



# State Route 29 South Corridor Engineered Feasibility Study

## FINAL REPORT

Prepared for:

**Caltrans District 1**

**Lake County/City Area Planning  
Council**

Prepared by:



**STATE ROUTE 29 SOUTH CORRIDOR ENGINEERED FEASIBILITY STUDY**

**FINAL REPORT**

**PREPARED FOR:  
CALTRANS DISTRICT 1  
LAKE COUNTY/CITY AREA PLANNING COUNCIL**

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## APPENDIX

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## I. EXECUTIVE SUMMARY

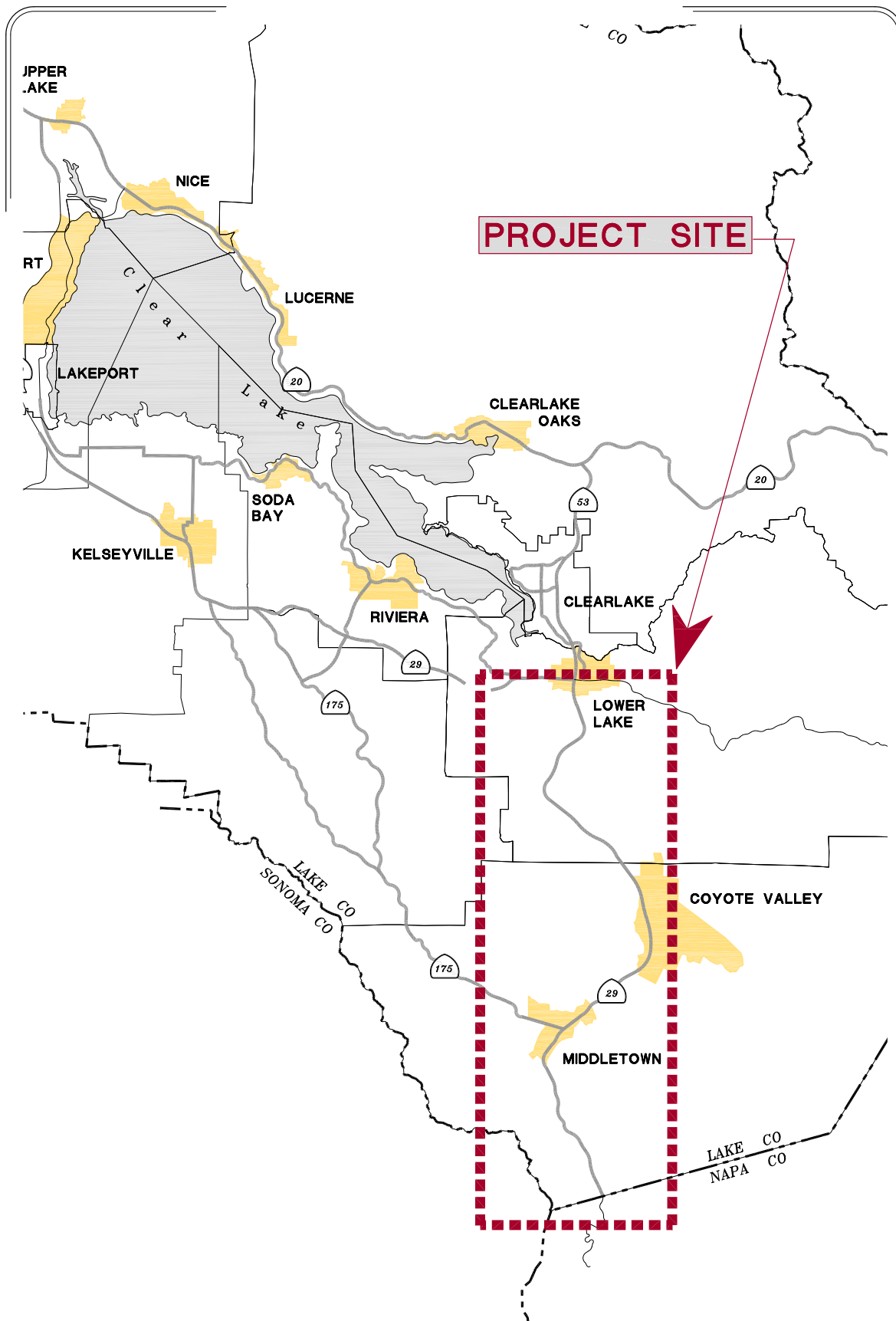
The State Route 29 South Corridor Engineered Feasibility Study Report (EFS) evaluates potential safety and operational improvements including possible bicycle and pedestrian facilities on the section of State Route 29 (SR 29) from the Lake County/Napa County line to State Route 53. Refer to Figure 1 for the study area location. The study was guided by a project team consisting of Caltrans, the Lake County/City Area Planning Council (APC), a Community Advisory Committee (CAC) comprised of local stakeholders, and a Technical Advisory Committee (TAC) including Lake County Community Development and Public Works departments.

The purpose of this study was to investigate multiple design concepts independently, relate them to the context of the corridor to ensure that they are appropriate, and to identify priority improvements that complement each other. The selection of preferred design concepts considered potential funding sources as well as engineering, environmental, and other constraints anticipated as these projects are implemented. With this information having been previously considered, planners and transportation agency partners will be able to quickly assess which course of action will serve the communities along this corridor most efficiently. The improvements contained in this report are intended to assist Caltrans and other agencies in applying for funding as sources become available. In this way, this report can be used as a reference document to initiate programming for safety, operational, non-motorized and traffic calming related improvements.

The study also reviewed transportation safety and operational enhancements within the community of Middletown. These include multi-modal connections and gateway treatments to increase a driver's sense of arrival when their vehicle enters the community. The purpose of heightening a driver's awareness of the community is to influence driving behavior. Ideally, these improvements would lead to reduced speeds and increased safety and accessibility. Enhancements within the Middletown Community area will be incorporated into the Middletown Community Action Plan (MCAP). This document is being prepared concurrently with the EFS to ensure consistency between the corridor enhancements contained in both documents. The MCAP also provides improvements concepts and transportation policies to guide the development of the County roadway system with interconnections to the State highway system.

The roadway enhancements studied for this report will require lead time before construction. For those features that can be installed in the shorter term (initial enhancements), the length of this lead time will primarily depend on when funding becomes available. Other concepts require a longer lead and are referred to as future enhancements as these improvements will require certain conditions to be met prior to seeking funding or initializing the project development process.

Transportation enhancement alternatives that can increase safety and mobility for both motorized and non-motorized users are summarized in Tables 1 and 2 for initial and future enhancements respectively. Enhancements within the study corridor are identified for specific intersections, along with corridor segments. Non-motorized and traffic calming enhancements are also included and summarized separately. Initial enhancements refer to those improvements that meet existing engineering warrants or policy based upon existing traffic conditions and accident history. Future enhancements refer to improvements that should be programmed and constructed as traffic conditions change over time. Figures 2 and 3 illustrate the location of these improvements along the corridor and within the Middletown area, respectively.



State Route 29 Engineered Feasibility Study  
& Middletown Community Action Plan

Figure 1

## Location Map



TABLE 1

Initial Enhancements (Generally Listed from South to North)										
Category	ID	Post Mile	Location	Enhancement	Construction Cost	Preliminary Assessment and Environmental Review	Plans, Specifications and Estimates	Construction Support	Right-of-Way Support	Total Cost
						(PA&ED)	(PS&E)			
Safety	IE1	5.8	Main Street (SR 175)	NB & SB Left-Turn Lanes	\$100,000	\$10,000	\$10,000	\$5,000	\$5,000	\$130,000
	IE2	4.5 - 5.3	Dry Creek Cut-Off to Lake Street	Radar Feedback Signs	\$70,000	\$7,000	\$7,000	\$3,500	\$3,500	\$91,000
	IE3	6.0 - 6.5	Wardlaw Street to Butts Canyon Road	Radar Feedback Signs	\$70,000	\$7,000	\$7,000	\$3,500	\$3,500	\$91,000
	IE4	6.5 - 7.5	Butts Canyon Road to Bar X Ent. Rd.	Radar Feedback Signs	\$100,000	\$10,000	\$10,000	\$5,000	\$5,000	\$130,000
	IE5	9.2 - 9.7	Grange Rd. to Guenoc Ln.	Shoulder Widening and Median	\$1,700,000	\$170,000	\$170,000	\$85,000	\$85,000	\$2,210,000
	IE6	9.8	Hartmann Road	Roundabout	\$3,300,000	\$330,000	\$330,000	\$165,000	\$165,000	\$4,250,000
	IE7	11.5	North of Hidden Valley Rd.	Radar Feedback Signs	\$70,000	\$7,000	\$7,000	\$3,500	\$3,500	\$91,000
	IE8	12.8 - 14.3	North of Spruce Grove Rd. (south)	Shoulder Widening	\$6,200,000	\$620,000	\$620,000	\$310,000	\$310,000	\$8,060,000
	IE9	12.8 - 14.3	North of Spruce Grove Rd. (south)	Radar Feedback Signs	\$70,000	\$7,000	\$7,000	\$3,500	\$3,500	\$91,000
	IE10	17.8	C Street	Left-Turn Lanes	\$1,400,000	\$140,000	\$140,000	\$70,000	\$70,000	\$1,820,000
	IE11	19.3 - 20.3	North of Spruce Grove Rd. (north)	Truck Climbing Lanes	\$8,300,000	\$830,000	\$830,000	\$415,000	\$415,000	\$10,790,000
	IE12	Various	Various Locations	Improve Sight Distance	\$100,000	\$10,000	\$10,000	\$5,000	\$5,000	\$130,000
Traffic Calming	IE13	4.1 & 6.3	Rancheria Rd. & Butts Canyon Rd.	Gateway Monuments	\$150,000	\$15,000	\$15,000	\$7,500	\$7,500	\$195,000
	IE14	4.1 & 6.3	Rancheria Rd. & Butts Canyon Rd.	Optical Speed Bars	\$20,000	\$2,000	\$2,000	\$1,000	\$1,000	\$26,000
	IE15	4.1 & 6.3	Rancheria Rd. & Butts Canyon Rd.	Colorized Shoulders	\$50,000	\$5,000	\$5,000	\$2,500	\$2,500	\$65,000
Congestion	IE16	5.9	Wardlaw Street	Turn Lanes	\$600,000	\$60,000	\$60,000	\$30,000	\$30,000	\$780,000
Bicycle Pedestrian Equestrian	IE17	4.1 - 5.3	Rancheria Road to Pine Street	Multi-Use Path	\$1,600,000	\$160,000	\$160,000	\$80,000	\$80,000	\$2,080,000

TABLE 2

Future Enhancements (Generally Listed from South to North)										
Category	ID	Post Mile	Location	Enhancement	Construction Cost	Preliminary Assessment and Environmental Review	Plans, Specifications and Estimates	Construction Support	Right-of-Way Support	Total Cost
						(PA&ED)	(PS&E)			
Safety	FE1	4.7	CIS Ranch Driveway	Left-Turn Lanes	\$1,400,000	\$140,000	\$140,000	\$70,000	\$70,000	\$1,820,000
	FE2	4.9	Adventist School Driveway	Left-Turn Lanes	\$900,000	\$90,000	\$90,000	\$45,000	\$45,000	\$1,170,000
	FE3	4.5 - 5.3	Dry Creek Cut-Off to Lake Street	Shoulder Widening	\$1,600,000	\$160,000	\$160,000	\$80,000	\$80,000	\$2,080,000
	FE4	6.0 - 6.5	Wardlaw Street to Butts Canyon Road	Center Left-Turn Lane	\$900,000	\$90,000	\$90,000	\$45,000	\$45,000	\$1,170,000
	FE5	6.0 - 6.5	Wardlaw Street to Butts Canyon Road	Shoulder Widening	\$1,000,000	\$100,000	\$100,000	\$50,000	\$50,000	\$1,300,000
	FE6 & 7	6.5 - 7.5	Butts Canyon Road to St. Helena Drive	Shoulder Widening	\$1,900,000	\$190,000	\$190,000	\$95,000	\$95,000	\$2,470,000
Boyle Pedestrian Equestrian	FE8	5.3 - 5.6	Lake Street to Douglas Street	Bike Lanes, On-Street Parking & Sidewalks	\$1,800,000	\$180,000	\$180,000	\$90,000	\$90,000	\$2,340,000
	FE9	Various	Callayomi, Douglas, Armstrong, Young	Sidewalk Bulbouts and Decorative Crosswalks	\$500,000	\$50,000	\$50,000	\$25,000	\$25,000	\$650,000
	FE10	6.0 - 6.2	Wardlaw Street to Bible Church Drwy. (west side)	Sidewalk	\$600,000	\$60,000	\$60,000	\$30,000	\$30,000	\$780,000
	FE11	4.5	Dry Creek Cut-Off	Left-Turn Lanes	\$900,000	\$90,000	\$90,000	\$45,000	\$45,000	\$1,170,000
Congestion	FE12	5.8	Main Street (SR175)	EB & WB Left-Turn Lanes	\$100,000	\$10,000	\$10,000	\$5,000	\$5,000	\$130,000
	FE13	5.85	Young Street	Restrict Left-Turns	\$25,000	\$2,500	\$2,500	\$1,250	\$1,250	\$32,500
	FE14	5.95	Wardlaw Street	Roundabout	\$1,700,000	\$170,000	\$170,000	\$85,000	\$85,000	\$2,210,000
	FE15-RBT	6.3	Butts Canyon Road	Roundabout	\$2,500,000	\$250,000	\$250,000	\$125,000	\$125,000	\$3,250,000
	FE15-SIG	6.3	Butts Canyon Road	Signal Control	\$2,700,000	\$270,000	\$270,000	\$135,000	\$135,000	\$3,510,000
	FE16-RBT	11.2	Hidden Valley Road	Roundabout	\$3,000,000	\$300,000	\$300,000	\$150,000	\$150,000	\$3,900,000
	FE16-SIG	11.2	Hidden Valley Road	Signal Control	\$500,000	\$50,000	\$50,000	\$25,000	\$25,000	\$650,000
	FE17-RBT	11.9	Spruce Grove Road (south)	Roundabout	\$3,700,000	\$370,000	\$370,000	\$185,000	\$185,000	\$4,810,000
	FE20-SIG	11.9	Spruce Grove Road (south)	Signal Control	\$1,400,000	\$140,000	\$140,000	\$70,000	\$70,000	\$1,820,000



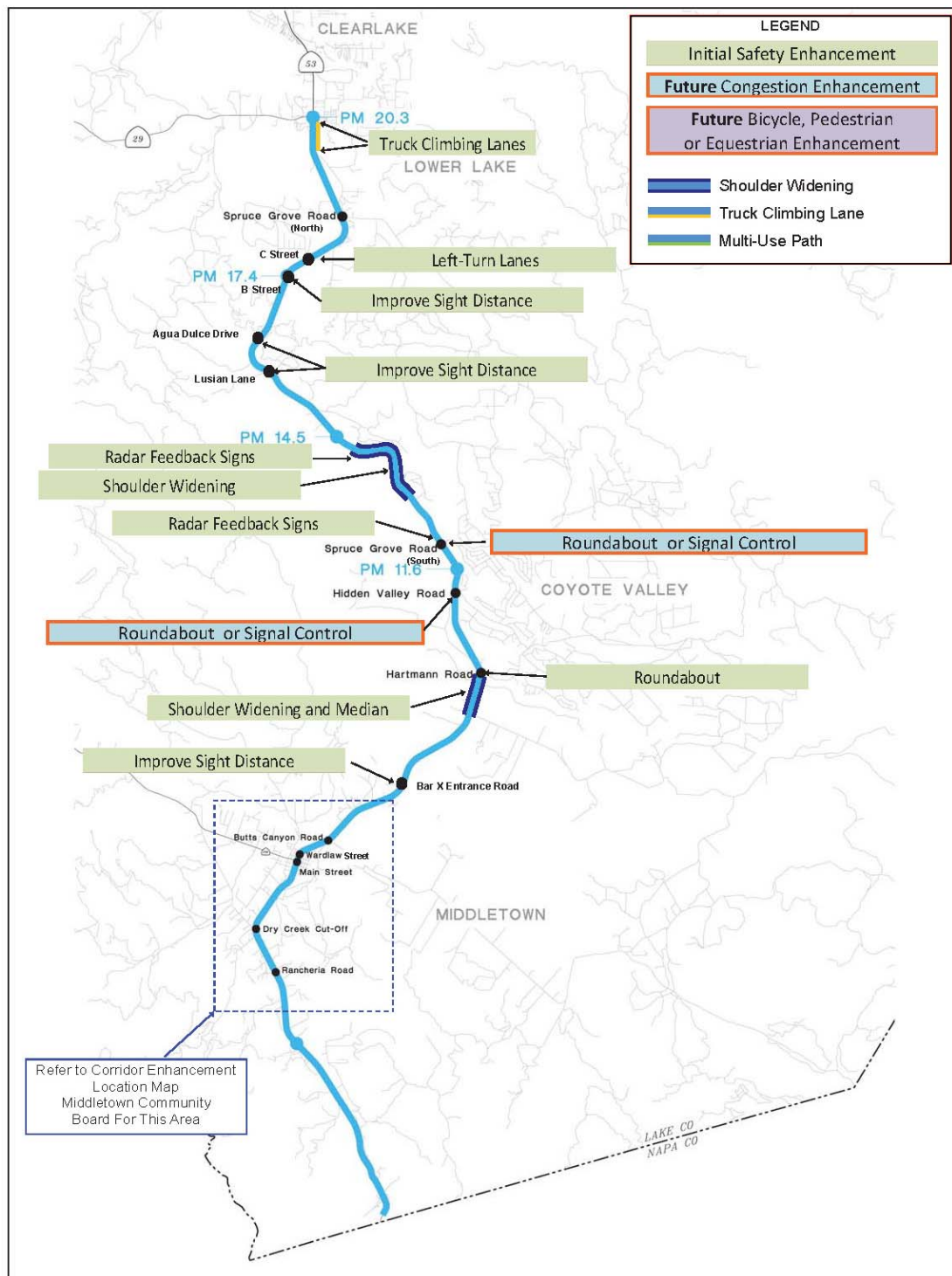


Figure 2



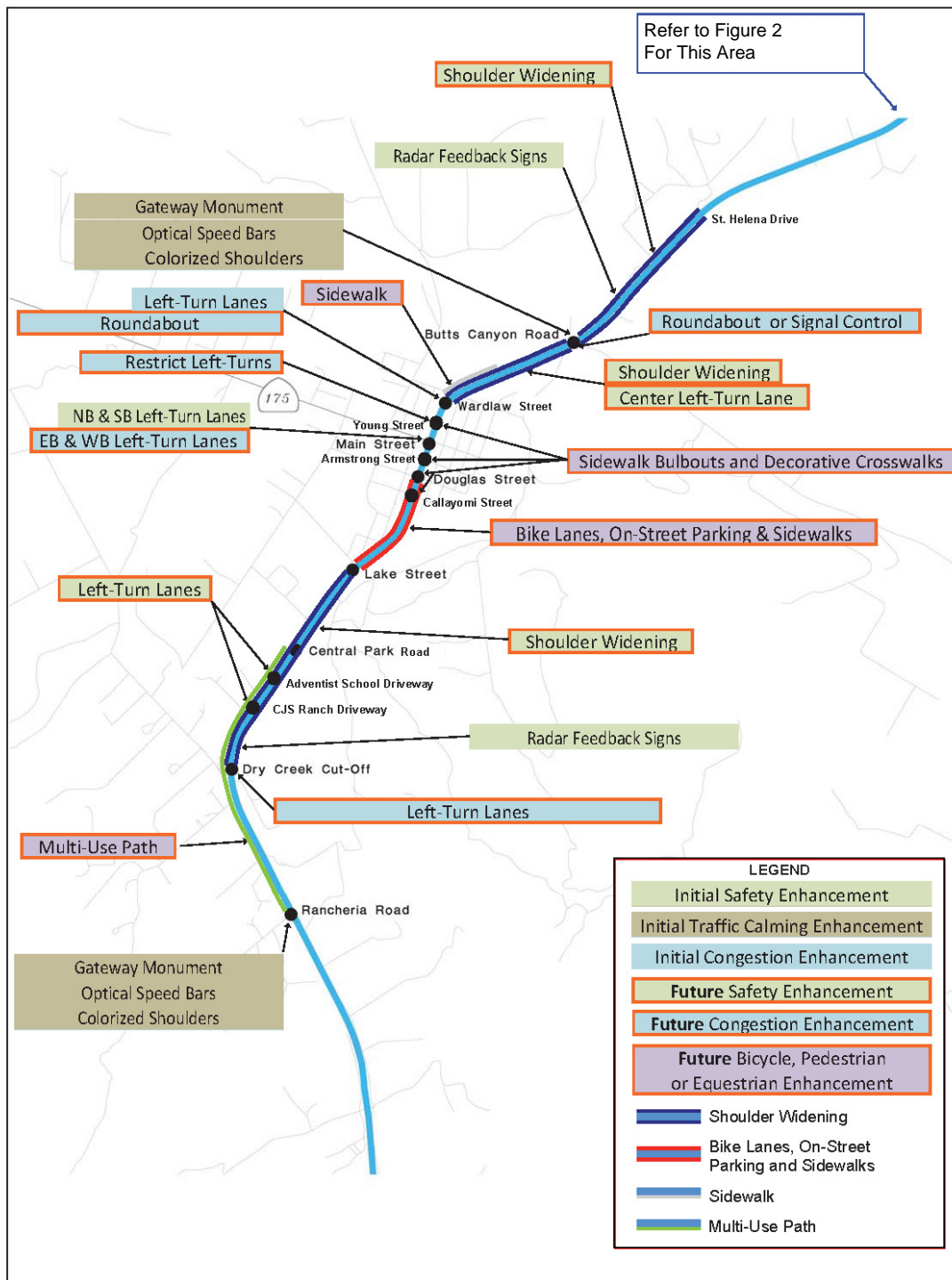


Figure 3

Currently there are several intersections and roadway sub-segments with an accident history that supports the installation of safety enhancements, as identified in Table 1. Existing traffic operations along the corridor meet the Transportation Concept Report (TCR) LOS E thresholds for all major intersections and roadway segments. Vehicular queuing within the Middletown community occurs during peak hours. Over time as traffic volumes increase along the corridor, various intersections will require traffic control and/or capacity improvements, as summarized in Table 2.

## **II. PURPOSE AND NEED STATEMENT**

State Route 29 from the Napa County line to the intersection of SR 29 / SR 53 serves a growing amount of commuter traffic traveling from large residential subdivisions in Lake County to employment destinations in the northern Bay area. The increase in interregional traffic volume has created congestion concerns. The purpose of the State Route 29 South Corridor Engineered Feasibility Study (EFS) study is to enhance interregional and regional travel by reducing congestion and balancing local community needs along the SR 29 South corridor. The study has identified and analyzed potential improvement alternatives to the SR 29 state highway system from the Napa County line to the intersection of SR 29 / SR 53.

State Route 29 also functions as the Middletown community “Mainstreet”, and peak hour traffic congestion has posed a significant challenge to both motorized and non-motorized, traffic mobility and safety. Improvement alternatives are required that will improve interregional mobility and safety that are compatible with community “Mainstreet” and “Livability” needs.

The purpose of this study was to evaluate the feasibility of, and a strategy for, pursuing potential improvements for motorized, non-motorized and traffic calming improvements within the existing state right of way along the SR 29 corridor. As part of that analysis, the potential environmental impacts, engineering feasibility and construction costs of the improvements have been evaluated.

This study will be used as a Caltrans planning tool to propose improvements that will address the public’s concerns regarding changes in traffic volumes/speeds and both motorist and pedestrian/bicyclists safety and overall mobility throughout the SR 29 corridor.

## **III. SYSTEM PLANNING**

### **SEGMENT 1: SR 29 (LAK-29-0.0 – 6.3) (NAPA COUNTY LINE TO BUTTS CANYON ROAD)**

**LAK-29-0.0/6.3**, from the County line between Napa and Lake north to the intersection of Butts Canyon Road (LAK-29-6.3) including the unincorporated community of Middletown. Land use in this segment is primarily open space, grazing and farmland, interspersed with scattered residential and commercial development near the Middletown downtown core. Recreational uses associated with Clear Lake, and public lands in the region are also prevalent along the corridor. This segment of SR 29 is planned to remain a 2-lane conventional highway/expressway. The segment from Lake Street (LAK-29- 5.3) to Butts Canyon Road (LAK-29-6.3) is classified as a conventional highway with the remainder of the segments classified as an expressway. The 1989 facility concept for this segment designates the route as functionally classified as a Rural Minor Arterial, with a roadway capacity threshold of LOS of E.

## **SEGMENT 2: SR 29 (LAK-29-6.3/20.3) (BUTTS CANYON ROAD TO STATE ROUTE 53)**

**LAK-29-6.3/20.3**, from the intersection of SR 29 with Butts Canyon Road (LAK-29-6.3) north of Middletown to the intersection of SR 29 with SR 53 (LAK-29-20.3) near the community of Lower Lake is classified as a 2-lane expressway. Land use along this Rural Minor Arterial segment is primarily open space with some orchards and other agricultural uses, large-lot residential development and small-scale commercial uses. Recreational uses associated with Clear Lake, and public lands in the region are also prevalent along the corridor. The 1989 facility concept for this segment designates the route as functionally classified as a Rural Minor Arterial, with a roadway capacity threshold of LOS of E.

## **IV. STUDY METHODOLOGY**

### **ORGANIZATION OF TECHNICAL STUDIES**

The SR 29 South Corridor Engineered Feasibility Study (EFS) is the final engineering report that provides a summary of analysis completed in the following related technical reports. The graphic on the following page illustrates the overall organization of these technical reports. A description of the content contained within each of these supporting technical reports is as follows:

- **Working Paper No. 1 - Existing Data Report**

This report provides a summary of previously completed and approved transportation planning and engineering studies within the project area. A description of the content contained in each of these approved reports or plans is provided, along with a description of how these documents relate to the EFS.

- **Data Collection Plan**

This report provides a plan for collecting technical data for the EFS including the following; base mapping, traffic data, accident data, and environmental data.

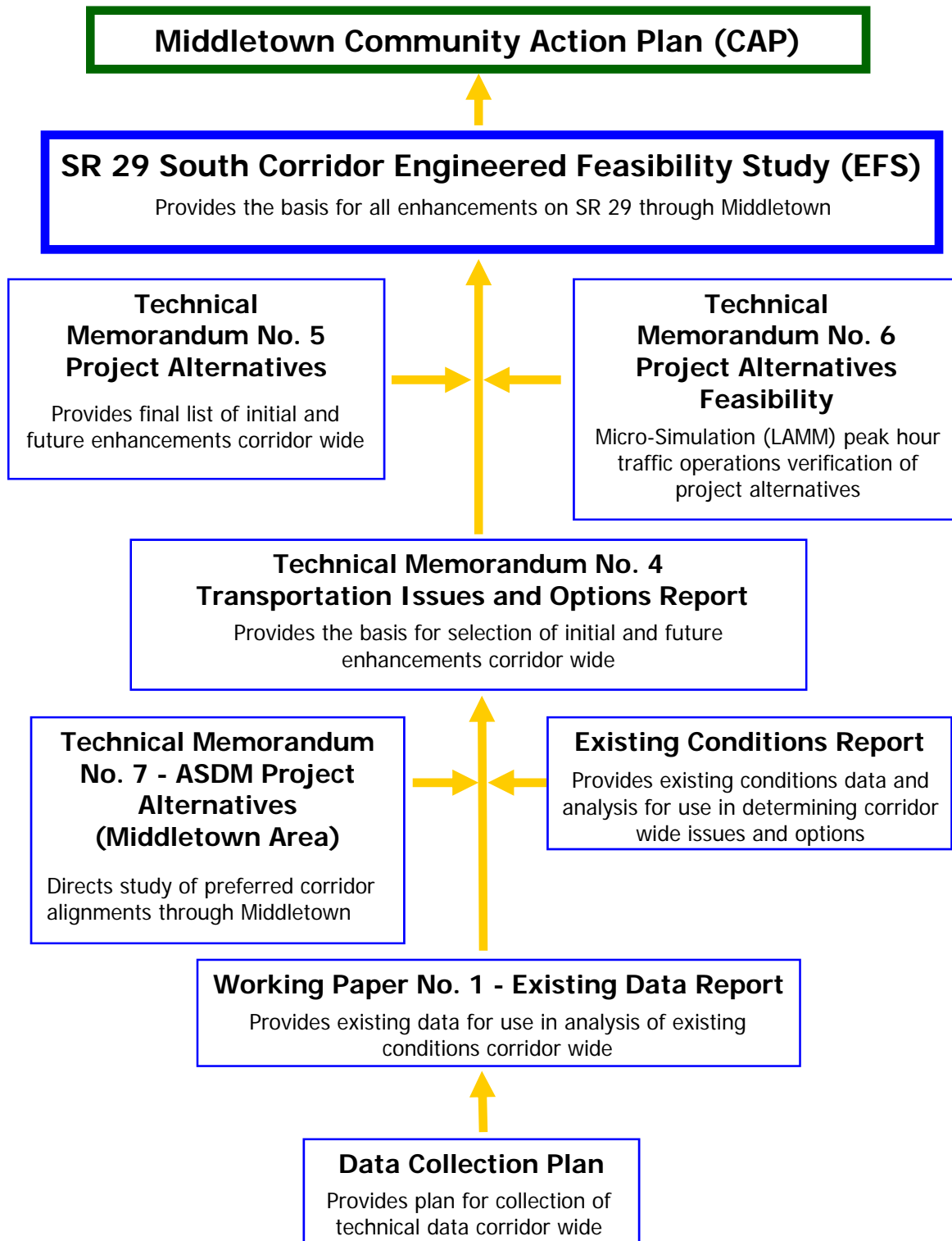
- **Existing Conditions Report**

This report provides a summary of existing conditions along the study corridor for the following technical areas; roadway geometrics, traffic operations, vehicular access conditions, accident history, and environmental constraints. The appendix of this report contains the following technical data; right-of-way mapping, peak hour traffic operations reports, and public outreach materials.

- **Technical Memorandum No. 4 - Transportation Issues and Options Report**

This memo provides a summary of transportation related issues and potential enhancement options for the following technical areas; project purpose and need, system planning, corridor improvement standards, safety countermeasure strategies, access management strategies, and future traffic operations. The appendix of this report contains technical data related to each of these areas including; community comments, peak hour traffic operations capacity analysis reports, environmental sensitivity scores, safety countermeasure references, field access review form, traffic signal warrant sheets, conceptual improvement alternative exhibits (modeling years 2020 and 2030), and intersection truck turn radius exhibits.

## Report Organization Chart



- **Technical Memorandum No. 5 - Project Alternatives**

This memo provides a summary of both initial and future corridor wide enhancements within the following categories; safety, traffic operations (vehicular congestion), traffic calming, pedestrian, bicycle, parking and equestrian. The corridor wide enhancements contained in this technical memorandum are based upon analysis contained in Technical Memorandum No. 4. The appendix of this report contains design study exhibits and cost estimates.

- **Technical Memorandum No. 6 - Project Alternatives Feasibility**

This memo provides a summary of corridor wide micro-simulation analysis (peak hour traffic operations based upon the Caltrans LAMM model) for the enhancements contained in Technical Memorandum No. 5 - Project Alternatives. The report contains results for two separate modeling years representing potential traffic volume levels for Year 2020 and Year 2030.

- **Technical Memorandum No. 7 - ASDM Project Alternatives (Middletown Area)**

This memo provides a summary of the Alternatives Selection Decision Matrix (ASDM) analysis prepared for various corridor alignments alternatives within the Middletown area, including; roundabout corridor, signalized corridor, one-way couplet (west side), one-way couplet (east side), by-pass (west side), and by-pass (east side). The two highest scored alignments alternatives (roundabout corridor and signalized corridor) were selected for further study and refinements as contained in Technical Memorandum No. 5 and No. 6. *{Note: This report was prepared prior to Technical Memorandum No. 5 and No. 6. to determine the preferred alignment of SR 29 through the Middletown area.}*

## **CORRIDOR ENHANCEMENT ALTERNATIVES SELECTION PROCESS**

The final corridor enhancement alternatives were initially identified and selected based upon the following methodology:

- Step 1: Determine corridor wide environmental constraints
- Step 2: Determine appropriate safety countermeasures
- Step 3: Determine existing peak hour traffic operations improvements
- Step 4: Determine future peak hour traffic operations improvements
- Step 5: Prepare design study plans and cost estimates
- Step 6: Determine initial and future enhancement categories
- Step 7: Present to community and incorporate input
- Step 8: Refine enhancements and cost estimates

The following chapters of this report provide location specific analysis relating to each of these eight steps. In addition, Technical Memorandum No. 4 (under separate cover) also provides extensive location specific data and engineering analysis that was incorporated into the final set of corridor enhancements.

## V. COMMUNITY PARTICIPATION

Community involvement for the Middletown Community Action Plan (MCAP) is a continuation of community involvement and participation in the development of the Lake County 2030 Blueprint and the Middletown Area Plan, where strong interest was expressed by community members to improve the community of Middletown. Community involvement was also key to the development of the Partnership Planning Grant application, a competitive Caltrans transportation planning grant program which provides the funding for the MCAP. Staff from Lake APC and members of Middletown Area Town Hall (MATH) worked together to develop the grant application, and community interest generated fourteen letters of support that were submitted with the grant application. The community members of Middletown, including MATH and the Middletown Area Merchants Association (MAMA), are proactive and have taken action to improve their community through a variety of projects. Such commitment from the community will be important to implementing the Middletown Community Action Plan.

Shortly after Caltrans announced that the grant for the MCAP was selected for funding, Caltrans District 1 also received funding to conduct an Engineered Feasibility Study (EFS) of the southern portion of State Route 29 in Lake County (from the Napa/Lake County line north to the intersection with SR 53 in Lower Lake). Realizing the opportunity to coordinate these two projects, one consultant team was contracted to conduct both projects. This approach allowed for an expanded and more robust community outreach effort and more in-depth engineering feasibility analysis of potential improvements within the Middletown Community Action Plan project area. Extensive community outreach events actively engaged the community to develop the Middletown Community Action Plan. Key activities included:

- Formation of Community Advisory Committee (CAC)
- Creation and maintenance of a dynamic project website
- Four highly attended community meetings
- Community comment documentation and summary
- Coordination with local media representatives to inform the community about the project and opportunities to participate and provide input.

This chapter provides a brief summary of each CAC and community meeting. The Appendix contains a detailed summary of each meeting agenda, content, and input.

The first Community Advisory Committee (CAC) as held on October 17, 2012 from 3:00 to 4:30 in the Calpine Geothermal Visitors Center. Ten stakeholder representatives participated in the first Community Advisory Committee meeting in Middletown, hosted by Caltrans and the Lake County/City Area Planning Council (Lake APC) as part of the SR 29 South Corridor EFS and Middletown CAP project. CAC members attending this meeting are as follows:

Name	Organization
Greg Baarts	California Highway Patrol
Bill Chapman	Hidden Valley Lake Association
Claude Brown	Lake County Chamber of Commerce
Brock Falkenberg	Lake County Office of Education
Gary Graves	Middletown Area Merchants Association (MAMA)
Joe Sullivan	Middletown Area Town Hall (MATH)
Carlos Negrete	Middletown Rancheria
Korby Olson	Middletown Unified School District
Mike Wink	South Lake County Fire Protection District
Larry Galupe	Twin Pine Casino

The objectives of this first CAC meeting included:

- Providing participants with the background and introduction to the project
- Educating participants about the purpose and need of the project
- Presenting an overview , schedule and the goals of the project
- Facilitating a discussion and collecting input on stakeholder key interests/issues
- Collecting input on stakeholder Community Values as they relate to the project

Extensive input and critical project related information was obtained at this meeting especially from MATH, MAMA, and the Hidden Valley Lake Association. The MATH comments are summarized in Table 3.

The first Community meeting was held on January 22, 2013 from 5 PM to 7 PM at Calpine Geothermal Visitor Center with 70 community members attending and participating. The group represented a broad range of community members from throughout the project area. This meeting was planned by Lake APC and Caltrans to encourage public participation in the State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP) projects. The purpose of the meeting was to introduce the project and team members to the community, provide an overview of the two coordinated projects, address community questions or concerns, and obtain input from the community on their issues, concerns and perceived opportunities and constraints related to the projects.



**TABLE 3  
COMMENTS FROM MATH**

<b>Comment Number</b>	<b>Location</b>	<b>Description</b>	<b>Additional Comments</b>
1	Intersection at SR 29 & Rancheria Road	Signal Light at the Rancheria	
2	West of Intersection at SR 29 & Rancheria Road	Public trail begin (bike, walk, equestrian)	
3	South-East corner of intersection at SR 29 & Rancheria Road	Relocate "Welcome to Middletown" Sign	
4	Along Rancheria, west of SR 29	Public trail continues	
5	On SR 29 near Rancheria between two lanes	Divide highway (island or feature)	
6	Intersection at Shevland Road & SR 29	Street Lights	
7	Intersection at Shevland Road & SR 29 in northbound direction	Turn Lane	
8	SR 29, north of Shevland Road	Re-align curve	Connect Santa Clara to Dry Creek Road
9	Road accessing the CJS Ranch Supply & Appeal	Turn lane at CJS	
10	Dry Creek Annex Road	Continue frontage road	
11	Middletown Adventist School	Turn Lane at 7th Day Adventist Church. Traffic Calming Feature	
12	Middletown Adventist School	Safe Route to School	
13	Intersection at SR 29 & Lake Street	Fire Department activated warning Light	Roundabout
14	Intersection at SR 29 & Lake Street	Turn Lane at Lake Street	
15	At South-West corner of intersection at SR 29 & Hill Avenue	Street Lights for Commuter Parking	
16	SR 29, north of Hills Avenue at the curvature segment	Traffic Calming feature/crosswalk	
17	On SR 29 between Perry's Deli and Eagle/Rosa Motel	Decorative crosswalk between Perry's Deli and Eagle/Rose Motel	
18	From north of Eagle/Rosa Motel to Callayomi Street	Sidewalks on both sides of street	
19	Park near intersection of SR 29 & Douglas Street	Decorative crosswalk at the park	
20	Post office on North-West corner of SR 29 & Armstrong Street	Decorative Crosswalks at post Office	
21	On Armstrong along SR 29	Bulb Outs both side of street	
22	Intersection at SR 29 & CA 175	Decorative crosswalks all four corners of CA 175 & SR 29 intersections	
23	Intersection at SR 29 & CA 175	Bulb outs at all four corners	
24	On SR 29, east side	Charging station on Main Street	
25	Between hardester & Tri-Counties on Young Street	Decorative crosswalks & Bulb outs at Hardester/tri Counties Corner	No Parking on Westside of SR 29 between Wardlaw Street & TriCounty Bank
26	At South-West corner of SR 29 & Wardlaw Street	Reclaim parking/Park at Wardlaw	
27	At North-East of SR 29 & Wardlaw Street near High School	Add Right turn only for school drop-off area/ after drop-off time configure parking area	
28	Intersection at SR 29 & Wardlaw Street	Continue Blub out street design	
29	Along Christian School, east side	Sidewalk to Christian School, safe route to school	
30	On SR 29 at Christian School in northbound direction	Left turn lane into Christian School	



During the community meeting, the attendees were invited to provide their issues, comments and opportunities for improvement through an interactive exercise. Large maps of the project area were posted throughout the room and participants were able to identify issues and suggest improvements. The project team facilitated the discussion and all of the comments were collected and categorized. The participants provided a broad range of comments and suggestions, which were organized into following categories:

- Safety
- Congestion
- Bike Routes
- Pedestrian Facilities
- Transit Services
- Parking
- School
- Equestrian
- Roadway Landscaping
- Historical Presentation
- Environmental Preservation - Erosion
- Environmental Preservation - Others
- Other - Accessibility
- Other -Recommendations
- Other - Business
- Other - Signage
- Other - Information



Community members were also able to provide input through comment cards at the workshop and through the interactive project website after the community meeting. The actual comments received from the Community meeting and project website can be found in the Appendix along with a summary of the meeting and photos of the community meetings.



The second CAC meet meeting was held on June 4, 2013, 3 p.m. – 4:30 p.m. at the Middletown High School Multi-Use Facility followed by the second community meeting at 5:00 p.m. in the same room. The primary purpose of this meeting was to provide the community with an overview of the Existing Conditions Draft Report and provide an introduction to Complete Street planning principles for the Middletown Community Action Plan.

Input from the community was obtained through group exercises and question/answer sessions. CAC members were divided among three tables, each with a facilitator. They were asked to review a large map of the Middletown Area, and note answers to specific questions including the following:

#### **Map #1 – Vehicle/Transit**

1. What are your common trips?
2. What are your alternate routes when the common routes are congested?
3. What are key origins and destinations?
4. What challenges do you encounter?

## Map #2 - Bicycle

1. Where do you or others ride a bike?
2. Where would you or other like to ride a bike?
3. What are key origins and destinations?
4. What challenges do you encounter?

## Map #3 – Walk/Equestrian

1. Where do you or others walk/ride?
2. Where would you or others like to walk/ride?
3. What are key origins and destinations?
4. What challenges do you encounter?

In addition, handout questionnaires were distributed to obtain CAC member input on the following questions:

### Questionnaire #1 – Review of Community Values and Transportation Vision Statement

### Questionnaire #2 – Historic Downtown Middletown Questionnaire

1. What one mobility improvement should be implemented in Historic Downtown Middletown?
2. When visiting downtown, where do you go?
3. How do you access downtown and what mode of transportation do you use?
4. Where are some opportunities for downtown gathering places?

Following the CAC meeting, the second community meeting began at 5:00 in the same multi-purpose room. This meeting was designed to solicit community feedback to help shape the State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP) project, with the following areas of focus:

- Review public input to date
- Provide an update on the project status and schedule
- Present a summary of existing conditions data
- Introduce complete streets planning concept as it relates to the Middletown project area
- Solicit community input on the Middletown Community Action Plan

The meeting included a slide presentation, which included a recap of the study need and purpose, a brief overview of the project, and a summary of the existing conditions report data. Key points related to existing conditions included: a summary of comments received from the first community meeting, roadway congestion levels, roadway level of service, collision rates along the corridor, access management, and environmental constraints. The presentation then focused on an introduction to complete street planning for the Middletown area. Key points during this discussion included the definition of complete streets; identification and review of the Middletown “complete streets” planning area, roadway types and potential improvement options; and examples of complete street concepts.



Following the presentation and Q&A/discussion, attendees were invited to participate in a group exercise related to the Middletown CAP project area. Attendees were given multi-colored dots to place on large maps in reference to obtaining their input on priority transportation improvements including:

- Local street improvements
- Collector street improvements
- Arterial street improvement

Meeting attendees were also asked to complete a Meeting Feedback Form, and were provided with a Project Comment Card that they could complete and return at their convenience. The comment card provided the project website and email address where comments and questions related to the project could be submitted at any time.



The third community meeting was a joint CAC and community outreach meeting held on November 13, 2013 from 6 p.m. - 8 p.m., also at the Middletown High School Multi-Use Facility in Middletown.



The purpose and focus of the third community meeting was to solicit stakeholder feedback to continue to help shape the jointly implemented State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP), with the following focus:

- Provide an update on area Caltrans maintenance projects
- Provide an overview of proposed improvement over the entire SR 29 South Corridor study area from the Napa County Line to SR 53
- Solicit community stakeholder feedback on the proposed improvements

The community meeting began with a Power Point presentation, and questions and answers, followed by a stakeholder voting process on the proposed improvements. Additional informational material included poster boards with maps of the study area and proposed improvements. Handouts included a project comment card and meeting evaluation form.

Meeting participants were given colored dots and asked to submit votes regarding whether they “agree” or “disagree” that the appropriate transportation improvements within each the following categories:

- Safety
- Congestion relief
- Traffic calming
- Pedestrian/bike/equestrian
- Timeframes (initial and future)

Participants also were provided with project comment cards to add additional qualitative feedback. Meeting attendees were also asked to complete a meeting evaluation form.

The fourth community meeting is scheduled for January 29, 2014.

In addition to the project community meetings, MATH and the Middletown Area Merchants Association (MAMA) met to discuss the project, review maps of the downtown area, and provide specific suggestions and identify issues. This input was discussed at the second community meetings and provided critical input to the development of the plan.

