3 ALTERNATIVES**

### **1.3.1 Build Alternative – Proposed Action**

The following improvements are depicted in Figures 1-5A and 1-5B “Build Alternative” and Figure 1-6 “Roadway Cross-Sections” (refer also to 1-4A and 1-4B for “Previously Proposed Project”).

- Widen Route 101 from four to six lanes. This widening would provide standard 3.6-meter (12 foot) lanes, and 3.0 meter outside and median shoulders, with a concrete median barrier separating the two directions of traffic.
- Construct auxiliary lanes on Route 101 between Rohnert Park Expressway Overcrossing to the Wilfred Avenue/Golf Course Drive Interchange and northbound from Wilfred/Golf Course to Santa Rosa Avenue Overcrossing. This would be an additional 3.6-meter (12-foot) lane.
- Construct a two-lane collector-distributor road between Wilfred Avenue and Santa Rosa Avenue on southbound Route 101.
- Replace Wilfred Overhead Bridge structure and realign the freeway to meet current design standards.

Modify the Wilfred Avenue/Golf Course Drive Interchange by constructing a new bridge undercrossing structure to connect Golf Course Drive to Wilfred Avenue as a single street (refer to Figure 1-7 “Wilfred Avenue/Golf Course Drive Cross-Sections”).

- Widen Wilfred Avenue/Golf Course Drive from Commerce Boulevard to Roberts Lake Road. Widen Roberts Lake Road at Golf Course Drive.
- Widen the existing northbound and southbound on ramps to accommodate ramp metering.
- Widen Commerce Boulevard northward from the northbound ramps just beyond the Golf Course Drive/Wilfred Avenue intersection. Eliminate Commerce Boulevard from Golf Course Drive to Redwood Drive.
- Modify the existing park and ride lot at Roberts Lake Road and Golf Course Drive.
- Construct a bicycle facility along Wilfred Avenue/Golf Course Drive from Roberts Lake Road to Redwood Drive.

### **1.3.2 Changes to the Build Alternative Since the IS/EA**

Since the release of the IS/EA the Build Alternative for the Wilfred Avenue Interchange Project has changed, which has resulted in a downscope of the project footprint. The new Build Alternative is depicted in Figures 1-5A and 1-5B (also refer to 1-4A and 1-4B for previously proposed project). The project changes are as follows for the reasons stated herein:

Caltrans has eliminated the realignment of Commerce Boulevard to meet Roberts Lake Road/Golf Course Drive at the at-grade railroad crossing. The primary reason for this is based upon input from the California Public Utilities Commission regarding railroad-crossing safety concerns. In order to accommodate 2010 and 2030 peak hour traffic volumes under this configuration, the following improvements will be made at the intersection of Wilfred Avenue/Golf Course Drive and Commerce Boulevard:

- An eastbound approach will provide one mandatory left-turn storage lane into a cul-de-sac (adjacent to the existing gas station), two mandatory through lanes and

one mandatory right-turn lane (to access the freeway onramp or proceed southbound on Commerce Boulevard).

- A westbound approach will provide two mandatory left-turn lanes to go southbound on Commerce and one optional through/right-turn lane into the cul-de-sac noted above.
- A northbound approach will provide two mandatory left-turn lanes to go westbound, one optional through/right-turn lane into the cul-de-sac, and one mandatory right-turn lane to go east on Golf Course Drive.

Furthermore, Golf Course Drive will be widened on the westbound side of the street, and Roberts Lake Road will be widened on the southbound side of the street.

These widenings will accommodate the following improvements:

- The eastbound approach at the intersection will provide two mandatory left-turn lanes to go to Roberts Lake Road and two mandatory through lanes to continue eastbound on Golf Course Drive.
- The westbound approach will provide one mandatory through lane toward the punch through and one optional through/right-turn lane onto Roberts Lake Road.
- The southbound approach will provide one mandatory left-turn lane to go down Golf Course Drive and one mandatory right-turn lane.

Commensurate with the above changes, the proposed park and ride lot on Commerce Boulevard has been eliminated. In addition, Caltrans is considering alternative bus pad locations from those proposed in the IS/EA due to geometric constraints. Finally, the above changes also avoid the relocation impacts previously identified in the IS/EA.