## **VI. EXISTING CONDITIONS**

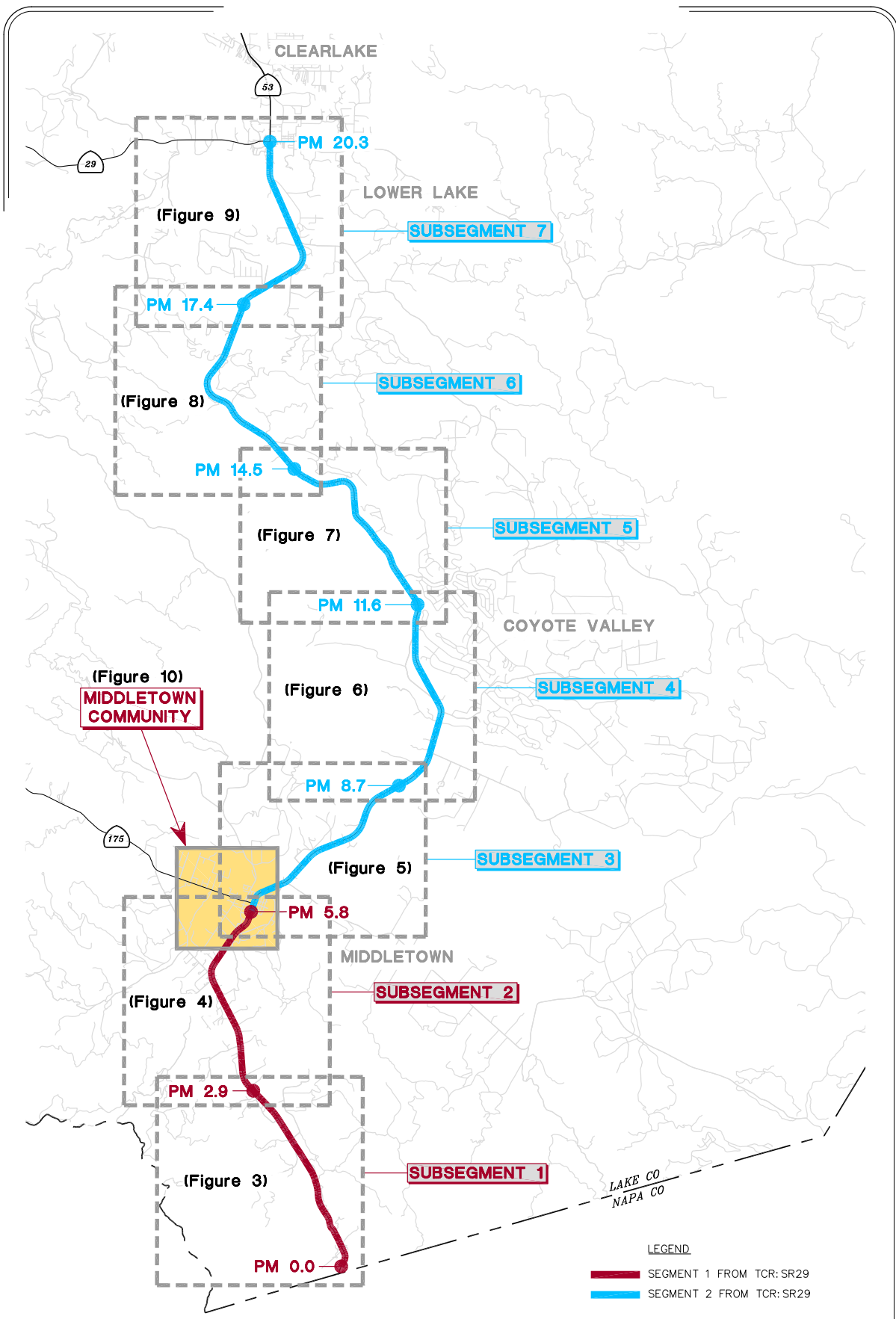
The study corridor has been divided into seven sub-segments as illustrated in Figure 4. The major and minor access locations along the corridor are illustrated in Figures 5 through 12. Corridor access locations by post mile are contained in TABLE 4.

**TABLE 4  
ACCESS LOCATION ID**

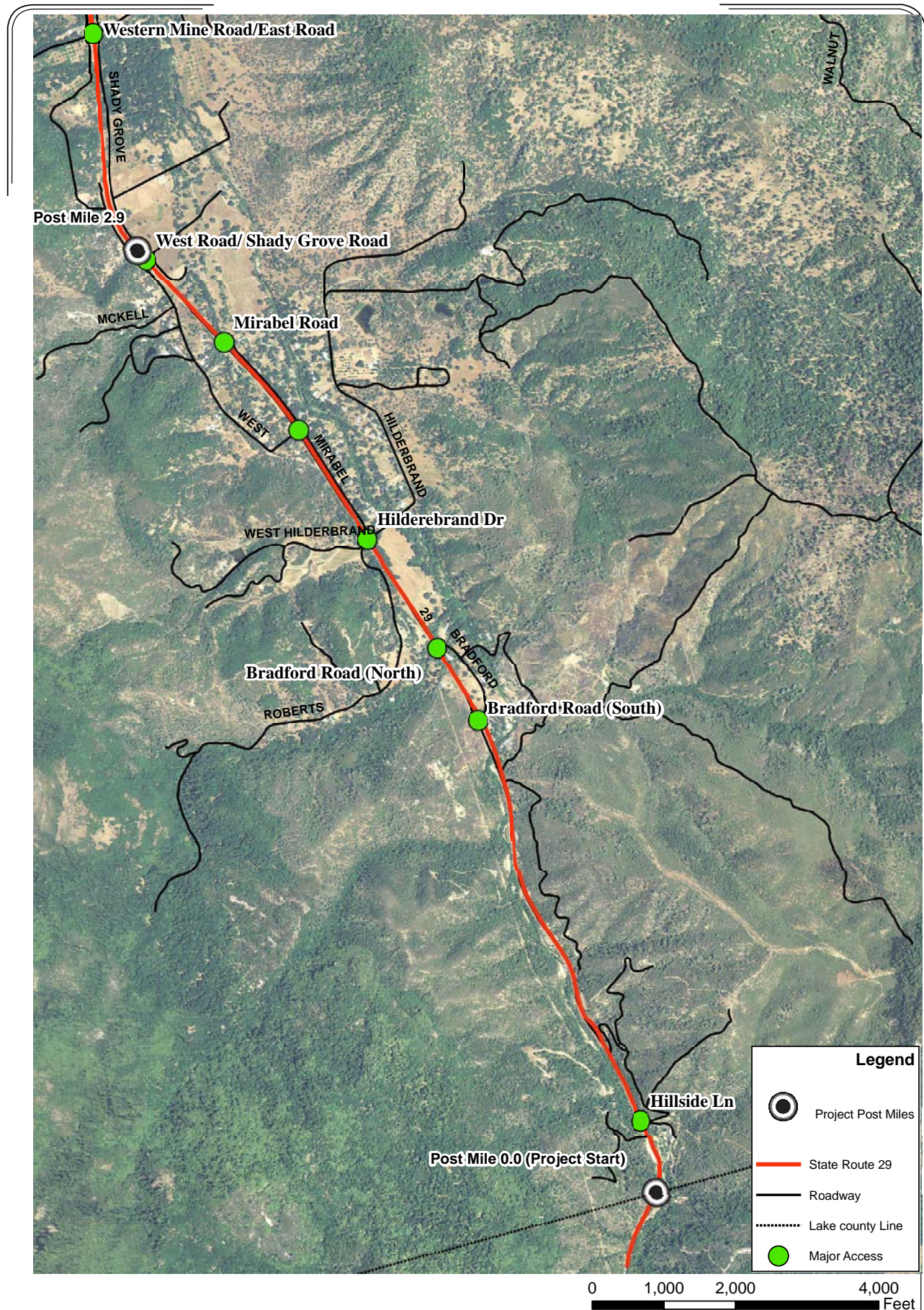
Facility Name	From/At (MP)	To (MP)
<b>Subsegment 1</b>	<b>0.00</b>	<b>2.90</b>
Private Driveway	0.166	-
Hillside Lane	0.209	-
Private Driveway	0.402	-
Private Driveway	0.789	-
Private Driveway	0.898	-
Private Driveway	1.072	-
Private Driveway	1.247	-
Bradford Road (South)	1.356	-
Bradford Road (North)	1.577	-
HilderBrand Drive	1.913	-
West Road/Mirabel Road	2.249	-
Mirabel Road	2.559	-
West Road/Shady Grove Road	2.869	-
<b>Subsegment 2</b>	<b>2.90</b>	<b>5.80</b>
Western Mine Road/East Road	3.492	-
Private Driveway	3.886	-
Rancheria Road/E. Road	4.136	-
Dry Creek Cutoff	4.529	-
CJS Ranch Road	4.788	-
Adventist Church Dr.	4.918	-
Central Park Road	5.140	-
Lake Street	5.372	-
Hill Avenue	5.483	-
Callayomi Street	5.646	-
Douglas Street	5.697	-
Armstrong Street	5.748	-
Main Street (SR 175)	5.801	-
Young Street	5.854	-
<b>Subsegment 3</b>	<b>5.80</b>	<b>8.70</b>
Wardlaw Street	5.954	-
St. Helena Creek Road	6.361	-
Butts Canyon Road	6.370	-
St. Helena Lane	6.652	-
St. Helena Drive	6.912	-
Private Driveway	7.309	-
Bar X Entrance Road	7.791	-
Glider Port	8.149	-
<b>Subsegment 4</b>	<b>8.70</b>	<b>11.60</b>
Grange Road	9.278	-
Guenoc Lane/Putah Lane	9.644	-
Hartmann Road	9.867	-
Spruce Road Ext./Arabian Lane	10.872	-
Spruce Road Ext./Hidden Valley Road	11.125	-

Facility Name	From/At (MP)	To (MP)
<b>Subsegment 5</b>	<b>11.60</b>	<b>14.50</b>
Spruce Grove Road	11.929	-
Private Driveway	12.217	-
Private Driveway	12.722	-
<b>Subsegment 6</b>	<b>14.50</b>	<b>17.40</b>
Private Driveway	14.690	-
Private Driveway	14.792	-
Hofacker Lane	14.868	-
Lusian Lane	16.056	-
Agua Duice Drive	16.117	-
Private Driveway	16.216	-
Private Driveway	16.327	-
Private Driveway	16.617	-
Springs Road	16.807	-
A Street	16.828	-
Murphy Springs Road	16.989	-
Private Driveway	17.165	-
Private Driveway	17.299	-
<b>Subsegment 7</b>	<b>17.40</b>	<b>20.30</b>
B St	17.485	-
C St	17.842	-
Private Driveway	18.147	-
Spruce Grove Road	18.751	-
Private Driveway	18.996	-
Clayton Creek Road	19.743	-
JKL Ranch Drive	19.840	-
Private Driveway	19.943	-
Gate Road	20.036	-
Private Driveway	20.140	-
State Route 53	20.304	-









State Route 29 Engineered Feasibility Study

FIGURE 5

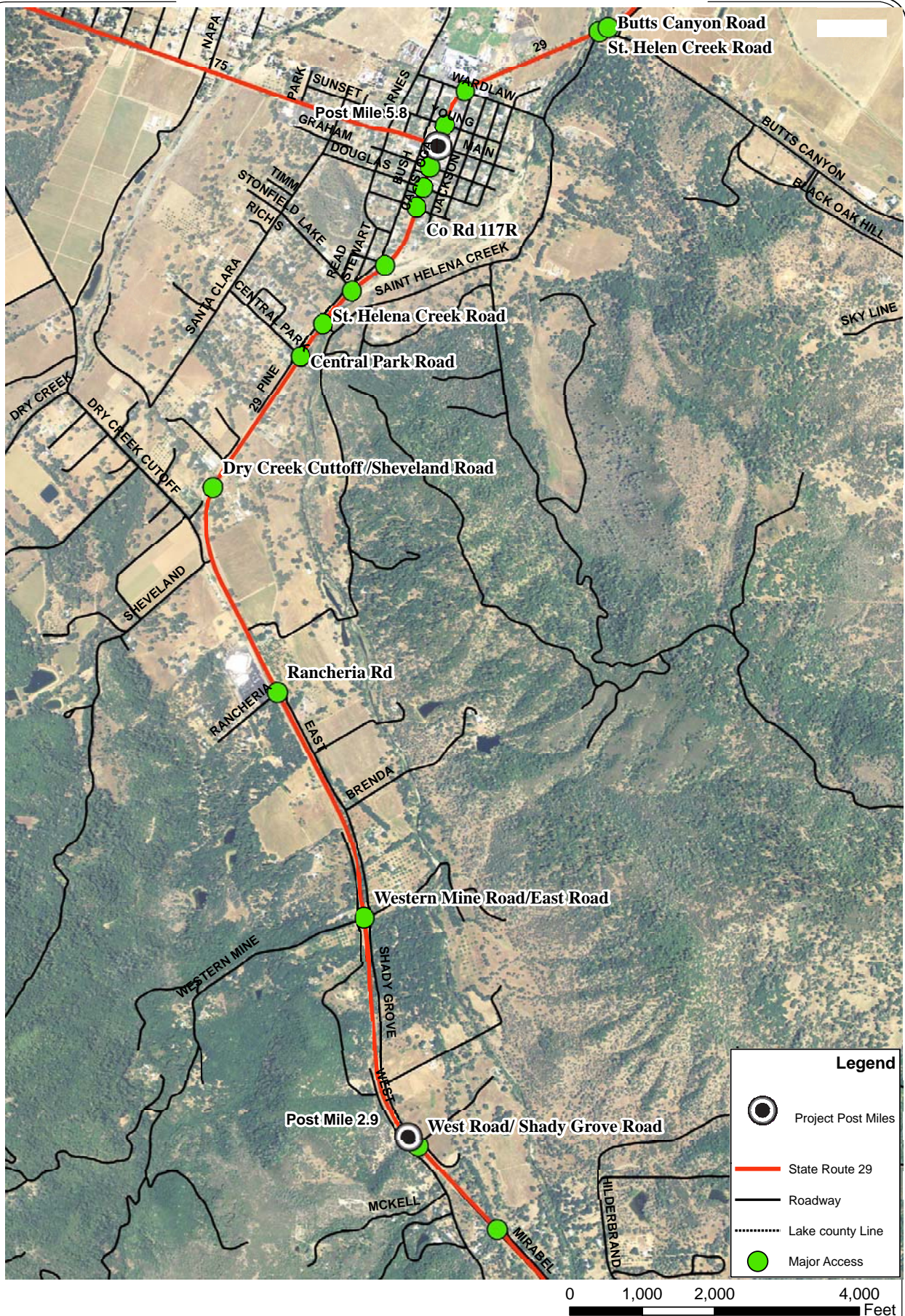
## Subsegment 1 (PM 0.0 - PM 2.9)



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FIGURE 6

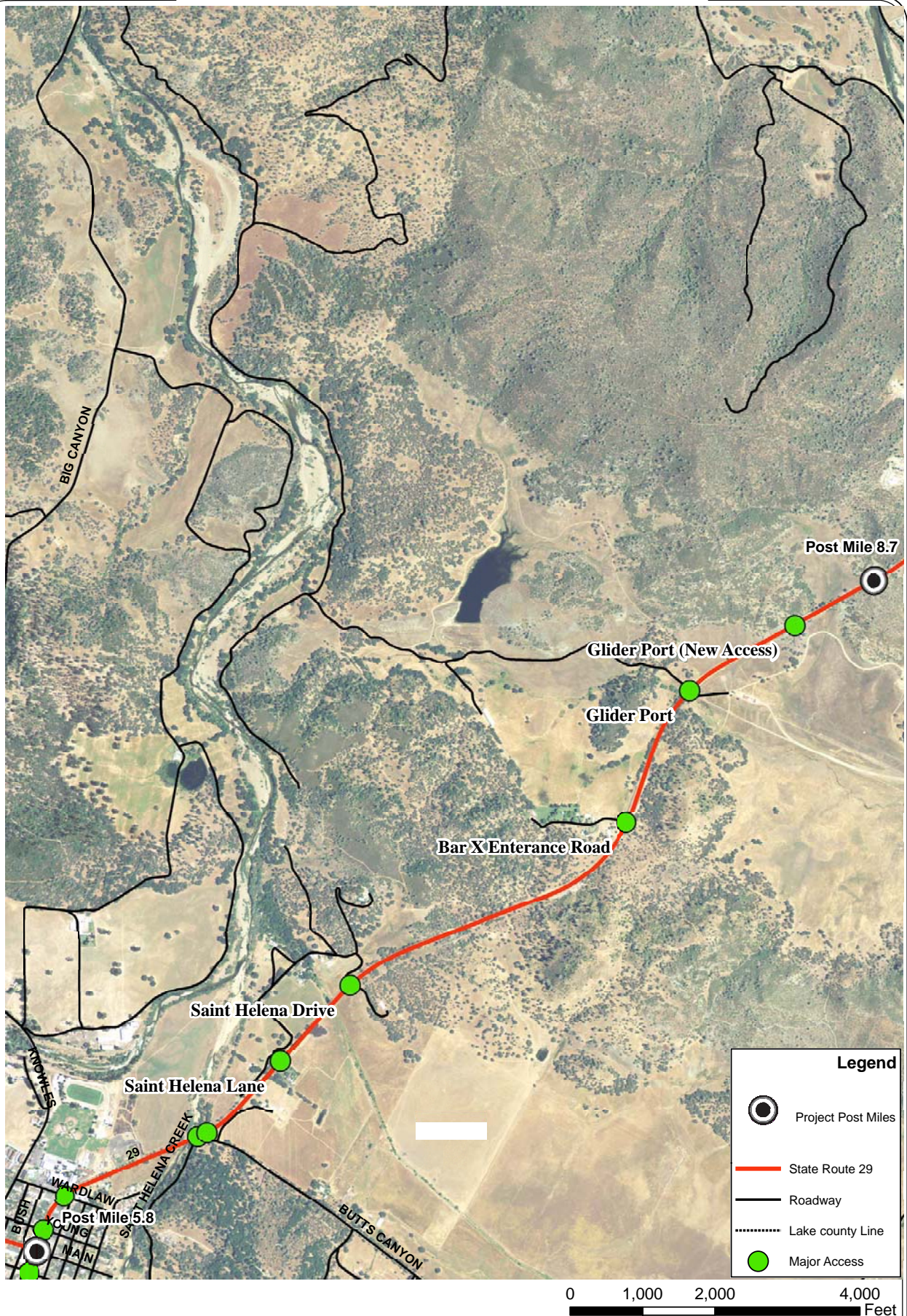
## Subsegment 2 (PM 2.9 - PM 5.8)



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FIGURE 7

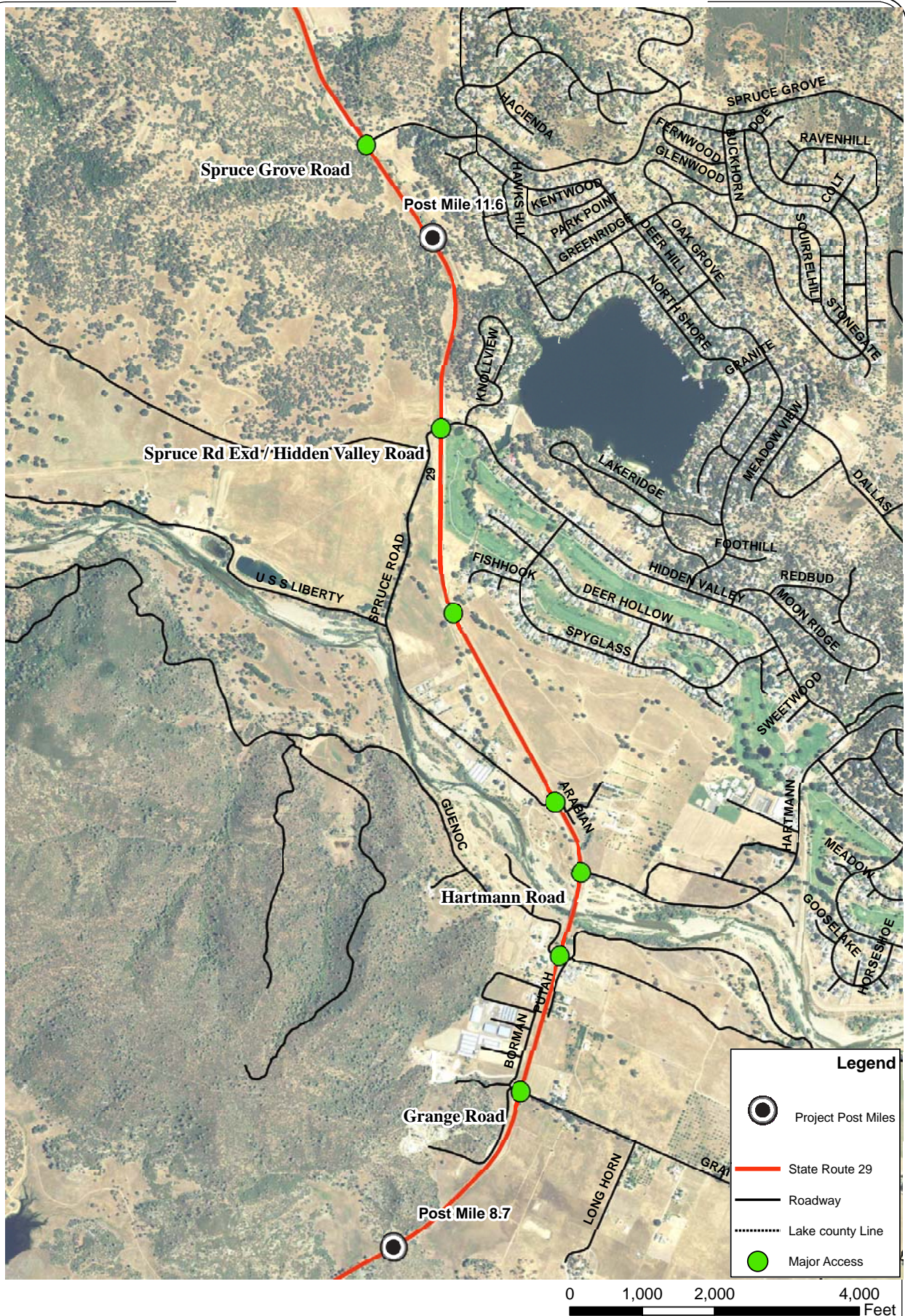
Subsegment 3 (PM 5.8 - PM 8.7)



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FIGURE 8

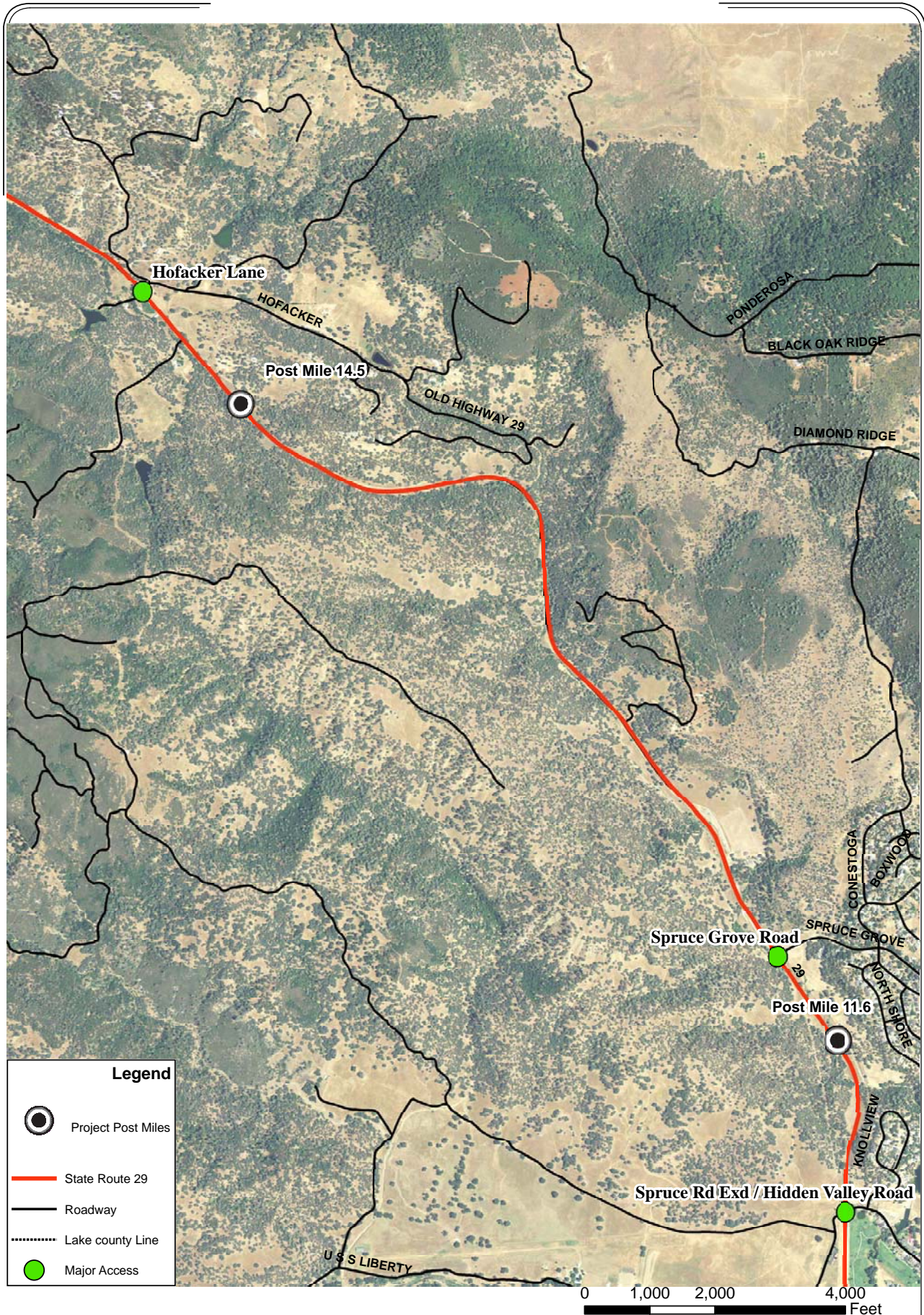
## Subsegment 4 (PM 8.7 - PM 11.6)



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FIGURE 9

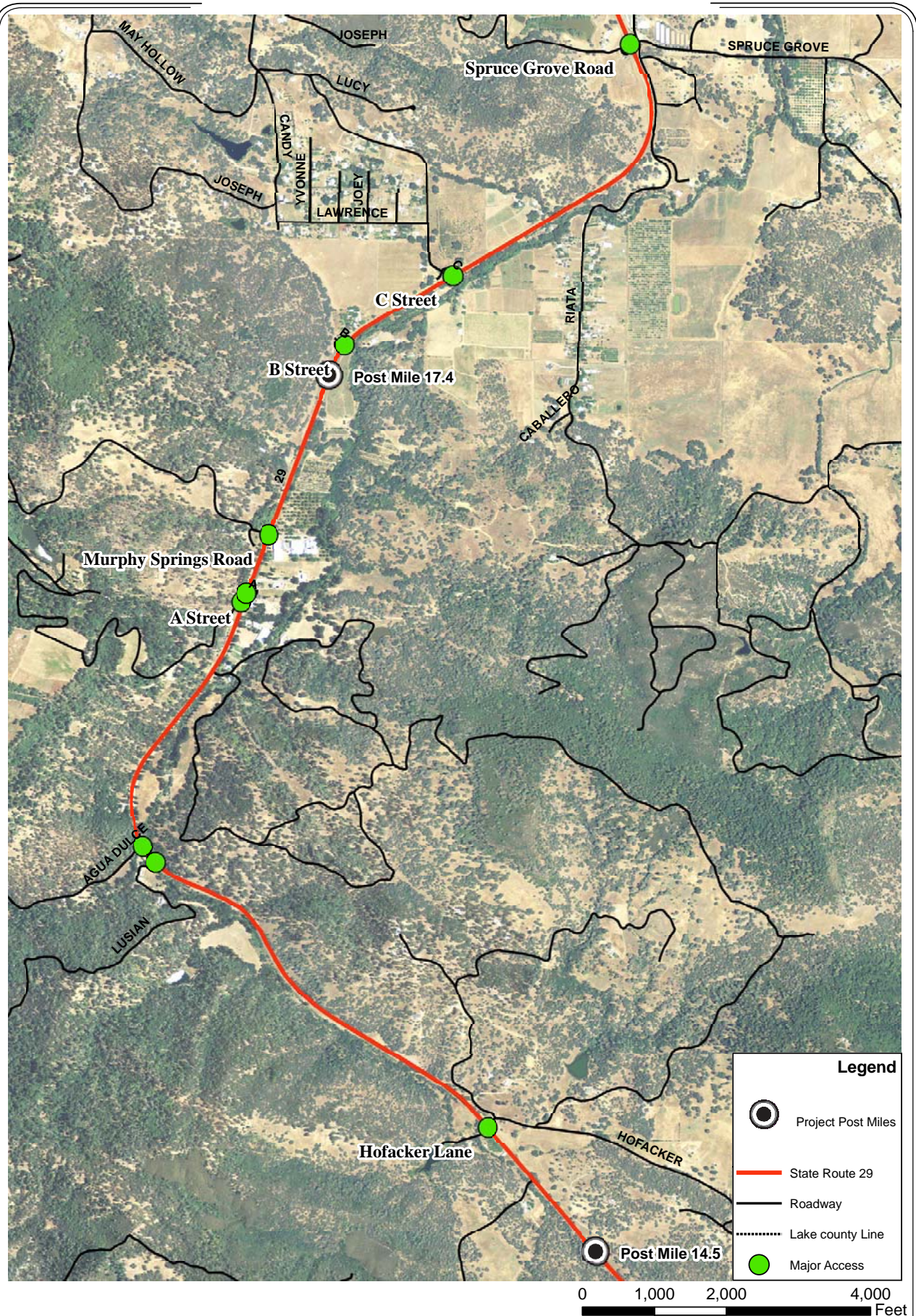
## Subsegment 5 (PM 11.6 - PM 14.5)



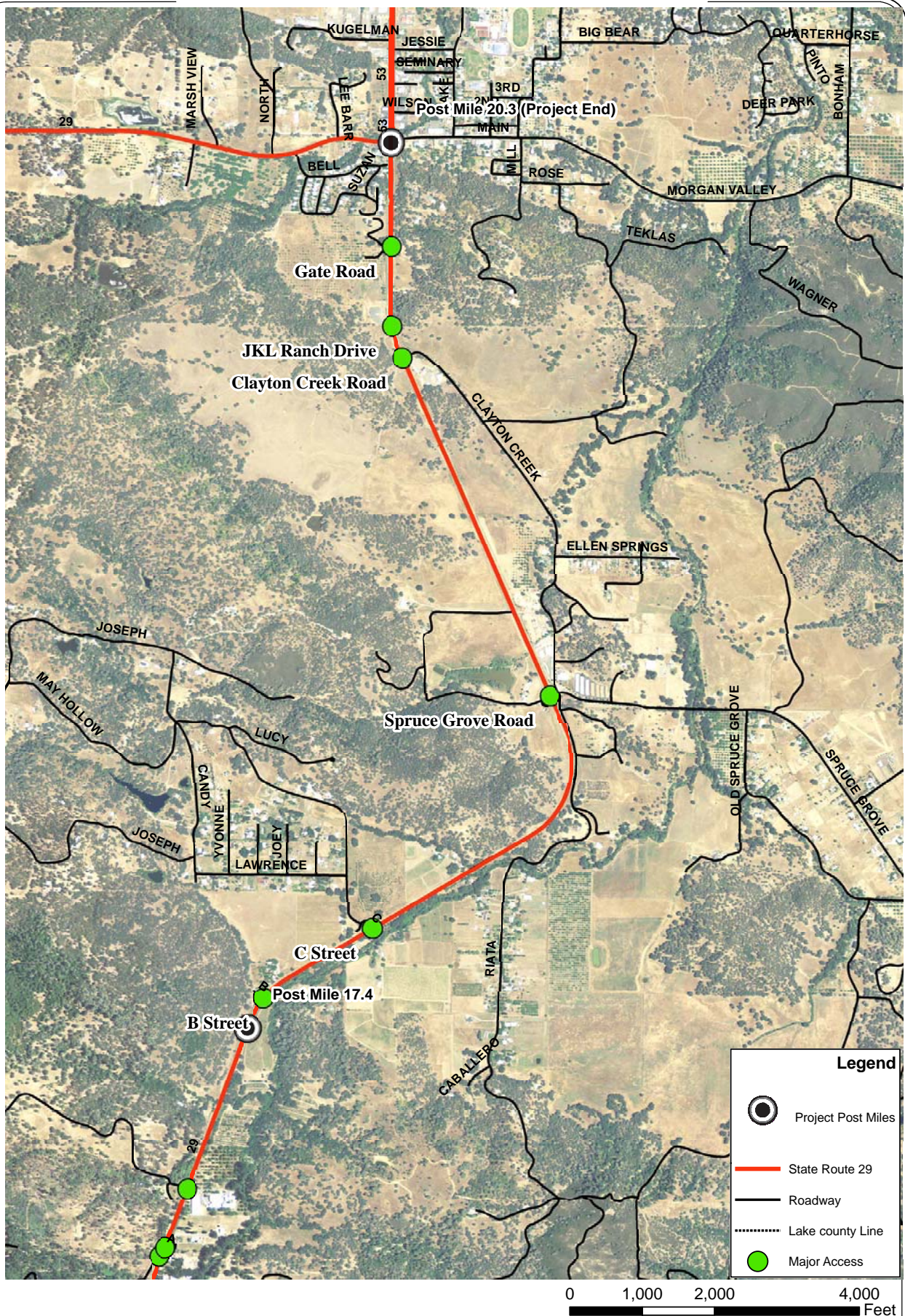
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FIGURE 11

## Subsegment 7 (PM 17.4 - PM 20.3)



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FIGURE 12



## **SUB-SEGMENT 1. (NAPA COUNTY LINE TO SHADY GROVE ROAD)**

Entering Lake County from the south, sub-segment 1 of the project is a recently re-paved section with standard lanes and narrow paved shoulders. The posted speed limit is 55 mph. There are no left turn lanes in this 2.9 mile segment. Along sections with rural subdivisions there are parallel frontage or backage roads. There are occasional private accesses off SR 29 that serve large rural parcels.

The first 1.3 miles has several rural driveways providing access to large rugged private parcels. All these are low volume simple driveways with minimum radius and design. A few are very low use. The continuous paved shoulder of 2-3 feet helps with turning movements when they occur.

Most public street intersections have short paved direct tapers leading to the radius. The exhibit below shows a common configuration. These tapers allow a right turning vehicle to clear the through lane a little earlier, meaning somewhat lower speed differential in the through lane occurs with following vehicles.

### **Mirabel Intersection with Right Turn Taper**



Many of the entrances have mailboxes immediately adjacent to the access or very close. These are a mix of individual posts and wood frames holding 3 to 17 mail boxes each. Some of the intersections serve many small parcel subdivisions. Hilderbrand Road along with the Mirabel frontage road serves over 60 lots. West Road serves over 30 lots.

## **SUB-SEGMENT 2 (SHADY GROVE ROAD TO MAIN ST (SR 175))**

Sub-segment 2 begins at the Shady Grove Road intersection and is about 2.9 miles long. With a few exceptions, Sub-segment 2 south of Lake Street is similar to Sub-segment 1 with each having two lanes with approximately two foot shoulders. The public road intersections have short tapers for right turns and reasonable radii. The speed limit is 55 mph south of Lake Street. Mailboxes are along the road at many of the access points.

Shady Grove Road is a frontage road along the east side, and linking to 'E' Road it is about 1.3 miles long. On the West side, the frontage roads cover a shorter length, are fragmented and consist of West Road and Western Mine Road. In part due to the frontage roads there are very few private driveways and those that exist have very low traffic volumes.

Rancheria Road serves the Twin Pine Casino. Due to traffic volumes the intersection has left and right turn lanes as shown in the exhibit below. SR 29 is approximately 12 feet wider to the south and 24 feet wider to the north to accommodate turn lanes. The shoulder in this area is also wider, at 8 feet.

### **Intersection of Rancheria**



North of Rancheria there are single lane dirt paths on both sides of SR 29 in the right of way, used as a horse trail. On the west side the path extends north to Dry Creek Cutoff and on the east extending north to about PM 4.7.

The Dry Creek Cutoff intersection (PM 4.5) has a short 120 taper for southbound right turns but no left turn lane for northbound. Dry Creek Cutoff is an informal 1.8 mile southwest bypass route around Middletown that links to SR 175. Dry Creek has a stream crossing that is only open when it is safe to cross, usually where there is no water in the creek bed.

To the north, both Central Park Road (PM 5.2) and Hill Ave (PM 5.5) have northbound left turn lanes. The left turn lane at Central Park is about 350 feet and the left lane at Hill Ave is short, only about 130 feet. On the west side is a frontage road, Pine Street, from PM 4.9 to PM 5.4 which provides for local private access circulation.



## ***Middletown Area***

At Lake Street (PM 5.4) the northbound speed limit drops to 45 mph followed by a drop to 30 mph just north of Hill Avenue (PM 5.5). South of Lake Street the speed limit is 55 mph. The change in speed limit at Lake Street into town is commensurate with a rapid increase in access connections and an urban street cross section. The highway transitions to two through lanes with bike lanes and on-street parking. There is no median. Pavement width varies between 48 and 55 feet. There are no turn lanes so any left turning vehicles must wait in the through lane for a gap in approaching traffic. When traffic is low volume, this is not a problem. With the additional width of the bike lane, the parking lane, and a lower speed limit, right turns quickly clear the through lanes.

Between Hill Street and Armstrong Street on-street parking is allowed. Most frequent parking is at the Park between Douglas and Callayomi Streets. The parking lane is eight feet wide with additional off-set from the through lanes to the bike lane.

### **Looking South on SR 29 from Armstrong Street**



### **SUB-SEGMENT 3 (MAIN ST, SR 175, TO GLIDER PORT)**

Sub-segment 3 in Middletown has a pavement cross section of 45 to 55 feet. There are two through lanes, two bike lanes and on-street parking. With a few exceptions there is curb and gutter.

The Wardlaw Street intersection is the busiest in the Sub-segment 3. On the northwest are three schools, elementary, middle and high. School start and end times are off-set, but the intersection can be quite busy with parents dropping off in the morning and picking up in the afternoon. The parking lot driveway is immediately west of the intersection but parking lot circulation works well and the drop-off queue rarely extends beyond the driveway.

The largest volume of children cross in the afternoon at the north crosswalk as shown in the exhibit below. This is where the one adult crossing guard provides assistance. There are no sidewalks north of Wardlaw.

### Children Crossing SR 29 after School



Immediately north of Wardlaw the speed limit changes from 30 to 45 mph as shown in the exhibit below while still adjacent to the schools. A school zone limit of 25 mph applies but only if children are present.

### Immediately North of Wardlaw



Both shoulders are about 10 feet wide north of Wardlaw for a distance of about 600 feet before reducing to about two feet. This is a transition area. There are two private accesses along this section. The Jolly Kone has two driveways and there is the main driveway to the Middletown Bible Church and K-12 Christian School at the north end of the school zone. There are no left turn accommodations and all left turns must be made from the through lanes.

The speed limit on SR 29 increases from 45 to 55 mph immediately north of the school zone. The highway has two lanes with narrow shoulders. In this section there is only one major intersection, Butts Canyon Road to the east. Both left and right turn lanes are provided.

The intersection of St. Helena Creek Road is a one-way northbound roadway intersecting SR 29 approximately 50 feet south of the Butts Canyon Road intersection. This intersection is STOP controlled as shown in the following picture.

## **The St. Helena, Butts Canyon Intersection with SR 29**



North of Butts Canyon there are several minor public intersections and private driveways to either ranches or residences. Most of the parcels have access to Saint Helena Lane on the west side of the road. The exhibit below shows the roadway shoulders on SR 29, north of St. Helena Lane.

### **Narrow Shoulders in Road Cut North of St. Helena Lane**



## **SUB-SEGMENT 4 (GLIDER PORT TO NORTH OF HIDDEN VALLEY ROAD)**

Sub-segment 4 continues with a basic cross section of two through lanes and narrow shoulders and posted at 55 mph. There are no private access points and two very low use agricultural driveways with gates.

Most parcels are served by one of several frontage and backage roads that are parallel to SR 29. On the west side there is a mix of industrial, warehousing, storage, and other small businesses with a few residential properties.

Both Grange Road and the Guence/Putah Lane intersections have left turn lanes in both directions. Shoulders are wider along this section and help to reduce right turn speed differential with the through lane.



The Hartmann Road intersection is the busiest and is shown below. It is a 'T' to the east but there is also an open parking area on the west. The intersection is on a curve and the road has a super-elevation making a hump on the east Hartman approach. The super-elevation was part of the road design prior to the installation of all-way stop signs that were added later due to a collision history developing at the intersection. This intersection has a northbound to eastbound right turn lane and a southbound left turn lane to Hartmann. The exhibit below shows the SR 29 and Hartmann Road intersection.

#### **Hartmann Road Intersection**



The Hartmann intersection is busy with both residential and commercial traffic. To the immediate northeast of the Hartmann intersection there have been proposals to develop a new subdivision with over 1,000 homes and additional commercial property. If this occurs it will be necessary to rebuild the Hartmann intersection.

Hidden Valley Road is at PM 11.15. Northbound it has left, through and right turn lanes as shown in the exhibit below. Southbound there is a left turn lane, and a wider shoulder for right turns. This is a relatively busy rural intersection serving a relatively large residential subdivision.

#### **Intersection of Hidden Valley Road with Turn Lanes**



## **SUB-SEGMENT 5 (NORTH OF HIDDEN VALLEY RD TO SOUTH OF HOFACKER LN)**

Sub-segment 5 continues as two-lanes with narrow shoulders. At Spruce Grove Road (north intersection) and to the south the pavement is newer with good but narrow shoulders of 2 to 3 feet. Immediately north of Spruce Grove Road the top layer of pavement is very rough and the shoulders narrow to 1 to 2 feet wide.

Northbound a climbing lane exists from PM 12.75 to PM 14.1. This is a long hill as shown in the exhibit below. With a three lane cross section, turning movements for access points are more difficult than a two lane.

### **End of Climbing Lane North of Spruce Grove Road**



This section has several private access points. Ones with daily use are paved back wider than the shoulder and have paved radii. This section of highway was recently repaved.

There is only one public street connecting Spruce Grove Road to the east. It has a southbound to eastbound left turn lane. Right turns have a short taper.



## **SUB-SEGMENT 6 (SOUTH OF HOFACKER LN TO SOUTH OF 'B' STREET)**

The road segment has a repaved two-lane surface with a 1-2 foot shoulder except for a short section that has been repaved and has a 2-3 foot shoulder.

Hofacker Lane connects to the east. A private access is on the west leg of Hofacker. There is no left turn lane at this location. There are right turn tapers for Hofacker but not for the private drive. There are two more private access points south of Hofacker on the west. The exhibit below shows the SR 29, north of Hofacker Lane.

### **North of Hofacker Lane**



At PM 16 there are about five private access points along a curve (Lusian Ln, Aqua Dulce and three others). These are light use driveways. The access at 'A' Street has short paved tapers. It is a minor and very short street with no left turn lanes. There is a private driveway on the west side which is offset about 100 feet to the south from 'A' Street.

Murphy Springs Road is on the west side with a private driveway on the east. The road has right turn tapers and a collection of mail boxes immediately to the south adjacent to the widened taper.

## **SUB-SEGMENT 7 (SOUTH OF 'B' STREET TO JUNCTION OF SR 53)**

The southern portion of this sub-segment continues with a rough pavement surface. New surfacing begins at about PM 18.6, south of Spruce Grove Road. The shoulder is normally one to two feet in the rough section and two to three feet on average north of 18.6.

There are several busy public intersections in this 3 mile section and a developing local street network. 'B' Street is very short, providing access to a few parcels on the west. It has short right turn tapers. It has a private driveway opposite on the east side.

'C' Street is also on the west with a private driveway on the east. 'C' Street serves a large subdivision (about 100 lots of various sizes) that are currently less than half developed. The subdivision is also served by May Hollow Road which connects to 'C' Street and then to SR 29. There are no turn lanes but 'C' does have right turn tapers, as indicated in the exhibit below.

### **"C" Street Intersection**



At PM 18.1 there are private driveways west and east. The east side serves properties that also abut Riata Road.

Spruce Grove Road is to the east and has large tapers for right turns, and a southbound to east bound left turn lane. As shown in the exhibit below, to the west is a private driveway with short tapers for right turns. Spruce Grove serves a growing residential and commercial area. Clayton Creek Road starts with an intersection with Spruce Grove and is an access road to commercial properties abutting SR 29 on the east as it heads north.

### **Spruce Grove Road**



Clayton Creek Road is a "T" to the east, with right turn tapers and no left turn lane. There is a commercial development at the intersection, and this road serves several large parcels on the east side and links south to Spruce Grove Road. The following exhibit shows the Clayton Creek Road intersection.

## Clayton Creek Road Intersection



Between Clayton Creek Road and SR 53 there are five rural driveways with one to the developing retail business, Jonas Oil (JKL Ranch Road). At the SR 29/53 junction the Shell station on the southwest corner has an open access along its SR 29 frontage.

Approaching the SR 29/53 junction, SR 29 is five lanes wide consisting of two-lanes north, a left-turn lane and two lanes southbound. The two southbound lanes continue south for 1,200 feet and merge just south a hill crest at about PM 19.5.

## SAFETY ANALYSIS

A safety analysis was completed to identify primary causes of collisions along the SR 29 study corridor and identify potential countermeasures that can be implemented to improve safety for the motoring public.

In order to conduct a thorough analysis of the safety issues, historical collision data for a five year timeframe (2007-2011) was obtained from Statewide Integrated Traffic Records System (SWITRS) and analyzed. In addition to the electronic data, police collision reports for fatal and severe injury collisions were requested and reviewed. The CHP collision reports were primarily used to gather additional information from the collision report narratives and collision diagrams to help identify pre-collision events, driver actions and other variables that led to these collisions. A total of 237 collision records were used in the detailed analysis.

In order to have a better understanding of the safety concerns along the corridor, the 237 collision records were analyzed and summarized to determine the general collision characteristics. The entire study corridor was broken down into seven smaller segments and collisions were analyzed for the corridor as a whole and for the individual segments. Statistical tests were conducted to determine if there was a significant relationship between collision types and the variables studied.

To help identify intersections with excessive numbers of collisions of a particular type, the deviation from the expected number of collisions (observed minus expected) was computed for each intersection and collision type.

Between 2007 and 2011, there were a total of 237 collisions. The average number of collisions per year is 59. Collisions are least prevalent in October and then increase until summer peaking in April and May. This is consistent with the travel patterns in the region as most of the travel occurs during warmer weather.

Collisions are more prevalent on weekdays than weekends. The most common day is Monday with eighteen percent of collisions and the lowest is during the weekends with around ten percent. The lowest weekday is Tuesday with around twelve percent.

Most collisions occur during the afternoon peak period between 3:00-6:00 p.m. Collisions increase steadily throughout the day, peak in the late afternoon and drop off into the evening. The lowest period of collisions is from 12:00-3:00 a.m. The collisions have been observed to be evenly distributed between the North and South directions between 3:00-6:00 p.m.

A breakdown of the collisions along the corridor reveal that four major collision types exist as follows; fixed object collisions (28 %), rear end (25 %), broadside (16%) and sideswipe (12%) accounted for about 80 percent of all collisions. Of all the collisions, approximately a third (32%) occurred at intersections while the remainder occurred along the highway away from intersections. A detailed breakdown of all the collision types is provided in TABLE 5.

**TABLE 5**  
**BREAKDOWN OF COLLISIONS BY TYPE - WHOLE CORRIDOR**

<b>Collision Type</b>	<b># of Collisions</b>	<b>% of Collisions</b>
Hit Object	66	28
Rear End	59	25
Broadside	39	16
Sideswipe	28	12
Overturned	20	8
Head On	17	7
Veh/Ped	5	2
Other	3	1
<b>Total</b>	<b>237</b>	<b>100</b>

Regarding injury severity, most of the collisions along the corridor involved property damage (46%) and minor injuries (42 %). Severe injuries accounted for 7 percent of the collisions and fatalities are the remainder. Injury severity was also examined by collision type (See TABLE 6). Broadside and Head-On collisions were the major cause of fatalities while Hit Object collisions were the major cause for severe injuries. For Injury and Property Damage Only (PDO) collisions, Rear End collisions were the major cause.

**TABLE 6**  
**INJURY SEVERITY BY COLLISION TYPE (Years 2007 to 2011)**

<b>Collision Type</b>	<b>Fatal</b>		<b>Sev. Injury</b>		<b>Injury</b>		<b>PDO</b>		<b>Total</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
Hit Object			6	37.5	20	20	40	36	<b>66</b>	<b>28</b>
Rear End			1	6.3	31	31	27	24.3	<b>59</b>	<b>24.9</b>
Broadside	5	50	2	12.5	17	17	15	13.5	<b>39</b>	<b>16.5</b>
Sideswipe			1	6.3	7	7	20	18	<b>28</b>	<b>11.9</b>
Overturned			3	18.7	13	13	4	3.6	<b>20</b>	<b>8.4</b>
Head On	5	50	2	12.5	5	5	5	4.5	<b>17</b>	<b>7.2</b>
Veh/Ped			1	6.3	4	4			<b>5</b>	<b>2.1</b>
Other					3	3			<b>3</b>	<b>1.3</b>
<b>Total</b>	<b>10</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>111</b>	<b>100</b>	<b>237</b>	<b>100</b>

The top four primary causal factors for collisions along the study corridor include: Improper Turning (29%), Unsafe Speed (26%), Driving Under the Influence (15%), and Automobile ROW (14%).

Weather was not a significant factor as more than 80 percent of collisions occurred during clear weather conditions. Approximately 12 percent of collisions occurred under cloudy weather and a much smaller portion (5%) occurred under rainy weather. Road surface was also not an issue as more than 85 percent of collisions occurred on dry road surface conditions.

Collision characteristics were also investigated separately for single and multi-vehicle collisions. Of all collisions, single vehicle collisions (36%) accounted for approximately a third of the collisions while multi-vehicle collisions accounted for the remainder. Most of the multi-vehicles collisions (80%) involved only two vehicles. Almost all the single-vehicle collisions (98%) occurred away from intersections. In case of multi-vehicle collisions, about a third of the collisions occurred at intersections.

The two major collision types for single-vehicle collisions include Hit Object (72%) and Overturned (22%). In case of multi-vehicle collisions there were three major collision types: Rear End (39%), Broadside (26 %), and Sideswipe (16%). See Table 7 for details.

The top causal factors varied for single and multi-vehicle collisions. For single-vehicle collisions the top three factors include: Improper Turning (48%), Driving Under the Influence (29%), and Pedestrian ROW (12%) and for multi-vehicle collisions Unsafe Speed (36%), Automobile ROW (22%), and Improper Turning (18%) stood out as top three.

**TABLE 7**  
**BREAKDOWN OF COLLISIONS BY TYPE FOR**  
**SINGLE-VEHICLE AND MULTI-VEHICLE COLLISIONS**

Collision Type	Single-Vehicle		Multi-Vehicle	
	#	%	#	%
Rear End	-	-	59	39
Sideswipe	3	4	25	16
Hit Object	61	72	5	3
Head On	1	1	16	11
Overturned	19	22	1	1
Broadside	-	-	39	26
Other	1	1	2	1
Veh/Ped			5	3
<b>Total</b>	<b>85</b>	<b>100</b>	<b>157</b>	<b>100</b>

The causal factors were also related to driver's movement preceding collision (See Table 8). For collisions that had Improper Turn as primary factor, about 32 percent of collisions involved vehicles running off the road while 30 percent of collisions involved making right turns. For collisions that had unsafe speed as a primary factor, almost half of the collisions (48%) involved vehicles running off the road while twenty eight percent involved vehicles proceeding straight. For collisions that had driving under influence as influence as primary factor, about a third of the collisions (31%) involved vehicles running off the road while a little over a third (35%) involved making a right turn. For collisions with automobile ROW as primary factor, about half (48%) ran off the road while a little over a third (36%) were making U-turns.



**TABLE 8**  
**PERCENT BREAKDOWN OF MOVEMENT PRECEDING COLLISION**  
**FOR TOP COLLISION CAUSAL FACTORS**

Movement Preceding Collision	Primary Causal Factor				
	Driving Under Influence n=(48)	Unsafe Speed n=(131)	Improper Turn n=(102)	Automobile ROW n=(66)	All Other n=(67)
Stopped	6	28	2	5	6
Proceeding Straight	31	48	32	48	54
Ran Off Road	35	5	30		4
Making Right Turn					1
Making Left Turn		4	6	36	9
Making U-Turn	2		1	5	
Backing					1
Slowing/Stopping	6	13	2	2	
Passing Other Vehicle	4				3
Changing Lanes					3
Parking Maneuver			1		1
Entering Traffic			1	5	
Other Unsafe Turning	10		11		1
Crossed Into Opposing Lane	4	2	7		10
Parked			7		1
Merging					3
Other		1			
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

*Note: n value is greater than the number of collisions because there are many multi-vehicle collisions.*

## TRAFFIC OPERATIONS

In support of this study, peak hour traffic data was collected within the study area. The collection effort consisted of turning movement counts at the following twelve intersections:

- SR 29 & Rancheria Road
- SR 29 & Dry Creek Cutoff
- SR 29 & Central Park Road
- SR 29 & Lake Street
- SR 29 & Douglas Street
- SR 29 & Young Street
- SR 29 & Butts Canyon Road
- SR 29 & Hartmann Road
- SR 29 & Hidden Valley Road
- SR 29 & Spruce Grove Road (south)
- SR 29 & Spruce Grove Road (north)
- SR 175 & Dry Creek Cutoff

The counts were conducted in February 2013. It was proposed and adopted that the counts be inflated to represent peak seasonal conditions and were increased 12%. The counts were then compared against the September 2011 counts within the study area, of which there were two, SR 29 & SR 175 and SR 29 & Wardlaw Street. The counts compared favorably in the northbound direction but were still low in the southbound direction. As such, the southbound counts were

inflated slightly to achieve a balanced flow along SR 29. Table 9 lists the peak hour (4:45 p.m. – 5:45 p.m.) approach volumes before and after adjustments.

**TABLE 9  
RAW AND ADJUSTED TRAFFIC COUNTS**

<b>Intersection</b>	<b>Approach</b>	<b>Raw</b>	<b>Adjusted</b>	<b>PHF<sup>1</sup></b>
SR 29 & Rancheria	Northbound	454	508	0.87
	Southbound	249	329	0.89
	Eastbound	87	97	0.91
SR 29 & Dry Creek	Northbound	501	561	0.91
	Southbound	263	345	0.88
	Eastbound	10	11	0.63
SR 29 & Central Park	Northbound	521	584	0.95
	Southbound	293	378	0.92
	Eastbound	17	19	0.71
SR 29 & Lake	Northbound	519	581	0.96
	Southbound	299	385	0.87
	Eastbound	15	17	0.75
SR 29 & Douglas	Northbound	534	598	0.90
	Southbound	295	380	0.89
	Eastbound	12	13	0.75
	Westbound	15	17	0.47
SR 29 & SR 175	Northbound	582	582	0.89
	Southbound	401	401	0.84
	Eastbound	228	228	0.89
	Westbound	73	73	0.91
SR 29 & Young	Northbound	555	622	0.91
	Southbound	295	400	0.78
	Eastbound	13	15	0.81
	Westbound	29	32	0.73
SR 29 & Wardlaw	Northbound	595	595	0.83
	Southbound	474	474	0.90
	Eastbound	140	140	0.65
	Westbound	76	76	0.95
SR 29 & Butts Canyon	Northbound	619	693	0.94
	Southbound	300	426	0.83
	Westbound	106	119	0.78
SR 29 & Hartmann	Northbound	690	773	0.91
	Southbound	306	433	0.90
	Westbound	136	152	0.87
SR 29 & Hidden Valley	Northbound	482	540	0.89
	Southbound	314	442	0.95
	Eastbound	9	10	0.56
	Westbound	33	37	0.59
SR 29 & Spruce Grove (south)	Northbound	453	507	0.85
	Southbound	329	418	0.91
	Westbound	77	86	0.77
SR 29 & Spruce Grove (north)	Northbound	363	407	0.92
	Southbound	408	487	0.88
	Eastbound	131	147	0.55
	Westbound	0	0	0.58
SR 175 & Dry Creek	Northbound	7	8	0.78
	Eastbound	131	147	0.80
	Westbound	156	175	0.87

<sup>1</sup> Peak Hour Factor

Based upon the peak hour traffic counts and use of the LAMM model, the existing conditions are reported for the peak traffic condition, p.m. peak hour during peak season. The Highway Capacity Manual (HCM) 2010 study approach A is used in the analysis, which uses the observed peak 15-minute model results. This data was used to determine the intersection and corridor level of service.

Using the HCM capabilities within TransModeler the intersection Level of Service (LOS) and delay is reported for each intersection approach in Table 10.

**TABLE 10**  
**EXISTING CONDITIONS – INTERSECTION LOS**

<b>Intersection</b>	<b>Approach</b>	<b>Total Hours (hours)</b>	<b>Control Delay (s/veh)</b>	<b>LOS</b>
SR 29 & Rancheria	Northbound	0.00	0.0	A
	Southbound	0.00	0.0	A
	Eastbound	0.04	11.4	B
SR 29 & Dry Creek	Northbound	0.00	0.0	A
	Southbound	0.00	0.0	A
	Eastbound	0.04	14.1	B
SR 29 & Central Park	Northbound	0.00	0.0	A
	Southbound	0.14	11.5	B
	Eastbound	0.03	9.6	A
SR 29 & Lake	Northbound	0.00	0.0	A
	Southbound	0.00	0.0	A
	Eastbound	0.01	15.1	C
SR 29 & Douglas	Northbound	0.00	0.0	A
	Southbound	0.00	0.0	A
	Eastbound	0.02	19.9	C
	Westbound	0.01	16.3	C
SR 29 & SR 175	Northbound	0.32	11.5	B
	Southbound	0.15	6.9	A
	Eastbound	0.38	24.9	C
	Westbound	0.12	29.8	C
SR 29 & Young	Northbound	0.02	20.4	C
	Southbound	0.00	0.0	A
	Eastbound	0.11	38.3	E
	Westbound	0.13	37.9	E
SR 29 & Wardlaw	Northbound	0.42	8.8	A
	Southbound	0.37	9.9	A
	Eastbound	0.25	25.2	C
	Westbound	0.15	9.9	A
SR 29 & Butts Canyon	Northbound	0.01	8.1	A
	Southbound	0.00	0.0	A
	Westbound	0.07	13.5	B
SR 29 & Hartmann	Northbound	0.00	0.0	A
	Southbound	0.07	24.0	C
	Westbound	0.29	26.7	D
SR 29 & Hidden Valley	Northbound	0.00	0.0	A
	Southbound	0.01	2.8	A
	Eastbound	0.01	11.2	B
	Westbound	0.34	36.3	E
SR 29 & Spruce Grove (south)	Northbound	0.00	0.0	A
	Southbound	0.00	0.0	A
	Westbound	0.24	27.6	D
SR 29 & Spruce Grove (north)	Northbound	0.00	0.0	A
	Southbound	0.00	0.0	A

Intersection	Approach	Total Hours (hours)	Control Delay (s/veh)	LOS
SR 175 & Dry Creek	Eastbound	0.17	16.8	C
	Westbound	0.00	0.0	A
	Northbound	0.00	1.2	A
	Eastbound	0.00	0.0	A
	Westbound	0.00	0.0	A

The SR 29 corridor is broken into four segments for analysis based on intersection density. The four segments are: Bradford Road - Lake Street, Lake Street – Wardlaw Street, Wardlaw Street – Spruce Grove Drive, and Spruce Grove Drive (south) – Spruce Grove Drive (north).

The corridor level of service analysis was conducted assuming segments 1, 3 and 4 are Class III two-lane highways and segment 2 is an Urban Street. The difference in level of service between Class III and Urban Street is defined in Table 11 by the congested speed as a percentage free-flow speed.

**TABLE 11  
DEFINING CORRIDOR LEVEL OF SERVICE**

LOS	Class III Highway PFFS (%)	Urban Street PFFS (%)
A	>91.7	>85
B	83.3-91.7	67-85
C	75.0-83.3	50-67
D	66.7-75.0	40-50
E	<66.7	30-40
F		<30

The speed and travel time results from the LAMM model are recorded and used for the level of service analysis. The model results are presented in Tables 12 and 13.

**TABLE 12  
NORTHBOUND LEVEL OF SERVICE**

Northbound	Free Flow Speed (mph)	Congested Speed (mph)	LOS	Travel Time (minutes)
Bradford Rd to Lake St	55	41	D	5.8
Lake St to Wardlaw St	30	18	C	2.1
Wardlaw St to Spruce Grove	55	45	C	7.9
Spruce Grove to Spruce Grove	55	46	B	8.9

**TABLE 13  
SOUTHBOUND LEVEL OF SERVICE**

Southbound	Free Flow Speed (mph)	Congested Speed (mph)	LOS	Travel Time (minutes)
Spruce Grove to Spruce Grove	55	45	C	9.1
Spruce Grove to Wardlaw St	55	43	B	8.3
Wardlaw St to Lake St	30	25	B	1.5
Lake St to Bradford Rd	55	42	C	5.7

In addition to the four segments listed above, the corridor was broken into seven sub-segments based upon those identified earlier in this report.

The level of service along each of the sub-segments, analyzed as a Class III Highway, is listed in Tables 14 and 15.

**TABLE 14  
NORTHBOUND LEVEL OF SERVICE**

<b>Northbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Napa County Line to Shady Grove Rd.	55	42	C	4.1
Shady Grove Rd. to Main St.	55-30	33	D	5.3
Main St. to Glider Point	30-55	43	B	4.7
Glider Point to Hidden Valley	55	44	C	3.5
Hidden Valley to Hofacker	55	46	C	5.4
Hofacker to B St.	55	46	B	1.9
B St. to SR 53	55-45	44	C	3.7

**TABLE 15  
SOUTHBOUND LEVEL OF SERVICE**

<b>Southbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Napa County Line to Shady Grove Rd.	55	42	C	4.1
Shady Grove Rd. to Main St.	30-55	39	B	4.5
Main St. to Glider Point	55-30	39	C	5.3
Glider Point to Hidden Valley	55	46	C	3.5
Hidden Valley to Hofacker	55	44	C	5.6
Hofacker to B St.	55	46	B	1.9
B St. to SR 53	45-55	48	B	3.4

## **VII. FUTURE TRAFFIC OPERATIONS**

### **FUTURE MODEL DEVELOPMENT**

The future models used in the SR-29 study are updated versions of the future year Lake County Area-wide Micro-simulation Models (LAMM). The updates are conducted to match the updates made to re-validate the existing LAMM to the new data collected in the SR-29 study area. The model assignment is run in its entirety (3:00 p.m. - 6:00 p.m.) for this analysis though only the peak hour is updated and used for the analysis. The additional run time allows for the qualitative observation of any significant events that may occur outside of the peak hour.

#### ***Future Lake County Area-wide Micro-simulation Model***

After the LAMM was originally developed, three future-year scenarios were developed and tested. Each is based on packages of roadway improvement projects in the LAMM study area. The projects were decided by the APC and Caltrans to represent three scenarios – an *interim* scenario, including projects presently being built or likely to be built in the near future; an *optimistic* scenario, including the interim projects and additional projects that might be feasible to build assuming an optimistic funding outlook; and an *ultimate* scenario, including all projects, in addition to the interim and optimistic projects, that might be built if funding were unconstrained.

The future-year scenarios were designed to test strategies for managing the county’s transportation infrastructure through the horizon years of 2020 and 2030 and to demonstrate the LAMM’s ties to the Wine County Interregional Partnership Travel Demand Model (WCIRP TDM) for planning and



forecasting analyses. The WCIRP TDM was used to estimate travel demand for the LAMM study area in the morning and evening peak periods.

## FUTURE CONDITIONS

The future conditions are reported for the peak traffic condition, namely the p.m. peak hour during the peak travel season. HCM 2010 study approach A is used in the analysis; that is, the observed peak 15-minute model results are used to determine the intersection and corridor levels of service.

### *Predicted Future Volumes*

The future traffic volumes are predicted in the WCIRP TDM using projected population and employment growth, and the traffic distribution is predicted using the LAMM. The result of these operations is the predicted traffic volumes at the intersections within the study area.

The growth in volume along the corridor is too great in 2030 to be accommodated solely on SR-29, and as a result, vehicles reroute to parallel streets through Middletown to avoid delays. The volumes shown in Table 16 are representative of this result.

**TABLE 16**  
**PREDICTED FUTURE VOLUMES**

Intersection	Approach	Existing	2020	2030 Reroute
SR-29 & Rancheria	Northbound	556	679	603
	Southbound	331	453	651
	Eastbound	24	39	35
SR-29 & Dry Creek	Northbound	588	735	619
	Southbound	358	519	670
	Eastbound	31	52	51
SR-29 & Central Park	Northbound	601	743	612
	Southbound	374	545	684
	Eastbound	19	18	26
SR-29 & Lake	Northbound	609	727	617
	Southbound	376	544	684
	Eastbound	5	3	2
SR-29 & Douglas	Northbound	554	571	497
	Southbound	402	560	595
	Eastbound	9	20	25
	Westbound	2	20	12
SR-29 & SR-175	Northbound	549	586	527
	Southbound	410	614	564
	Eastbound	186	233	404
	Westbound	27	14	33
SR-29 & Young	Northbound	606	669	647
	Southbound	456	649	604
	Eastbound	30	48	43
	Westbound	48	50	54
SR-29 & Wardlaw	Northbound	624	668	654
	Southbound	517	649	621
	Eastbound	160	266	272
	Westbound	47	75	79
SR-29 & Butts Canyon	Northbound	674	809	819
	Southbound	465	742	665
	Westbound	80	48	399
SR-29 & Hartmann	Northbound	664	653	914
	Southbound	453	470	469
	Westbound	146	484	356

**TABLE 16 (continued)**

SR-29 & Hidden Valley	Northbound	458	471	691
	Southbound	476	538	483
	Eastbound	3	16	8
	Westbound	110	99	122
SR-29 & Spruce Grove (south)	Northbound	481	513	736
	Southbound	445	515	405
	Westbound	133	117	126
SR-29 & Spruce Grove (north)	Northbound	411	473	656
	Southbound	510	586	441
	Eastbound	129	116	125
	Westbound	0	0	0
SR-175 & Dry Creek	Northbound	0	29	1
	Eastbound	160	166	413
	Westbound	140	268	305
SR-29 & SR-53	Northbound	469	536	547
	Southbound	751	859	585
	Eastbound	446	515	360
	Westbound	201	227	221

**TABLE 17  
PREDICTED FUTURE VOLUMES**

Intersection	Northbound		Southbound	
	2020	2030 reroute	2020	2030 reroute
SR-29 & Rancheria	22%	8%	37%	97%
SR-29 & Dry Creek	25%	5%	45%	87%
SR-29 & Central Park	24%	2%	46%	83%
SR-29 & Lake	19%	1%	45%	82%
SR-29 & Douglas	3%	-10%	39%	48%
SR-29 & SR-175	7%	-4%	50%	38%
SR-29 & Young	10%	7%	42%	32%
SR-29 & Wardlaw	7%	5%	26%	20%
SR-29 & Butts Canyon	20%	22%	60%	43%
SR-29 & Hartmann	-2%	38%	4%	4%
SR-29 & Hidden Valley	3%	51%	13%	1%
SR-29 & Spruce Grove (south)	7%	53%	16%	-9%
SR-29 & Spruce Grove (north)	15%	60%	15%	-14%
SR-175 & Dry Creek	91%	118%	4%	158%
SR-29 & SR-53	14%	17%	14%	-22%

*Note: Percent change from existing model volumes*

The traffic volumes reported in Table 16 and the growth shown in Table 17 are throughput volume which is limited by the operational intersection capacity.

An example of the impacts of the limits of the operational intersection capacity is the intersection of SR-29 and SR-175, where the northbound volume only increases 7% in 2020 and actually decreases 4% in 2030. This is because the southbound and eastbound volumes increase, restricting the flow of the northbound vehicles. The total volume of vehicles through the intersection increases from 1,172 to 1,447 in 2020 and 1,528 in 2030.

The increased southbound and eastbound volumes in 2030 at the intersection of SR-29 and SR-175 take green time away from the northbound movement and reduce the number of viable gaps for left turning traffic and result in a queue northbound on SR 29 that extends south past Rancheria, which

is why the northbound volumes in 2030 are so low. The simulation model enables the vehicles to re-route through the local streets of Middletown, something that would be expected to happen, given the level of congestion, which further reduces the volumes seen on SR 29.

### ***Intersection Level of Service***

The volumes depicted in Table 16 are associated with the intersection level of service shown below in Table 18.

**TABLE 18  
PREDICTED FUTURE INTERSECTION LEVEL OF SERVICE**

	2020			2030		
<b>Intersection</b>	<b>Total Delay (hours)</b>	<b>Average Delay (seconds)</b>	<b>LOS</b>	<b>Total Delay (hours)</b>	<b>Average Delay (seconds)</b>	<b>LOS</b>
Rancheria	0.10	17.8	C	0.16	33.8	D
SR-29 & Dry Creek	0.13	26.5	D	0.15	46.2	E
SR-29 & Central Park	0.07	44.0	E	0.12	50.4	F
SR-29 & Lake	0.03	77.8	F	0.05	203.3	F
SR-29 & Douglas	0.67	139.4	F	1.02	204.5	F
SR-29 & SR-175	2.67	26.5	C	3.85	35.1	D
SR-29 & Young	2.37	268.6	F	1.20	186.9	F
SR-29 & Wardlaw	5.11	38.4	D	7.76	67.1	E
SR-29 & Butts Canyon	0.04	28.9	D	0.22	43.0	E
SR-29 & Hartmann	3.43	8.9	A	13.52	32.60	D
SR-29 & Hidden Valley	0.38	38.6	E	1.25	101.5	F
SR-29 & Spruce Grove (south)	0.42	39.1	E	0.33	33.0	D
SR-29 & Spruce Grove (north)	0.20	19.2	C	0.24	21.8	C
SR-29 & SR-53	3.71	23.8	C	11.15	95.8	F
SR-175 & Dry Creek	0.03	8.3	A	0.01	15.1	C

It is evident by the results shown in Table 18 that there will be intersections along the corridor with unacceptable level of service in 2020 and almost all intersections along the corridor will be experiencing unacceptable level of service in 2030.

### ***Corridor Level of Service***

The SR-29 corridor is broken into four segments for analysis based on intersection density. The four segments are:

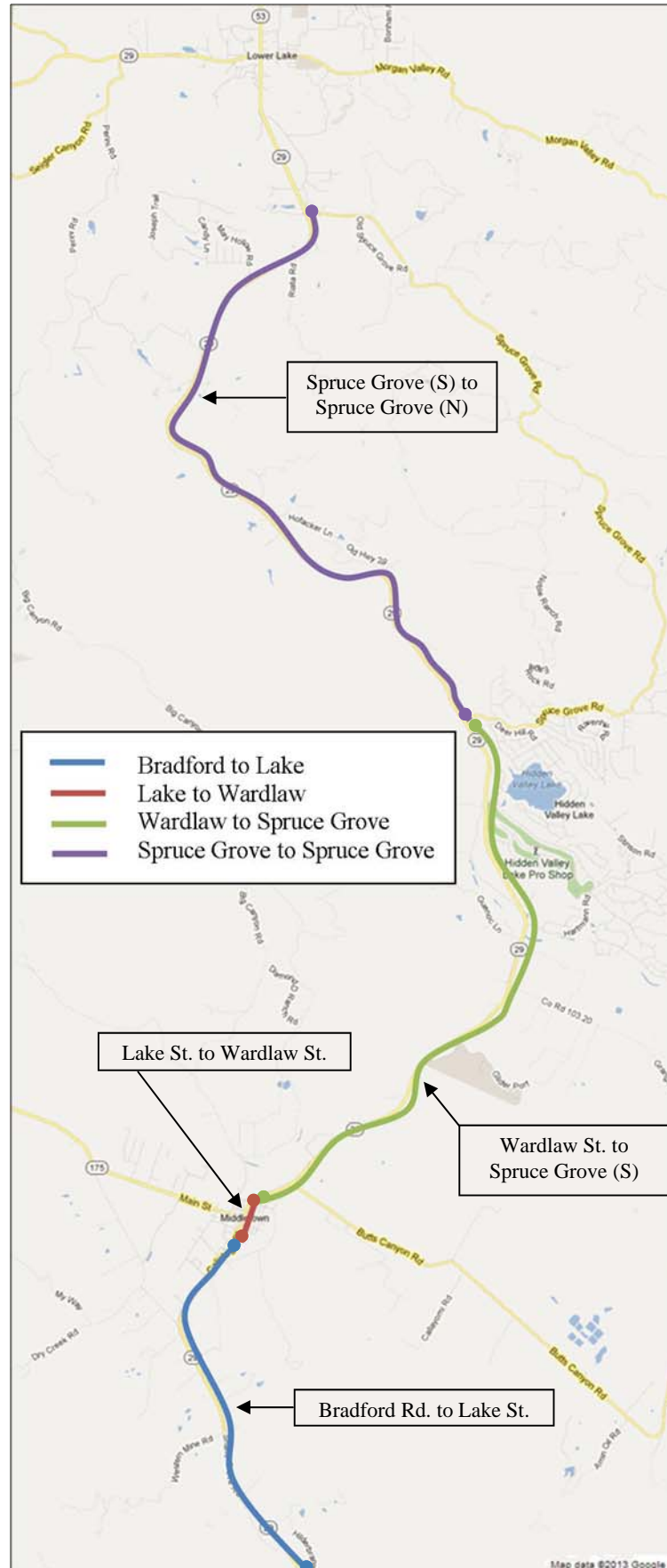
1. Bradford Road - Lake Street,
2. Lake Street – Wardlaw Street,
3. Wardlaw Street – Spruce Grove Drive, and
4. Spruce Grove Drive (south) – Spruce Grove Drive (north).

Figure 13 illustrates the extents of each segment.

The corridor level of service analysis was conducted assuming segments 1, 3 and 4 are Class III two-lane highways and segment 2 is an Urban Street. The differences in Class III and Urban Street definitions of corridor level of service are shown in Table 19. Corridor levels of service are defined by the congested speed as a percentage of free-flow speed (PFFS).



Figure 13 - SR 23 Corridor Segmentation



**TABLE 19  
CORRIDOR LEVEL OF SERVICE**

<b>LOS</b>	<b>Class III Highway PFFS (%)</b>	<b>Urban Street PFFS (%)</b>
A	>91.7	>85
B	83.3-91.7	67-85
C	75.0-83.3	50-67
D	66.7-75.0	40-50
E	<66.7	30-40
F		<30

The simulated speed and travel time results from the LAMM model are recorded and are used for the level of service analysis. The model results are presented in Table 20 and Table 21 for 2020 and Table 22 and Table 23 for 2030.

**TABLE 20  
NORTHBOUND LEVEL OF SERVICE - 2020**

<b>Northbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Bradford Rd to Lake St	55	40	D	6.0
Lake St to Wardlaw St	30	13	D	3.1
Wardlaw St to Spruce Grove (S)	55	47	B	7.6
Spruce Grove (S) to Spruce Grove (N)	55	53	A	7.8

**TABLE 21  
SOUTHBOUND LEVEL OF SERVICE - 2020**

<b>Southbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Spruce Grove (N) to Spruce Grove (S)	55	51	A	8.0
Spruce Grove (S) to Wardlaw St	55	43	B	8.4
Wardlaw St to Lake St	30	19	E	2.1
Lake St to Bradford Rd	55	49	B	4.8

**TABLE 22  
NORTHBOUND LEVEL OF SERVICE - 2030**

<b>Northbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Bradford Rd to Lake St	55	21	E	11.8
Lake St to Wardlaw St	30	12	E	3.5
Wardlaw St to Spruce Grove (S)	55	32	E	11.3
Spruce Grove (S) to Spruce Grove (N)	55	32	E	11.3

**TABLE 23  
SOUTHBOUND LEVEL OF SERVICE - 2030**

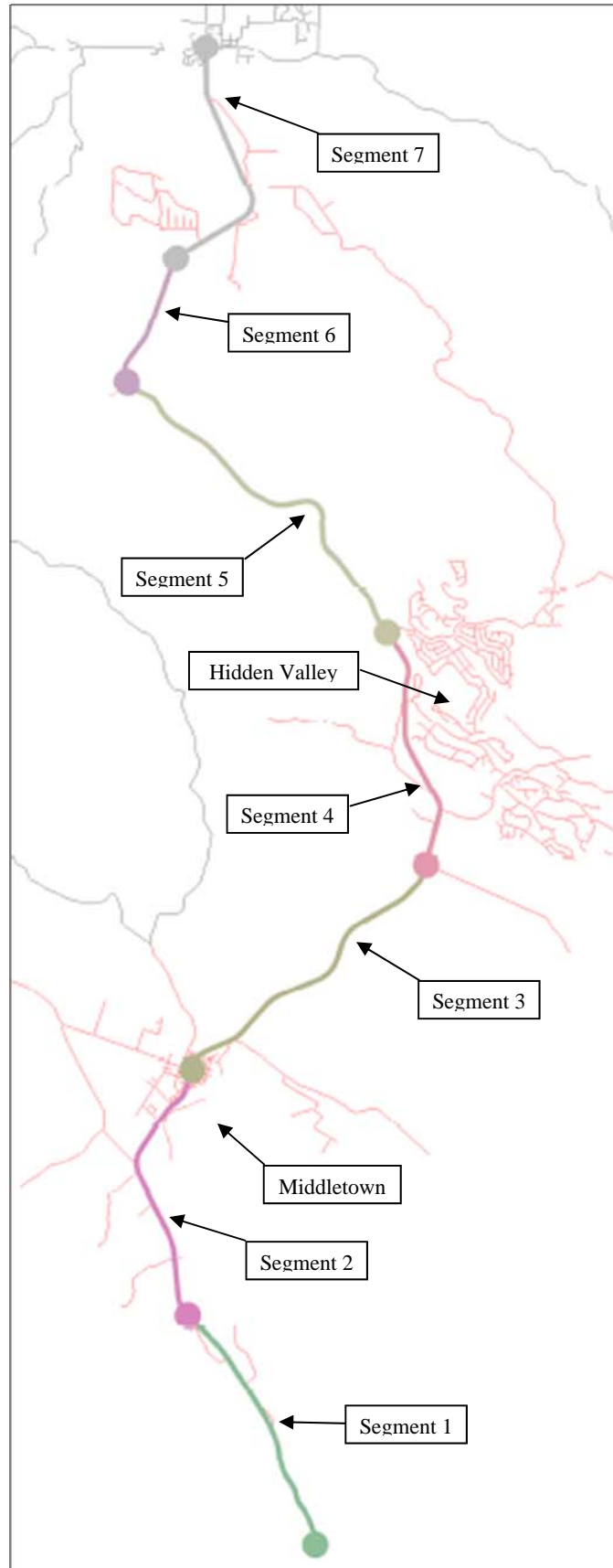
<b>Southbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Spruce Grove (N) to Spruce Grove (S)	55	52	A	7.9
Spruce Grove (S) to Wardlaw St	55	39	B	9.2
Wardlaw St to Lake St	30	19	E	2.1
Lake St to Bradford Rd	55	50	B	4.8

### ***Supplemental Reporting of Future Conditions***

In addition to the four segments listed above, it was requested that the corridor be broken into seven sub-segments. The software limits the definition of segment end points to nodes in the model. As such, the nearest node to the listed post miles were used and the segment extents do not exactly match the post miles stipulated for the segments. Figure 14 illustrates the extents of the seven sub-segments as reported.



Figure 14 - SR 29 Corridor Segmentation (Sub-Segments)



The level of service along each of the segments, analyzed as a Class III Highway, is listed in Table 24 and Table 25 for 2020 and Table 26 and Table 27 for 2030.

**TABLE 24  
NORTHBOUND LEVEL OF SERVICE - 2020**

<b>Northbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Napa County Line to Shady Grove Rd.	55	48	B	3.6
Shady Grove Rd. to Main St.	45	29	E	6.3
Main St. to Glider Point	50	44	B	4.7
Glider Point to Hidden Valley	55	43	C	3.7
Hidden Valley to Hofacker	55	53	A	4.7
Hofacker to B St.	55	52	A	1.7
B St. to SR 53	55	46	C	3.6

**TABLE 25  
SOUTHBOUND LEVEL OF SERVICE - 2020**

<b>Southbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Napa County Line to Shady Grove Rd.	55	52	A	3.3
Shady Grove Rd. to Main St.	45	41	A	4.2
Main St. to Glider Point	50	38	C	5.5
Glider Point to Hidden Valley	55	42	C	3.8
Hidden Valley to Hofacker	55	51	A	4.9
Hofacker to B St.	55	52	A	1.7
B St. to SR 53	55	50	B	3.3

**TABLE 26  
NORTHBOUND LEVEL OF SERVICE - 2030**

<b>Northbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Napa County Line to Shady Grove Rd.	55	47	B	3.6
Shady Grove Rd. to Main St.	45	19	E	12.0
Main St. to Glider Point	50	42	B	4.9
Glider Point to Hidden Valley	55	22	E	7.1
Hidden Valley to Hofacker	55	52	A	4.7
Hofacker to B St.	55	51	A	1.7
B St. to SR 53	55	10	E	17.8

**TABLE 27  
SOUTHBOUND LEVEL OF SERVICE - 2030**

<b>Southbound</b>	<b>Free Flow Speed (mph)</b>	<b>Congested Speed (mph)</b>	<b>LOS</b>	<b>Travel Time (minutes)</b>
Napa County Line to Shady Grove Rd.	55	52	A	3.3
Shady Grove Rd. to Main St.	45	42	A	4.2
Main St. to Glider Point	50	34	D	6.4
Glider Point to Hidden Valley	55	41	C	3.9
Hidden Valley to Hofacker	55	52	A	4.8
Hofacker to B St.	55	52	A	1.7
B St. to SR 53	55	50	B	3.3

## **CUMULATIVE CONDITIONS IMPROVEMENT ALTERNATIVES**

### ***Cumulative Conditions Volumes***

For this project, two set of volumes are available for cumulative conditions analysis (Year 2020 and Year 2030). One set of volumes can be derived using the Caltrans District 01 recommended growth rate for SR 29 in the study area. Other set is the turning movement volumes obtained from the LAMM micro-simulation model.

### ***Cumulative Conditions Volume using Growth Rate***

Per the Caltrans District 1 memorandum dated, January 11, 2008, Caltrans District 01 recommends applying a 20-year growth factor of 1.7 for SR 29 in study area. It equates to the yearly growth rate of 3.5% per annum. The study area turning movement counts were collected in year 2013. To project the volume for Year 2030, a cumulative growth of 60% ( $3.5\% \times 17$  Years) was applied. To project the volume for Year 2020, a cumulative growth of 25% ( $3.5\% \times 7$  Years) was applied. The growth rate calculation methodology is consistent with what is proposed in Caltrans' Memorandum.

The other effect that needs to be considered to project the Year 2030 volumes is the seasonal variance. The intersection turning movement counts were collected in month of February (on a Thursday) for weekday AM & PM peak. Typically peak month volumes are observed in summer months (June, July, August and September), so traffic volume needs to be adjusted for the peak month volumes.

To obtain seasonal variance percentage, the ADT volumes were compared from Caltrans' Pems website for year 2012 at nearest continuous counting station. The comparison showed that a percentage difference of 11.9% was observed for a weekday. Therefore, a 12% increase in volumes was applied to incorporate any seasonal variance that might occur. The methodology was agreed by Caltrans District 1 staff.

### ***Cumulative Conditions Volume using LAMM Model***

Cambridge Systematics, a sub-consultant on this project, provided year 2020 and year 2030 peak hour volumes. For more details on how Cambridge Systematics derived the year 2020 and year 2030 volumes please refer to Technical memorandum No. 4 - Transportation Issues & Options Report Appendix materials.

### ***Cumulative Conditions Volume Derivation***

To be conservative with the analysis, higher value of turning movement counts for every movement (except the through movements) were taken for analysis purpose. The growth rate derived volumes were used for the through (northbound through and southbound through) traffic on SR 29.

### ***Year 2020 Conditions Analysis***

Table 28 shows the intersection LOS, queuing and delays for Year 2020 AM and PM peak hour conditions.



**TABLE 28  
YEAR 2020 PEAK HOUR CONDITIONS**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	AM Peak Hour			PM Peak Hour		
				Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
1	SR 29 & Rancheria Road	E	TWSC	20.4	C		30.8	D	
2	SR 29 & Dry Creek Cutoff	E	TWSC	18.2	C		29.8	D	
3	SR 29 & Central Park Road	E	TWSC	15.4	C		28.7	D	
4	SR 29 & Lake Street	E	TWSC	14.9	B		43.2	E	
5	SR 29 & Douglas Street	E	TWSC	19.2	C		43.5	E	
6	SR 29 & SR 175	E	Signal	19.0	B	390 ft, SB	44.8	D	>880 ft, NB
7	SR 29 & Young Street	E	TWSC	26.8	D		<b>55.6</b>	<b>F</b>	
8	SR 29 & Wardlaw Street	E	<b>Signal</b>	<b>OVR</b>	<b>F</b>	<b>&gt;870 ft, SBT</b>	<b>150.8</b>	<b>F</b>	<b>&gt;750 ft, NB</b>
9	SR 29 & Butts Canyon Road	E	<b>TWSC</b>	<b>50.1</b>	<b>F</b>		<b>50.6</b>	<b>F</b>	
10	SR 29 & Hartmann Road	E	<b>AWSC</b>	<b>60.6</b>	<b>F</b>		<b>71.3</b>	<b>F</b>	
11	SR 29 & Hidden Valley Road	E	<b>TWSC</b>	24.8	C		<b>273.8</b>	<b>F</b>	
12	SR 29 & Spruce Grove Road	E	<b>TWSC</b>	<b>53.9</b>	<b>F</b>		<b>75.7</b>	<b>F</b>	
13	SR 29 & Spruce Grove Road	E	TWSC	20.8	C		31.8	D	
14	SR 29 & SR 53 & Main Street	E	Signal	42.9	D	>460 ft, SBT	46.6	D	>340 ft, SBL

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections
3. OVR = Delay over 300 Seconds

4. SBT - Southbound Through

5. SB - Southbound

6. NB - Northbound

7. SBL - Southbound Left

As shown in Table 28, following intersections are projected to operate below acceptable LOS in Year 2020 AM or/and PM.

- intersection 7: SR 29 & Young Street
- intersection 8: SE 29 & Wardlaw Street
- intersection 9: SR 29 & Butts Canyon Road
- intersection 10: SR 29 & Hartmann Road
- intersection 11: SR 29 & Hidden Valley Road
- intersection 12: SR 29 & Spruce Grove Road (south)

#### ***Year 2020 Conditions Improvements with Channelization***

Several intersections that are projected to operate below acceptable LOS can benefit from channelization. Table 29 shows the LOS and queuing with lane geometrics for the intersections that will benefit from channelization. The intersections that were determined to not benefit from channelization are kept in its existing geometrics.

**TABLE 29**  
**YEAR 2020 PEAK HOUR CONDITIONS - CHANNELIZATION**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	Lane Geometrics	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Movement 95th %	Delay	LOS	95th % Queue
4	SR 29 & Lake Street	E	TWSC	NBL Pocket	14.9	B		38.3	E	
5	SR 29 & Douglas Street	E	TWSC							
6	SR 29 & SR 175	E	Signal	All approach with left turn pockets and shared thru & Right lanes	31.3	C	>690 ft, SBT	36.4	D	>930 ft, NBT
7	SR 29 & Young Street	E	TWSC	Right-in/Right-Out	13.5	B		18.1	C	
8	SR 29 & Wardlaw Street	E	Signal	All approach with left turn pockets and shared thru & Right lanes + SBR Pocket	25	C	>650 ft, SBT	37.3	D	>1020 ft, NBT
9	SR 29 & Butts Canyon Road	E	TWSC	NBR Pocket	46.7	E		47.5	E	
10	SR 29 & Hartmann Road	E	AWSC	Same as existing	<b>60.6</b>	<b>F</b>		<b>71.3</b>	<b>F</b>	
11	SR 29 & Hidden Valley Road	E	TWSC	Same as existing	24.8	C		<b>273.8</b>	<b>F</b>	
12	SR 29 & Spruce Grove Road	E	TWSC	Same as existing	<b>53.9</b>	<b>F</b>		<b>75.7</b>	<b>F</b>	

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections

3. OVR = Delay over 300 Seconds

4. SBT - Southbound Through

5. SB - Southbound

6. NB - Northbound

7. SBL - Southbound Left

As shown in Table 29, intersection 4, intersection 6, intersection 8 and intersection 9 will benefit from channelization.

TABLE 29 also provides the lane geometrics for intersection 4, intersection 6, intersection 8, and intersection 9. Figures A1 through A4 in the appendix of technical memorandum No. 4, provides preliminary schematics for those intersections. Intersection 7 is projected to operate at acceptable LOS with right-in and right-out from the minor street (i.e, Young Street). Intersection 11, 12 and 13 are projected to operate at unacceptable LOS with channelization in Year 2020.

### ***Year 2020 Conditions Improvements with Signalization***

The intersections 10, 11 and 12 would not benefit from channelization; therefore, a change in intersection control needed to be examined. The change in intersection control examined for this alternative is a signal (along with change in lane geometrics). Table 30 below shows the intersection LOS, delay and queuing for those three intersections when signalized.

**TABLE 30  
YEAR 2020 PEAK HOUR CONDITIONS - SIGNALIZATION WITH CHANGES IN LANE GEOMETRICS**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	Lane Geometrics	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Movement	Delay	LOS	Movement
10	SR 29 & Hartmann Road	E	Signal	NBR, EBR & SBL	13.3	B	>520 ft, SBT	18.6	B	>880 ft, NBT
11	SR 29 & Hidden Valley Road	E	Signal	All left turn	16.6	B	290 ft, SBT	37.1	D	>630 ft, NBT
12	SR 29 & Spruce Grove Road (South)	E	Signal	NBR, EBR & SBL	11.1	B	230 ft, NBT	13.1	B	>120 ft, SBL

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections

3. OVR = Delay over 300 Seconds

4. SBT - Southbound Through

5. SB - Southbound

6. NB - Northbound

7. SBL - Southbound Left

8. NBT - Northbound Through

9. NBR - Northbound Right

10. EBR - Eastbound Right

As shown in Table 30, intersections are projected to operate at acceptable LOS with signalization along with changes in lane geometrics.

### ***Year 2020 Conditions Improvements with Single-Lane Roundabout***

The intersections 10, 11 and 12 would not benefit from channelization; therefore, a change in intersection control needed to be examined. Additionally, intersections 6 and intersections 8 experience extensive queuing issues with change in lane geometrics due to signal control. The change in intersection control examined for this alternative is a single lane roundabout. As the name suggests, a single lane roundabout has a single entering and exiting lane for all movements at each approach.

Table 31 shows the intersection LOS, delay and queuing for those five intersections when single lane roundabout is implemented as intersection control.