### **1.3.2 No Build – No Action Alternative**

Under the No Build Alternative, the existing highway configuration would remain as is. State Route 101 is currently a four-lane freeway with two 3.6-meter (12-foot) lanes in each direction separated by a 10.3-meter (34-foot) median with a double thrie-beam barrier dividing the two directions of traffic. The freeway has 1.2-meter (4-foot) inside shoulders and 2.4-meter (8-foot) outside shoulder.

Population and traffic volumes would continue to increase and recurrent congestion is expected to worsen, leading to increasing travel time delays. The No Build Alternative, however, would not preclude spot improvements or routine maintenance as necessary. The No Build Alternative does not meet the purpose and need of this project; however, baseline information was developed for the purposes of analysis and comparison to the Build Alternative.

#### **1.4 OTHER PROPOSED ACTIONS IN THE PROJECT VICINITY**

Following is a list of other projects being planned along Route 101 from Route 37 in Novato to River Road in the Town of Windsor, from south to north:

##### **Route 37 in Novato to Old Redwood Highway in Petaluma**

The project would widen Route 101 from four to six lanes to add HOV Lanes. The project would also realign and upgrade the existing four-lane expressway from Atherton Avenue to Route 101/116 Separation. Modified and new interchange(s), limited frontage roads, and bicycle facilities are also proposed. Environmental studies are currently underway.

##### **Route 101 from Old Redwood Highway to Rohnert Park Expressway**

Just south of the Wilfred Avenue Interchange Project, Sonoma County Transportation Authority (SCTA) proposes to construct HOV lanes in both directions. Environmental studies are currently underway.

##### **Route 101 Widening and Soundwall Construction from North of the Wilfred Avenue Interchange to Route 101/12 Separation**

Just north of the proposed Wilfred Interchange Project, this widening project added HOV lanes in December 2003, terminating south of Route 12. The soundwall portion is currently under construction.

##### **Route 101/Steele Lane Interchange**

The project would add HOV lanes from Steele Lane to 0.8 kilometers (0.5 miles) north of Steele Lane. Ready for construction pending funding.

### **Route 101 from Route 12 to Steele Lane**

The project consists of the addition of HOV and auxiliary lanes on Route 101 from the Route 12 Interchange to the Steele Lane Interchange. Northbound and southbound HOV lanes would be constructed between the Route 12 Interchange and the Steele Lane Interchange. This project is in the final design phase.

### **Route 101 Steele Lane to Windsor River Road**

SCTA is proposing to add HOV lanes in both directions from Steele Lane to Windsor River Road. Currently, environmental studies are underway.