**TABLE 31**  
**YEAR 2020 PEAK HOUR CONDITIONS - SINGLE LANE ROUNDABOUT**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	AM Peak Hour			PM Peak Hour		
				Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
6	SR 29 & SR 175	E	RDBT	8.7	A	100 ft, SB	11.8	B	310 ft, NB
8	SR 29 & Wardlaw Street	E	RDBT	8.3	A	240 ft, SB	19.1	B	490 ft, NB
10	SR 29 & Hartmann Road	E	RDBT	12.4	B	320 ft, SB	<b>167.7</b>	<b>F</b>	<b>&gt;4000 ft, NB</b>
11	SR 29 & Hidden Valley Road	E	RDBT	6.8	A	110 ft, SB	8.4	A	220 ft, NB
12	SR 29 & Spruce Grove Road (South)	E	RDBT	9.2	A	90 ft, WB	7.7	A	180 ft, NB

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections

As shown in Table 31, intersections 6, 8, 11 and 12 are projected to operate at acceptable LOS E or better. The queuing is also not significant in Year 2020 for both AM and PM with implementation of a roundabout. However, intersection 10 is projected to operate below acceptable LOS for PM peak hour. Additionally, it will also experience significant queuing.

***Year 2020 Conditions Improvements with changed lane geometrics for Roundabout***

The intersections 6, 8, 11 and 12 will operate at acceptable LOS with a single lane roundabout. However, intersection 6, 8, 11 will be analyzed with additional lane for this alternative. The reason behind it is that the roundabout should be typically planned keeping 20 year volumes. Single lane roundabout at intersection 12 is projected to provide acceptable LOS, delay and queuing in Year 2020 conditions. Intersection 10 is projected to operate below acceptable LOS with a single lane roundabout; therefore, revised lane geometrics will be needed for this intersection.

Table 32 shows the intersection LOS, delay and queuing for intersections 6, 8, 10, and 11 when roundabout with changed lane geometrics is implemented as intersection control.

**TABLE 32**  
**YEAR 2020 PEAK HOUR CONDITIONS - ROUNDABOUT WITH CHANGED LANE GEOMETRICS**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	Lane Geometrics	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
6	SR 29 & SR 175	E	RDBT	NBL turn pocket	3.8	A	100 ft, SB	9.5	A	150 ft,
8	SR 29 & Wardlaw Street	E	RDBT	NBL & SBR Pockets	7.1	A	90 ft,	9.8	A	220 ft,
10	SR 29 & Hartmann Road	E	RDBT	2 NBT, NBR Pocket, 2 SBT with Shared right, EBL & EBR lanes	9.1	A	60 ft, SBT	11.6	B	130 ft, WBL
11	SR 29 & Hidden Valley Road	E	RDBT	EBR and NBR pockets	6.6	A	110 ft, SB	7.8	A	120 ft, SB

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections

As shown in Table 32, intersection 10 is projected to operate at acceptable LOS with change in lane geometrics. Intersections 6, 8 and 11 are projected to have improvised operations compare to single lane roundabouts with change in lane geometrics. Table 32 provides the change in lane geometrics from a single roundabout.

## Year 2030 Conditions Analysis

Table 33 shows the intersection LOS, queuing and delays for Year 2030 AM and PM peak hour conditions.

**TABLE 33  
YEAR 2030 PEAK HOUR CONDITIONS**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	AM Peak Hour			PM Peak Hour		
				Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
1	SR 29 & Rancheria Road	E	TWSC	24.1	C		212.7	F	
2	SR 29 & Dry Creek Cutoff	E	TWSC	20.7	C		51.0	F	
3	SR 29 & Central Park Road	E	TWSC	20.4	C		47.0	E	
4	SR 29 & Lake Street	E	TWSC	18.6	C		56.1	F	
5	SR 29 & Douglas Street	E	TWSC	25.2	D		66.1	F	
6	SR 29 & SR 175	E	Signal	26.3	C	>390 ft, EB	135.1	F	>1380 ft, NB
7	SR 29 & Young Street	E	TWSC	49.7	E		114.9	F	
8	SR 29 & Wardlaw Street	E	Signal	175.5	F	>1260 ft, SBT	207.0	F	>1030 ft, NBT
9	SR 29 & Butts Canyon Road	E	TWSC	86.3	F		198.6	F	
10	SR 29 & Hartmann Road	E	AWSC	63.2	F		75.0	F	
11	SR 29 & Hidden Valley Road	E	TWSC	48.3	E		OVR	F	
12	SR 29 & Spruce Grove Road	E	TWSC	155.5	F		235.5	F	
13	SR 29 & Spruce Grove Road (Lowerlake)	E	TWSC	30.6	D		68.1	F	
14	SR 29 & SR 53 & Main Street	E	Signal	51.2	D	>490 ft, SBL	68.2	E	>430 ft, SBL

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections

3. OVR = Delay over 300 Seconds

As shown in Table 33, following intersections are projected to operate below acceptable LOS in Year 2030 AM or/and PM.

- intersection 1: SR 29 & Rancheria Road
- intersection 2: SR 29 & Dry Creek Cutoff
- intersection 4: SR 29 & Lake Street
- intersection 5: SR 29 & Douglas Street
- intersection 6: SR 29 & SR 175
- intersection 7: SR 29 & Young Street
- intersection 8: SE 29 & Wardlaw Street
- intersection 9: SR 29 & Butts Canyon Road
- intersection 10: SR 29 & Hartmann Road
- intersection 11: SR 29 & Hidden Valley Road
- intersection 12: SR 29 & Spruce Grove Road (south)
- intersection 13: SR 29 & Spruce Grove Road (south)



## YEAR 2030 CONDITIONS IMPROVEMENTS WITH CHANNELIZATION

Several intersections that are projected to operate below acceptable LOS can benefit from channelization. Table 34 shows the LOS and queuing with lane geometrics for the intersections that will benefit from channelization. The intersections that were determined to not benefit from channelization are kept in its existing geometrics.

**TABLE 34**  
**YEAR 2030 PEAK HOUR CONDITIONS - CHANNELIZATION**

#	Intersection	Control Type <sup>1,2</sup>	Lane Geometrics	AM Peak Hour			PM Peak Hour		
				Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	95th % Queue
1	SR 29 & Rancheria Road	TWSC	Same as before	24.1	C		212.7	F	
2	SR 29 & Dry Creek Cutoff	TWSC	SBR & NBL Pockets	20.1	C		48.2	E	
3	SR 29 & Central Park Road	TWSC	SBR Pockets	20.3	C		45.7	E	
4	SR 29 & Lake Street	TWSC	NBL and SBR Pockets	18.5	C		46.4	E	
5	SR 29 & Douglas Street	TWSC	Same as before	25.2	D		66.1	F	
6	SR 29 & SR 175	Signal	All approach with left turn pockets and shared thru & Right lanes + SBR Pocket	36.4	D	>970 ft, SBT	41.2	D	>1290 ft, NBT
7	SR 29 & Young Street	TWSC	Right-in/Right-Out	18.4	C		24.6	C	
8	SR 29 & Wardlaw Street	Signal	All approach with left turn pockets and shared thru & Right lanes + SBR Pocket	30.7	C	>920 ft, SBT	51.9	D	>1400 ft, NBT
9	SR 29 & Butts Canyon Road	TWSC	Same as before	86.3	F		198.6	F	
10	SR 29 & Hartmann Road	AWSC	Same as before	63.2	F		75.0	F	
11	SR 29 & Hidden Valley Road	TWSC	Same as before	48.3	E		OVR	F	
12	SR 29 & Spruce Grove Road	TWSC	Same as before	155.5	F		235.5	F	
13	SR 29 & Spruce Grove Road (Lowerlake)	TWSC	Same as before	30.6	D		68.1	F	

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections
3. OVR = Delay over 300 Seconds

As shown in Table 34, intersections 2, 3, 4, 6, and 8 will benefit from channelization. Table 34 also provides the lane geometrics for those intersections. Figures A13 through A16 in the appendix provide preliminary schematics for those intersections. Intersection 7 is projected to operate at acceptable LOS with right-in and right-out from the minor street (i.e., Young Street). All other intersections are projected to operate at unacceptable LOS with channelization in Year 2030.

### *Year 2030 Conditions Improvements with Signalization*

Intersections 1, 5, 9, 10, 11, 12 and 13 would not benefit from channelization; therefore, a change in intersection control needed to be examined. The change in intersection control examined for this alternative is a signal (along with change in lane geometrics). Table 35 shows the intersection LOS, delay and queuing for those three intersections when signalized.

**TABLE 35**  
**YEAR 2030 PEAK HOUR CONDITIONS - SIGNALIZATION WITH CHANGED GEOMETRICS**

#	Intersection	Target LOS	Control Type <sup>1,2</sup>	Lane Geometrics	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
1	SR 29 & Rancheria Road	E	Signal	NBL, SBL, SBR, EBL pockets	21.9	C	>590 ft SBT	37.3	D	>620 ft, NBT
5	SR 29 & Douglas Street	E	Signal	NBL & SBL Pockets	7.3	A	310 ft, SBT	16.3	B	>810 ft, NBT
9	SR 29 & Butts Canyon Road	E	Signal	NBR & SBR pockets and EBL & EBR lanes	16	B	>710 ft, SBT	34.7	C	>1500 ft, NBT
10	SR 29 & Hartmann Road	E	Signal	2 NBT & 2 SBT lanes, SBL and NBR pockets and EBL & EBR lanes	14.1	B	>490 ft, WBL	19.9	B	>500 ft, SBL
11	SR 29 & Hidden Valley Road	E	Signal	NBL, NBR, EBL, WBL, SBL pockets	10.6	B	420 ft, SBT	32.8	C	>970 ft, NBT
12	SR 29 & Spruce Grove Road	E	Signal	NBR, SBL & EBR pockets	16.7	B	300 ft, NBT	16.5	B	>560 ft, NBT
13	SR 29 & Spruce Grove Road (Lowerlake)	E	Signal	NBL, NBR, WBL, SBL pockets	12.1	B	350 ft, NBT	16.2	B	>540 ft, NBT

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout
2. LOS = Delay based on worst minor street approach for TWSC intersections
3. OVR = Delay over 300 Seconds

As shown in Table 35, intersections are projected to operate at acceptable LOS with signalization along with changes in lane geometrics.

#### ***Year 2030 Conditions Improvements with Single-lane Roundabout***

Intersections 1, 5, 9, 10, 11, 12 and 13 would not benefit from channelization; therefore, a change in intersection control needed to be examined. Additionally, intersections 6 and intersections 8 experience extensive queuing issues with change in lane geometrics due to signal control. The change in intersection control examined for this alternative is a single lane roundabout.

Table 36 shows the intersection LOS, delay and queuing for those intersections when single lane roundabout is implemented as intersection control.

**TABLE 36**  
**YEAR 2030 PEAK HOUR CONDITIONS - SINGLE LANE ROUNDABOUT**

#	Intersection	Control Type <sup>1,2</sup>	AM Peak Hour			PM Peak Hour		
			Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
1	SR 29 & Rancheria Road	RDBT	6.2	A	140 ft, SB	20.1	C	890 ft, NB
5	SR 29 & Douglas Street	RDBT	5.6	A	160 ft, SB	6.1	A	250 ft, NB
6	SR 29 & SR 175	RDBT	11.1	B	200 ft, SB	32.0	C	1310 ft, NB
8	SR 29 & Wardlaw Street	RDBT	13.1	B	810 ft, SB	38.7	D	1620 ft, NB
9	SR 29 & Butts Canyon Road	RDBT	7.6	A	440 ft, SB	34.4	C	1490 ft, NB
10	SR 29 & Hartmann Road	RDBT	<b>75.1</b>	<b>F</b>	<b>2110 ft, SB</b>	<b>247.6</b>	<b>F</b>	<b>&gt;6800 ft, NB</b>
11	SR 29 & Hidden Valley Road	RDBT	7.0	A	170 ft, SB	9.5	A	380 ft, NB
12	SR 29 & Spruce Grove Road	RDBT	10.5	B	140 ft, EB	8.5	A	320 ft, NB
13	SR 29 & Spruce Grove Road (Lowerlake)	RDBT	6.8	A	120 ft, NB	7.8	A	170 ft, SB

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections

As shown in Table 36, intersections 1, 5, 6, 8, 9, 11, 12 and 13 are projected to operate at acceptable LOS E or better. The queuing is also not significant in Year 2020 for both AM and PM with implementation of a roundabout. However, intersection 10 is projected to operate below acceptable LOS for PM peak hour. Additionally, it will also experience significant queuing.

#### ***Year 2030 Conditions Improvements with changed lane geometrics for Roundabout***

The intersections 1, 6, 8, 9, 11 will operate at acceptable LOS with a single lane roundabout; however, those intersections will experience significant queuing issue. Therefore, for better operation of the intersections change in single lane roundabout is needed. Single lane roundabout at intersection 12 and intersection 13 are projected to provide acceptable LOS, delay and queuing in year 2030 conditions. Intersection 10 is projected to operate below acceptable LOS with a single lane roundabout; therefore, revised lane geometrics will be needed for this intersection.

Table 37 shows the intersection LOS, delay and queuing for intersections 1, 6, 8, 9, 10, and 11 when roundabout with changed lane geometrics is implemented as intersection control.

**TABLE 37**  
**YEAR 2030 PEAK HOUR CONDITIONS - ROUNDABOUT WITH CHANGED LANE GEOMETRICS**

#	Intersection	Control Type <sup>1,2</sup>	Lane Geometrics	AM Peak Hour			PM Peak Hour		
				Delay	LOS	Worst Movement 95th % Queue	Delay	LOS	Worst Movement 95th % Queue
1	SR 29 & Rancheria Road	RDBT	NBL turn Pocket	6.2	A	140 ft, SBT	9.6	A	150 ft, NBT
6	SR 29 & SR 175	RDBT	NBL turn pocket	11.0	B	190 ft, SB	13.8	B	310 ft, NBT
8	SR 29 & Wardlaw Street	RDBT	NBL & SBR Pockets	8.8	A	150 ft, SBT	13.2	B	490 ft, NBT
9	SR 29 & Butts Canyon Road	RDBT	NBR & SBL, WBL Pockets	7	A	260 ft, SBT	7.4	A	140 ft, NBT
10	SR 29 & Hartmann Road	RDBT	2 NBT, NBR Pocket, 2 SBT with Shared right,	10.6	B	120 ft, SBT	12.1	B	200 ft, NBT
11	SR 29 & Hidden Valley Road	RDBT	EBR and NBR pockets	6.8	A	170 ft, SB	8.0	A	190 ft, NBT

Notes:

1. TWSC = Two Way Stop Control RDBT = Roundabout

2. LOS = Delay based on worst minor street approach for TWSC intersections



As shown in Table 37, intersection 10 is projected to operate at acceptable LOS with change in lane geometrics. Intersections 1, 6, 8, 9 and 11 are projected to have improvised operation compare to single lane roundabouts with change in lane geometrics. Table 37 provides the change in lane geometrics from a single roundabout.

## **VIII. CORRIDOR IMPROVEMENT STANDARDS**

Roadway improvement standards for the study corridor are contained within the Highway Design Manual (HDM). Chapter 60 (Nomenclature) of the HDM, in Section 62.3 provides a definition of both the expressway and conventional highway roadway classifications as follows:

***Expressway*** - An arterial highway with at least partial control of access, which may or may not be divided or have grade separations at intersections.

***Conventional Highway*** - A highway without control of access which may or may not be divided. Grade separations at intersections or access control may be used when justified at spot locations.

### **DESIGN SPEED**

Design speed is defined as the speed selected to establish specific minimum geometric design elements for a particular section of highway. These design elements include vertical and horizontal alignment and site distance. Expressways and conventional highways have different design speeds as identified in Chapter 100 (Basic Design Policies) Table 101.2 of the HDM.

### **ACCESS CONTROL**

As defined in Chapter 100 (Basic Design Policies) Topic 104.2 of the HDM, the number of access openings on highways with access control should be held to a minimum. Parcels which have access to another public road or street as well as frontage on the expressway are not allowed access to the expressway. In some instances, parcels fronting only on the expressway may be given access to another public road or street by constructing suitable connections if such access can be provided at reasonable cost.

With the exception of extensive highway frontages, access openings to an expressway are limited to one opening per parcel. Wherever possible, one opening should serve two or more parcels. In the case of a large highway frontage under one ownership, the cost of limiting access to one opening may be prohibitive, or the property may be divided by a natural barrier such as a stream or ridge, making it necessary to provide an additional opening. In the latter case, it may be preferable to connect the physically separated portions with a low-cost structure or road rather than permit two openings.

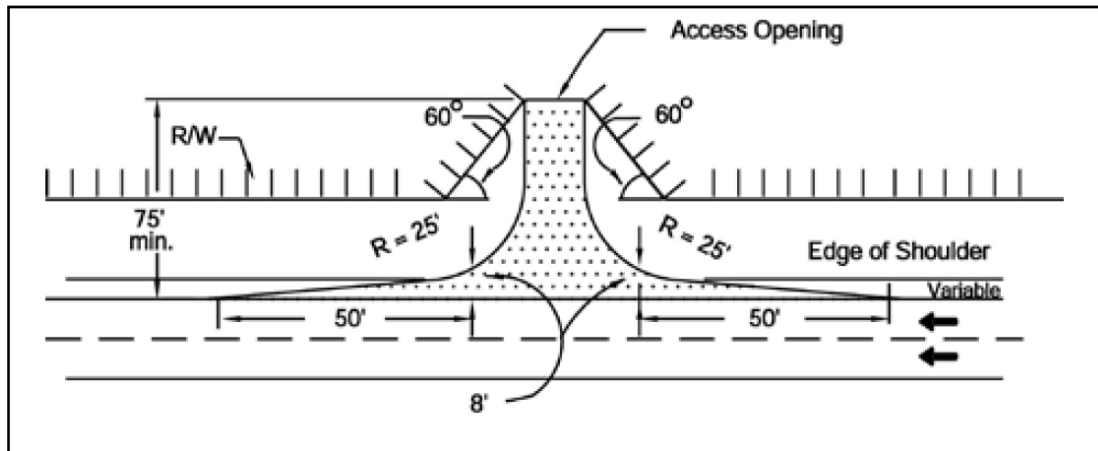
Chapter 200 (Geometric Design and Structure Standards) Topic 205 (Road Connection and Driveways) indicates that access openings should not be spaced closer than one-half mile to an adjacent public road intersection or to another private access opening that is wider than 30 feet, and is considered a mandatory standard. When several access openings are closely spaced, a frontage road should be considered.

A joint access opening serving two or more parcels of land is desirable whenever feasible. If the property line is not normal to the right of way line, care should be taken in designing the joint opening so that both owners are adequately served.

All points of private access should be surfaced with adequate width and depth of pavement to serve the anticipated traffic. The surfacing should extend from the edge of the traveled way to the right of way line.

Recessed access openings, as shown in the exhibit below, are desirable at all points where private access is permitted and should be provided whenever they can be obtained without requiring alterations to existing adjacent improvements. When recessed openings are required, the opening should be located a minimum distance of 75 feet from the nearest edge of the traveled way.

#### Access Openings on Expressways



#### Access Opening With Tapers at Rancheria Road



## FRONTAGE ROADS

As defined in Chapter 100 (Basic Design Policies) Topic 104.3 of the HDM, frontage roads are provided on expressways to control access to the through lanes, thus increasing safety for traffic. These roadways also provide access to abutting land ownerships, provide or restore continuity of the local street or road systems, and provide for bicycle and pedestrian traffic that might otherwise need to use the freeway.

In general, a frontage road is justified on expressways if the costs of constructing the frontage road are less than the costs of providing access by other means. Right of way considerations often are a determining factor. Thus, a frontage road would be justified if the investment in construction and extra right of way is less than either the severance damages or the costs of acquiring the affected property in its entirety.

## RADAR FEEDBACK SIGNS

Radar feedback signs provide the real time travel speed to drivers and result in traveler speed reductions. These traffic safety devices are cost effective and may be powered with solar panels in remote locations. Installation of these devices is based upon both accident safety data and traffic volumes.

### Typical Radar Feedback Sign Installation



## LEFT-TURN LANES

Left-turn lanes should be provided at access locations along the corridor with higher volumes of left-turns. Both safety and peak hour traffic operations provide the basis for left-turn lane warrants consistent with HDM 405.2 standards.

### Left Turn Lanes at Rancheria Road



## ROUNDBABOUTS

Roundabouts can reduce the number and severity of collisions for all highway users and have the following important benefits:

- Reduce speeds of vehicles
- Improve access and traffic circulation
- Reduce delay
- Reduce the number of channelization lanes (left-turn lanes)
- Provide more space for bicycle and pedestrian facilities
- Improve pedestrian mobility
- Reduce fuel and/or energy consumption
- Lower vehicle emissions
- Provide unique opportunities for landscaping and other aesthetic treatments
- Serve as a physical and operational interface (or gateway) between rural and urban areas where speed limits change

### Typical Roundabout Intersection Control



## TRAFFIC SIGNALS

The California Manual of Uniform Traffic Control Devices (CA MUTCD) provides eleven different warrants for the installation of traffic signals. Safety and traffic operations are the primary basis for these warrants. The determination of intersection control, either traffic signal or roundabout is determined during completion of the Intersection Control Evaluation (ICE) report.

### INTERSECTION CONTROL EVALUATION (ICE)

The Intersection Control Evaluation (ICE) directive establishes an integrated, systematic and performance-based approach to engineering and investment decisions affecting state highway intersections and interchanges, primarily through the consideration and evaluation of the following:

- Alternative intersection control practices (traffic signal, roundabout, stop control), access configurations and management strategies.
- The context of the proposed project and highway facility, including the operating speed and speed differential among highway system users.
- The needs of drivers, pedestrians, bicyclists and commercial vehicle operators, including those with disabilities.



- The costs and cost savings related to project implementation, estimated system performance benefits and impacts and life-cycle economic analysis.

All intersections and service interchanges are operated under some form of stop, signal or yield control. Intersection investment decisions will be guided and supported by:

- Life-cycle cost analysis supporting highway infrastructure investment decisions (project development, capital, and maintenance and operations cost).
- Performance analysis tools capable of determining the viability and relative effectiveness of intersection traffic control and management strategies.
- Comparative analysis among viable intersection control strategies

Current traffic control policy requires warrant and engineering studies to justify the control of major through traffic movements at particular locations. CA MUTCD emphasizes consideration of less restrictive measures or strategies before recommending the installation of a traffic signal system.

The decision to control or regulate the flow of through traffic movements:

- Requires initial and ongoing investments for the implementation, maintenance and operation of an intersection control device or system.
- Directly affects operational and safety performance in terms of changes to the level of intersection control delay, travel time, and collision frequency and severity.

Since multiple traffic control, management strategies and configurations may be appropriate for prevailing and/or expected traffic demands and operating conditions at particular locations, it is important to estimate the performance impacts and benefits for each strategy. These estimates should reflect the expected increase or reduction in control delay, travel time and collisions. These findings provide decision-makers with the expected return on investment or cost-effectiveness of each alternative strategy.

#### **Traffic Signal at Main Street (SR 175)**



## ON-STREET PARKING

Design parameters for the on-street parking take into account a driver's clear line of sight to an intersection. This is especially important for bicyclists traveling on the outermost portion of a roadway and pedestrians or disabled persons who may not be tall enough to be seen above parked vehicles.

Angled parking can be used to accommodate more parking spaces on the main street. Angled parking can be either a forward (nose-in) or reverse (back-in) design. However, angled parking can create safety problems due to the varying length of vehicles and sight distance limitations associated with backing up against oncoming traffic. Therefore angled parking has not been incorporated into the design concepts.

### On-Street Parking Within Middletown



## SIDEWALKS

The design concepts include sidewalks through downtown Middletown. Where right of way is available these sidewalks have been designed with a 10 foot width. This width provides the ability for a pair of pedestrians to walk side by side or to pass comfortably. All sidewalks and curb ramp designs are configured to meet accessibility requirements of the Americans with Disabilities Act (ADA).

## PEDESTRIAN CROSSINGS

The design concepts include pedestrian crossing facilities at multiple locations. While primarily serving pedestrians these crossings also serve other types of non-motorized crossings, such as equestrians and bicycles. Pedestrian crossings include: overhead signing, raised islands for pedestrian refuge, and traffic control systems (e.g., flashing beacons with warning signs or in-roadway warning lights).

Pedestrian crosswalk markings have been incorporated into the design concepts where they are needed to channelize pedestrians into a preferred path at intersections. Pedestrian crosswalk markings are not required at every intersection but are located at selected locations to maintain safe pedestrian paths of travel.

## **Sidewalks within Middletown**



## **PEDESTRIAN MID-BLOCK CROSSINGS**

Mid-block pedestrian crossings are generally unexpected by motorists and should be discouraged unless there is clear and reasonable justification for installation. The design concepts do not include mid-block crossings as there are adequate intersections to provide safe crosswalk designs

## **TEXTURED PAVEMENT IN PEDESTRIAN CROSSINGS**

The pedestrian crossings design concepts may include stamped asphalt concrete to provide a textured/aesthetic surface treatment. These textured cross-walk surface treatment also have painted crosswalk markings as required by state standards.

## **Typical Textured Cross Walk**



## **SIDEWALK BULB-OUTS**

Sidewalk extensions (also called bulb-outs) extend the sidewalk into the parking lane to narrow the roadway and provide additional pedestrian space at key locations; they can be used at corners and at mid-block. Curb extensions enhance pedestrian safety by increasing pedestrian visibility, shortening crossing distances, slowing turning vehicles, and visually narrowing the roadway.

Generally, these benefits are greater the further the bulb-out extends into the roadway and the tighter the turn radius created by the bulb-out, but should be balanced against roadway characteristics and the needs of large vehicles to navigate turns.

Curb extensions can often be lengthened to create public spaces, landscaped areas, or transit waiting areas. They can also be employed as neck-downs or chokers, traffic calming techniques that reduce vehicle travel lanes.

Curb extensions can have the following benefits:

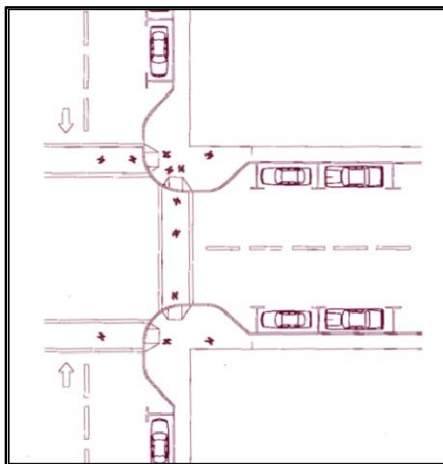
- Increased pedestrian visibility at intersections through improved sight lines
- Decreased pedestrian exposure to vehicles by shortening the crossing distance
- Reduced vehicle turn speeds by physically and visually narrowing the roadway
- Increased pedestrian waiting space
- Additional space for street furnishings, plantings and other amenities
- Reduced illegal parking at corners crosswalks and bus stops
- Facilitated ability to provide two curb ramps per corner

Although curb extensions have many benefits, they may not be appropriate in all circumstances. Use of curb extensions should consider the following:

- They may be more expensive to construct than other measures
- They can reduce flexibility of the roadway in construction routing
- They can reduce future flexibility in making changes to the location of bus zones, roadway lane layout, or crosswalks

Bulb-outs should also be considered as one among many strategies to enhance pedestrian safety and streetscape character; in some cases, median refuges, raised crossings, other improvements, or a combination of strategies may be more appropriate.

### Typical Sidewalk Bulbout





## **IN-ROADWAY FLASHING LIGHTS**

Cross-walk-warning systems such as In-Pavement Flashing Lights are considered traffic control devices. They can be installed in the pavement to warn highway users of a condition that is not readily apparent to the driver and may require the road user to slow or come to a stop. The design concept may include use of these traffic control devices at specific locations.

## **STREET LIGHTING**

The design concepts include adequate lighting for pedestrians to feel secure at night. Decorative lighting fixtures may be included to enhance downtown Middletown's unique sense of place. Decorative lighting used in final designs must meet current federal and state safety standards.

## **STREET LANDSCAPING**

Street landscaping makes downtowns more livable, beautiful and unique. Well designed landscaping along the roadway, close to the highway or in medians can increase driver awareness of the immediate environment and may alter driver behavior, resulting in slower speeds and a safer main street. A row of trees may calm traffic by making the road appear narrower. Street trees also add an attractive canopy over the main street and may increase comfort for pedestrians. They create comfortable spaces and soften lighting. They cool streets in the summer, and provide a windbreak in the winter. Trees also create distinctive identity and seasonal interest.

## **GATEWAY MONUMENTS**

Integration of Middletown's transportation system to reflect community values may be achieved through enhancements that include Gateway Monuments. A gateway monument is defined as any freestanding structure or sign, not integral or otherwise required for the highway facilities that communicates the name of a region, community or area. A Gateway Monument may include the officially adopted seal or slogan of the Local Entity. Gateway Monuments differ from Transportation Art in that Gateway Monuments may include text and must be a freestanding structure or sign, not integral to a required highway facility.

### **Typical Gateway Monument**



## COLORIZED SHOULDERS

Colorized shoulders provide a visual cue to drivers that result in increased driver awareness and reduction in travel speeds. These enhancements are incorporated into the design concepts for the Middletown area.

### Typical Colorized Shoulder Treatment



## OPTICAL SPEED BARS

Optical speed bars are pavement striping along the shoulder of the roadways that are designed in a converging pattern that give drivers the perception that their vehicle is accelerating and results in a reduction of speed. The distance between the bars is progressively shorter and provides the perception to the driver that they are actually accelerating.

### Typical Optical Speed Bar Installation



## TRANSPORTATION ART

Transportation art provides the ability to make transportation facilities more context sensitive to the local community and reflect their aesthetic, cultural and environmental values. Caltrans has a Transportation Art Program, to encourage communities like Middletown to use applicable roadway facilities, structures and right of way spaces for creative expression through the visual arts. Well

conceived art forms, properly located, can enhance the experiences of those using transportation facilities and enrich the environment of neighboring communities. The design concepts incorporate transportation art primarily in the raised center roundabout islands at intersections. Placement of such artwork is conditional on appropriate maintenance agreements and assurance that its maintenance does not create safety concerns on the state highway.

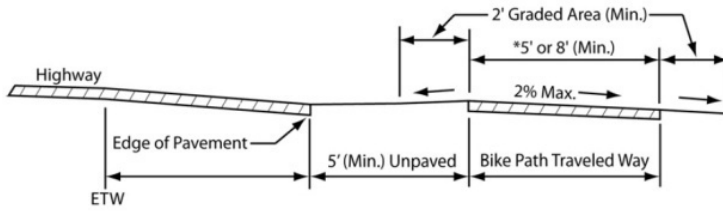
## **MULTI-USE PATH**

Multi-use paths are non-motorized enhancements that provide an off-highway trail for use by pedestrian, bicyclists, and equestrians. Class I bike lane facilities are allowed with Caltrans right-of-way. The location and alignment of these facilities should compliment and inter-connect with other existing or planned non-motorized facilities such as pedestrian sidewalks and bike lanes.

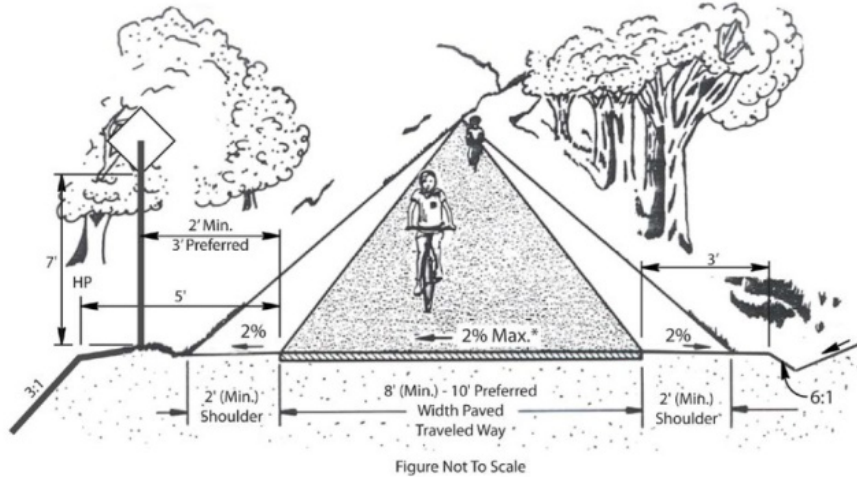
### **Class I Bikeway with Equestrian Trail**



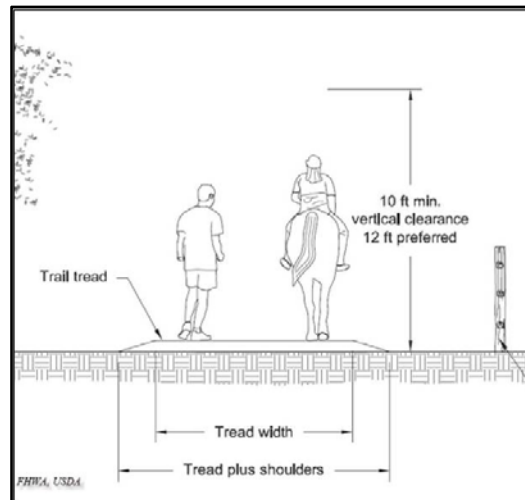
### Typical Cross Section of Class I Bikeway (Bike Path) Parallel to Highway



### Two-Way Class I Bikeway (Bike Path)



### Equestrian Trail





## IX. CORRIDOR ENHANCEMENTS

Transportation enhancement alternatives that can increase safety and mobility for both motorized and non-motorized users are summarized in this section. Enhancements within the study corridor are identified for specific intersections, along with corridor segments. Non-motorized enhancements are also included and summarized separately. For each of these categories transportation enhancements for both initial and future improvement alternatives have been identified. Initial improvement alternatives refer to those improvements that meet existing engineering warrants or policy based upon existing traffic conditions and accident history. Future improvement alternatives refer to improvements that should be programmed and constructed as traffic conditions change over time.

Currently there are several intersections and roadway sub-segments with an accident history that supports the installation of safety enhancements. Existing traffic operations along the corridor meet the Transportation Concept Report (TCR) LOS E thresholds for all major intersections and roadway segments. Vehicular queuing within the Middletown community occurs during peak hours. Over time as traffic volumes increase along the corridor, various intersections will require traffic control and/or capacity improvements. Future year 2020 and 2030 peak hour traffic operations are summarized in Technical Memorandum No. 4.

Transportation enhancement alternatives contained in this report also include improvements intended to affect a driver's behavior by making the driver more aware of roadway conditions and reduce their travel speeds as a result. These types of enhancements are generally referred to as traffic calming measures and can either be installed at isolated locations or combined along a specific roadway segment as complimentary improvements. Within the Middletown community various traffic calming enhancement alternatives have been identified.

The enhancements identified within the Middletown community will be incorporated into the Middletown Community Action Plan (MCAP) document. The improvements within the State right-of-way will form the basis for additional multi-modal improvements on County roadways that interconnect with SR 29.

Cost estimates have been prepared for each of the enhancements. These cost estimates are based upon a planning level determination of quantities and materials using aerial photography, photometric topographic data and field observations. Appendix B contains the cost estimate worksheets.

The following sections provide a description of the transportation enhancement alternatives. Design study exhibits are contained in the appendix.

### INTERSECTION ENHANCEMENTS

#### ***Rancheria Road (PM 4.13)***

**Initial Improvements** - The intersection of Rancheria Road is located at the southern boundary of the Middletown Community and serves as an entry gateway into the community. Currently the posted speed limit along this segment of the corridor is 55 mph. Installation of colorized shoulders,

optical speed bars, and a gateway monument is a traffic calming enhancement that would help reduce speeds and provide a sense of entry into the Middletown Community.

#### **Estimated Construction Cost Range (in thousands)**

##### Initial Improvements

- Colorized shoulders (250 feet in advance of intersection): \$65
- Optical Speed Bars (250 feet in advance of intersection): \$26
- Gateway monument: \$195

#### ***Dry Creek Cut-Off (PM 4.52)***

**Future Improvements** - As traffic volumes increase over time this intersection will require turning lanes to provide acceptable driver delays. When average driver delays exceed acceptable engineering thresholds and engineering warrants are met, a northbound left-turn and southbound left-turn lane should be installed. Figure 15 illustrates a design study for these improvements.

#### **Estimated Construction Cost Range (in thousands)**

##### Future Improvements

- Left-turn lanes: \$1,170

#### ***Main Street (SR 175) (PM 5.80)***

**Initial Improvements** - Existing accident history at this intersection supports the installation of traffic improvements to improve existing conditions. As mentioned above, currently during peak traffic hours vehicle queues back-up to Armstrong Street. Shortening of these peak hour queues is possible with the installation of a dedicated northbound left-turn lane at the Main Street (SR 175) intersection. These improvements would also enhance driver safety at this intersection. The dedicated northbound left-turn lane will require removal of some on-street parking along SR 29.

The community has expressed a desire to have sidewalk bulbouts installed at each of the curb returns at this intersection to eliminate the potential of vehicles passing stopped left-turn vehicles on the right side. The conceptual design contained in Figure 16 (future improvements) contains a design concept for installation of a northbound and southbound left-turn lane. This figure also provides a conceptual layout of modified sidewalk bulbouts that are possible at this location. This design would eliminate the potential for passing on the right.

**Future Improvements** - As traffic volumes increase over time this intersection will require additional turning lanes and modified traffic control to provide acceptable driver delays. When average driver delays exceed acceptable engineering thresholds and engineering warrants are met, dedicated turn lanes at all approaches should be installed. The dedicated northbound left-turn lane will require removal of some on-street parking along SR 29. Figure 16 illustrates a design study for these improvements.



SR 29 South Corridor EFS - Future Improvement (PM 4.52)

FIGURE 15

## SR 29 & DRY CREEK CUTOFF





SR 29 South Corridor EFS

FIGURE 16

## SR 29 & SR 175 (Initial and Future Turn Lanes)



### **Estimated Construction Cost Range (in thousands)**

#### Initial Improvements

- Northbound and southbound left-turn lane and signal modification: \$130

#### Future Improvements

- Eastbound and westbound left-turn lane and signal modification: \$130

### ***Young Street PM (5.85)***

**Future Improvements** - As traffic volumes increase over time this intersection will require traffic control or restriction of left-turn turning movements to provide acceptable driver delays. Since the intersection is so closely spaced to the signalized intersections at SR 175 and Wardlaw

Street either roundabout or signal control is not a feasible improvement. When average driver delays exceed acceptable engineering thresholds and engineering warrants are met, left-turn movements from/to Young Street should be restricted. Traffic would be rerouted on the adjacent Middletown street network to gain left-turn access onto SR 29.

### **Estimated Construction Cost Range (in thousands)**

#### Future Improvements

- Restrict left-turn movements: \$32

### ***Wardlaw Street (PM 5.95)***

**Initial Improvements** - Currently during peak traffic hours vehicle queues from this intersection extend to SR 175. Shortening of these peak hour queues is possible with the installation of dedicated left-turn lanes at all intersection approaches and a dedicated southbound right-turn lane. A potential phasing of these improvements could include the southbound right-turn lane as the first phase. Reconfiguration of the student drop-off areas and parking fields at the adjacent school is also recommended to reduce vehicular queuing on Wardlaw Street into this intersection as illustrated in Graphic A and Graphic B on the following pages. Figure 17 illustrates a design study for these improvements, followed by two graphics showing school parking and access modifications.

**Future Improvements** - As traffic volumes increase over time this intersection should be reconfigured as a roundabout. Roundabout control will provide additional peak hour capacity and reduce vehicular queuing under long-term conditions compared with signal control. The roundabout will require additional right of way. Figure 18 illustrates a design study for these improvements.

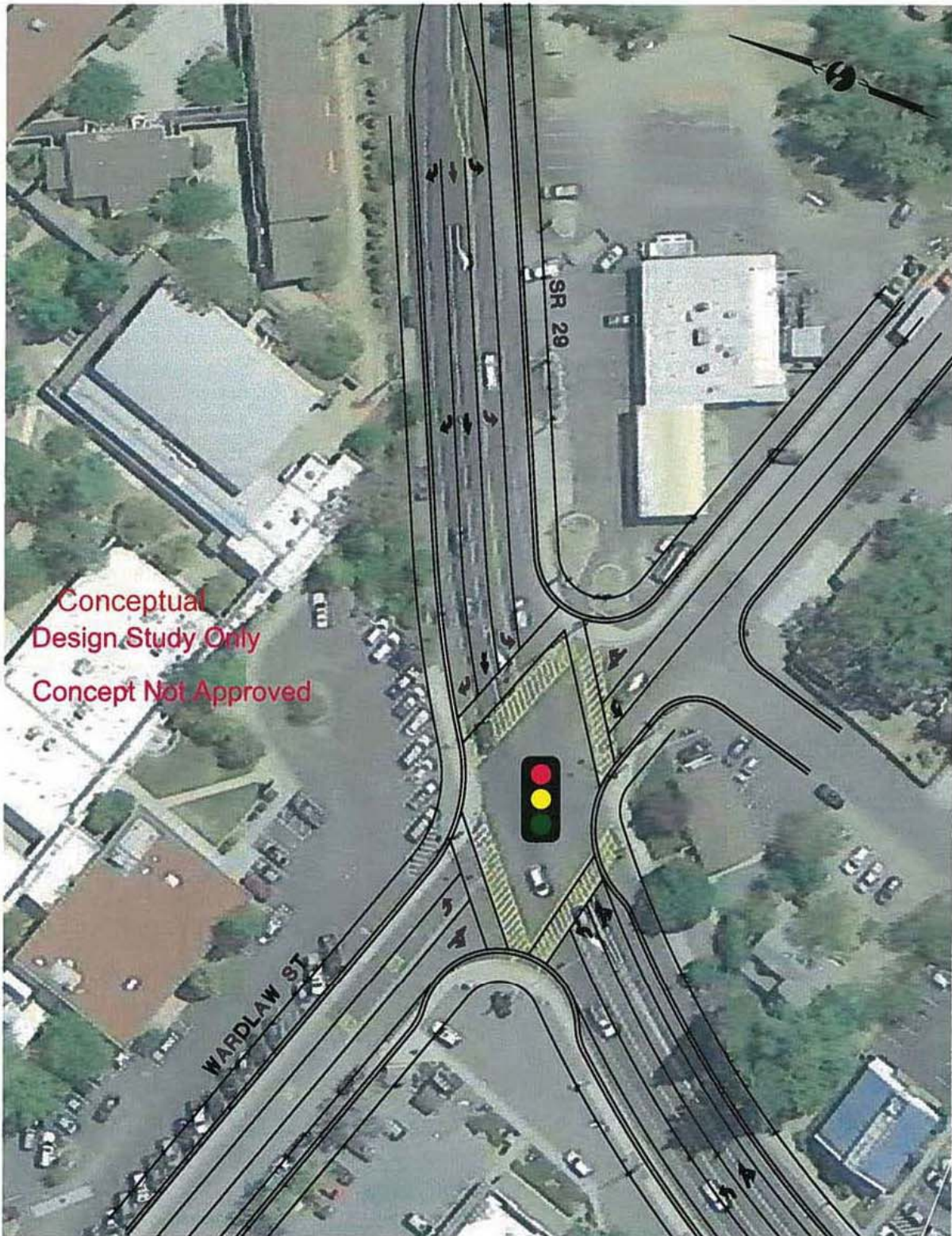
### **Estimated Construction Cost Range (in thousands)**

#### Initial Improvements

- Turn lanes and signal modification: \$780

#### Future Improvements

- Roundabout control: \$2,210

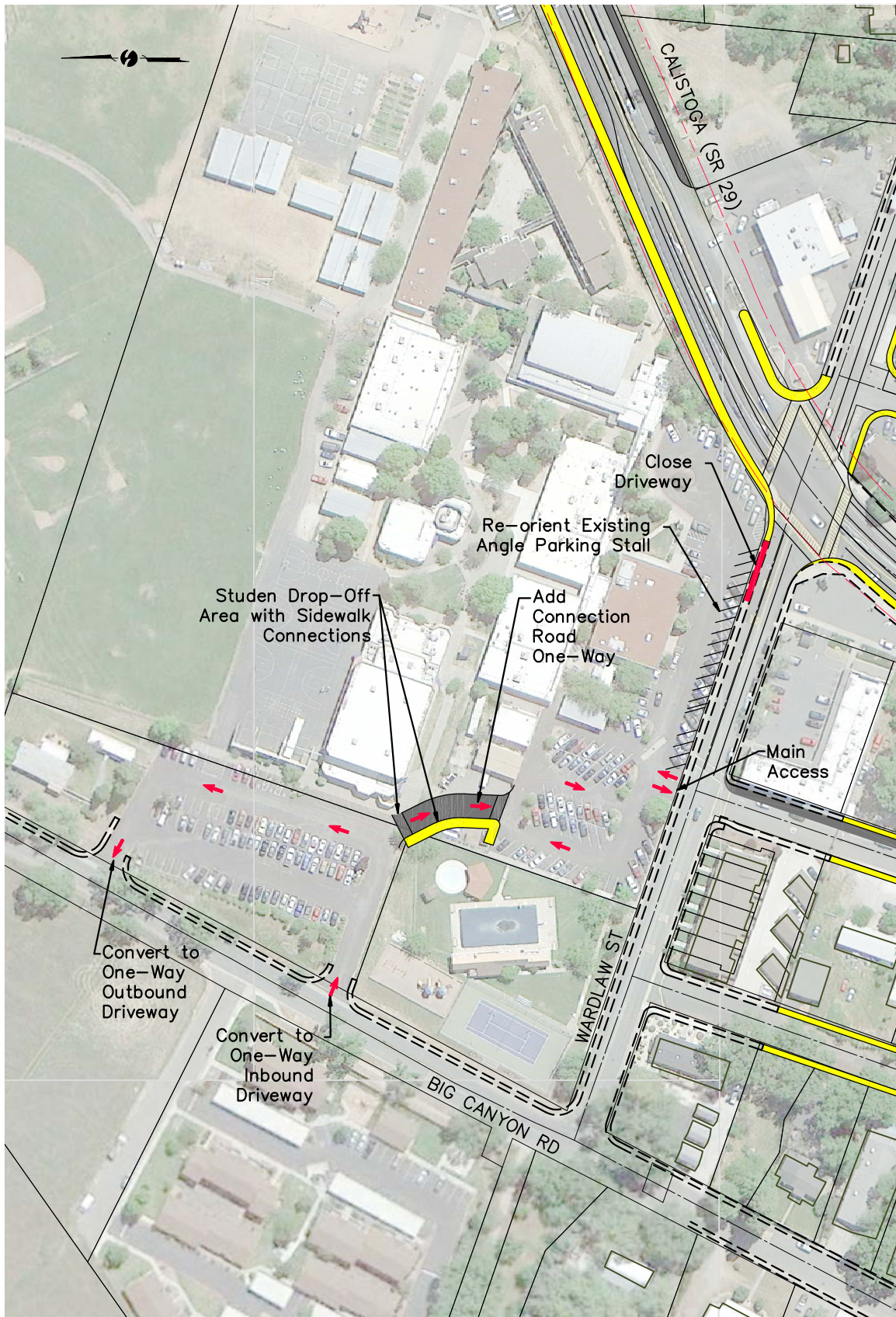


SR 29 South Corridor EFS - Initial Improvement

FIGURE 17

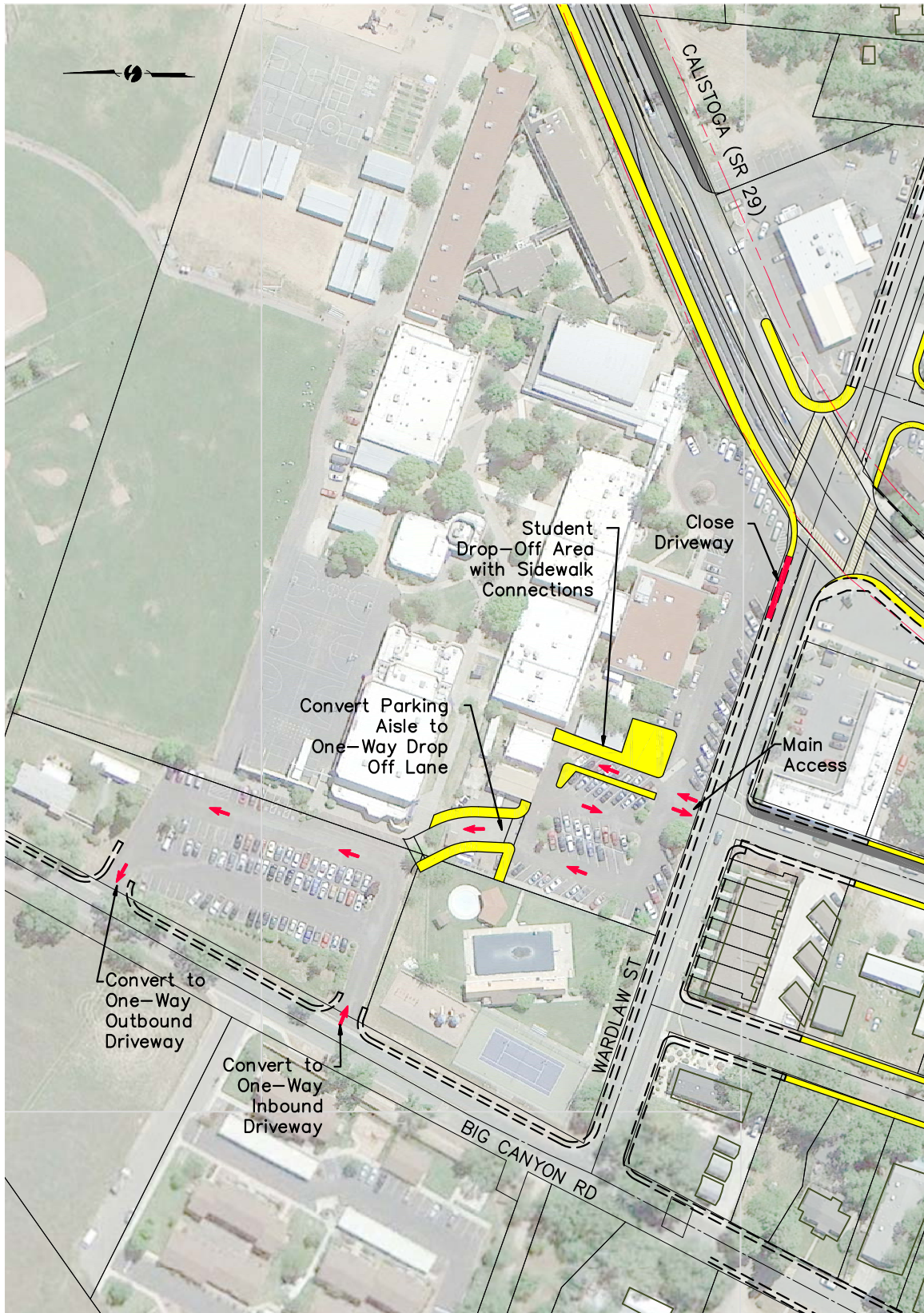
## SR 29 & WARDLAW ST





## SCHOOL PARKING / ACCESS MODIFICATION - OPTION 1





SR 29 ENGINEERED FEASIBILITY STUDY

GRAPHIC B SCALE: 1" = 150'

## SCHOOL PARKING / ACCESS MODIFICATION - OPTION 2





SR 29 CORRIDOR EFS - Future Improvement

FIGURE 18

## SR 29 & WARDLAW ST

### ***Butts Canyon Road (PM 6.37)***

**Initial Improvements** - The intersection of Butts Canyon Road is located at the northern boundary of the Middletown Community and serves as an entry gateway into the community. Currently the posted speed limit along this segment of the corridor is 45 mph. Installation of colorized shoulders, optical speed bars, and gateway monument is a traffic calming alternative that would help reduce speeds and provide a sense of entry into the Middletown Community.

**Future Improvements** - As traffic volumes increase over time this intersection will require control to provide acceptable driver delays. When average driver delays exceed acceptable engineering thresholds and engineering warrants are met, either roundabout or signal control with a dedicated northbound right-turn lane should be installed. Roundabout control would require relocation of this intersection approximately 150 feet north to avoid expensive bridge widening at the St. Helena Creek bridge located approximately 100 feet south of the existing intersection alignment. Additional right of way would be required for this improvement. Figures 19, 20A, and 20B illustrate a design study for these improvements.

### **Estimated Construction Cost Range (in thousands)**

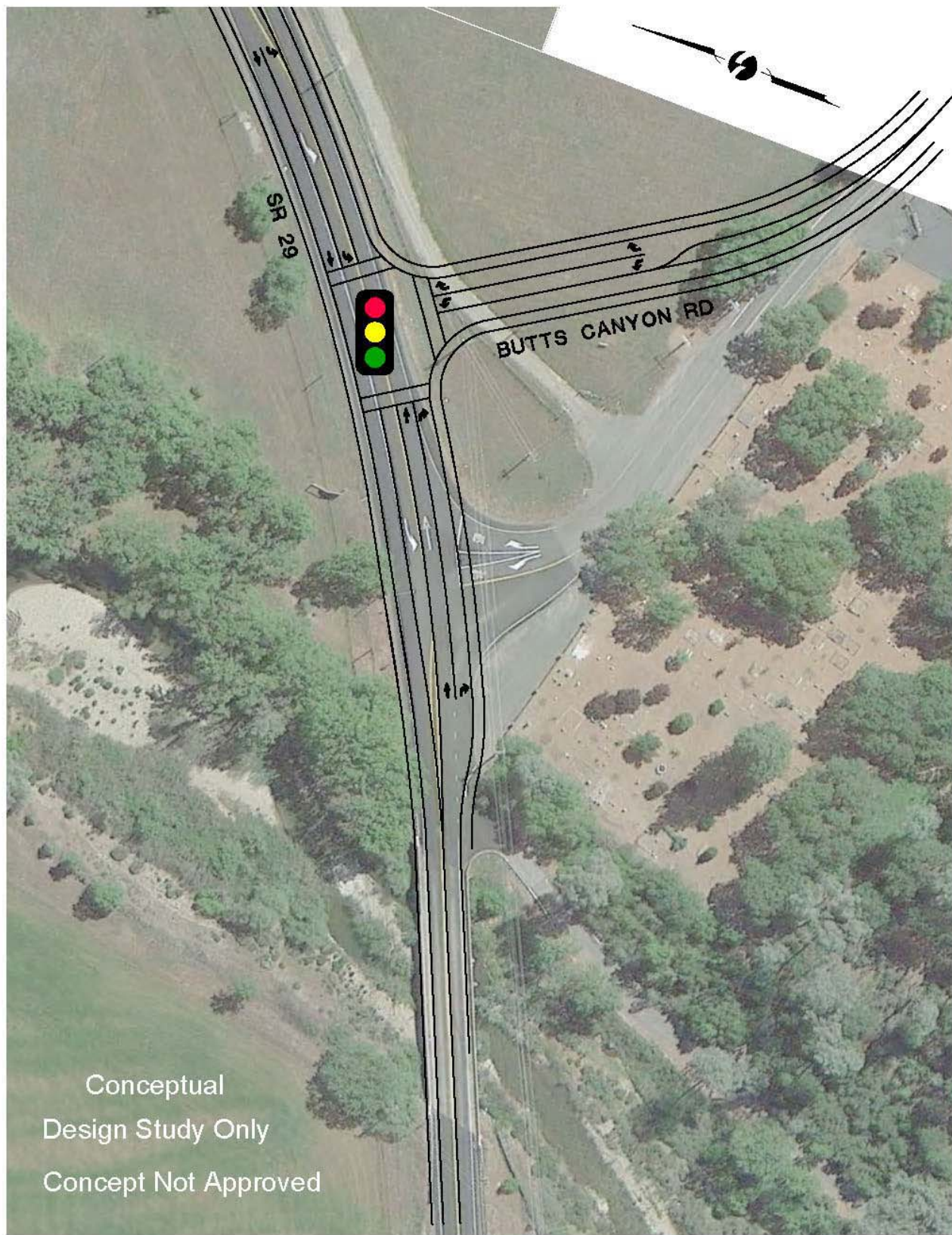
#### **Initial Improvements**

- Colorized shoulders (250 feet in advance of intersection): \$65
- Optical Speed Bars (250 feet in advance of intersection): \$26
- Gateway monument: \$195

#### **Future Improvements**

- Roundabout: \$3,250  
- or -
- Signal control: \$3,510





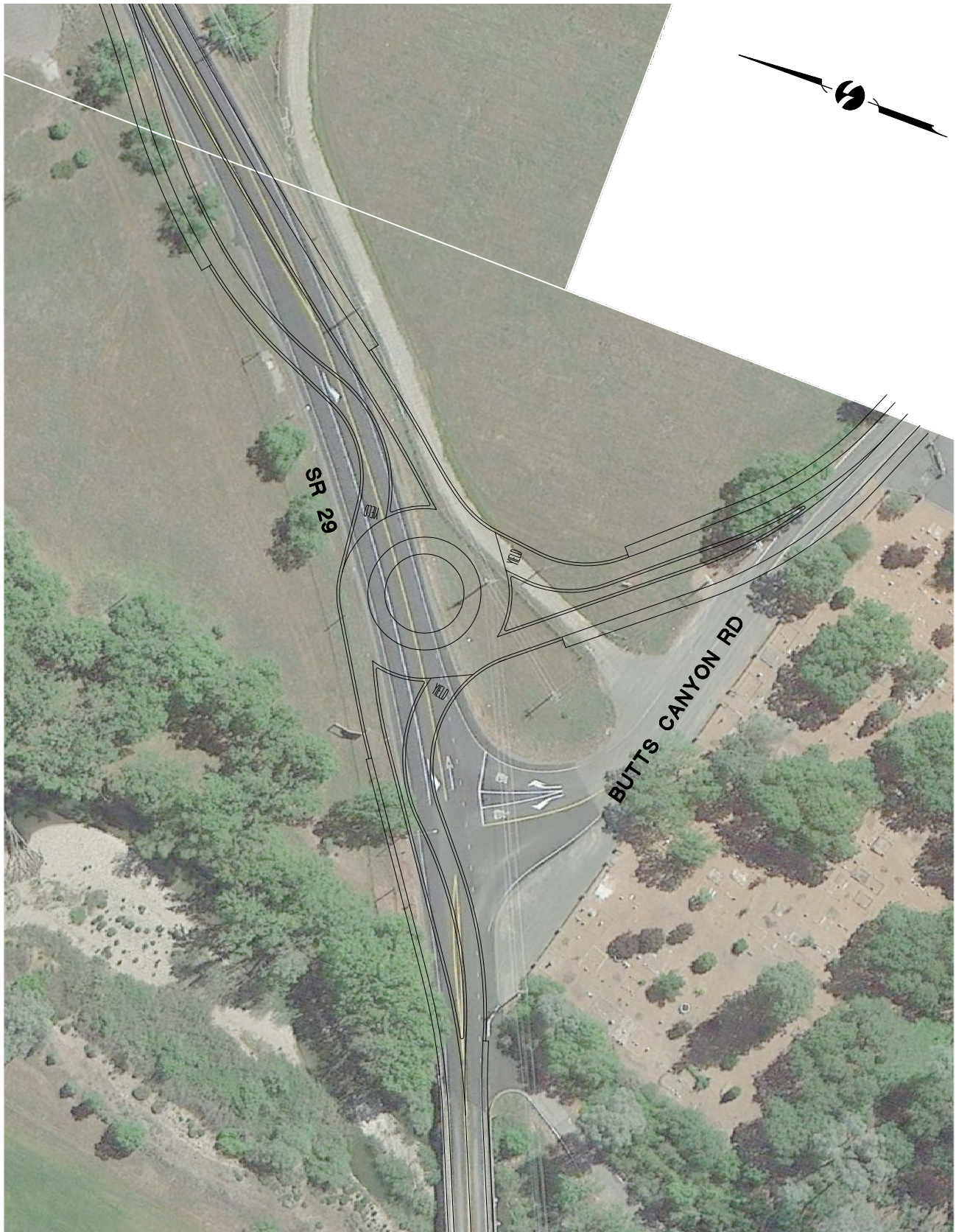
Conceptual  
Design Study Only  
Concept Not Approved

SR 29 South Corridor EFS - Future Improvement

FIGURE 19

## SR 29 & BUTTS CANYON RD



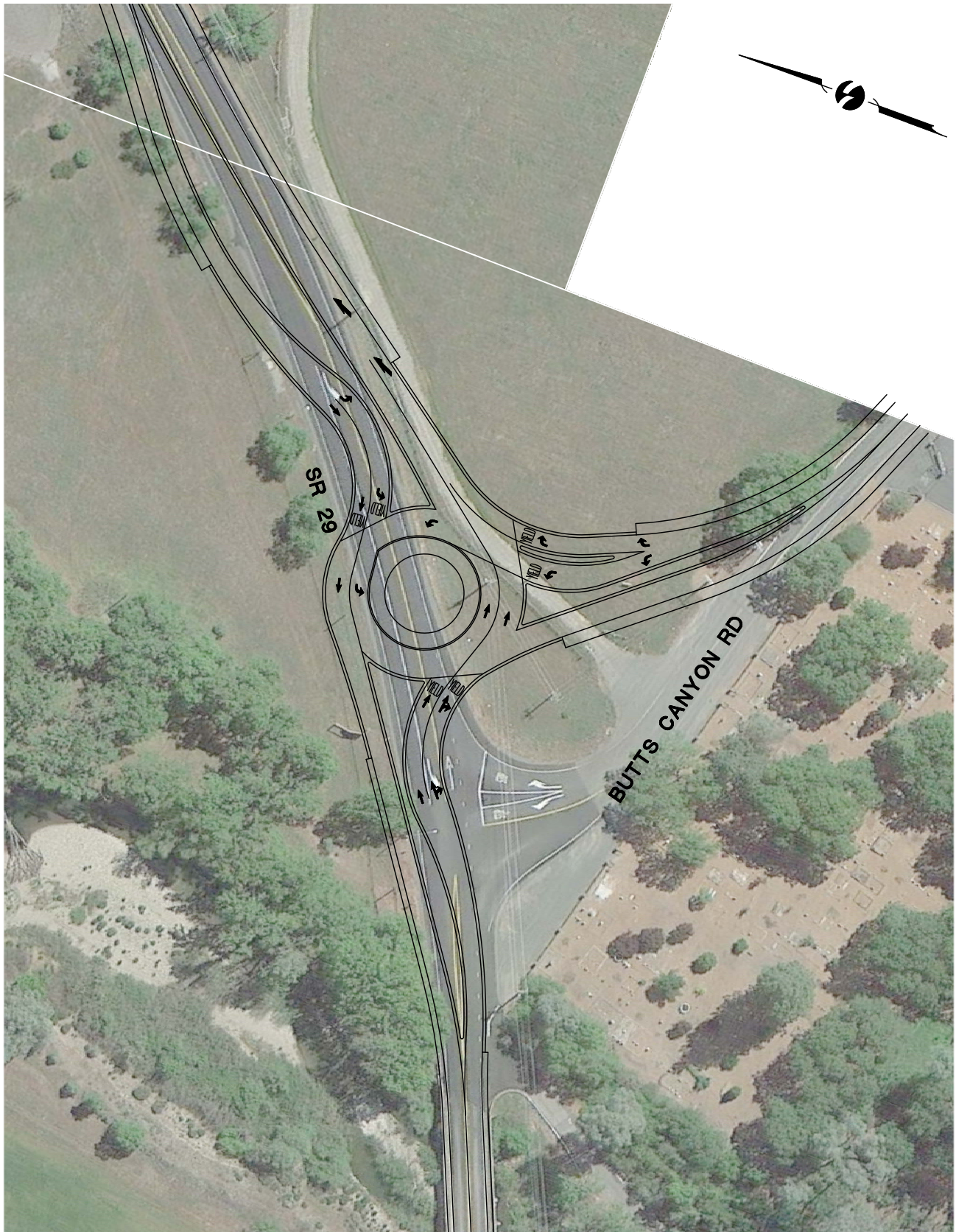


SR 29 CORRIDOR EFS - Future Improvements

FIGURE 20A

# SR 29 & BUTTS CANYON RD (PHASE I)





SR 29 CORRIDOR EFS - Future Improvements

FIGURE 20B

## SR 29 & BUTTS CANYON RD (PHASE II)

### ***Hartmann Road (9.86)***

**Initial Improvements** - Existing accident history at this intersection supports the installation of traffic improvements to improve existing conditions. Improved intersection control could be achieved with the installation of a roundabout. Roundabout control would require that the intersection be shifted north to avoid impacts to the adjacent bridge structure. This shift would require additional right of way and increased construction costs. Figures 21A and 21B illustrate a design study for these improvements.

#### **Estimated Construction Cost Range (in thousands)**

##### *Initial Improvements*

- Roundabout control: \$4,290

### ***Hidden Valley Road (PM 11.25)***

**Future Improvements** - As traffic volumes increase over time this intersection will require modified traffic control to provide acceptable driver delays. When average driver delays exceed acceptable engineering thresholds and engineering warrants are met, either roundabout or signal controls should be installed. Figures 22, 23A and 23B illustrate a design study for these improvements.

#### **Estimated Construction Cost Range (in thousands)**

##### *Future Improvements*

- Roundabout: \$3,900  
- or -
- Signal control: \$650

### ***Spruce Grove Road (south) (PM 11.92)***

**Future Improvements** - As traffic volumes increase over time this intersection will require modified traffic control to provide acceptable driver delays. When average driver delays exceed acceptable engineering thresholds and engineering warrants are met, either roundabout or signal controls should be installed. Figures 24 and 25 illustrate a design study for these improvements.

#### **Estimated Construction Cost Range (in thousands)**

##### *Future Improvements*

- Roundabout: \$4,810  
- or -
- Signal control: \$1,820

### ***C Street (PM 17.84)***

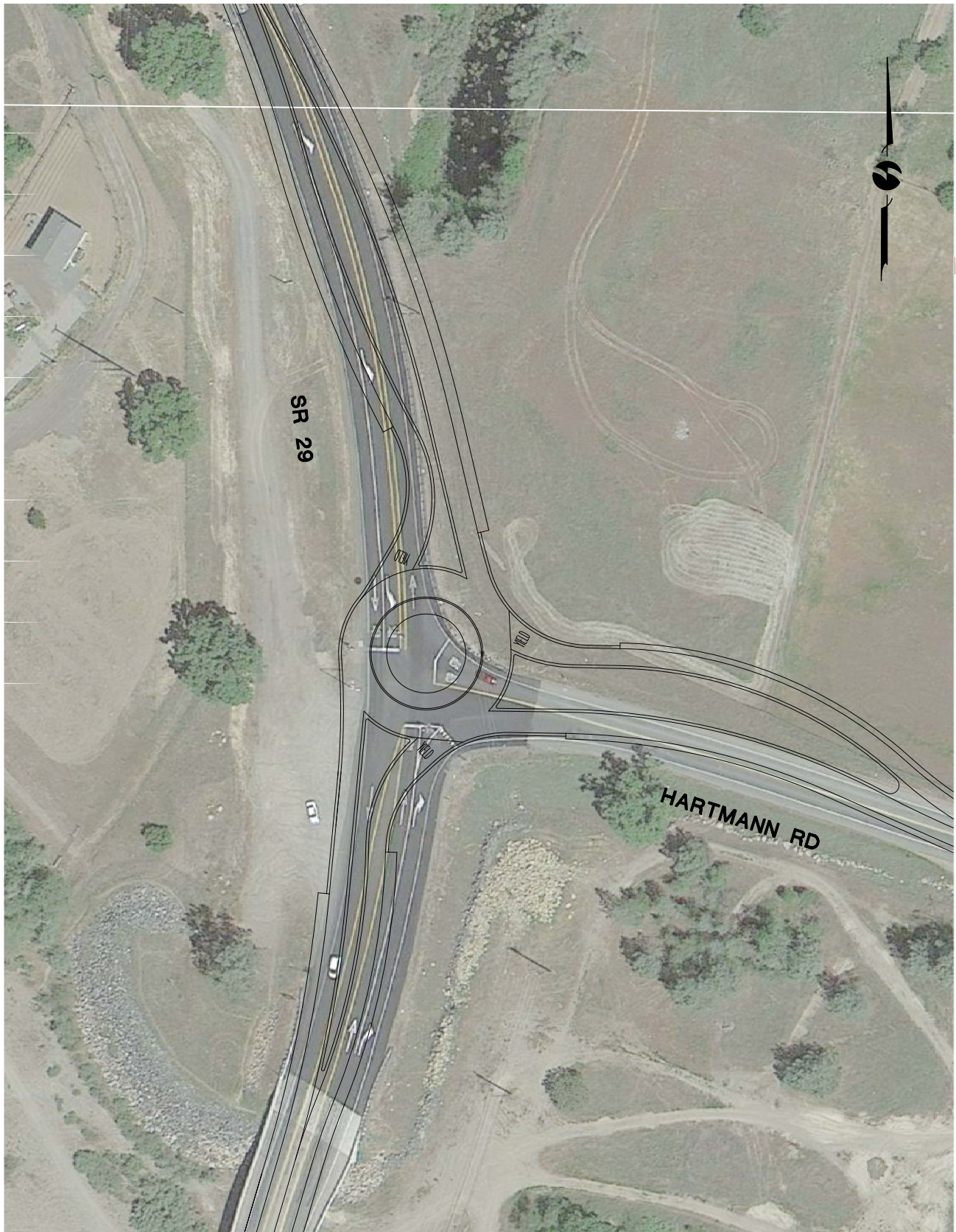
**Initial Improvements** - Existing peak hour traffic volumes levels at this intersection will require turning lanes to provide acceptable driver delays. Northbound left-turn and southbound left-turn lane should be installed.

#### **Estimated Construction Cost Range (in thousands)**

##### *Initial Improvements*

- Left-turn lanes: \$1,820



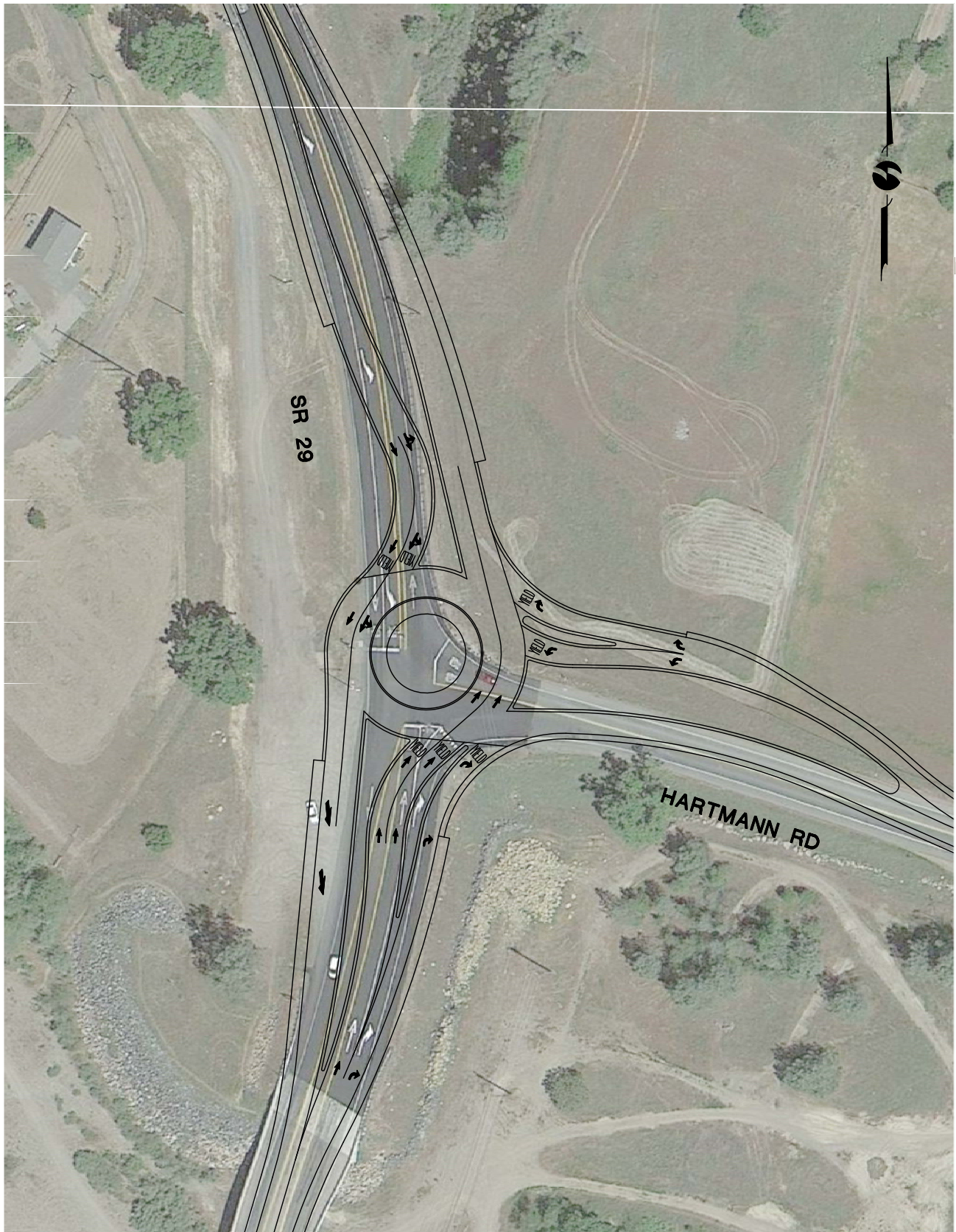


SR 29 CORRIDOR EFS - Future Improvements

FIGURE 21A

## SR 29 & HARTMANN RD (PHASE I)





SR 29 CORRIDOR EFS - Future Improvements

FIGURE 21B

## SR 29 & HARTMANN RD (PHASE II)



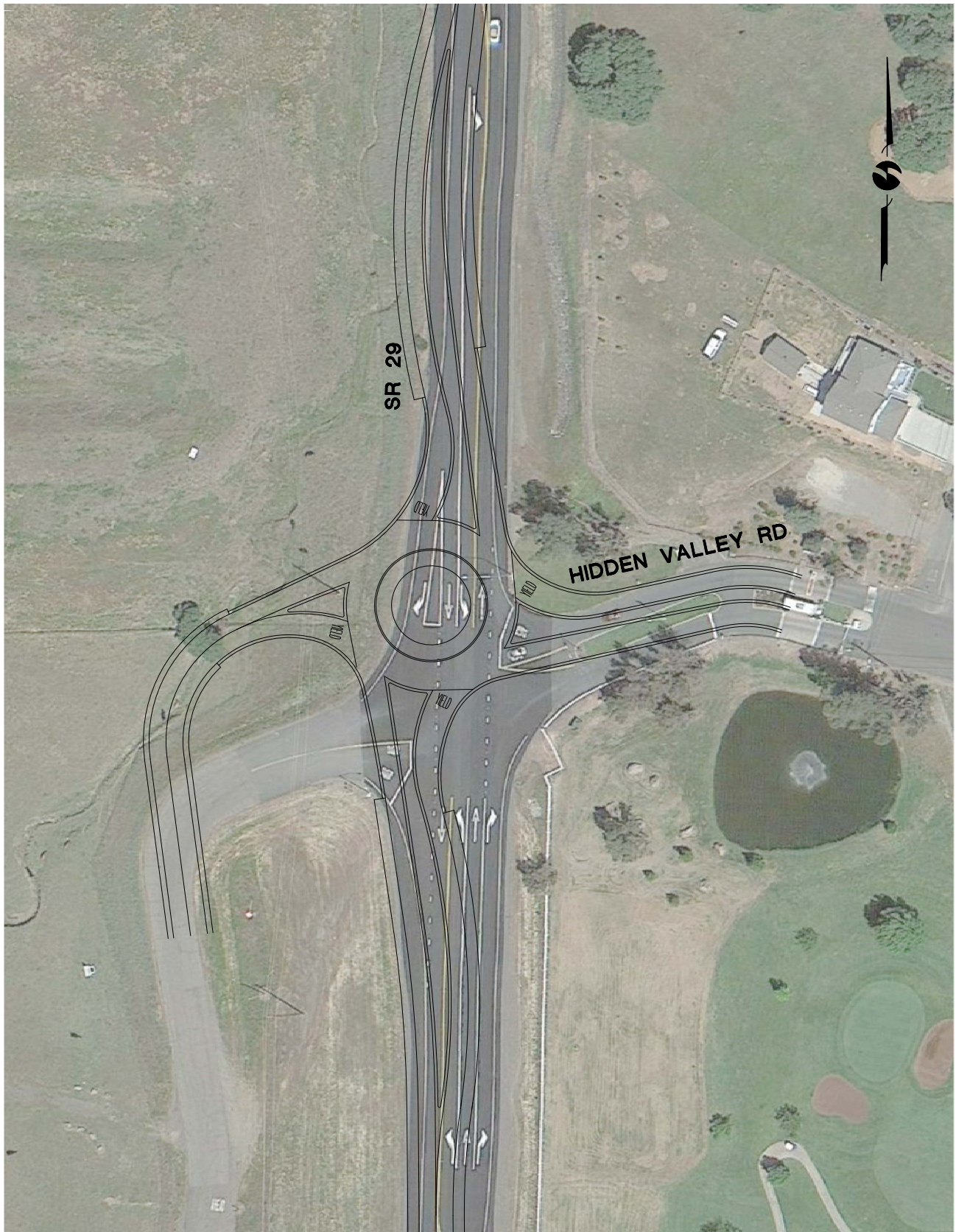


SR 29 South Corridor EFS - Future Improvement

FIGURE 22

## SR 29 & HIDDEN VALLEY RD



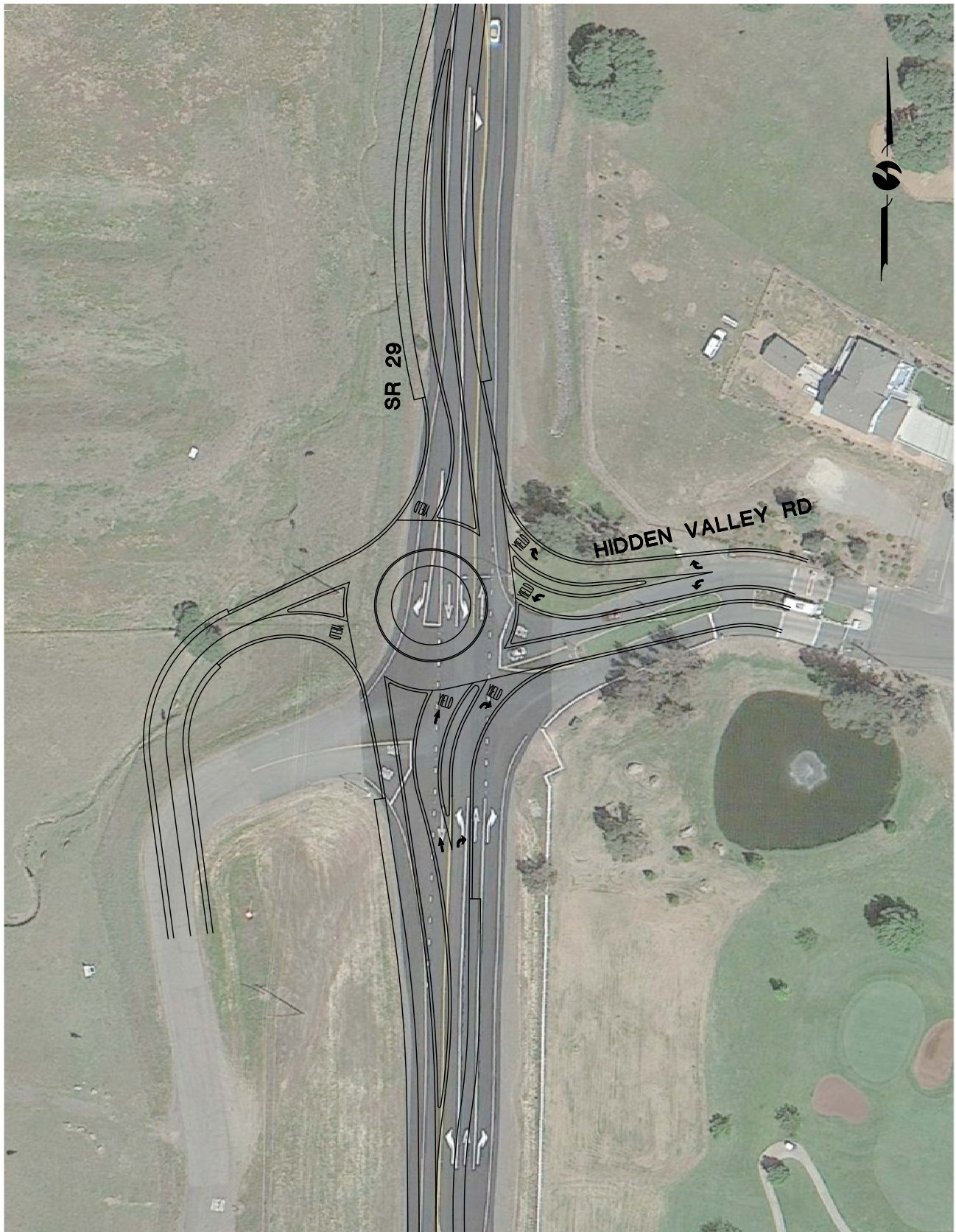


SR 29 CORRIDOR EFS - Future Improvements

FIGURE 23A

## SR 29 & HIDDEN VALLEY RD (PHASE I)





SR 29 CORRIDOR EFS - Future Improvements

FIGURE 23B

## SR 29 & HIDDEN VALLEY RD (PHASE II)



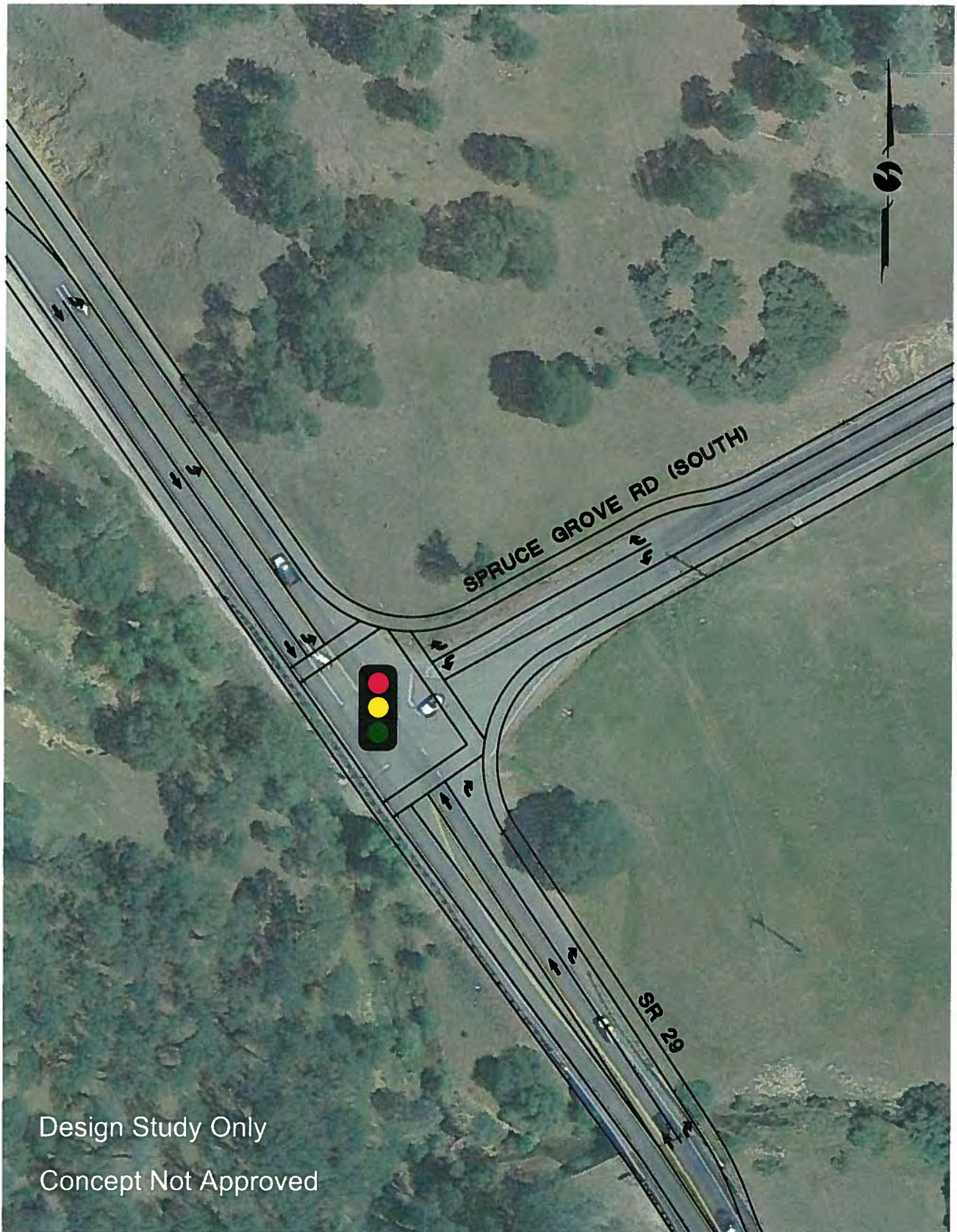


SR 29 CORRIDOR EFS - Future Improvements

FIGURE 24

## SR 29 & SPRUCE GROVE RD (SOUTH)





Design Study Only  
Concept Not Approved

SR 29 South Corridor EFS - Future Improvement

FIGURE 25

## SR 29 & SPRUCE GROVE RD (SOUTH)

### ***Various Locations***

- Bar X Entrance Road (PM 7.79)
- Lusuan Lane (PM 16.05)
- Agua Dulce Drive (PM 16.11)
- Private Driveway (PM 16.21)
- Private Driveway (PM 16.32)
- Private Driveway (PM 16.61)
- B Street (PM 17.48)

**Initial Improvements** - Additional intersection site distance at these locations would help to improve safety.

### **Estimated Construction Cost Range (in thousands)**

#### **Initial Improvements**

- Improve sight distance:
  - Bar X Entrance Road (PM 7.79) - West side looking south (cut-back slope): \$50 - \$70
  - Lusuan Lane (PM 16.05) - West side looking north & south (remove trees): \$5 - \$10
  - Agua Dulce Drive (PM 16.11) - West side looking north & south (remove trees): \$5 - \$10
  - Private Driveway (PM 16.21) - West and east side looking north & south (remove trees): \$5 - \$10
  - Private Driveway (PM 16.32) - West and east side looking north & south (remove trees): \$5 - \$10
  - Private Driveway (PM 16.61) - East side looking north (remove trees): \$5 - \$10
  - B Street (PM 17.48) - West and east side looking north & south (remove trees): \$5 - \$10

## **SEGMENT ENHANCEMENTS**

### ***PM 4.51 to 5.3 (Dry Creek to Lake Street)***

**Initial Improvements** - Existing accident history along this segment supports the installation of traffic improvements to improve existing conditions. Installation of radar feedback signs would help reduce driver speeds along this segment of highway.

**Future Improvements** - As traffic volumes increase over time the intersections of CJS Supply Driveway (PM 4.78) and Middletown Adventist School Driveway (PM 4.91) should be considered for turning lanes to maintain safe operations. Additional safety enhancement alternatives include widening of paved shoulders.

### **Estimated Construction Cost Range (in thousands)**

#### Initial Improvements

- Radar feedback signs: \$91

#### Future Improvements

- Turn lanes at CJS Supply Driveway (PM 4.78) : \$1,820
- Turn lanes at Middletown Adventist School Driveway (PM 4.91): \$1,170
- Shoulder widening: \$2,080

### ***PM 6.01 to 6.5 (Wardlaw to Butts Canyon)***

**Initial Improvements** - Existing accident history along this segment supports the installation of traffic improvements to improve existing conditions. Installation of radar feedback signs would help reduce driver speeds along this segment of highway.

**Future Improvements** - As traffic volumes increase over time widening of the roadway to include a center two-way left-turn lane should be considered. Additional safety enhancement alternatives include widening of paved shoulders.

### **Estimated Construction Cost Range (in thousands)**

#### Initial Improvements

- Radar feedback signs: \$91

#### Future Improvements

- Center left-turn lane : \$1,170
- Shoulder widening: \$1,300

### ***PM 6.5 to 7.5 (Butts Canyon Road to Bar X Entrance Road)***

**Initial Improvements** - Existing accident history along this segment supports the installation of traffic improvements to improve existing conditions. Installation of radar feedback signs would help reduce driver speeds along this segment of highway.

**Future Improvements** - As traffic volumes increase over time widening of the paved shoulders should be considered.

### **Estimated Construction Cost Range (in thousands)**

#### Initial Improvements

- Radar feedback signs (2): \$130

#### Future Improvements

- Shoulder widening from Butts Canyon Road to St. Helena Drive: \$2,470



***PM 6.20 to 9.70 (Grange Road to Guenoc Road)***

**Initial Improvements** - Installation of shoulders and a median along this segment is currently being initiated by Caltrans to enhance roadway safety conditions.

**Estimated Construction Cost Range (in thousands)**

*Initial Improvements*

- Shoulder widening and median: \$2,210

***PM 11.1 (North of Hidden Valley Road)***

**Initial Improvements** - Existing accident history along this segment supports the installation of traffic improvements to improve existing conditions. Installation of radar feedback signs would help reduce driver speeds along this segment of highway.

**Estimated Construction Cost Range (in thousands)**

*Initial Improvements*

- Radar feedback signs: \$91

***PM 12.80 to 14.35 (North of Spruce Grove Road (south))***

**Initial Improvements** - Existing accident history along this segment supports the installation of traffic improvements to improve existing conditions. Installation of shoulders and radar feedback signs along this segment will help to improve safety.

**Estimated Construction Cost Range (in thousands)**

*Initial Improvements*

- Shoulder widening: \$8,060
- Radar feedback signs: \$91

***PM 19.30 to 20.30 (North of Spruce Grove Road (north))***

**Initial Improvements** - Installation of a northbound truck climbing lane along this segment is currently being initiated by Caltrans to enhance roadway safety conditions.