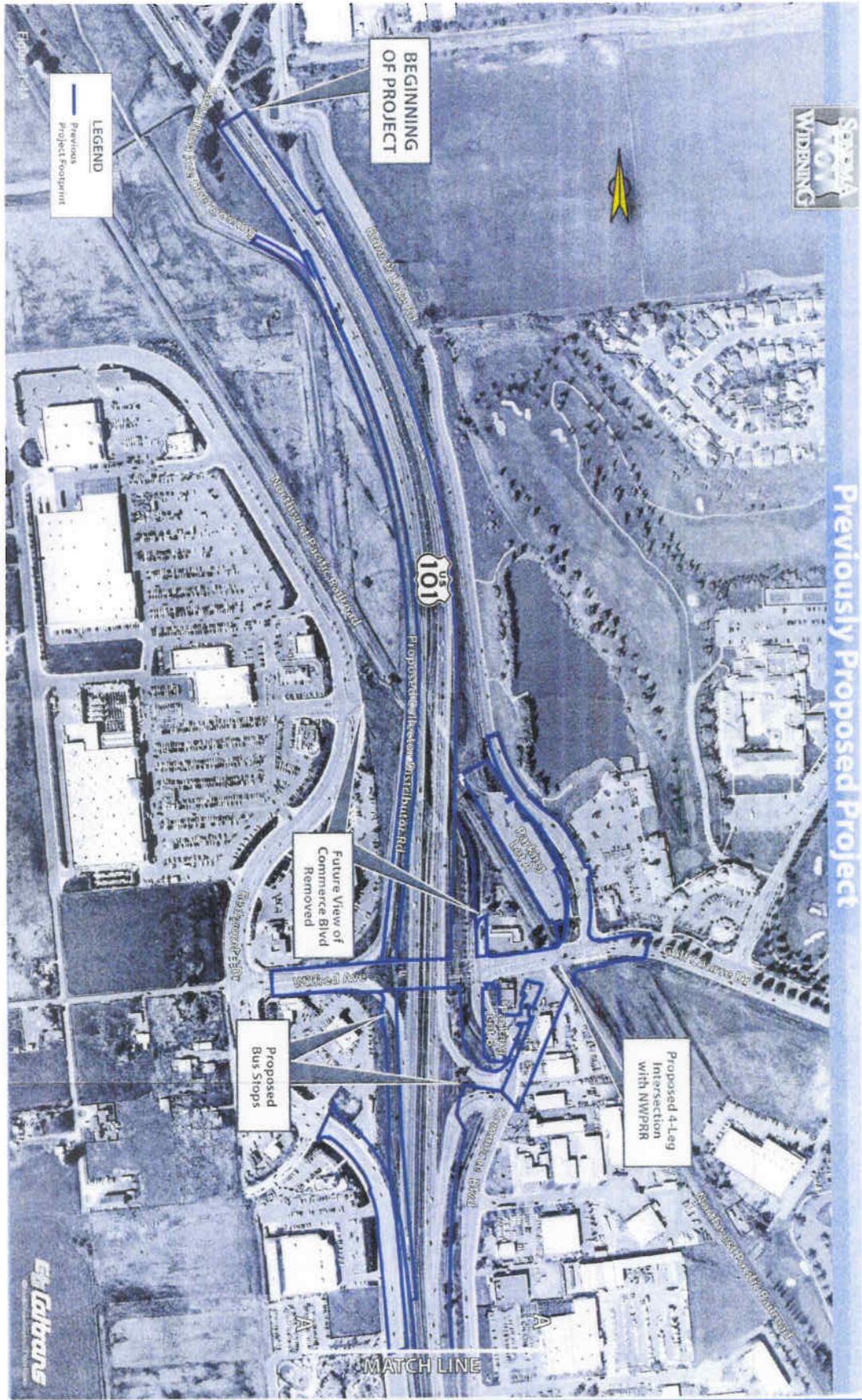
### **Sonoma Marin Area Rail Transit (SMART)**

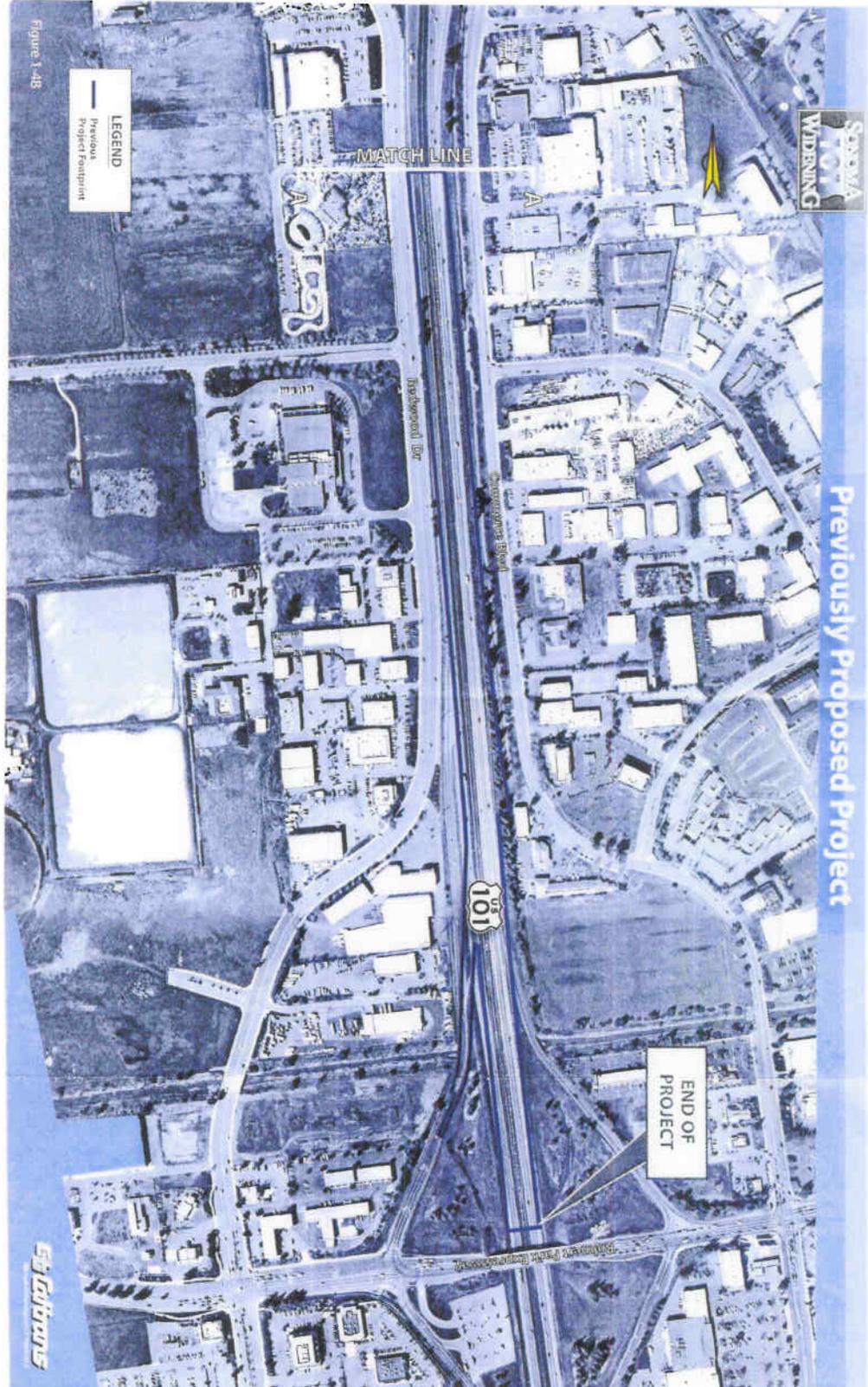
The Sonoma Marin Area Rail Transit (SMART) project would provide passenger train service along the Northwestern Pacific (NWP) rail corridor that lies next to Highway 101. Phase I would provide rail service from Windsor in Sonoma County to San Rafael in Marin County. Phase II would connect SMART to a ferry terminal. Environmental studies are currently underway.