**Estimated Construction Cost Range (in thousands)**

*Initial Improvements*

- Truck climbing lanes: \$10,790

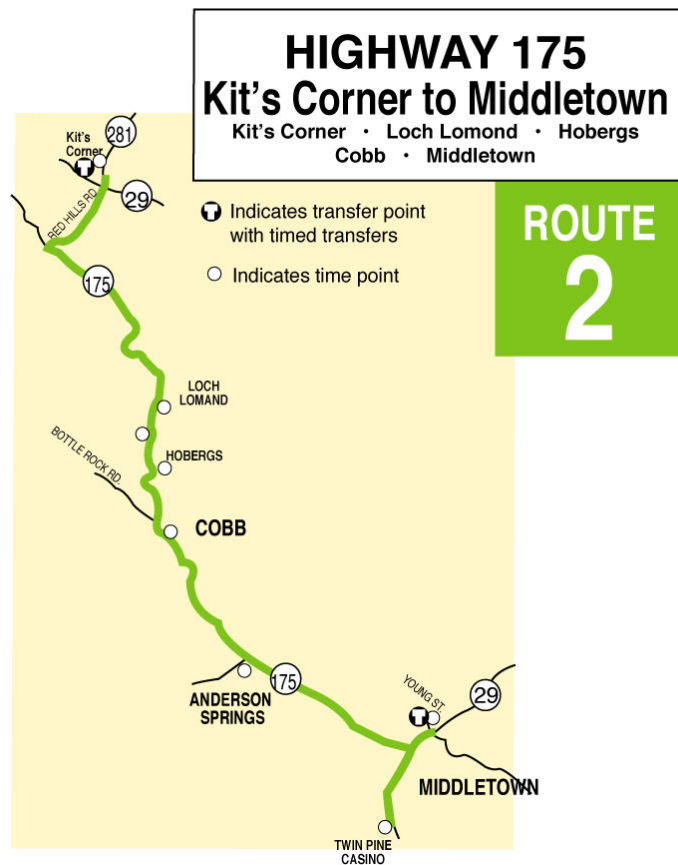
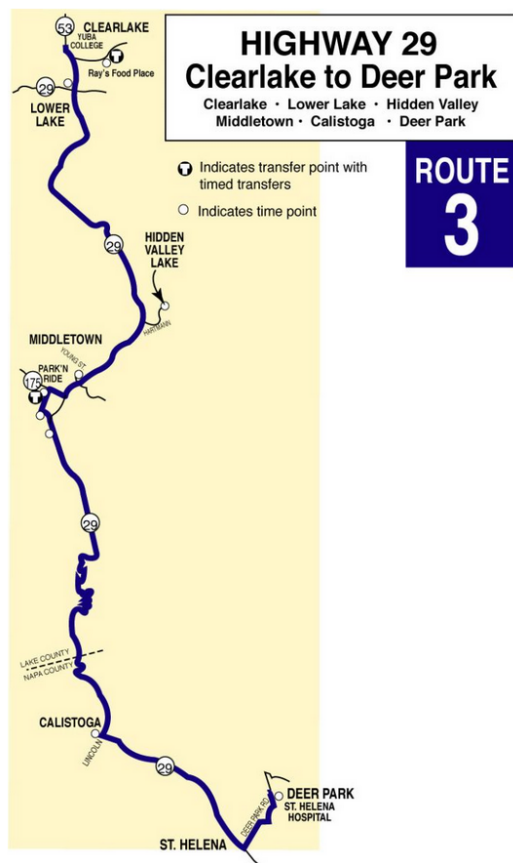
## NON-MOTORIZED ENHANCEMENTS

### *Transit Facilities*

Lake Transit provides two separate transit routes within the study corridor. Route 3 (illustrated on the following page) provides daily bus service between Ray's Foods and St. Helena Hospital expect on Sundays. Route 2 provides weekday (Monday through Friday) service between Kit's Corner and Twin Pines Casino.

Lake Regional Transit is working with the Social Services Transportation Advisory Council (SSTAC) to ensure adequate bus facilities are provided to the new Senior Center in Middletown. These services may include a parking loading space and new transit stop. The preferred location for the transit stop is on Douglas Street east of SR 29, just west of the Senior Center.

A new transit stop at Douglas Street would require a section of curb, gutter and sidewalk between the location of the new stop and the Senior Center. These facilities would be required to provide adequate access to/from the stop location. The fixed route bus routes that would service this location include buses from Hidden Valley, Cobb Mountain, and housing areas along SR 29 south of Middletown.



## Route 3 Schedule

Southbound - CLEARLAKE - HIDDEN VALLEY - MIDDLETOWN - DEER PARK						
Clearlake	Lower Lake	Hidden Valley Lake	Middletown		Calistoga	Deer Park
Ray's Food Place / Walmart	Hwy 53 & Hwy 29	Hartmann & Hidden Valley Rd	Hwy 29 & Young St	Twin Pine Casino	Lincoln Ave Bridge	St Helena Hospital
6:10	6:14	6:29	6:39	6:44	7:14	--
7:55	7:59	8:14	8:21	8:30	9:00	9:20
10:00	10:04	10:19	10:26	To Route 2 ---->		
12:45	12:49	1:04	1:11	1:20	1:50	2:10
4:45	4:49	5:04	5:11	5:16	5:45	--

Northbound - DEER PARK - MIDDLETOWN - HIDDEN VALLEY - CLEARLAKE						
Deer Park	Calistoga	Middletown		Hidden Valley Lake	Lower Lake	Clearlake
St Helena Hospital	Lincoln Ave Bridge	Twin Pine Casino	Hwy 29 & Young St	Hartmann & Hidden Valley Rd	Hwy 53 & Hwy 29	Ray's Food Place / Walmart
--	7:25	7:55	8:00	8:10	8:25	8:29
9:30	9:50	10:15	10:21	10:36	10:51	10:55
From Route 2 ---->			12:19	12:29	12:44	12:48
2:20	2:40	3:05	3:20	3:30	3:45	3:49
--	5:50	6:20	6:25	6:35	6:50	6:54
From Route 2 ---->			6:52	7:02	7:17	7:21

## Route 2 Schedule

Southbound - KIT'S CORNER TO MIDDLETOWN						
Soda Bay Road	Mountain Resorts				Middletown	
Kit's Corner	Loch Lomond	Hobergs	Cobb - Hardeste's Market	Hwy 175 & Anderson Springs Rd	Twin Pine Casino	Hwy 29 & Young St
7:40	7:53	7:56	8:00	8:08	8:22	8:26
11:35	11:46	11:49	11:53	12:01	12:15	12:19
2:35	2:46	2:49	2:55	3:03	3:17	3:20
6:03	6:14	6:17	6:21	6:29	6:43	6:47

Northbound - MIDDLETOWN TO KIT'S CORNER						
Middletown	Mountain Resorts				Soda Bay Road	
Hwy 29 & Young St	Hwy 175 & Anderson Springs Rd	Cobb - Hardeste's Market	Hobergs	Loch Lomond	Kit's Corner	
6:45	6:51	7:00	7:03	7:06	7:20	
8:26	8:35	8:44	8:47	8:50	9:04	
10:26	10:35	10:44	10:47	10:50	11:08	
3:36	3:45	3:54	3:57	4:00	4:15	

## Middletown to Hidden Valley

**Future Improvements** - The communities of Middletown and Hidden Valley have expressed a desire for additional bike facilities between these two communities. Two alternative non-motorized enhancements have been studied to provide these services. Widening of the paved shoulders on SR 29 from Butts Canyon Road (PM 6.37) to Hartmann Road (PM 9.86) would provide additional width for bicycles along the highway. Alternatively an off-highway multi-use path along the east side of SR 29 from Butts Canyon Road to Hartmann Road has been studied. Based upon existing topographic constraints these improvements are considered infeasible.

## Middletown Community

The study also reviewed transportation safety and operational enhancements within the community of Middletown. Enhancements within the community are consistent with recommendations made by the Middletown Area Town Hall (MATH). These include multi-modal connections and gateway treatments to increase a driver's sense of arrival when their vehicle enters the community. The purpose of heightening a driver's awareness of the community is to influence driving behavior. Ideally, these improvements would lead to reduced speeds and increased safety and accessibility. Enhancements within the Middletown Community area will be incorporated into the Middletown Community Action Plan (MCAP). This document is being prepared concurrently with the EFS to ensure consistency between the corridor enhancements contained in both documents. The MCAP also provides improvements concepts and transportation policies to guide the development of the County roadway system with interconnections to the State highway system.



**Initial Improvements** - A complementary off-highway multi-use path is recommended along the west side of SR 29 from Rancheria Road to the extension of Pine Street. This alignment would allow a connection with the on highway bike lanes and sidewalks extending from Douglas Street to Lake Street.

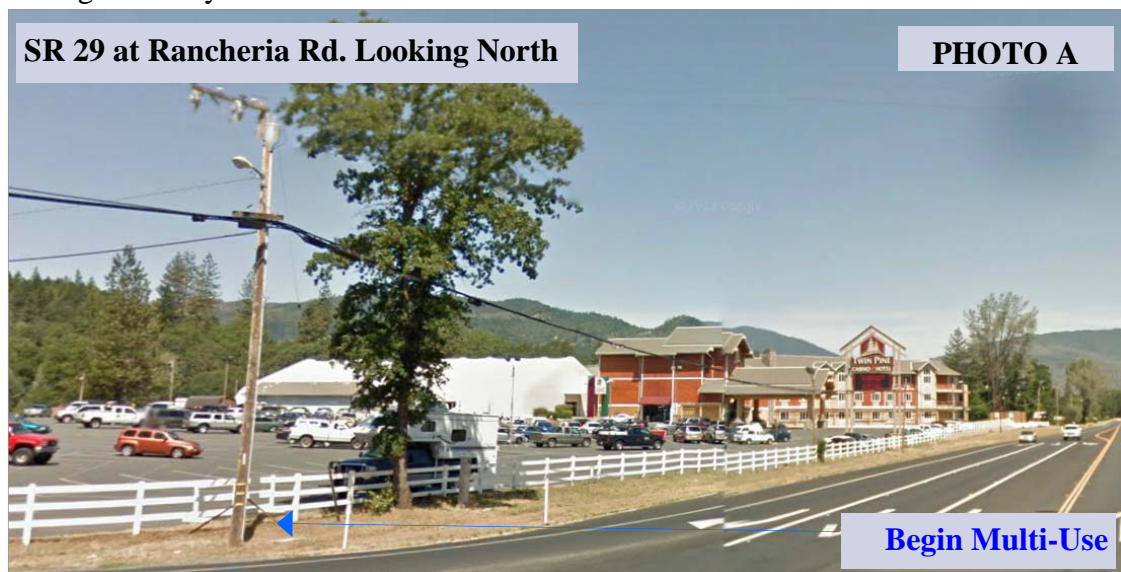
**Future Improvements** - The community of Middletown has expressed a desire for additional pedestrian and bike facilities within downtown Middletown and connections with the Rancheria. An extension of existing sidewalks, on-street parking and bike lanes should be considered from Douglas Street south to Lake Street. Figures 26 through 32 illustrate design concepts for improvements through the Middletown area.

## PEDESTRIAN AND BICYCLE IMPROVEMENTS

Pedestrian improvements within the Middletown area consist primarily of shoulder widening along SR 29, sidewalk facilities through Middletown and a Class I bikeway with equestrian trail from Rancheria Road to Pine Street extension. As contained in the previous section, shoulder widening on SR 29 is proposed from Dry Creek Cut-Off to Lake Street. These improvements will provide additional area for both pedestrians and bicyclists to travel within this area of the Middletown community.

In addition to shoulder widening within the Middletown area, the plan also includes a Class I bikeway and equestrian trail from Rancheria Road to the extension of Pine Street. This facility would consist of a 10 foot paved trail for use by both pedestrian and bicyclists and a separate equestrian trail. Equestrian trails adjacent and parallel to paved Class I bikeway should be designed with sufficient off-set and with a meandering alignment. Several locations along this alignment will require the installation of wooden post fences to divide the two trail facilities along locations where the State right-of-way narrows.

Photo A through I on the following pages show the location of the Class I bikeway and multi-use trail, along with an example of a similar facility also located in California. Later in this chapter Figures 26 through 32 contain illustrations of where the multi-use trail would be located within the southern area from an overhead aerial perspective and provides the approximate location of the State right-of-way.



**Dry Creek Cut-Off at SR 29 Looking South**

**PHOTO B**



**Multi-Use Trail with Crosswalk on Dry Creek Cut-Off**

**SR 29 at End of Pine St. Looking North**

**PHOTO C**



**Multi-Use Trail with Connection to Pine**

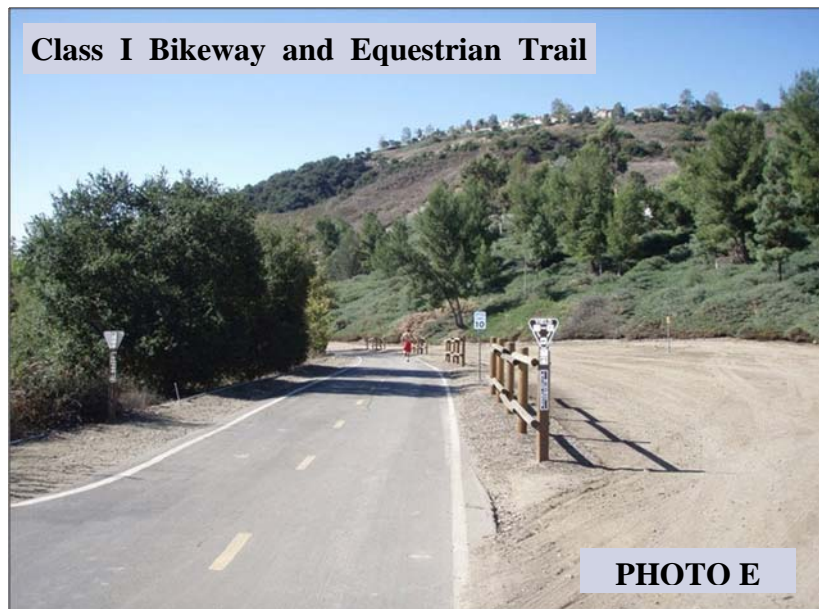


**SR 29 at CJS Ranch Supply Dr. Looking North**

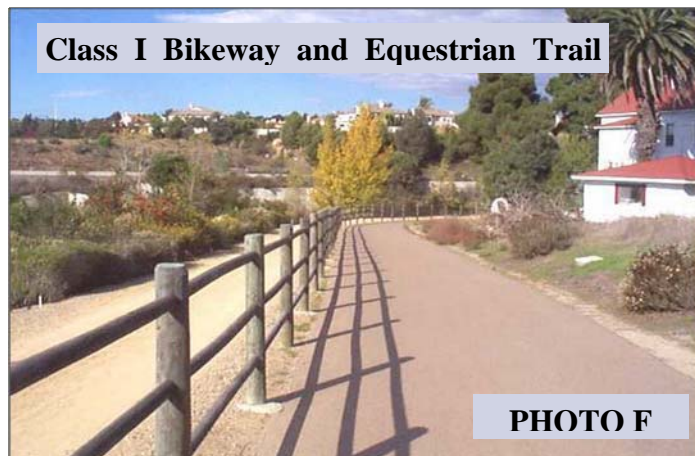
**PHOTO D**



**Class I Bikeway and Equestrian Trail**



**Class I Bikeway and Equestrian Trail**





The shoulder widening and multi-use trails helps to create a connection of walkable and bike friendly areas between the southern Middletown area and the downtown. The plan provides the ability to walk or bike between the Rancheria and downtown Middletown. This plan provides the ability for visitors at either the Rancheria or downtown commercial area to easily walk, bike or ride a horse between destinations.

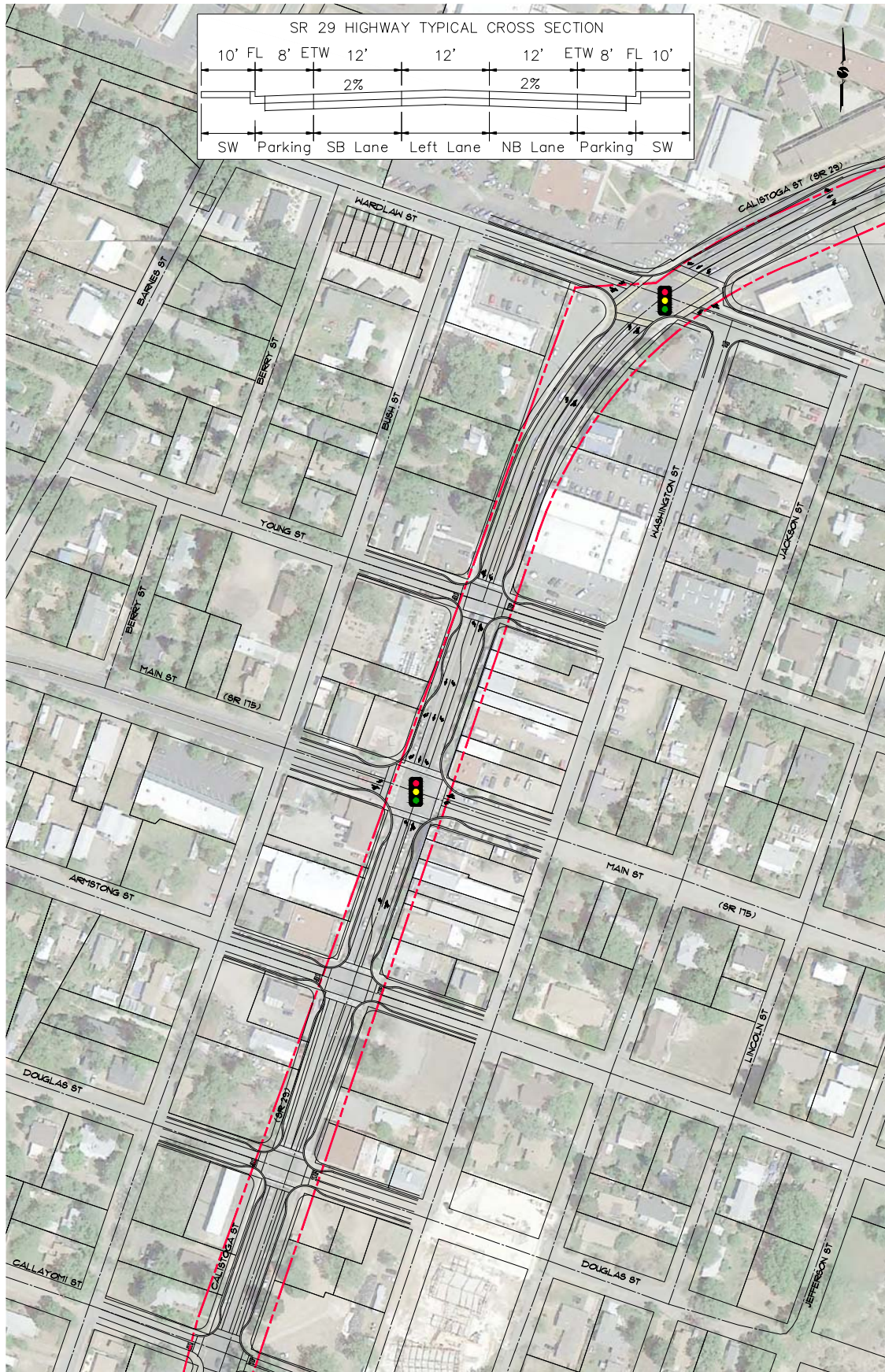
Additional pedestrian improvements within the downtown Middletown community that would improve pedestrian visibility and shorter crosswalk widths could be achieved by installing sidewalk bulbouts and decorative crosswalks at the following streets within the downtown:

- Callayomi Street
- Douglas Street
- Armstrong Street
- Young Street

These facilities are recommended improve pedestrian safety within the downtown Middletown area, by shortening the crossing time on SR 29 and providing improvement visibility to both the pedestrian crossing the roadway and drivers traveling on SR 29.

Additional pedestrian facilities along the west side of SR 29 from Wardlaw Street to Bible Church Driveway are recommended to provide a safe path of travel for students. These enhancements would provide a safe route to school between downtown Middletown and the Bible Church located on the west side of SR 29 approximately 1,800 feet north of Wardlaw Street.

Figures 26 through 32 provide conceptual design study exhibits for potential enhancements within the Middletown Community. These figures include corridor enhancement concepts for safety, congestion, and non-motorized improvements. Within the segment of SR 29 from Wardlaw Street to Douglas Street two alternative roadway striping concepts have been included as illustrated on Figures 26 and 27.

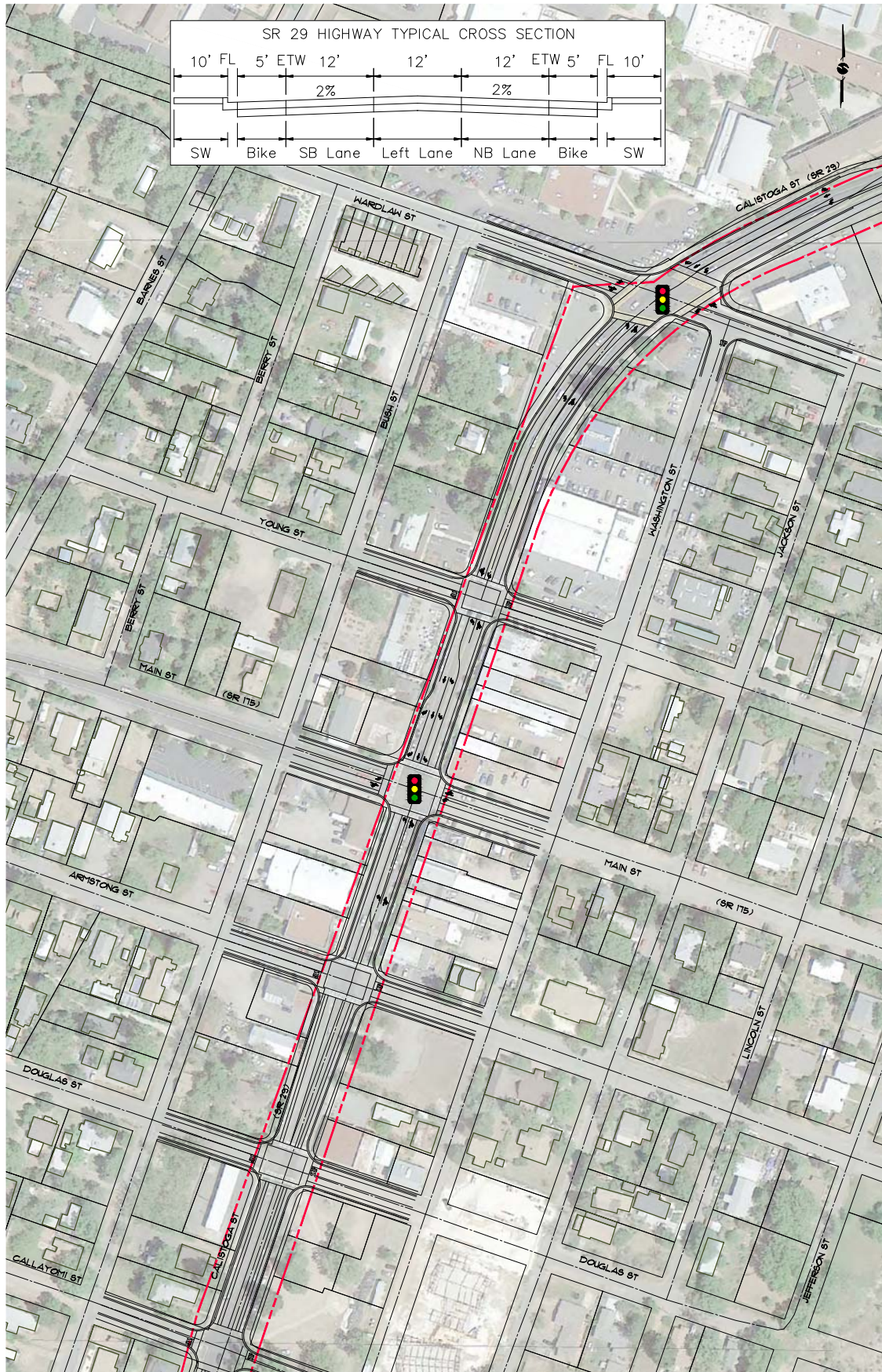


SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 26 SCALE: 1" = 150'

**CALLAYOMI ST TO WARDLAW ST (STREET PARKING ALT)**



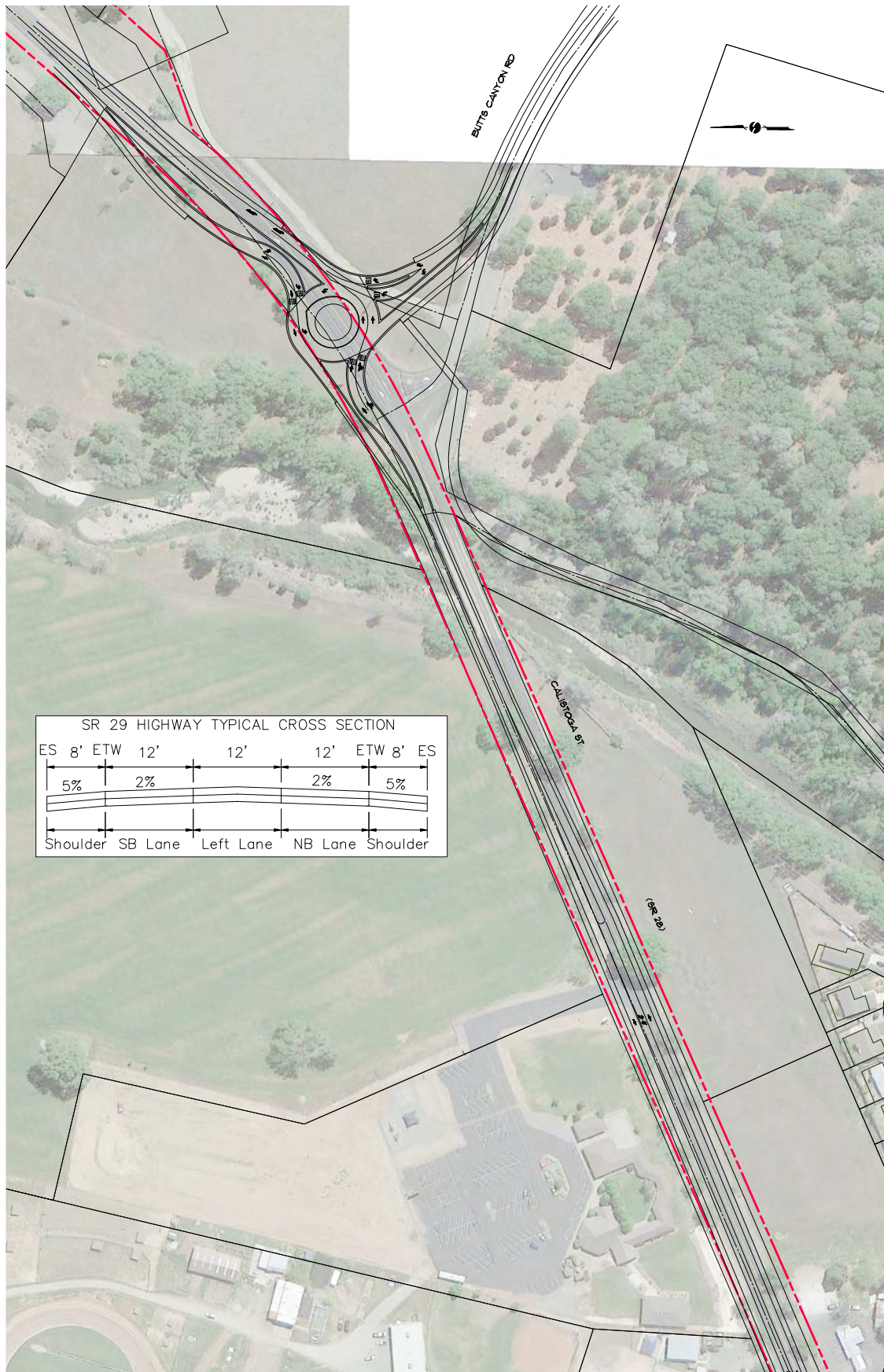


SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 27 SCALE: 1" = 150'

## CALLAYOMI ST TO WARDLAW ST (BIKE LANE ALT)





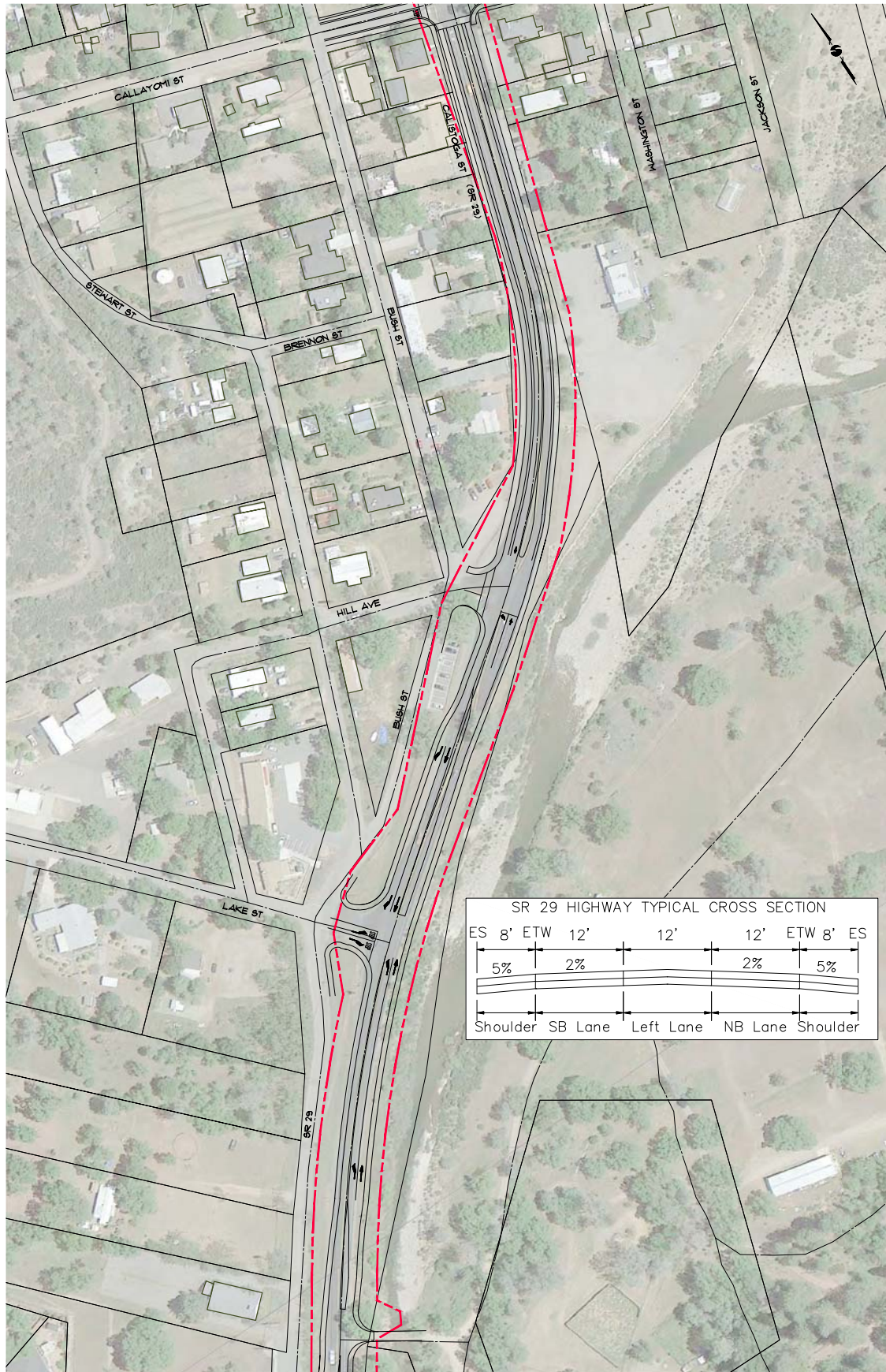
SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 28

SCALE: 1" = 150'

WARDLAW ST TO BUTTS CANYON RD



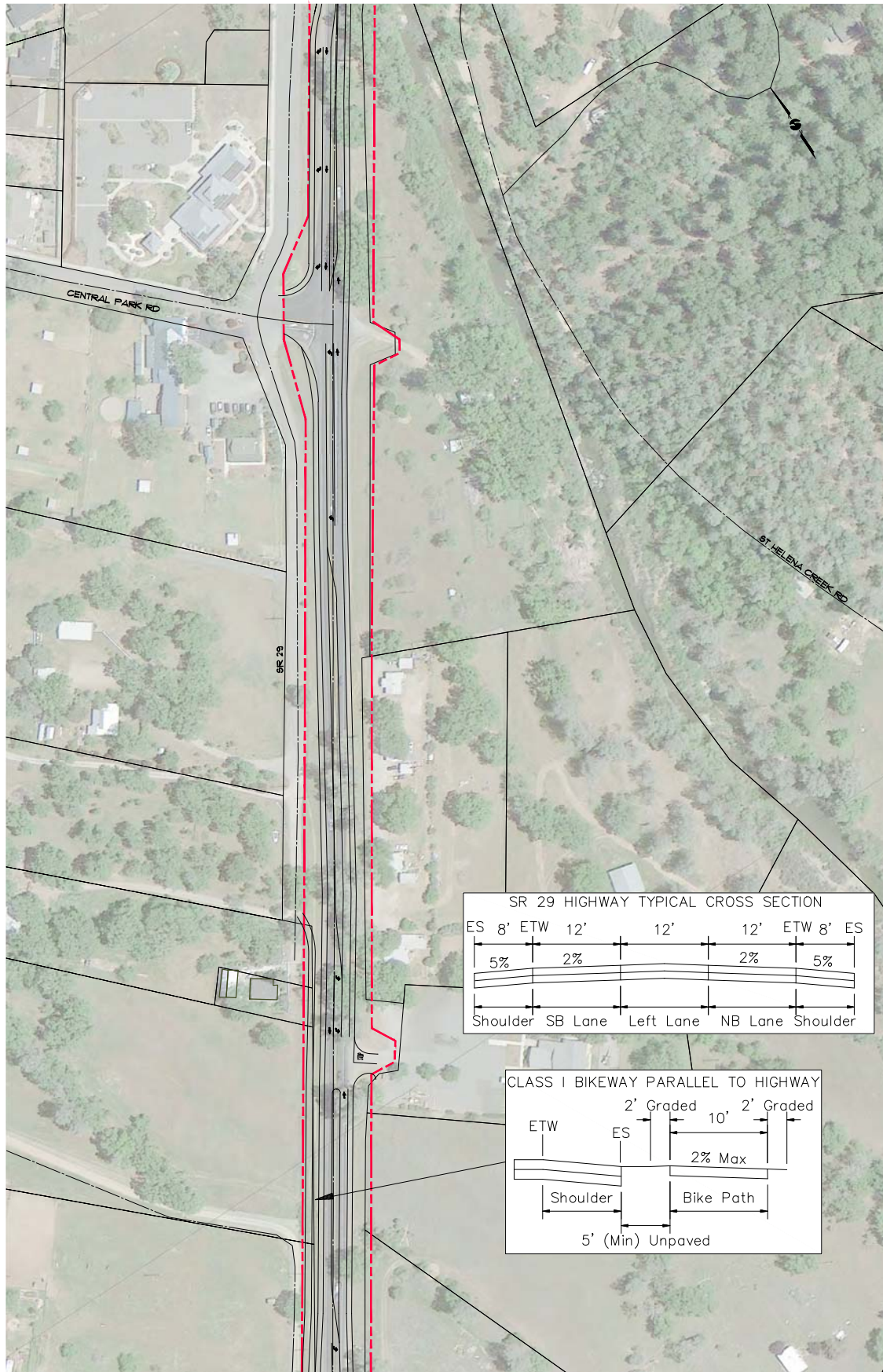


SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 29 SCALE: 1" = 150'

CENTRAL PARK RD TO CALLAYOMI ST





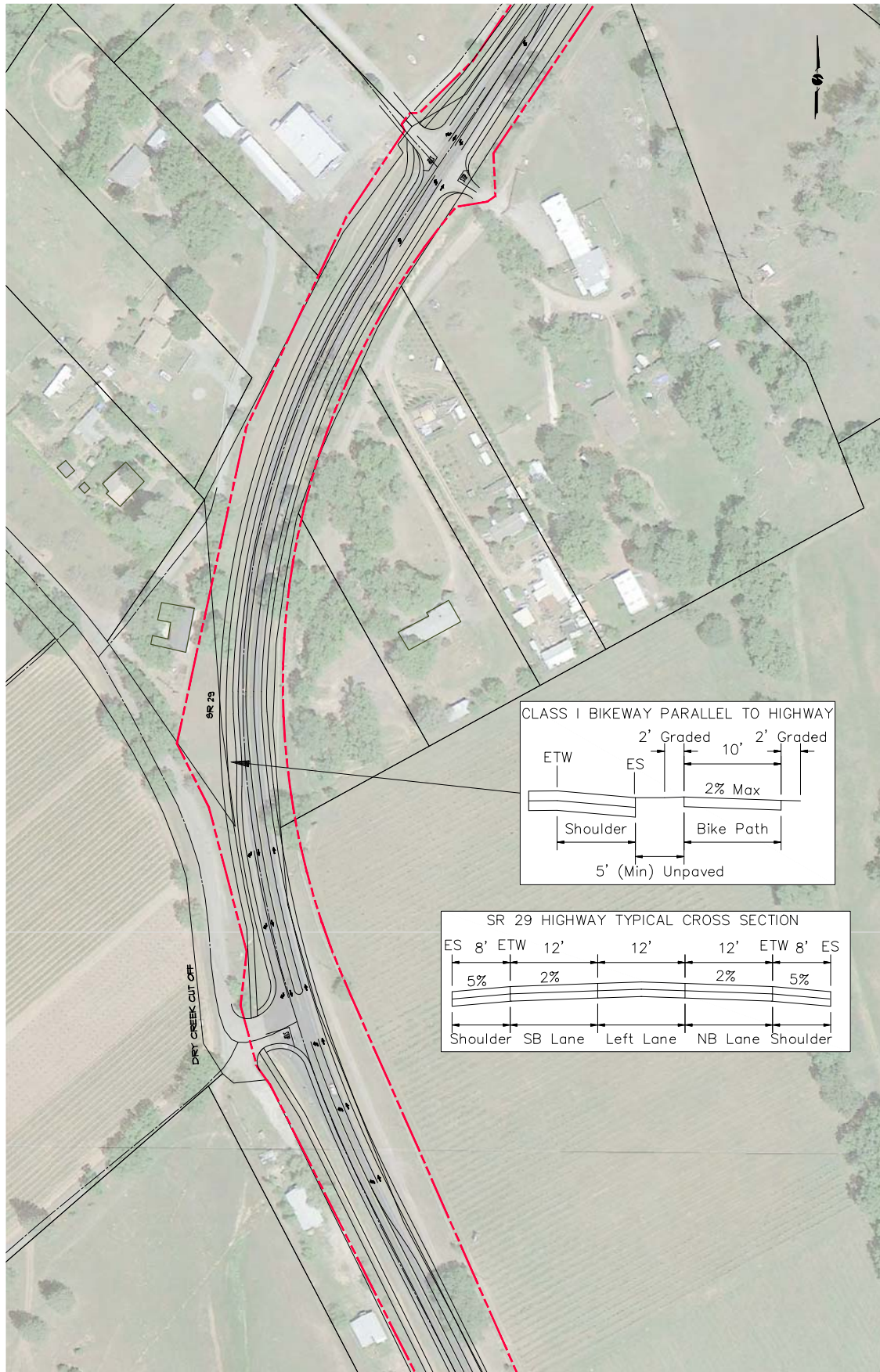
SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 30

SCALE: 1" = 150'

DRIVEWAY TO CENTRAL PARK RD



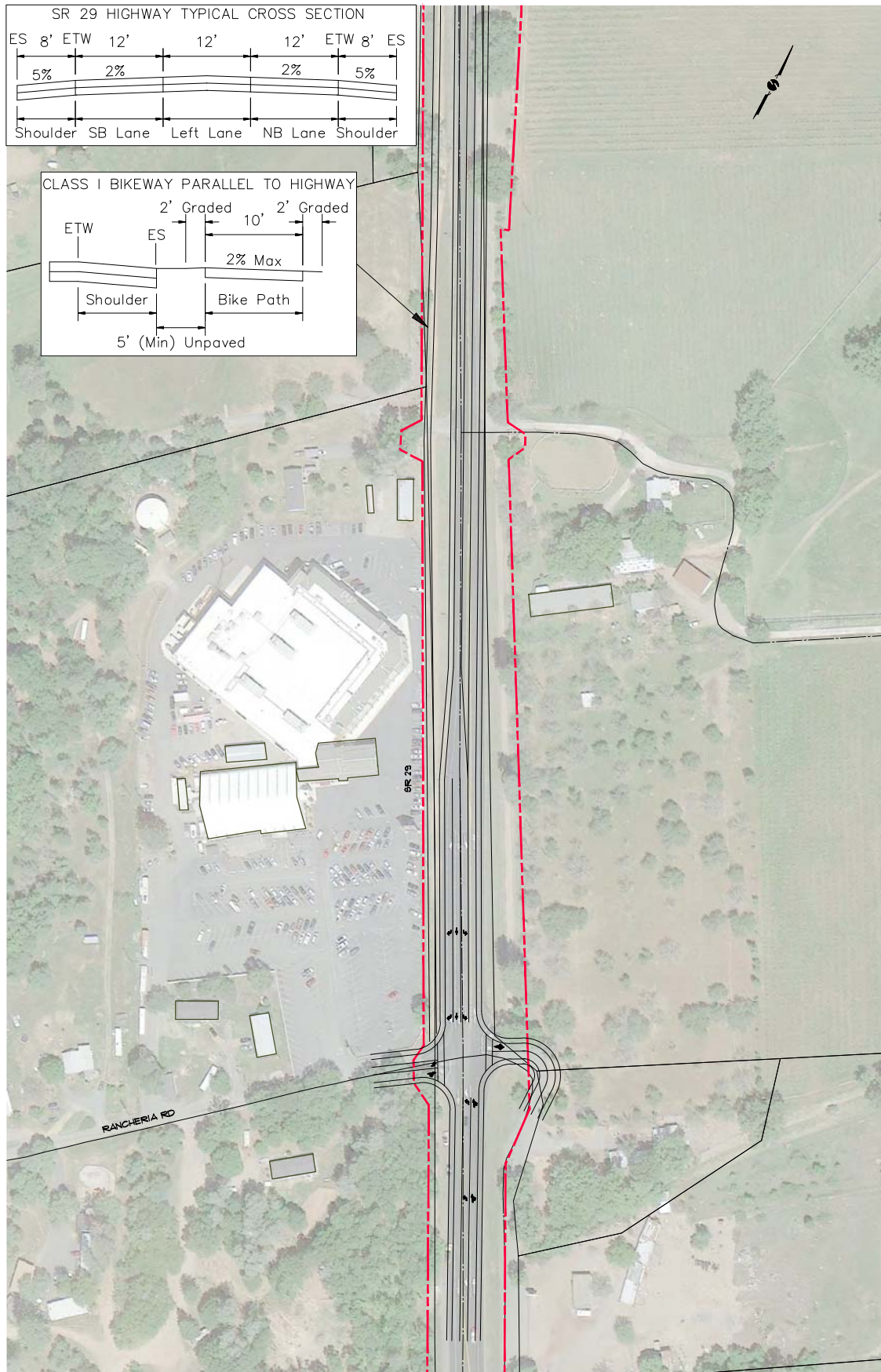
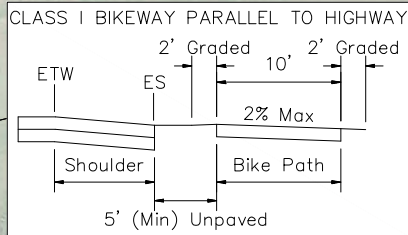
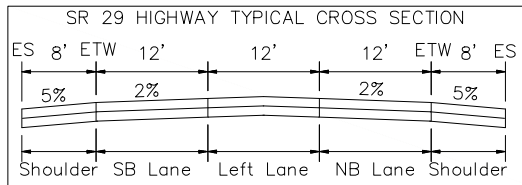


SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 31

SCALE: 1" = 150'

DRY CREEK CUT OFF TO DRIVEWAY



SR 29 ENGINEERED FEASIBILITY STUDY

FIGURE 32

SCALE: 1" = 150'

## RANCHERIA RD TO DRY CREEK CUT OFF



This segment of highway is contained by existing buildings along both the west and east side of the highway. These constraints will allow sufficient roadway width for striping of dedicated left-turn lanes along with either on-street parking facilities or bike lanes. Both on-street parking and bike lanes are not feasible within this section of highway. Figure 26 illustrates a roadway striping concept that maintains on-street parking and eliminates the existing bike lanes. Figure 27 illustrates a roadway striping concept that eliminates the existing on-street parking and maintains the existing bike lanes.

### **Estimated Construction Cost Range (in thousands)**

#### *Future Improvements*

- Sidewalk, on-street parking and bike lanes (PM 5.37 - 5.69) : \$2,340
- Class I Bikepath - Rancheria Road to Pine Street: \$2,080
- Sidewalk bulbouts and decorative crosswalks (PM 5.64, 5.69, 5.74, & 5.84): \$650
- Sidewalk (PM 5.94 - 6.28 west side only): \$780

### **CORRIDOR IMPROVEMENTS CONSIDERED (NOT CONSIDERED FEASIBLE)**

Various alternative alignment concepts were reviewed within the Middletown Community area, as follows:

- By-pass route along west side of Middletown
- By-pass route along east side of Middletown
- One-way couplet on west side of SR 29
- One-way couplet on east side of SR 29

A detailed engineering comparison analysis (ASDM) was completed to determine if these potential alignments were cost effective and feasible. Based upon the excessive cost and environmental impacts associated with these potential corridor enhancements they were not recommended.