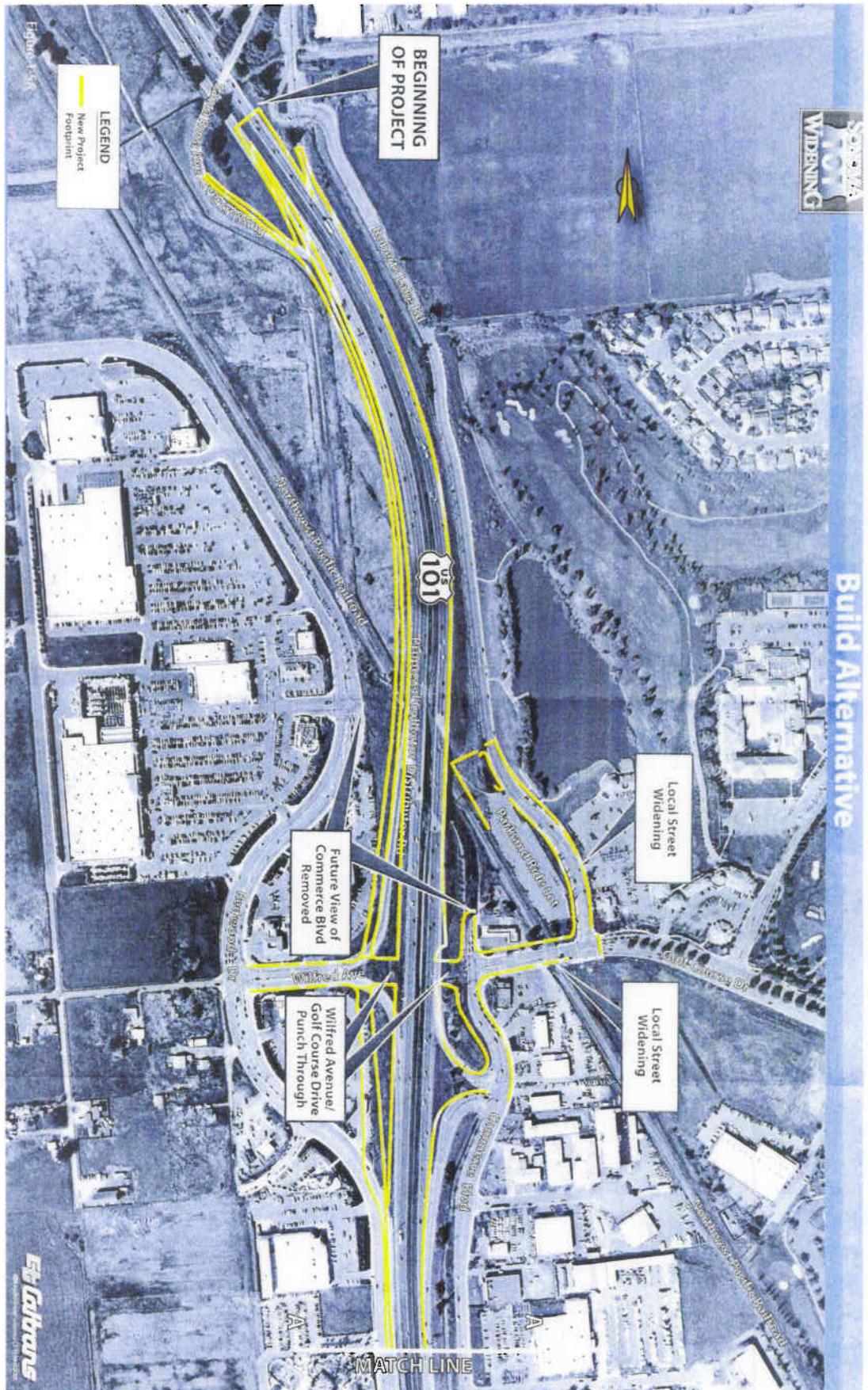
## **1.5 PERMITS AND APPROVALS NEEDED**

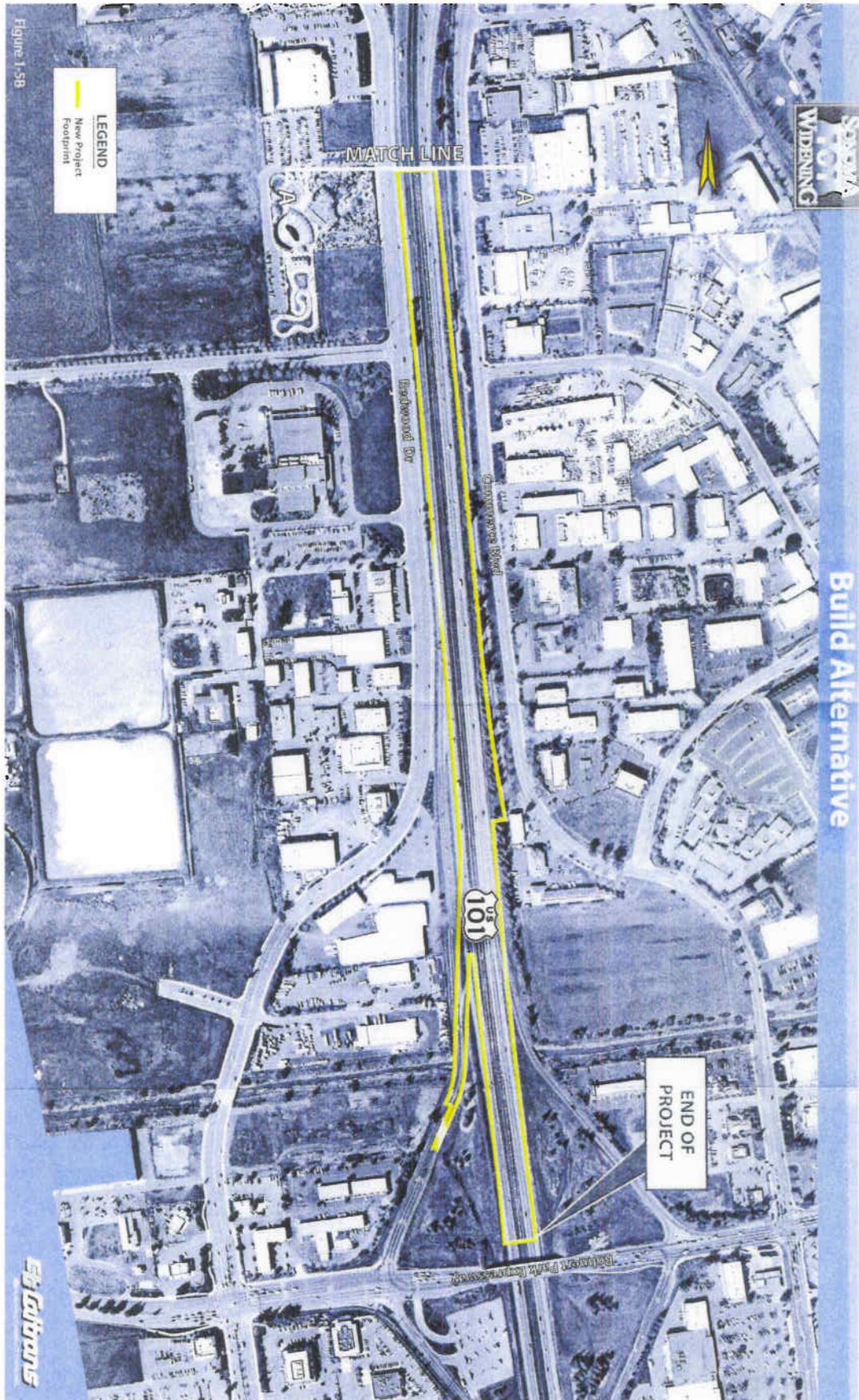
This project would require permits, agreements, and concurrence from the following resource agencies:

- Water Quality Certification approval by Regional Water Quality Control Board under Section 401 of the Clean Water Act;
- Permits approval by U.S. Army Corps of Engineers under Section 404 of the Clean Water Act;
- Habitat Quality Assessment Report approval by U.S. Army Corps of Engineers under the Santa Rosa Plain Vernal Pool Ecosystem Preservation Plan; and
- Biological Assessment/Biological Opinion on California Tiger Salamander approval by U.S. Fish and Wildlife Service under the Federal Endangered Species Act.











# Existing and Proposed Roadway Cross-Sections

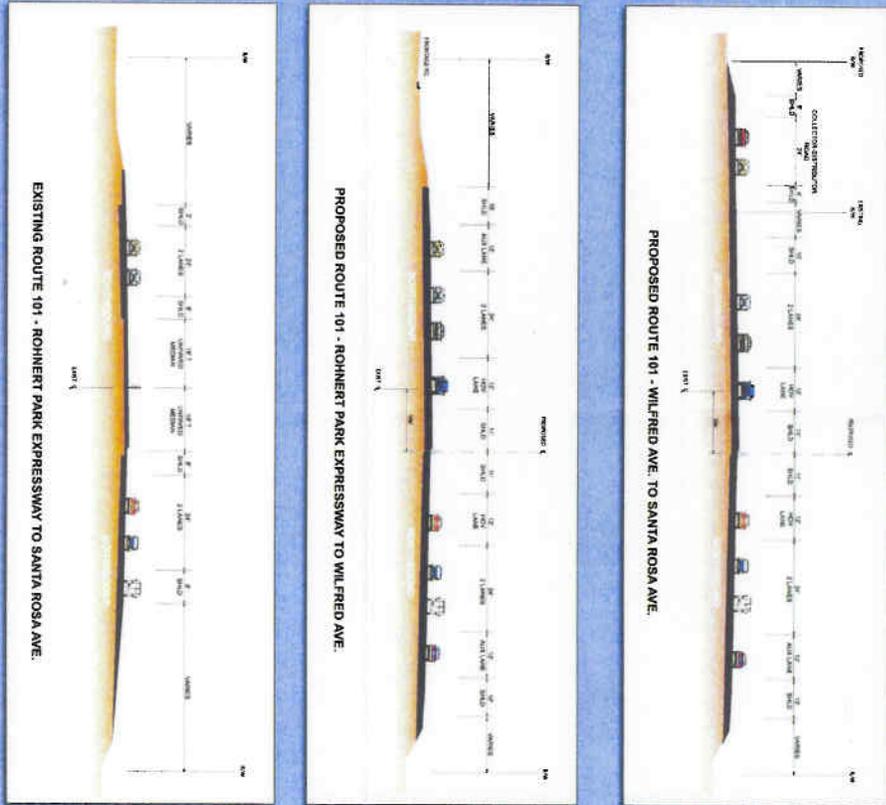


Figure 1-6



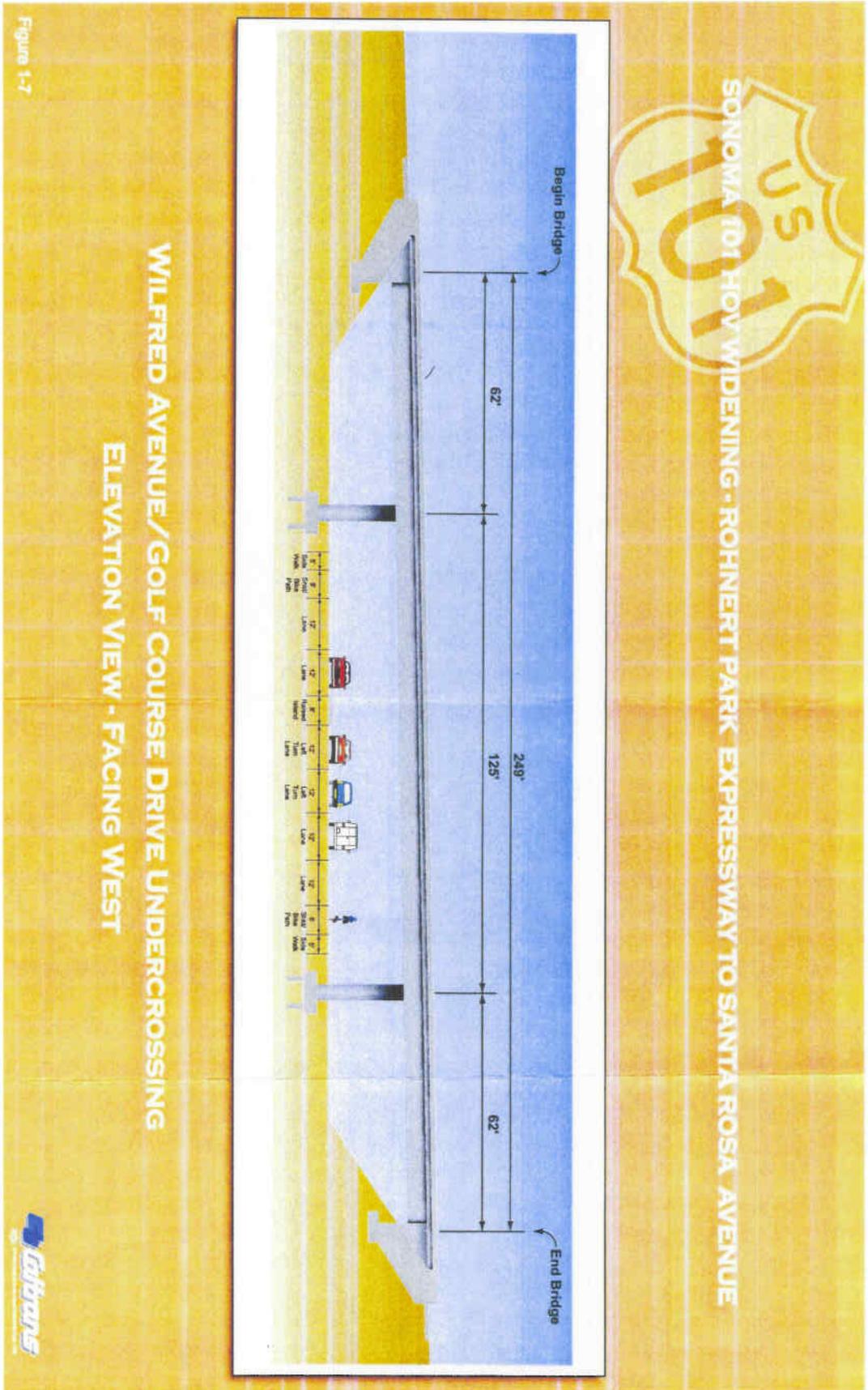


Figure 1-7