## **X. FUNDING OPTIONS**

Obtaining funding for the transportation improvements contained within the EFS is a complex, and involved process. There are many different funding mechanisms available, including federal, state, and local sources. Projects may require multiple-year funding commitments, from multiple funding sources. Each funding source has specific eligibility and application processes. Developing project funding through construction, Caltrans and local agencies will need to create comprehensive funding packages based upon a wide array of programs and funds. Funding the transportation projects in a rural area such as Middletown is an even greater challenge because many funding programs are based on population. Funding projects through non-traditional sources will require creative, innovative thinking.

This section provides a listing of available funding sources, a brief description of each source, and the process for obtaining the funds. Some funding sources are designed for planning and preliminary engineering level studies while other sources are intended for design and construction of improvements.

The following is excerpted from the Lake County 2010 Regional Transportation Plan (RTP) - State Highway Element, and provides an overview of funding levels for all State highway facilities within



Lake County. A portion of these funds are potentially available for enhancements contained in the EFS.

## **STATE FUNDING PROGRAMS**

Funding for transportation projects on the state highway system comes from a number of sources and is managed primarily by Caltrans, with some involvement by the Lake APC. Opportunities to increase and leverage funding need to be actively pursued at the Federal, State and local level. Increasingly, local and regional agencies have been developing transportation sales tax programs, transportation impact fee programs, and other approaches to generating funds for transportation projects.

In 2008 the Countywide Regional Transportation Impact Fee Program Report was completed. This report provides the foundation to develop a regional transportation impact fee program. To implement the program, the three jurisdictions, County of Lake, City of Lakeport and the City of Clearlake in coordination with the Lake APC would need to enter into an agreement that stipulates the fee levels, how fees would be collected, and the process for identifying and funding eligible projects. At the time of the update of the Regional Transportation Plan the Transportation Impact Fee Program is still in the development stages. The County of Lake does not have an established transportation sales tax, and past attempts to establish a transportation sales tax have failed. The City of Lakeport approved a half cent sales tax increase to generate funding for a variety of programs and projects, including transportation projects. This funding source is further discussed in the Backbone Circulation and Local Roads Element.

### ***Regional Improvement Program (RIP) for STIP Programming and Interregional Transportation Improvement Program (ITIP)***

The State Transportation Improvement Program (STIP) is the main source of transportation related funding within the Lake County region. At the State level, these funds are divided into two programs: (1) the Regional Improvement Program (RIP) funded from a local share of the 75% of State Highway Account (SHA) funds set aside for regional transportation agency programming, and the Interregional Improvement Program (IIP), funded from the remaining 25% available for State programming. The Lake County/City Area Planning Council (APC), as the Regional Transportation Planning Agency (RTPA) has authority to decide how to program the Lake County region's share of RIP funds, subject to STIP eligibility guidelines. To be eligible, projects must be nominated by the regional agency in their Regional Transportation Improvement Program (RTIP). Caltrans has the authority to program the Interregional Transportation Improvement Funds. Similar to the RTIP, Caltrans must nominate projects within the Interregional Transportation Improvement Program (ITIP). Projects in the ITIP are consistent with projects in the 2010 RTP.

STIP funds are primarily intended for capital projects. Eligible projects include constructing and widening state highways, local roads, public transit (including buses), pedestrian and bicycle facilities, grade separations, intermodal facilities, and safety projects. While these funds may also be used for local road rehabilitation, the California Transportation Commission (CTC), which has authority over the STIP, has not supported the programming of STIP funds for road rehabilitation projects in recent STIP cycles.

### ***State Highway Operations and Protection Program (SHOPP)***

The State Highway Operating and Protection Plan (SHOPP) is a four-year program of projects that have the purpose of collision reduction, major damage restoration, bridge preservation, roadway preservation, roadside preservation, mobility enhancement and preservation of other transportation facilities related to the state highway system. Non-capital projects are programmed through the SHOPP. The SHOPP is adopted simultaneously with the STIP every two years. While the Lake APC is allowed input to the SHOPP, the State has sole discretionary authority over the use of SHOPP funds.

The SHOPP program includes projects designed to maintain the safety and operational integrity of the state highway system. Most of the projects are for pavement rehabilitation, bridge rehabilitation, and traffic safety improvements. Other projects may include such things as operational improvements (e.g. traffic signalization) and roadside rest areas. It does not include projects to add through lanes to increase capacity.

### ***Public Lands Highways Fund (PLH)***

The Public Lands Highways Program provides funding for transportation projects that are on designated “Forest Highway Routes” that are adjacent to, or provide access to the areas served by federal public lands highways. Two main programs; one competes nationally and are awarded by a “Tri Agency” group composed of Caltrans USDA Forest Service and FHWA. The second program, funds are earmarked for California where projects are selected by Caltrans

### ***Environmental Justice Context-Sensitive Planning***

This program funds projects that promote community involvement in planning to improve mobility, access, and safety while promoting economic opportunity, equity, environmental protection, and affordable housing for low-income, minority, and Native American communities. Proposed projects should have a clear focus on transportation and community development issues that address the interests of low-income, minority, Native American, and other under-represented communities. The following agencies may apply directly:

- Metropolitan Planning Organizations and Regional Transportation Planning
- Agencies
- Cities and Counties
- Transit Agencies
- Native American Tribal Governments

The following agencies may apply only as a sub-recipient:

- Universities and Community Colleges
- Community-Based Organizations
- Non-Profit Organizations (501.C.3)
- Public Entities

### ***Community Based Transportation Planning***

This program funds coordinated transportation and land use planning that promotes public engagement, livable communities, and a sustainable transportation system which includes mobility, access, and safety. Proposed projects should have a clear focus on the coordination of transportation and land use planning. Eligible projects include those that improve mobility, access, and safety and promote sustainable and livable communities.

The following agencies may apply directly:

- Metropolitan Planning Organizations and Regional
- Transportation Planning
- Agencies
- Cities and Counties
- Transit Agencies
- Native American Tribal Governments

The following agencies may apply only as a sub-recipient:

- Universities and Community Colleges
- Community-Based Organizations
- Non-Profit Organizations (501.C.3)
- Public Entities



## **FEDERAL FUNDING PROGRAMS**

### ***The Transportation Alternatives Program (TAP)***

The Transportation Alternatives Program (TAP) was authorized under Section 1122 of Moving Ahead for Progress in the 21st Century Act (MAP-21) and is codified a 23 U.S.C. sections 213(b), and 101(a)(29). Section 1122 provides for the reservation of funds apportioned to a State under section 104(b) of title 23 to carry out the TAP. The national total reserved for the TAP is equal to 2 percent of the total amount authorized from the Highway Account of the Highway Trust Fund for Federal-aid highways each fiscal year. (23 U.S.C. 213(a))

The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

### ***California Active Transportation Program (ATP)***

On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. The ATP administered by the Division of Local Assistance, Office of Active Transportation and Special Programs.

The purpose of ATP is to encourage increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking,
- Increase safety and mobility for non-motorized users,
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction goals,
- Enhance public health,
- Ensure that disadvantaged communities fully share in the benefits of the program, and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

The Active Transportation Program will be divided as follows: 40% distributed on a population basis to and administered by Metropolitan Planning Organizations (MPOs); 10% administered by the state to small urban and rural regions on a competitive basis; and 50% administered by the state on a competitive basis open to eligible applicants statewide.

Under MAP 21 the Safe Routes to School (SRTS) program was eliminated, however similar type projects would be funded by the new Active Transportation Program (ATP) discussed above. The SRTS program was intended to increase the number of children in grades K-8 who walk or bicycle to school by removing barriers that currently prevent these activities. Barriers in the old program included lack of infrastructure, inadequate infrastructure that poses safety hazards, and lack of out-reach programs

that promote walking/bicycling through education and encouragement for children, parents, and the community. Eligible projects fell under the category of infrastructure (capital improvements) or non-infrastructure (education, encouragement, enforcement). Under the old SRTS program infrastructure projects must be located within a two mile radius of a grade school or middle school. The new guidelines for similar type projects will be created within the ATP in the coming months.

### ***Partnership Planning for Sustainable Communities***

This program funds transportation planning studies of multi-regional and statewide significance in partnership with Caltrans, including:

- Studies that identify regional, inter-county, and/or statewide mobility and access needs
- Corridor studies and corridor preservation studies
- Projects that evaluate transportation issues involving ground access to international borders, sea- ports, airports, intermodal facilities, freight hubs, and recreational sites
- Studies that lead to SB 375 Sustainable Communities Strategies implementation

The Middletown Community Action Plan (MCAP) was funding through this program.

Regional transportation planning agencies can apply for this program. The following may apply only as a sub-recipient:

- Universities and Community Colleges
- Native American Tribal Governments
- Cities and Counties
- Community-Based Organizations
- Non-Profit Organizations (501.C.3)
- Public Entities

This program funds projects that:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility of people and freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system

### ***Transit Planning for Rural Communities***

This program funds public transportation planning studies in rural or small urban areas of California (transit service area with population of 100,000 or less), including:

- Short-range transit development plans
- Transit marketing plans
- Site selection studies
- Transit service implementation plans
- Ridership surveys
- Social service improvement studies
- Transit coordination studies

Regional planning agencies may only apply as an applicant. The following may apply only as a sub-recipient:

- Transit Agencies
- Universities and Community Colleges
- Native American Tribal Governments
- Cities and Counties
- Community-Based Organizations
- Non-Profit Organizations (501.C.3)
- Public Entities

This program funds projects that:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility of people and freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system

### ***High Risk Rural Roads Program (HR3)***

The purpose this program is to correct or improve hazardous roadway locations or features to reduce the frequency and severity of accidents on rural roads. The project must be located on a rural major collector, a rural minor collector, or a rural local road. Projects must correct an identified safety hazard or problem. State, county, or city transportation planning agencies can apply for these funds. The federal reimbursement rate is 90%. Caltrans district staff will solicit candidate projects from



eligible public agencies. Interested agencies must submit an application by the due date to compete for funding. Caltrans staff will evaluate projects based on a Safety Index scoring mechanism.

**Highway Safety Improvement Program (HSIP)** The intent of this program is to significantly reduce public roadway fatalities and serious injuries. The emphasis will be at locations that are data and strategically driven. The HSIP has several major program features; separate fact sheets are available on each of these:

- Strategic Highway Safety Plan (SHSP)
- High Risk Rural Roads (HRRR)
- Reporting Requirements (HSIP Reports)

The project must be on any public road or publicly owned bicycle, pedestrian pathway, or trail. Projects must identify a specific safety problem that can be corrected or improved substantially. City or county transportation planning agencies can apply for these funds. The maximum funding amount for a project is \$1 million, and the federal reimbursement rate is 90%. Caltrans district staff will solicit candidate projects from eligible public agencies. Interested agencies must submit an application by the due date to compete for funding. Caltrans staff will evaluate applications based on a Safety Index (calculated based on traffic safety data). A notice is made once a year to local agencies to submit applications for candidate HSIP projects.

### ***Highways for LIFE***

The Federal Highway Administration's program is a discretionary program that provides funding for projects with the purpose of advancing Longer-lasting highway infrastructure using Innovations to accomplish the Fast construction of Efficient and safe highways and bridges. Its goals are to:

- Improve safety
- Reduce congestion due to construction
- Improve quality
- Improve customer satisfaction

Highway projects where the project constructs, reconstructs, or rehabilitates a route or connection on an eligible Federal-aid highway and uses innovative technologies, manufacturing processes, financing, or contracting methods that meet performance goals for safety, congestion relief, and quality are eligible for funding. State transportation agencies can apply for these funds.

### ***Transportation, Community, and System Preservation (TCSP) Program***

This program provides funding for a comprehensive initiative including planning grants, implementation grants, and research to investigate and address the relationships between transportation, community, and system preservation and to identify private-sector-based initiatives. Projects must plan and implement strategies which improve the efficiency of the transportation system, reduce environmental impacts of transportation, reduce the need for costly future public infrastructure investments, ensure efficient access to jobs, services and centers of trade, or examine development patterns and identify strategies to encourage private sector development patterns which achieve these goals. States, metropolitan planning organizations, local governments and tribal governments can apply for these funds.

### ***Transportation Infrastructure, Finance, and Innovation Act of 1998 (TIFIA)***

This program was established as a federal credit program for eligible transportation projects of national or regional significance under which the U.S. Department of Transportation (DOT) may provide three forms of credit assistance - secured (direct) loans, loan guarantees, and standby lines of credit. The program's fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co- investment in critical improvements to the nation's surface transportation system. Highway, transit, passenger rail, certain freight facilities, and certain port projects may receive credit assistance through the TIFIA program. Public or private entities including state departments of transportation, local governments, transit agencies, special authorities, special districts, railroad companies, and private firms or consortia may apply for this program.

### ***USDA Rural Development Community Facilities Program***

This program is designed to develop essential community facilities for public use in rural areas. Through its Community Programs, the Department of Agriculture is striving to ensure that community facilities are readily available to all rural communities. Community Programs utilizes three flexible financial tools to achieve this goal: the Community Facilities Guaranteed Loan Program, the Community Facilities Direct Loan Program, and the Community Facilities Grant Program. Projects include schools, libraries, childcare, hospitals, medical clinics, assisted living facilities, fire and rescue stations, police stations, community centers, public buildings and transportation. Grants and loans are available to public entities such as municipalities, counties, and special-purpose districts, as well as non-profit corporations and tribal governments. Rural Development guarantees up to 90% of loss of principal and interest on loans and bonds made to develop or improve essential community facilities in rural areas. The amount of grant assistance for project costs depends upon the median household income and the population in the community and the availability of grant funds (up to 75% of the project's cost).

### ***Specialized Transit FTA 5310***

Section 5310 provides capital grants for the purpose of meeting the transportation needs of elderly persons and persons with disabilities where public mass transportation services are otherwise unavailable, insufficient or inappropriate. Eligible applicants include the procurement of accessible vans and buses, communication equipment, mobility management activities, and computer hardware and software for eligible applicants. Private non-profit corporations, public agencies where no private nonprofits are readily available to provide the proposed service, and public agencies that have been approved by the State to coordinate services. Applicants receive 88.53% in federal funds and must provide 11.47% in local match.

### ***Indian Reservation Roads (IRR) Program***

IRR Program addresses transportation needs of tribes by providing funds for planning, designing, construction, and maintenance activities. The purpose of the IRR program is to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands and communities for Native Americans, visitors, recreationalists, resource users and other while contributing to the economic development, self-determination, and Native American employment. The program is jointly administered by the Federal Highway Administration's Federal Lands Highway Office and the Bureau of Indian Affairs (BIA).

## **LOCAL FUNDING PROGRAMS**

Local funds constitute about half of all public funds spent on transportation. Over one-third of local funds for transportation are derived from local sales tax measures dedicated to transportation purposes; the balance is made up from the local transportation funds, local general funds, transit fares, fees, assessments, and other local funds. State general sales tax generated in each county is returned to the respective county's local transportation fund. Under the authority of the RTPA, the money (about \$1 billion statewide) is allocated for local and regional transit services.

### ***Local Sales Tax Measures***

Transportation sales taxes are important revenue sources to the funding of regional transportation improvements throughout California. Transportation sales taxes are increases to the combined sales and use tax rate within the counties that approve them.

These transportation sales taxes are actually a kind of transactions and use tax. Under California law, transactions and use taxes may be approved locally and added to the combined state and local sales and use tax rate. The statewide sales and use tax, currently at 8.25%, includes portions that go to the state general fund, to several specific state funds including some for local allocation and use, and to the cities and counties essentially based on the location of the purchase.

Although collected along with the statewide base sales and use tax, transactions and use taxes differ somewhat in application and allocation from the sales and use tax. Transactions and Use Taxes generally apply to merchandise that is delivered in a jurisdiction which imposes such a tax. In practice the tax application and allocation for most retail sales will not differ from the sales and use tax. But there are some differences. Importantly, in the case of a sale or lease of a vehicle, vessel, or aircraft, a transactions and use tax is charged and allocated based on the location in which the property will be registered.

There are currently twenty counties (Source: California City Finance, September 2010) with transactions and use taxes for public transportation or transit. Nineteen of these counties are so-called "self-help counties," in which the tax is used to fund a long term transportation improvement plan and thereby garner state and federal matching funds. All but two of these taxes are at the ½ percent rate. Sonoma County's Transportation Tax is ¼ percent. Los Angeles County voters have approved three ½ percent transportation sales taxes for a combined rate of 1.5%. (Source: California City Finance, September 2010)

### ***Local General Funds***

Cities and counties are required by law to maintain a certain level of expenditures on streets and roads out of their general funds as a pre-condition to receiving their share of the State fuel tax revenues (local subvention).

### ***Development Impact Fees***

A development impact fee is a monetary exaction other than a tax or special assessment that is charged by a local governmental agency to an applicant in connection with approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project. (Gov. Code § 66000 (b)). The legal requirements for enactment



of development impact fee program are set forth in Government Code §§ 66000-66025 (the "Mitigation Fee Act"), the bulk of which were adopted as 1987's AB 1600 and thus are commonly referred to as "AB 1600 requirements." A development impact fee is not a tax or special assessment; by its definition, a fee is voluntary and must be reasonably related to the cost of the service provided by the local agency. If a development impact fee does not relate to the impact created by development or exceeds the reasonable cost of providing the public service, then the fee may be declared a special tax and must then be subject to a two-thirds voter approval. (Cal. Const., Art. XIII A, § 4.)

The Lake County/City Area Planning Council completed the Countywide Regional Transportation Impact Fee Program study to facilitate adoption of an AB 1600 fee program. This program if adopted will provide partial funding for future transportation improvement needs. These needs are specifically required to support future development anticipated by Year 2030.

Year 2030 transportation improvement needs were determined by identifying all facilities that would operate with volumes in excess of daily LOS C capacity thresholds. Capacity thresholds were identified for each transportation facility type including facilities with sub-standard alignments and cross sections (i.e., roadways with narrow lanes and/or no shoulders). Substandard roadway configurations result in significantly lower capacities.

## **APPENDIX**

**APPENDIX A**

**COMMUNITY OUTREACH MATERIALS**





# SR 29 South Corridor EFS and Middletown CAP

## Community Advisory Committee Meeting #1 Summary

October 17, 2012, 3 p.m. – 4:30 p.m.  
Calpine Geothermal Visitors Center  
15550 Central Park Road, Middletown

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### MEETING ATTENDANCE

Ten stakeholder representatives participated in the first Community Advisory Committee meeting in Middletown, hosted by Caltrans and the Lake County/City Area Planning Council (Lake APC) as part of the SR 29 South Corridor EFS and Middletown CAP project. Meeting participants included the following:

#### Project Development Team

Name	Organization
Rex Jackman	Caltrans District 1
Jaime Hostler	Caltrans District 1
Lisa-Davey Bates	Lake County/City Area Planning Council (Lake APC)
Terri Persons	Lake County/City Area Planning Council (Lake APC)
Paul Miller	Omni-Means
Gene Endicott	Endicott Communications
Donna Lucchio	AIM Consulting

#### Community Advisory Committee (CAC)

Name	Organization
Greg Baarts	California Highway Patrol
Bill Chapman	Hidden Valley Lake Association
Claude Brown	Lake County Chamber of Commerce
Brock Falkenberg	Lake County Office of Education
Gary Graves	Middletown Area Merchants Association (MAMA)
Joe Sullivan	Middletown Area Town Hall (MATH)
Carlos Negrete	Middletown Rancheria
Korby Olson	Middletown Unified School District
Mike Wink	South Lake County Fire Protection District
Larry Galupe	Twin Pine Casino

Additional organizations invited, but unable to attend, included Lake Transit and Lake County Board of Supervisors.



# SR 29 South Corridor EFS and Middletown CAP

## INTRODUCTION

### Project Overview

The Lake County/City Area Planning Council (Lake APC) in partnership with Caltrans District 1 is conducting a multi-component project, the State Route 29 (SR29) South Corridor Engineered Feasibility Study (EFS), and the Middletown Community Action Plan (CAP). The purpose of the SR 29 South Corridor EFS is to identify and analyze potential transportation improvement alternatives to enhance interregional and regional travel while balancing community needs within the SR 29 south corridor. The purpose of the Middletown CAP project is to conduct a comprehensive community outreach effort in Middletown to assist in the development of transportation improvement alternatives to be included in the Middletown CAP. The project objectives, or components, are complimentary in nature, both focused on incorporating community input into the improvement of transportation systems in the project area.

The SR 29 South Corridor EFS is funded by State Planning and Research (SP&R) funds, and the Middletown CAP is funded by Federal Highway Administration (FHWA) Partnership Planning Program Grant (PPP) funds.

Caltrans/Lake APC staff is supported by a team of consultants with expertise in transportation analysis, environmental planning, engineering design, and public outreach. The project is scheduled for completion in November 2013.

### Primary Meeting Objectives

- Ensure CAC member understanding of the project background, goals, purpose and need, and schedule.
- Collect CAC member input on initial stakeholder key interests, issues and community values relating to the project.



### Meeting Agenda and Format

Gene Endicott, lead facilitator, welcomed meeting participants, led the introduction of the project team and Community Advisory Committee representatives, and provided opening remarks and an overview of the meeting agenda. A PowerPoint presentation followed. Rex Jackman, Lisa Davey-Bates, and Terri Persons presented the project background, and Paul Miller provided an overview of the project, purpose and need, process, schedule and goals. Gene Endicott reviewed the roles and responsibilities of the CAC, and representatives were asked to identify their key interest/issues relative to the project. Following the presentation, Donna Lucchio facilitated a community values exercise. A summary of stakeholder input is below.



## SR 29 South Corridor EFS and Middletown CAP

### STAKEHOLDER INPUT

#### Primary Interest / Issues

CAC representatives were asked to identify their primary interest/issue in this project based upon a list of possible considerations. The list included: aesthetics, natural resources/environment, cultural resources, property values, land use, improved access/convenience, neighborhood vitality, pedestrian/bicycle friendly, economic development, transit, traffic circulation, safety, other.

The primary interests/issues of the CAC representative were as follows:

- Safety
- Traffic circulation
- Bicycle friendly
- Improved access and convenience, visibility
- Economic development
- Neighborhood vitality
- Cultural resources
- Pedestrian/student safety - Safe Routes to School (both ends of study area and at Post Office)
- Natural resources / environment (Coyote Creek, SR 29 grade)
- Connectivity (multi-modes of transportation including equestrian)
- Parking along SR 29 (a lack of parking in Middletown proper)



Lisa Davey-Bates asked the CAC if public transit was important. Some CAC members responded that the current system of being able to call and schedule a pick-up was adequate, but stops could possibly be improved.



#### Community Values Exercise

CAC members were asked to identify their community values as it relates to the Purpose and Need of this project and the organization they each represent. Stakeholders were asked the following three questions:

- What do you want to preserve?
- What do you want to avoid?
- What do you want to create?





## SR 29 South Corridor EFS and Middletown CAP

Each response was written on a Post-it note, collected by the facilitators, and placed on a poster corresponding to the appropriate category.

A summary of the comments received is as follows:



PRESERVE
Buildings of historic value.
Cultural resources.
A rural community that maintains relationships and supports each other.
Rural and small-town USA.
Pedestrian use of Main Street.
Small town business environment.
Scenic route.
Foot traffic in Middletown (preserve and create more).
Small town atmosphere.
Access to businesses.
Quality of life.

AVOID
A highway that looks like it was copied from Southern California.
Unsafe pedestrian systems.
Traffic and safety issues.
Excessive "standard" highway signage.
Loss of community.
Cookie cutter appearance.
Non-friendly feeling or appearance to visitors.
Loss of cultural past influence.
Too much visual clutter.
An atmosphere which allows traffic to travel at a greater speed.



## SR 29 South Corridor EFS and Middletown CAP

CREATE
Sidewalks from Hill Avenue to the “Jolly Kone” on Highway 29 in Middletown.
Sidewalk extensions from the curb for pedestrian safety.
Parking off of Highway 29.
Better visibility in Middletown.
Traffic patterns around the school that reduces congestion and improves safety for students.
Better routes for school traffic.
Bike/pedestrian routes to schools.
A user-friendly community focused on a downtown area that promotes community use and encourages community pride of ownership and support.
Landscaping compatible with the built environment.
Safer intersections.
Safe crossing patterns at the intersection of SR 29 / SR 53 (two large schools within ¼ mile).
Controlled intersections for emergency vehicles - Add “Opticom” sensors to all stop lights.
Appropriate and safe school bus stops and traffic patterns.
A safe transportation plan for residents, visitors and commercial users.
More places for citizen interaction.
A clean, industry-friendly community.
A compact downtown area.
Better walking routes to schools.
Diagonal parking on the south side of Highway 29 from Douglas to Wardlaw (approximately). This is a safety issue with the shoulders being too wide and cars driving in parking areas (between fog line and parking – conflict with cars, bikes, and pedestrians).
Traffic light at Award Arabian Lane with re-alignment of Hartman Road.
Traffic calming structures.
Safer intersections.
Greater (safer) pedestrian access.
An environment that will stand the test of time regarding aesthetics.
The “wow” factor when you pull into town.
Traffic calming improvements.
Opportunity to improve the economic development of the area.
Infrastructure to support greater economic development and tourism.
Safer roadways on SR 29, north of County Grade and Lower Lake. Many high-speed collisions occur in this area.

At the conclusion of the exercise, stakeholder input was reviewed and clarified, and additional input was recorded.



## SR 29 South Corridor EFS and Middletown CAP

### Stakeholder Written Comment Summary

The CAC was asked to complete a brief feedback form at the end of the meeting. A summary of written comments is as follows:

1. Information shared at the meeting was useful? Yes (8), No (0)
  - Exciting project! Can't wait to see the end result.
  - The overview was helpful.
2. Discussions were appropriately facilitated to engage all participants? Yes (8), No (0)
  - Yes, smaller groups have better conversations.
  - Great to have input now!
  - Good, like how the meeting moved forward.
3. The participants involved in the process are appropriate? Yes (8), No (0)
  - Add Central Park Association and Senior Center.
  - What about Lower Lake Area representatives / Konocti USD?
  - Lower Lake Action Committee – don't know if they are in the project area.
4. Any other recommendations to improve the meetings?
  - Good meeting / run very well.
  - More productivity.
  - Thank you for the information. Please provide all contact information from presenters. Thank you for the water and cookies.
  - Later in the afternoon would be better for me.
  - There is a Safe Routes to School report you should be aware of.
  - Number the intersections on the map(s) so people can comment.



### NEXT STEPS / ADJOURNMENT

- Webpage link will be sent via email once finalized ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)); also will provide a dedicated email address to send questions/comments ([info@LakeCountySR29.com](mailto:info@LakeCountySR29.com)) and an option to sign up for the project distribution list to receive updates, meeting announcements and notifications.
- CAC representatives should begin to communicate with organizations they represent regarding the project and methods for the community to participate.
- Community meeting currently is being planned for December or January.
- Next CAC meeting in January.





# SR 29 South Corridor EFS and Middletown CAP

## Community Meeting #1 Summary

### DATE/LOCATION

January 22, 2013

5 p.m. - 7 p.m.

Calpine Geothermal Visitor Center  
15500 Central Park Road, Middletown

### PUBLICITY AND NOTICING

Community meeting fliers were sent via email to all identified stakeholders and the Community Advisory Council (CAC), and posted to the project website ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)). CAC members distributed the meeting notification to their respective contacts and/or membership lists, and printed copies of the meeting notice were posted at the Middletown Library, Post Office, Hardester's Market, the Calpine Geothermal Visitor Center, and the Shell Station at SR 29/SR 53.

A news release was sent to the following media outlets:

- Clearlake Observer
- Lake County News
- Middletown Times Star
- Napa Valley Register
- Santa Rosa Press Democrat
- Weekly Calistogan
- Ukiah Daily Journal
- St. Helena Star
- Lake County Record-Bee
- KXBX, KNTI, KUKI, KWINE, KPZ



The meeting notification schedule was as follows:

Task	Date
Distribute community meeting flier via e-mail to CAC, general stakeholder database, website sign-up database.	January 8, 2013
Post community meeting flier on project website.	January 8, 2013
Distribute community meeting news release to media list.	January 10, 2013
Post printed meeting flier at designated locations.	January 10, 2013
Follow-up phone calls to media list.	January 21, 2013
Follow-up email reminder (Constant Contact) to general stakeholder database and website sign-up database.	January 21, 2013



## SR 29 South Corridor EFS and Middletown CAP

The Lake County News and Record-Bee both ran articles on January 11, 2013, publicizing the community meeting. The Record-Bee and Lake County News also posted meeting information to their on-line community calendars. A Record-Bee reporter attended the community meeting and an article about the meeting was published on January 23, 2013.

### MEETING ATTENDEES

Approximately 70 community members attended the meeting.

Project team members in attendance included:

- Rex Jackman, Caltrans District 1
- Jaime Hostler, Caltrans District 1
- Lisa Hockaday, Caltrans District 1
- Kirsten Hurlburt, Caltrans District 1
- Lisa-Davey Bates, Lake APC
- Terri Persons, Lake APC
- Todd Mansell, Lake County
- Kevin Ingram, Lake County
- Paul Miller, Omni-Means
- Mrudang Shah, Omni-Means
- Gene Endicott, Endicott Communications
- Donna Lucchio, AIM Consulting



### MEETING PURPOSE

This meeting was the first of up to four planned community meetings designed to solicit stakeholder feedback to help shape the State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP) project.

The purpose of the meeting was to:

- introduce the project and team members to the community
- provide an overview of the project and community-involvement process
- address initial community questions or concerns
- obtain stakeholder input on issues, concerns and perceived opportunities and constraints related to the project



## SR 29 South Corridor EFS and Middletown CAP

### MEETING FORMAT

The community meeting began with a Power Point presentation, followed by a Q&A session (presentation slides can be viewed on the project website), and solicitation of stakeholder comments on project maps. Information boards illustrating the overall project and enlarged sub-segments were also available for attendees to view, ask questions, provide input, and discuss concerns one-on-one with project staff. Handouts included a Project Fact Sheet, a Meeting Evaluation Form and a Project Comment Card.



### MEETING SUMMARY

Gene Endicott, lead facilitator, welcomed meeting participants, led the introduction of the project team, and provided opening remarks, an overview of the meeting agenda, and a brief project introduction. He also reviewed the roles, responsibilities and membership of the Community Advisory Committee (CAC). Paul Miller provided an overview of the project that included the study need and purpose, schedule, identification of the project area, an overview of the process and what will be included in the completed study.



Following the presentation and Q&A/discussion, Donna Lucchio invited all attendees to participate in an interactive exercise. Attendees were provided sticky-notes and pens, and asked to write down all of the issues, comments and opportunities they had identified related to the project. They were instructed to place comments on the large map exhibit boards at the location representative of the specific comment. The project area was illustrated on nine presentation boards (overall project with sub-segments delineated, seven sub-segment maps, and Middletown).

Meeting attendees were also asked to complete a Meeting Evaluation Form, and were provided with a Meeting Comment Card that they could complete and return at their convenience. The comment card provided the project website and email address where comments and questions related to the project could be submitted at any time.





## SR 29 South Corridor EFS and Middletown CAP

### COMMUNITY INPUT

Summary of community input and questions:

### Q&A / DISCUSSION

Questions (Q) and Answers (A) received from the group during discussion included:

Q: What grants are funding this study, who are they from and how much money was awarded?

A: The SR 29 South Corridor EFS is funded by State Planning and Research (SP&R) funds, and the Middletown CAP is funded by Federal Highway Administration (FHWA) Partnership Planning Program Grant (PPP) funds. Component A: State Route (SR) 29 South Corridor Engineered Feasibility Study) was budgeted at \$135,000 and Component B: Middletown Community Action Plan was budgeted at \$144,000.



Q: Quite a bit of work has been done already on 29 by Caltrans, but there are a couple of sections that need to be completed and are in very bad shape. Will this study delay any of that work?

A: This study will not disrupt any project that is currently in the pipeline.

Q: Lake Tahoe in a number of problem areas has installed concrete barriers in the highway median, which seems to be effective in reducing accidents. Is that an idea that is being considered for this study?

A: A national highway safety consultant is part of the project team and they will look at all possible safety measures that can be considered for this project area.

Q: When will we know what we will see relative to alternatives?

A: At the next community meeting, the project team will present all alternatives that are being considered for the study. We will ask for community input and comments on the alternatives.

Q: Will technical traffic analyses be completed as part of this study?

A: Yes

Q: Is this study specifically targeting highway and roads? What about erosion control?

A: This study is focused on transportation, however, we encourage the community to provide all important they deem important related to the project area.

Q: Is the CHP participating in this study?

A: Yes, they are providing data and a representative is participating on the Community Action Committee for the project.



## SR 29 South Corridor EFS and Middletown CAP



Q: Isn't this area already considered a "safety corridor"?

A: There are a few locations within the corridor that rate above average for State standards.

Q: Will SWITRS data be analyzed as part of this study?

A: Yes, our highway safety consultant is looking at a 5-year SWITRS accident data report as part of this project.

Q: Isn't the project area considered a "scenic corridor"?

A: There is a section of the project area that is considered a "scenic corridor" by the County, and there are signage requirements in place related to the "scenic corridor".

Q: The Rancheria to Weatherwax Memorial Bridge is a critical area of this corridor. It is important that the Rancheria is connected visually as people pass through this area. It is one of the primary reasons MATH pursued the grant. Will this be addressed?

A: The study will include a review of gateway locations.

Q: More passing lanes need to be constructed in this corridor. Is this being looked at?

A: The study will include an analysis of passing lanes.





## SR 29 South Corridor EFS and Middletown CAP

### WRITTEN COMMENTS

A summary of all written comments received, categorized by project subsegment, is as follows:

#### OVERALL PROJECT

Comment	Criteria / Performance Measure
Wider bike lanes all over the County.	Bike Routes
Bike lane please. Landscape for beauty and erosion.	Bike Routes, Roadway Landscaping, Environmental
Barriers or divided highway is essential where 60 mph is the norm.	Safety
Trail from Middletown to Hidden Valley: prefer physical separation from highway.	Safety, Bike Routes, Pedestrian Facilities, Equestrian
Need to build bicycle lanes. Bicycles can be an economic asset (i.e. tourism) to Lake County, in addition to being a location mode of transportation.	Safety, Environmental Preservation, Economic Opportunity
Middletown has an interesting history.	Historical Preservation
Passers-through need a reason to stop.	Economic Opportunity
More gathering spots are needed.	Economic Opportunity
Parking is somewhat restricted.	Parking
Streetscape is inconsistent.	Roadway Landscaping
Architecture is quite varied.	Historical Preservation
Please utilize roundabouts (tough sell but worth it). Michigan left turn systems.	Safety, Congestion, Circulation
Emergency call boxes – what is status for zero cell service areas? I don't see any on SR 29.	Safety
Encourage a wave of heavy ticketing by CHP. The pocket book talks.	Safety
Passing lanes needed for south lanes. Twenty miles from Lower Lake to Napa County without passing lanes causes a lot of frustration with the current amount of traffic on the road.	Congestion, Safety
Turn lanes at all intersections would help with traffic flow.	Congestion, Safety
Twin Lakes access is a problem now and going to get a lot worse because there's a lot of population growth potential in the community. Left turn onto highway can take a long time and left into Twin Lakes is very dangerous. Need a left turn pocket.	Accessibility, Congestion, Safety
Please consider more left hand turn lanes and roundabouts. No more stop lights/stops.	Congestion, Safety
Please, slower traffic turnout with the law posed and enforced by the CHP, or more places with double lanes. We need these in the mountains too.	Congestion, Safety
More bus service.	Transit





## SR 29 South Corridor EFS and Middletown CAP

### SUBSEGMENT 1

Comment	Criteria / Performance Measure
Need passing lanes and left turn lanes along this route.	Bike Routes
Passing lanes, turnouts, calm road rage.	Safety, Congestion
Spelling of road is incorrect.	Other - Unrelated
Traffic calming – slow down the speed.	Safety
Wider bike lanes all over the County.	Bike Routes

### SUBSEGMENT 2

Comment	Criteria / Performance Measure
Wider bike lanes all over.	Bike Routes
Heading north, 45 mph speed limit beginning at Casino and 55 mph should not start until one mile past schools.	Safety
Entrance to South County, turnout, Visitor Info Kiosk, History, Tourist attraction.	Safety, Roadway Landscaping, Historical Preservation
Highway landscaping to unify Twin Pines to Middletown.	Bike Routes, Pedestrian Facilities, Equestrian
Pedestrian, bicycle, equestrian access from Rancheria to Middletown.	Congestion
Reroute truck traffic around Middletown to allow for increase in business development in the future.	Safety, Economic Opportunity
Public horse riding arena at Central Park.	Bike Routes, Pedestrian Facilities, Equestrian
County park known as “100 Acrewood”. People ride horses to this park plus ride around the trails.	Bike Routes, Pedestrian Facilities, Equestrian
Need off-highway parking in Middletown.	Parking
Need a three-way stop sign at SR29 and Dry Creek cut-off.	Safety, Congestion

### SUBSEGMENT 3

Comment	Criteria / Performance Measure
Make a left turn easier from Butts Canyon on to SR29. Signage, roundabout?	Safety
Road is not graded properly at Butts Canyon intersection for drivers turning onto SR29.	Safety
Agree to previously stated comment – they made this intersection more dangerous a couple of years ago.	Safety
Entrance (spelling)	Other – Unrelated
This was a good improvement – good rubber strips.	Other – Recommendation
Need bike lanes from Hidden Valley to Middletown.	Bike Routes
Wider bike lanes all over the County.	Bike Routes



## SR 29 South Corridor EFS and Middletown CAP

### SUBSEGMENT 4

Comment	Criteria / Performance Measure
Bike lane between Middletown and Hidden Valley.	Bike Routes
Trees and landscaping really helps improve the feel of community. Invest in landscaping please.	Roadway Landscaping
Wider bike lanes.	Bike Routes
Smart Traffic Light needed. Blinking red light is stupid.	Safety, Congestion
Roundabout/Circle if and only if merge lanes are incorporated, not yield signs.	Safety, Congestion
Grading of Hartmann onto SR29 is bad.	Safety
Please be consistent with the spelling when signing. The Putah Creek Bridge is after the Hartmann family, yet signs are also spelled Hartman.	Other – Signage
Change intersection to Arabian Lane.	Other – Unrelated
Permanent solution for Hartmann Road access – be better at Arabian Lane.	Accessibility
Room on each side of Highway 29 for 4 lanes between Hartmann and Hidden Valley.	Congestion
Spruce Grove Road and Spruce Grove Road Ext. (spelling)	Other – Unrelated
Access from Hidden Valley onto SR 29 should be a merge – design like most highway entrances.	Accessibility
What happened to the planned acceleration lane heading North when turning at Hidden Valley at the fountain entrance onto SR29?	Accessibility
Bike lane from here south to downtown Middletown.	Bike Routes
Dangerous to turn off of Spruce Grove due to southbound traffic on SR29.	Safety
Flashing lights or longer turning lane onto Spruce Grove Road from SR29.	Safety, Accessibility
Entrance to SR29 is very hard from Spruce Road.	Safety, Accessibility
Try to get the speed limit on Spruce Road reduced from 40 mpg to 30 or 35 mph, due to mailboxes, turning vehicles, school buses and kids.	Safety
There are serious erosion problems from Spruce Grove Road to Hofacker Lane. Please pay close attention. Lots of soil going into Coyote Creek and Hidden Valley Lake. Thanks for the stop sign at Hartmann Road.	Environmental Preservation



## SR 29 South Corridor EFS and Middletown CAP

### SUBSEGMENT 5

Comment	Criteria / Performance Measure
Erosion control needed.	Environmental Preservation
Erosion runoff is washing into Hidden Valley Lake silting up our lake.	Environmental Preservation
During rain, constant runoff across the road makes this stretch dangerous.	Environmental Preservation
Mud plus rock slides here on a regular basis. Hillside needs help.	Environmental Preservation
Erosion control needed – adjacent to creeks in many places.	Environmental Preservation
New paving soon.	Safety
Wider bike lanes all over the County.	Bike Routes
Safety of north of Hofacker, pavement horrible and hydroplaning.	Safety
New pavement.	Safety
Need bike lanes to Clear Lake.	Bike Routes
Lusian Lane and Agua Dulce Drive are not major access roads.	Other – Information
Sight access to the highway is unsafe because of high speed traffic curve has created many accidents.	Safety
Terrible road surface.	Safety

### SUBSEGMENT 6

Comment	Criteria / Performance Measure
Access unsafe to driveway. Sight distance almost zero. Needs turning lane for trucking tree business.	Safety, Accessibility
Terrible road surface.	Safety
C Street needs left turn pocket on northbound SR29.	Safety
Turn lane at C Street.	Safety
Twin Lake access, especially left turn, to Highway 29 very difficult when traffic is heavy.	Accessibility, Congestion, Safety
This is a blood alley for no obvious reason.	Safety





## SR 29 South Corridor EFS and Middletown CAP

### SUBSEGMENT 7

Comment	Criteria / Performance Measure
Need double yellow lines (no passing) on sloped hill after curve where accidents have occurred.	Safety
Road too narrow on curve and icy.	Safety
Need curve sign before the curve in the road.	Safety, Other – Signage
Better visibility on curve between Twin Lake and Spruce Grove Road.	Safety
In the fog or dark night, people don't realize the rise they are coming up on in a wide curve; don't know to slow. In the fog, it is worse – more reflectors are needed. Five deaths in this short area in a year. Very heavy traffic.	Safety, Other – Signage
Very rough road.	Safety
Dead person's curve. Fix it now. Widen this curve so you have room to dodge and maneuver.	Safety
Do something with this turn. Four deaths. Road is too narrow and icy.	Safety
Fix intersection at Spruce Grove.	Safety
This was a great improvement.	Other – Recommendation
No turn lanes.	Safety
Finish this part of the road by widening to allow passing to the right.	Safety, Congestion
The corridor from the Lower Lake light to Twin Lakes has had five deaths in one year and several other accidents as well, including my husband at a stop to pull into our driveway at the end of October 2012.	Safety
First big turn coming from Lower Lake, going south, or even worse if travelling north to Lower Lake, the rise, turn and visibility. The very rough road has caused many problems here as well as how the road is marked for passing is a problem.	Safety, Other – Signage
I was involved in an accident in front of my house on SR29, two miles from Lower Lake. Many accidents and deaths have occurred on this corridor. We begged for signs, double yellow lines and warnings to let people know this area is tricky at best.	Safety, Other - Signage



## SR 29 South Corridor EFS and Middletown CAP

### MIDDLETOWN COMMUNITY

Comment	Criteria / Performance Measure
Roundabout/Traffic Circle	Safety, Congestion
Need 3-way stop sign.	Safety, Congestion
Build a bridge on the Dry Creek cutoff road at the Dry Creek Ford to route some traffic from SR29 and Cobb Mt. so the traffic doesn't go through Middletown.	Congestion
Across from the Central Park is our private bridge. We have 5 generations; only 3 houses on our property.	Historical Preservation
Flashing radar, speed limit signs coming into both ends of town.	Safety
Traffic calming, sidewalk, landscaping, pedestrian crossing striping.	Safety, Roadway Landscaping, Pedestrian Facilities
Slow traffic down coming into town, both directions.	Safety
Wider bike lanes all through the County.	Safety, Bike Routes
Reduce traffic in Middletown by building a by-pass round the town.	Safety, Congestion
Build a by-pass around town.	Safety, Congestion
Downtown Middletown needs pedestrian-only area. Bypass through traffic.	Safety, Congestion, Pedestrian Facilities
Need designated walking/bike path from Middletown to Rancheria.	Safety, Bike Routes, Pedestrian Facilities
Sometimes impossible to get on the highway on Friday nights in the summer, turning right, but especially left.	Congestion
Needs left turn lane on SR29 and CA175.	Accessibility
Bulb out at SR29 and CA175.	Accessibility
Need pedestrian crosswalk	Safety, Pedestrian Facilities
Need bike lane from downtown Middletown to north Spruce Grove Road.	Bike Routes
Turn at Wardlaw Street for school.	Safety, Accessibility
Turn lane into Bible Church.	Accessibility
Make Wardlaw one-way street heading east into Highway 29, in front of school.	Safety
Coming onto SR29 from Butts Canyon Road slopes away.	Accessibility
Equestrian crossing at Central Park Road.	Equestrian
Have you noticed the 45 mph speed limit slows down immediately followed by 30 mph? Way too close. Put the 45 mph further out of town – to the Casino even.	Safety
25 mph speed limit in town.	Safety
SR29 northbound left hand turn lane for Highway 175.	Accessibility
Pedestrian cross-walks. Do we need those flashing lights at the Post Office that a pedestrian turns on? Other cross-walks too?	Safety, Pedestrian Facilities
More parking at the Post Office; very busy intersection in the town.	Parking
Hike, bike, equestrian path to County park on CA175, casino to town.	Bike Routes, Pedestrian Facilities, Equestrian



## SR 29 South Corridor EFS and Middletown CAP

Comment	Criteria / Performance Measure
In front of the Bible Church, the Jolly Kane at the Preschool, you need to install a two-way left hand turn lane. The congestion is terrible when people travelling north try to turn into the Bible Church on the Preschool. And, it is terrible when people travelling south try to turn into Jolly Kane.	Accessibility
Set preferences for sidewalk construction.	Pedestrian Facilities, Streetscape
Establish an historic walk.	Pedestrian Facilities, Historic Preservation
Determine honorifics for recognition.	Other – Information
Walking/jogging/bicycle exercise circuits.	Pedestrian Facilities
Interconnect gathering spots and points of interest.	Economic Vitality
Improve safety.	Safety
Intersections Middletown and Hidden Valley – Why are our major intersections – school, Butts Canyon, Hartmann Road, Spruce Grove Road, on curves and next to bridges.	Safety, Accessibility

### MEETING EVALUATION FORM

The attendees were asked to complete a brief feedback form at the end of the meeting. A summary of written comments is as follows:

- How did you hear about today's meeting?
  - MAMA member; also paper
  - MATH and newspaper (2)
  - MATH Meeting
  - Various Community meetings
  - Newspaper (6)
  - Email (2)
  - Friend (3)
- What information shared at today's meeting was most useful?
  - The timeline for getting it down.
  - Overall scope of project. Timeline helped too.
  - Timeline and goals.
  - Who, what and when it will be done.
  - That this is a plan in action.
  - Overall purpose of plan.
  - Planning parameters/timeframe.
  - The maps and outline of process.
  - Sample maps and our comments. (2)





## SR 29 South Corridor EFS and Middletown CAP

- Maps, Q&A, timeline.
  - Willingness to listen to community input.
  - All of it. (2)
  - Overall, presentation was very informative.
  - Ongoing meetings and current project status.
  - How they are initializing a fix. Finally!
3. What information shared at today's meeting was least useful?
- I believe it was all necessary.
  - People's comments who did not listen to what you said.
  - When.
  - None.
  - Some of member comments were too specific and not useful at this stage.
  - Can't think of any.
  - Nothing – all informative.
  - All was useful.
4. Were discussions facilitated to engage all participants? What could we do better?
- I believe so.
  - Yes. (4)
  - Yes. Well done.
  - Yes. Larger crowd than anticipated but handled well.
  - Good job!!
  - Yes, it was a very good meeting. Very informative.
  - It was an excellent and organized meeting.
  - Excellent format and plan to use maps and sticky sheets. High level of professionalism in presentation and materials.
  - Post-it notes for feedback were engaging. Maybe bring group back for debrief and clarification of notes.
  - Define at the outset of meeting what was to take place and in more detail so people know what to expect and how meeting would proceed.
  - Construct the website for input from us. Widen the road and smooth the road better.
  - Explain that the meetings are for planning, not for a specific project.
  - I think if there was a person assigned to each map to discuss the relevant issues that would have been helpful.



## SR 29 South Corridor EFS and Middletown CAP

5. What else would you recommend to improve future meetings?
- Food.
  - Print outs of the slides. You can't see the screen from the back.
  - A better description and emphasis as to how the feedback was to be obtained, earlier in the meeting would have led to a more efficient meeting. People were giving verbal input not knowing what you had in mind re maps, post-its, etc.
  - More details as to what you are doing and when.
  - Lap boards or pads or clip boards for writing.
  - Just keep us informed as info comes in.
  - Make sure all participants can hear. It's difficult for the older ones when people who are speaking are behind them.
  - I think if there was a person assigned to each map to discuss the relevant issues that would have been helpful.
  - Round table break-out discussion.

### NEXT STEPS / ADJOURNMENT

- View the project website regularly to keep up to date on project information. Also, join the project distribution list to be to receive updates, meeting announcements and notifications ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)).
- Submit comments or questions at any time via the project email ([info@LakeCountySR29.com](mailto:info@LakeCountySR29.com)) and an option to sign up for the project distribution list to receive updates, meeting announcements and notifications.
- A web tool is currently under development that will allow community members to post specific comments related to the project, by sub-segment, as well as view all comments posted to date. Once this is active, everyone who has joined the distribution list will be notified via email.
- Share the website and email addresses with friends and neighbors. Encourage everyone to provide their input related to the project.
- Three additional community meetings are planned. Once dates are confirmed, they will be posted on the project website.



# SR 29 South Corridor EFS and Middletown CAP

## Community Advisory Committee Meeting #2 Summary

June 4, 2013, 3 p.m. – 4:30 p.m.  
Middletown High School Multi-Use Facility  
15846 Wardlaw Street, Middletown, CA

### MEETING ATTENDANCE

Eight stakeholder representatives participated in the second Community Advisory Committee meeting in Middletown, hosted by Caltrans and the Lake County/City Area Planning Council (Lake APC) as part of the SR 29 South Corridor EFS and Middletown CAP project. Meeting participants included the following:

#### Project Development Team

Name	Organization
Rex Jackman	Caltrans District 1
Jaime Hostler	Caltrans District 1
Kirsten Hulburt	Caltrans District 1
Ralph Martinelli	Caltrans District 1
Lisa-Davey Bates	Lake County/City Area Planning Council (Lake APC)
Paul Miller	Omni-Means
Gene Endicott	Endicott Communications
Donna Lucchio	AIM Consulting

#### Community Advisory Committee (CAC)

Name	Organization
Claude Brown	Lake County Chamber of Commerce
Brock Falkenberg	Lake County Office of Education
Gary Graves	Middletown Area Merchants Association (MAMA)
Joe Sullivan	Middletown Area Town Hall (MATH) / Lake County Planning Commission
Carlos Negrete	Middletown Rancheria
Mike Wink	South Lake County Fire Protection District
Larry Galupe	Twin Pine Casino
Brian Engle	California Highway Patrol
Bill Waite	Hidden Valley Lake Association

Additional organizations invited, but unable to attend, included Lake County Board of Supervisors, Lake Transit, Middletown USD, Konocti USD, St. Helena Hospital, and Lake County Historical Society.





# SR 29 South Corridor EFS and Middletown CAP

## INTRODUCTION

### Project Overview

The Lake County/City Area Planning Council (Lake APC) in partnership with Caltrans District 1 is conducting a multi-component project, the State Route 29 (SR29) South Corridor Engineered Feasibility Study (EFS), and the Middletown Community Action Plan (CAP). The purpose of the SR 29 South Corridor EFS is to identify and analyze potential transportation improvement alternatives to enhance interregional and regional travel while balancing community needs within the SR 29 south corridor. The purpose of the Middletown CAP project is to conduct a comprehensive community outreach effort in Middletown to assist in the development of transportation improvement alternatives to be included in the Middletown CAP. The project objectives, or components, are complimentary in nature, both focused on incorporating community input into the improvement of transportation systems in the project area.

The SR 29 South Corridor EFS is funded by State Planning and Research (SP&R) funds, and the Middletown CAP is funded by Federal Highway Administration (FHWA) Partnership Planning Program Grant (PPP) funds.

Caltrans/Lake APC staff is supported by a team of consultants with expertise in transportation analysis, environmental planning, engineering design, and public outreach. The project is scheduled for completion in November 2013.

### Primary Meeting Objectives

- Provide an overview of the Existing Conditions Draft Report
- Introduction to Complete Street Planning for Middletown Community Action Plan

### Meeting Agenda and Format

Gene Endicott, welcomed meeting participants, led the introduction of the project team and Community Advisory Committee representatives, and provided opening remarks and an overview of the meeting agenda. Paul Miller provided a PowerPoint presentation that included a recap of the study need and purpose, a brief overview of the project, and a summary of the existing conditions report data. Key points related to existing conditions included: a summary of comments received from the first community meeting; roadway travel time; collision rates along the corridor; and environmental constraints. The presentation then focused on an introduction to complete street planning for the Middletown area. Key points during this discussion included the definition of complete streets; the importance of a complete street program within the Middletown Area; and examples of complete street concepts. Following the presentation and discussion, Donna Lucchio facilitated a Middletown Area group exercise.





## SR 29 South Corridor EFS and Middletown CAP

### STAKEHOLDER INPUT

#### MIDDLETOWN AREA GROUP EXERCISE

CAC members were divided among three tables, each with a facilitator. They were asked to review a large map of the Middletown Area, and note answers to specific questions using colored highlighter pens and sticky-notes, denoting paths of travel, origins and destinations, and challenges encountered. Map 1 represented vehicle or transit; Map 2, bicycle; and Map 3, pedestrian or equestrian modes of travel.



A summary of stakeholder input is as follows:

#### **Map #1 – Vehicle/Transit**

1. What are your common trips?
  - Throughout SR 29 along Middletown
  - CA 175 from Main Street to Dry Creek
  - Wardlaw St. from Barnes St. to Jefferson St.
2. What are your alternate routes when the common routes are congested?
  - Barnes Street and Wardlaw Street
  - Berry Street
  - Butts Canyon Road
3. What are key origins and destinations?
  - Fire Station
  - Hidden Valley Lake to Middletown Rancheria
  - Pre-School
  - Charter School
  - High School
  - Napa Valley/Santa Rosa
  - JKL Ranch
  - Guenoc Lane
  - St. Joseph Church
  - Post-Office

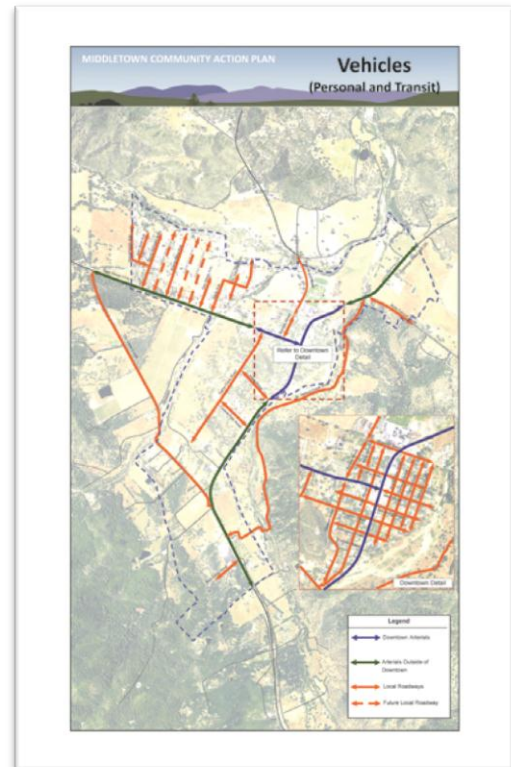




## SR 29 South Corridor EFS and Middletown CAP

### 4. What challenges do you encounter?

- Low water crossing, closed in winter on Dry Creek Cutoff
- Speeding on CA 175
- Limited parking
- Wardlaw signal timing is bad, resulting in congestion
- Cross vehicle traffic at pre-school
- Lack of sidewalks on street near school
- Congestion during school time at traffic signal
- Traffic backs up on Wardlaw Street near High School due to student drop-off
- Guenoc Lane Bridge – stop sign doesn't allow access to highway at peak hour
- St. Helena Creek Road is a private road
- No street shoulder on CA 175
- High school reaches congestion at 7:45 to 8:45 AM.
- One-way people are travelling wrong direction with pedestrians on Butts Canyon Road
- Wardlaw School cross walk guard continuously activates pedestrian light, so traffic signal is not performing optimally.



### Map #2 - Bicycle

#### 1. Where do you or others ride a bike?

##### Errand/commute/school routes

- SR 29 from CA 175 to Butts Canyon Road
- SR 29 from Young Street to Butts Canyon to further east on Butts Canyon, since Butts Canyon is a Bike Route
- SR 29 from Wardlaw Street to north of Middletown
- Main Street from SR 29 to Jefferson Street
- SR 29 from Callayomi Street to Wardlaw Street
- CA 175 from Dry Creek Cutoff to SR 29
- Generally, all streets in Middletown Area

##### Recreation routes

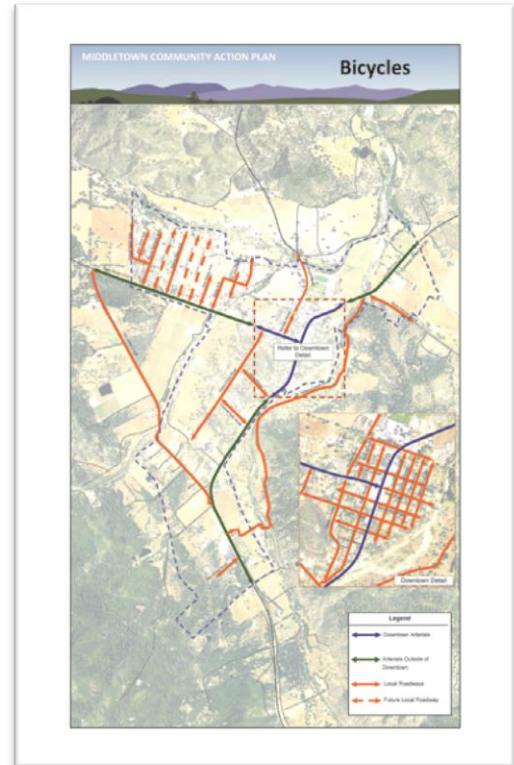
- SR 29 from Rancheria Road to Butts Canyon Road
- Butts Canyon Road





## SR 29 South Corridor EFS and Middletown CAP

2. Where would you or other like to ride a bike?
  - SR 175 from SR 29 to west of Drycreek Cutoff.
3. What are key origins and destinations?
  - Butts Canyon & St. Helena Road
  - Downtown area
  - Main Street to Butts Canyon Road
  - All streets west of SR 29 on CA 175
  - Park
  - East of SR 29 on Main Street
  - Casino into town
4. What challenges do you encounter?
  - No Bike lane north of town
  - Bridge not wide enough from SR 29 to Butts Canyon Road
  - Bridge not wide enough at Napa Avenue
  - No Bike lane on SR 29, south of Middletown
  - No safe bike lane from Rancheria to town
  - Need consistent shoulder for bike travel
  - West side of town not paved
  - Need bike trail into the town
  - No shoulder on CA 175 on either side
  - At Rancheria Road exit (Casino), vehicular traffic does not stop at the stop sign
  - On SR 29, sight distance not sufficient for traffic turning from Butts Canyon Road. Vehicles exiting from Butts canyon road ignore stop sign
  - People drive in bike lane thinking it is turn lane
  - Bike route on Butts Canyon is also popular with motorcyclists travelling to Napa
  - The elevation of intersection at Butts Canyon makes it difficult to see non-motorized users
  - No non-motorized path from Downtown to Casino
  - At CJS Farm Supply, north of Dry Creek Road has sight distance issue, sharp triangle and grading problem, no pocket for transition traffic, and due to type of business it attracts heavy vehicles.
  - At Central Park during events experiences high volumes of pedestrian/equestrian traffic





# SR 29 South Corridor EFS and Middletown CAP

## Map #3 – Walk/Equestrian

### 1. Where do you or others walk/ride?

#### General routes

- From Central Park Road to Santa Clara to CA 175 between Santa Clara Road and SR 29
- SR 29 between Central Park Road & CA 175
- Wardlaw Street between Barnes Street and SR 29
- Washington Street from Callayomi to Wardlaw Street
- SR 29 from Rancheria Road to Sheveland Road

#### School routes

- Generally, all streets in Middletown Area
- From Pathways Charter School to Callayomi Street
- From Lake County International Charter School to SR 29/CA 175 intersection
- SR 29 from Wardlaw Street to Butts Canyon Road

#### Equestrian routes

- SR 29 from Rancheria Road to Central Park Road
- Central Park Road and Santa Clara Road to CA 175
- CA 175 from Napa Street to SR 29 continuing on Wardlaw east to end of the street
- Big Canyon Road
- Central Park Road
- Santa Clara Road

### 2. Where would you or others like to walk/ride?

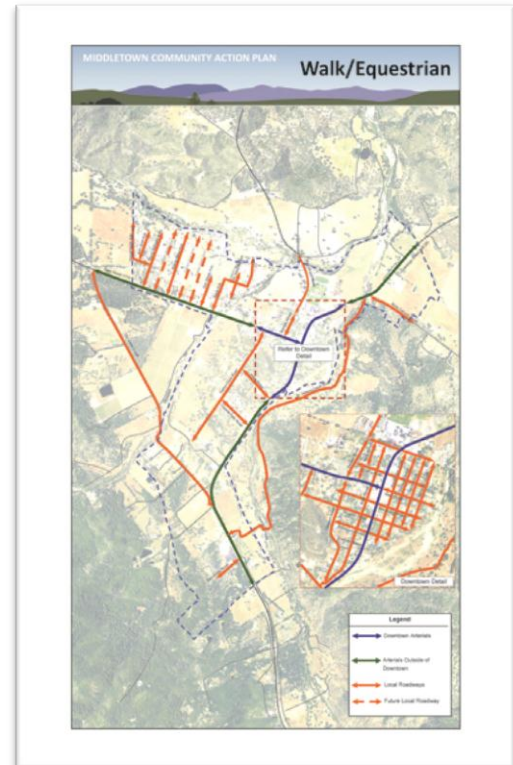
#### Equestrian routes

- SR 29 from Rancheria to Central Park
- Dry Creek Cutoff from SR 29 to CA 175
- CA 175 from Dry Creek Cutoff to intersection of SR 29 & CA 175

### 3. What are key origins and destinations?

#### General

- Park
- Post Office
- Church
- Hardesters





## SR 29 South Corridor EFS and Middletown CAP

### School

- Hardesters Store, Store 24, Jolly Cone
- Lake County International Charter School
- Pathways Charter School
- Minnie Cannon Elementary School
- Middletown Middle 7 High-School

### Equestrian

- 100 Acres Wood Park
- Public Riding Arena on Central Park
- Napa Street / CA 175 to Santa Clara Street Arena
- North of Middletown and Arena
- South of Rancheria Road and Central Park
- Dry Creek Equestrian Trail
- Central Park Equestrian Trail



#### 4. What challenges do you encounter?

- High vehicular speeds
- Bad roadway conditions on Big Canyon Road
- A lot of children in neighborhood don't walk/bike to school because of no shoulder
- No designated trails for Bike/Pedestrian/Equestrian
- Wardlaw Street schools and other schools (like Special Ed, Charter Schools) do not have pedestrian facilities.
- Vehicular traffic travels at higher speed near school area.
- High volume of school children going from school to Jolly Cone, Store 24 and Hardesters.





## SR 29 South Corridor EFS and Middletown CAP

### HANDOUT - QUESTIONNAIRES

Table facilitators provided each CAC member two one page questionnaires, one regarding the Transportation Vision Statement that would be included in the final Middletown Community Action Plan document, and the other on Historic Downtown Middletown. CAC members were asked to complete both questionnaires, and submit to a facilitator at the end of the meeting.

A summary of the questionnaire responses is below.

### **Questionnaire #1 – Community Values and Transportation Vision Statement**

#### Community Values Regarding Transportation

Create a safe transportation system that promotes pedestrian, bicycle, and equestrian travel to create a sense of community for both residents and visitors.

1. Do you agree with this statement? Yes (4 ) No (0)
2. What would you change, add, delete?
  - Equestrian travel (limited) – specify roads
  - Should vehicular be included?
  - Safe routes to school.

#### Transportation Vision Statement

The community of Middletown envisions a transportation system that provides safe and convenient travel, encourages healthy active living, independent mobility, greater social interaction and community identity.

1. Do you agree with this statement? Yes (4) No (0)
2. What would you change, add, delete?

### **Questionnaire #2 – Historic Downtown Middletown Questionnaire**

1. What one mobility improvement should be implemented in Historic Downtown Middletown?
  - Walking/shaded/historic plaques (descriptive of the history)
  - More sidewalks. Paved side streets
  - Angled parking in some areas. “Reno-Anderson Springs” style entry sign to town
2. When visiting downtown, where do you go?
  - Hardesters, banks, post office, shops
  - Store, bank, restaurants
  - From Perry’s to Jolly Cone on Hwy 29
  - Schools, Beulah’s, Cowpoke Café, Brewery



## SR 29 South Corridor EFS and Middletown CAP

3. How do you access downtown and what mode of transportation do you use?
  - Car, walk
  - Car, walking
  - SR 29 and SR 175
4. Where are some opportunities for downtown gathering places?
  - New community park with the Library/Senior Center; Methodist Church (1 block off Hwy 29); Farmers' Market Hwy 29 and 175
  - Parks, Central Park
  - Library, High School, Lyons Club, Fire Station
  - Calpine, Twin Pines Casino, High School, Senior Center/Library

### HANDOUT - MEETING FEEDBACK FORM

The CAC was asked to complete a brief feedback form at the end of the meeting. A summary of written comments is as follows:



1. Was the review of stakeholder comments and questions from the prior meeting useful?  
Yes (3), No (0)
2. Was the information shared during the existing conditions summary discussion useful?  
Yes (3), No (0)
  - Already evident.
3. Was information shared during the complete streets discussion useful?  
Yes (3), No (0)
4. Was Middletown Area group exercise was useful?  
Yes (3) No (0)
  - 3 was a good size group.
5. Any other recommendations?
  - Turn lane at preschool on Hwy 29.
  - Add to wish list, deceleration lane at SR 29 and Spruce Grove Rd. South.

### **NEXT STEPS / ADJOURNMENT**

- Next CAC meeting will be held in September.
- Check project website for new and current project information and events.



# SR 29 South Corridor EFS and Middletown CAP

## Community Meeting #2 Summary

### DATE/LOCATION

June 4, 2013

5 p.m. - 7 p.m.

Middletown High School Multi-Use Facility

15846 Wardlaw Street, Middletown, CA

### PUBLICITY AND NOTICING

Community meeting fliers were sent via email to all identified stakeholders and the Community Advisory Council (CAC), and posted to the project website ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)). CAC members distributed the meeting notification to their respective contacts and/or membership lists, and printed copies of the meeting notice were posted at the Middletown Library, Senior Center, Post Office, Hardester's Market, the Calpine Geothermal Visitor Center, and the Shell Station at SR 29/SR 53.

A news release was sent to the following media outlets:

- Clearlake Observer
- Lake County News
- Middletown Times Star
- Napa Valley Register
- Santa Rosa Press Democrat
- Weekly Calistogan
- Ukiah Daily Journal
- St. Helena Star
- Lake County Television
- KXBX, KNTI, KUKI, KWINE, KPFB



The meeting notification schedule was as follows:

Task	Date
Distribute community meeting flier via e-mail to CAC, general stakeholder database, website sign-up database.	May 22, 2013
Post community meeting flier on project website.	May 21, 2013
Distribute community meeting news release to media list.	May 29, 2013
Post printed meeting flier at designated locations.	May 22, 2013
Follow-up email reminder (Constant Contact) to general stakeholder database and website sign-up database.	May 29 and June 3, 2013





## SR 29 South Corridor EFS and Middletown CAP

The Lake County News and Record-Bee both ran articles on publicizing the community meeting. The Record-Bee and Lake County News also posted meeting information to their on-line community calendars.

### MEETING ATTENDEES

Approximately 40 community members attended the meeting.

Project team members in attendance included:

- Rex Jackman, Caltrans District 1
- Jaime Hostler, Caltrans District 1
- Kirsten Hurlburt, Caltrans District 1
- Lisa-Davey Bates, Lake APC
- Paul Miller, Omni-Means
- Mrudang Shah, Omni-Means
- Gene Endicott, Endicott Communications
- Donna Lucchio, AIM Consulting

### MEETING PURPOSE

This meeting was the second of up to four planned community meetings designed to solicit stakeholder feedback to help shape the State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP) project.

The purpose of the meeting was to:

- review public input to date
- provide an update on the project status and schedule
- present a summary of existing conditions data
- introduce complete streets planning concept as it relates to the Middletown project area
- solicit community input on the Middletown Community Action Plan





## SR 29 South Corridor EFS and Middletown CAP



### MEETING FORMAT

The community meeting began with a Power Point presentation, followed by a Q&A session and solicitation of stakeholder input on project maps of the Middletown area (presentation slides and exhibits can be viewed on the project website). Information boards illustrating existing conditions data for the SR 29 South Corridor were also available for attendees to view, ask questions, provide input, and discuss one-on-one with project staff. Handouts included a Project Fact Sheet, a Project Comment Card and a Meeting Feedback Form.

### MEETING SUMMARY

Gene Endicott, welcomed meeting participants, led the introduction of the project team, and provided opening remarks, and an overview of the meeting agenda. Paul Miller moderated the slide presentation, which included a recap of the study need and purpose, a brief overview of the project, and a summary of the existing conditions report data. Key points related to existing conditions included: a summary of comments received from the first community meeting; roadway congestion levels; roadway level of service; collision rates along the corridor; access management; and environmental constraints. The presentation then focused on an introduction to complete street planning for the Middletown area. Key points during this discussion included the definition of complete streets; identification and review of the Middletown “complete streets” planning area, roadway types and potential improvement options; and examples of complete street concepts.

Following the presentation and Q&A/discussion, Joe Sullivan on behalf of the Middletown Area Town Hall (MATH) provided an explanation to the meeting attendees regarding efforts members of MATH have made to gather community input for the project. He presented 11 aerial maps with a legend corresponding to specific locations and suggested roadway improvements. Click [here](#) to view the maps and legend.



Donna Lucchio then invited all attendees to participate in a group exercise related to the Middletown CAP project area. Attendees were given two sets of colored dots (green, yellow, blue and red) to be placed on large maps representing the Middletown Planning Area. One map identified the arterial streets within the planning area - Calistoga Street (SR 29) and Main Street (SR 175). The second map identified the collector and local streets, which comprise all other streets within the planning area. Attendees were instructed to place one each of the colored dots (green, yellow, blue and red) on each of the two maps to represent their order of priority for potential roadway improvements. Green = #1 priority; Yellow = #2 priority; Blue = #3 priority; Red = #4 priority. See below for a summary of all community input.



# SR 29 South Corridor EFS and Middletown CAP

Meeting attendees were also asked to complete a Meeting Feedback Form, and were provided with a Project Comment Card that they could complete and return at their convenience. The comment card provided the project website and email address where comments and questions related to the project could be submitted at any time.


## COMMUNITY INPUT

Summary of community input and questions:

### COLORED DOT EXERCISE

The following is a summary of all locations identified for arterial roads:


ARTERIAL ROAD	FROM	TO	PRIORITY			
			#1	#2	#3	#4
SR 29	Rancheria Road	Dry Creek Cutoff	4	4	0	1
SR 29	Butts Canyon Rd.	North of Middletown	4	0	0	0
SR 29	Wardlaw Street	Butts Canyon Road	2	1	1	2
SR 29	Main Street	Young Street	2	1	1	0
CA 175	SR 29	Barnes Street	2	1	0	0
SR 29	Armstrong Street	Main Street	1	2	3	0
SR 29	Dry Creek Cutoff	Central Park	1	1	0	1
CA 175	Barnes Street	Napa Street	1	0	0	0
SR 29	Lake Street	Callayoma Street	0	0	4	0
SR 29	Callayoma Street	Douglas Street	0	0	1	2
SR 29	Young Street	Wardlaw Street	0	0	0	3
SR 29	Central Park	Lake Street	0	0	0	0
SR 29	Douglas Street	Armstrong Street	0	0	0	0
CA 175	Napa Street	West of Napa Street	0	0	0	0





State Route 29 South Corridor EFS  
and Middletown CAP


### Community Input


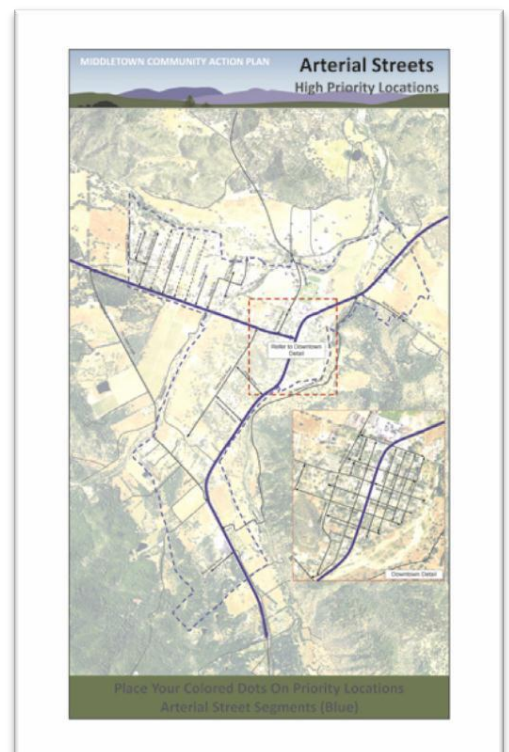
Place one each of the colored dots (green, yellow, blue, red) on each of the two Middletown Project Area Maps to represent priority improvement locations, as follows:

 = #1 Priority

 = #3 Priority

 = #2 Priority

 = #4 Priority

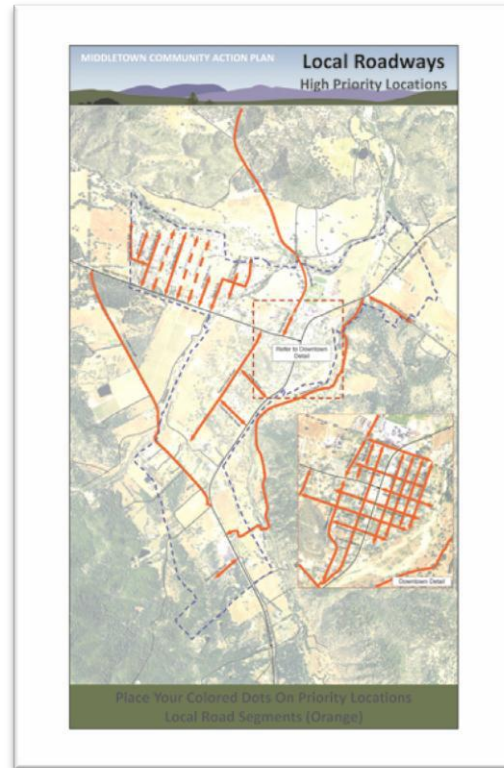




## SR 29 South Corridor EFS and Middletown CAP

The following is a summary of all locations identified for local roadways:

LOCAL ROADWAY	PRIORITY			
	#1	#2	#3	#4
Armstrong Street	5	3	1	0
Drycreek Cutoff	2	2	4	2
Wardlaw Street	2	2	2	2
Big Canyon Road	2	0	0	0
Douglas Street	1	2	1	4
Rancheria Road	1	2	1	1
Callayoma Street	1	0	1	0
Sheveland Road	1	0	0	1
Butts Canyon Road	1	0	0	1
Barnes Street	0	3	0	0
Lake Street	0	1	0	2
Santa Clara Road	0	1	1	2
Bush Street	0	1	0	0
Main Street	0	0	2	0
Young Street	0	0	2	0
St. Helena Creek Road	0	0	1	0
Jackson Street	0	0	1	0
Lincoln Street	0	0	0	2





## SR 29 South Corridor EFS and Middletown CAP

### Q&A / DISCUSSION

Questions (Q), Answers (A) and Comments (C) received from the group during discussion included:

#### **Existing Conditions Data**

Q: Are bike routes the same as equestrian trails?

A: No, they are not.

Q: When was the study done? Was it in 2006, 2007 or 2008 when there was roadway construction?

A: The data was gathered in October 2012.

Q: Why are no collision fatalities noted? The outcome should be in the study.

A: That information will be in the complete study.

Q: Which intersection is Spruce Road?

A: The old Hidden Valley main gate.

Q: Will data include information on how long the highway was shut down when accidents occurred?  
This is very important information for the community.

A: We will have to look into that. I'm not sure how that data is relevant to the study.

Q: What are the red dashed lines on the aerial maps?

A: These are the State right-of-way.

Q: Does anyone know the average number of bike traffic or expected bike traffic?

A: Yes, it will be in the study.

Q: Did you count scooters and bikes?

A: Yes.

Q: Will Spruce Grove be part of the study?

A: Yes.

Q: Will there be a rumble strip at SR 29?

A: Rumble strips may be considered depending upon the exact location.

Q: If there is a serious problem on the road, who should be first called?

A: County Public Works, the Caltrans Main District line.

#### **Access Management**

Q: The schedule in the Fact Sheet states 2012 -2013. Is that when resurfacing will be complete?

A: Resurfacing on Hwy 29 will start in August and be complete in the fall. The date in the fact sheet relates to the completion of the SR 29 South Corridor EFS and Middletown CAP Study.



## SR 29 South Corridor EFS and Middletown CAP

Q: Why is the pavement already torn up? This is causing accidents and damage.

A: This is caused by prep work due to the deterioration of the road condition.

### **Environmental Constraints**

Q: Where does erosion control fall in these constraints?

A: Erosion control falls under Geological studies.

### **Complete Streets**

C: The Rancheria is included in the Middletown planning area.

Q: Is the Rancheria where the Twin Pines Casino is?

A: Yes.

Q: I didn't understand the "bulb-out".

A: A bulb-out shortens the path of travel of pedestrians, and separates them from vehicles at the cross walks. It also calms traffic.

Q: Calistoga has diagonal parking. We are told we can't have it. I would be interested in seeing statistics. Are the Calistoga statistics available?

A: No, we don't have the Calistoga statistics but they could possibly be located. Angled parking will not allow a bike lane on SR 29 and may result in smaller pedestrian corridor widths.

Q: Regarding bike lanes on the side roads. Is there any provision to combine use for pedestrians and cyclists in a shared use path?

A: This is a challenge with a 50-foot roadway. You need 8' with shoulders to accommodate this. It's possible for downtown.

C: Fifty foot roadways for County streets. They aren't all 50' in Middletown. When you start planning downtown streets they are not all going to be 50'; some will be 40'.

Q: At the September meeting, will there be recommendations for streets and what they will look like?

A: Yes.

### **Big Canyon Road**

C: There is a fatal flaw in all this. What happens if Hwy 29 gets shut down before it hits SR 53?

Vehicles will go down Big Canyon Road, a one-lane gravel road. This is high speed traffic (more than 100 per hour, due to a recent cyclist fatality). Everyone will take this route (buses, commuter traffic, Cal Fire). This is not on any map. It needs to be addressed. This is a big and dangerous problem. This is a regular occurrence when roadway shutdowns occur.

Q: There is a question that needs to be asked. Are they designating Big Canyon Road as a detour or is it just known and used? This makes a big difference.

A: Big Canyon is a local road the question should be redirected to the Lake County Office of Emergency Services (Willie Sapeta, 707-263-1813).

C: To support the Big Canyon community, there is tremendous amount of roadway that is substandard.





## SR 29 South Corridor EFS and Middletown CAP

### PROJECT COMMENT CARD

The attendees were asked to provide additional comments, questions or any other input on the State Route 29 South Corridor EFS and Middletown CAP Project. A summary of written comments is as follows:

- Traffic lights at Spruce Grove Rd at Hidden Valley Lake – several deaths at this intersection.
- Correct intersection at SR 29 and Butts Canyon Road.
- No parking on SR 29 across from Hardester's Market.
- Eliminate fences (or other obstruction) at cross streets.
- I just want Middletown to be beautiful and safe. We need to have traffic slow down as it passes Twin Pines Casino.
- I want Middletown to be the best that it can be.
- Connect Santa Clara to Dry Creek
- Round-a-bout at Lake and SR 29.
- Underground utilities on Armstrong East.
- On Hwy 29, 2 miles south of Lower Lake, just past the curve you are allowed to begin to pass at the top of the hill, the problem is that there is a depression at the bottom of the hill that can totally hide a small vehicle from another small vehicle that may begin to pass there. Also there is no way to avoid a head-on collision (unless the driver beginning to pass is able to quickly get back in their lane) as there is a guard rail right there and nowhere to pull to safety. Also regarding the curve here 2 miles south of Lower Lake, it needs warning signs. 1) Large arrows pointing to curved area or Slow Down – Curve Ahead; 2) Cross traffic ahead sign – for the southbound before the curve. People whip around that curve at 60 miles per hour and there is traffic in and out just past the curve.
- Very much needed for bike riders – rumble strips should be created for better protection.
- The crosswalk at the school area (elementary, middle and high school) should have an individual light for those crossing. The lights in all directions for vehicles should all turn red when those crossing by walking have the right of way. Due to the high number of students crossing, the vehicles on the road parallel are unable to proceed because of the pedestrians which cause a back-up of vehicles. Plus what I mentioned in my email.
- Let's do something ASAP to save lives. Mandatory headlight use on 29 corridor. Let Sacramento know we need more CHP to monitor the traffic speed. Many more lives will be lost while the grant process goes through its snail paced time before improvements are done.



## SR 29 South Corridor EFS and Middletown CAP

### MEETING FEEDBACK FORM

The attendees were asked to complete a brief feedback form at the end of the meeting. A summary of written comments is as follows:

1. How did you hear about today's meeting?
  - Email (9)
  - Project Stakeholder
  - MAMA and MATH (2)
  - Flyer
2. What information shared at today's meeting was most useful?
  - Hearing improvements to come to Hwy 29 to Lower Lake.
  - Clarifying to the community that this is simply a planning of improvements to the community.
  - Really? Not much because my main interest is in Spruce Grove Road and it was not discussed.
  - The involvement of MATH folks – local people doing good civic work.
  - I especially liked the statistics and the sharing of the vision. I also like the use of the maps.
  - What, who and when is helpful (wish it could be sooner than later). Why have a meeting at dinner time for most? Was this to cut down input?
  - Potential road improvements.
  - Arrived at 6:15 p.m. due to work.
  - That there will be another meeting to discuss area that concerns us.
  - Finding out about Big Canyon Road. Expected to find out more about Rt. 29 north of Middletown.
3. What information shared at today's meeting was least useful?
  - I believe it was all necessary.
  - Seems most of the information was repeated from prior meetings. There were no updates.
  - Total emphasis on Middletown, to exclusion of rest of the corridor.
  - PM reading text off the graphic. MATH representative "blaming" HVL residents for not being involved. Very unattractive.
  - It was all good.
  - We don't live in Middletown. The red dot should be priority #1. The maps on rear are 5 years old and out of date. Get fresh prints or photos.
  - Grants and their bureaucracy.
4. Were discussions facilitated to engage all participants? What could we do better?
  - I believe so.
  - Participation by all community groups and organizations. Hidden Valley needs more official participation. Reach out to the Board please.
  - No, not really. See above. The professionals should have explained what tonight's emphasis would be prior to the meeting.



## SR 29 South Corridor EFS and Middletown CAP

- Good that you adjusted approach re: HVL residents' concerns. Note: even though I live in HVL, I put my dots on Middletown area maps because I would like a pleasant and safe 'hometown' to walk and shop in.
  - Excellent.
  - Stuck in comment mud too much. We do understand this is a study only. We ask for expediency on safety repairs.
  - Let people know what the discussion will address prior to meeting so comments can be relevant.
  - Yes – be more organized.
  - Presenters should have had input from locals to anticipate concerns more fully.
5. What else would you recommend to improve future meetings?
- More detailed announcement of what is to be discussed at meeting.
  - Twin Pine Casino and hotel can host meeting in the event center free of charge to accommodate the larger meetings.
  - Improve the descriptions on your maps so people can more quickly and efficiently identify which areas the maps pertain to.
  - Please start on time. Put names of roads on large aerial maps, and put landmarks on detail maps so we know where we are.
  - Please keep getting public input and make sure it is included in the final plan.
  - Actually feel you are organizing quite well and consolidated info about the meetings and progress made available to the public is important.
  - Post meeting agenda on meeting notice.
  - Keep children from disturbing the meeting.
  - Schedule meetings later for those who commute to Santa Rosa and work 8-5 p.m.
  - Have all questions wait till end. So many were answered in the presentation.
  - Meeting agenda and limits.

### NEXT STEPS / ADJOURNMENT

- View the project website regularly to keep up to date on project information. ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)).
- Submit comments or questions at any time via the project email ([info@LakeCountySR29.com](mailto:info@LakeCountySR29.com))
- The next community meeting is scheduled for September, 2013.





# SR 29 South Corridor EFS and Middletown CAP

## Community Meeting #3 Summary

### DATE/LOCATION

November 13, 2013

6 p.m. - 8 p.m.

Middletown High School Multi-Use Facility

15846 Wardlaw Street, Middletown

### PUBLICITY AND NOTICING

Community meeting fliers were sent via email to all identified stakeholders and the Community Advisory Council (CAC), and posted to the project website ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)). CAC members were asked to distribute the meeting notification to their respective contacts and/or membership lists, and to post printed copies of the meeting notice at the Middletown Library, Post Office, Hardester's Market, the Calpine Geothermal Visitor Center, and the Shell Station at SR 29/SR 53.

A news release was sent twice to the following media outlets:

- Clearlake Observer
- Lake County News
- Middletown Times Star
- Napa Valley Register
- Santa Rosa Press Democrat
- Weekly Calistogan
- Ukiah Daily Journal
- St. Helena Star
- Lake County Record-Bee
- KXBX, KNTI, KUKI, KWINE, KPZ



The meeting notification schedule was as follows:

Task	Date
Distribute community meeting flier via e-mail to CAC and general stakeholder database.	Oct. 28, Nov. 4, Nov. 11
Send e-announcement via Constant Contact to project-website stakeholder database.	Oct. 28, Nov. 4, Nov. 11
Post community meeting flier on project website.	Oct. 28
Distribute community meeting news release to media list.	Oct. 29, Nov. 11
Post printed meeting flier at designated locations.	various

The Record-Bee ran an article about the community meeting on Nov. 6 and the Lake County News ran an article on Nov. 9. The Record-Bee and Lake County News also posted meeting information to their on-line community calendars.



## SR 29 South Corridor EFS and Middletown CAP

### MEETING ATTENDEES

Approximately 35 community stakeholders attended the meeting.

Project team members in attendance included:

- Rex Jackman, Caltrans District 1
- Lisa-Davey Bates, Lake APC
- Terri Persons, Lake APC
- Todd Mansell, Lake County
- Kevin Ingram, Lake County
- Paul Miller, Omni-Means
- Mrudang Shah, Omni-Means
- Gene Endicott, Endicott Communications



### MEETING PURPOSE

This meeting was the third of up to four planned community meetings designed to solicit stakeholder feedback to help shape the jointly implemented State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP). The purpose of this meeting was to:

- Provide an update on area Caltrans maintenance projects
- Provide an overview of proposed improvement over the entire SR 29 South Corridor study area from the Napa County Line to SR 53
- Solicit community stakeholder feedback on the proposed improvements

### MEETING FORMAT

The community meeting began with a Power Point presentation, and questions and answers, followed by a stakeholder voting process on the proposed improvements. Additional informational material included poster boards with maps of the study area and proposed improvements. Handouts included a project comment card and meeting evaluation form.



### MEETING SUMMARY

Gene Endicott, facilitator, welcomed meeting participants, led the introduction of the project team, and reviewed the meeting agenda. Rex Jackman, Caltrans, provided an overview of area Caltrans maintenance projects. Paul Miller, Omni Means, reviewed the SR 29 south corridor proposed transportation improvements. Mr. Endicott then explained and facilitated the stakeholder voting process on

the proposed improvements.

Participants were given six sticky dots and asked to submit votes regarding whether they “agree” or “disagree” that the appropriate transportation improvements within each category (safety, congestion



## SR 29 South Corridor EFS and Middletown CAP

relief, traffic calming, and pedestrian/bike/equestrian) and timeframes (initial and future) had been identified. Participants also were provided with project comment cards to add additional qualitative feedback. Meeting attendees were also asked to complete a meeting evaluation form.

### COMMUNITY INPUT

Summary of community input and questions:

Q1 – What is the progress on the Hartmann Roundabout?

Caltrans is in the planning process for the roundabout at the Hartmann Road. The planning and design will be conducted as per the scheduled funding availability since it is a safety related improvement.

Q2 – Why is nothing being done for the erosion problem in the Hidden Valley Lake?

The question is out of this project scope.

Q3 – The cost for signal and roundabout shown during the presentation is only construction cost or does it includes the additional right-of-way cost as well? It is a planning level construction cost only.

Q4 – We propose having a crosswalk at the Bible Church Christian School where left turn lane is proposed.

A multi-use facility is planned passing through that location. We will look into additional cross-walk requirements.



Q5 – I appreciate the colored crosswalk at the intersection, but have you considered flashing crosswalk. Pavement flashing crosswalk is generally proposed outside an intersection controlled crosswalk.

Q6 – Why are there no passing lane proposed?

The enhancement is proposed as per the model generated conditions. Model does not require need of a passing lane. However, a climbing lane is proposed at north of Spruce Grove Road (Lower Lake).

Q7 – Colorized crosswalk is a good idea for increasing visibility of the crosswalk. What about the pedestrian in the crosswalk?

Colorized crosswalk increases the visibility to make drivers aware helping pedestrians.

Q8 – The multi-use trail cost is proposed for \$20 million? Is the trail proposed to be built within the Caltrans' right-of-way or outside?

Mostly it is within Caltrans' right of way. The cost will be refined when it gets more specific.

Q9 – The presentation did not provide a bottom line enhancement cost summary. Also, can you provide any recommendation on funding sources?





## SR 29 South Corridor EFS and Middletown CAP

The dollar value of enhancement is \$60 million. There are several funding sources available like SHOPP and SHIP programs through Caltrans. Additionally, the community that has a plan will have higher chance for finding a funding source compare to one that does not have a plan.

Q10 – Was there any feasibility done when determining improvements?

Yes, there were 100-foot scale image obtained and safety and access management consultants spent a lot of time on field looking at the overall needs and feasibility of a proposed enhancement. Additionally, environmental consultant also performed preliminary cultural, geological and natural habitat assessment. However there is budget constraint keeping in mind that it is 20-mile corridor. It is also important to realize that this is a planning level study so the enhancement recommended at location will need more design level feasibility study.

Q11 – As you can see the community here is very active. People who work together have more power. Do you recommend combining Middletown and Hidden Valley community for better say?

Yes, that is an excellent idea.

Q12 – Was there any oversight agency for this work?

Yes, there were three committee who was doing over-sight work on this project. There was the project team that was looking over the process through weekly and bi-weekly meetings. There was Technical Advisory Committee and Community Advisory Committee that are involved in the work as well.

### **PROJECT COMMENT CARDS**

Seven project comment cards were submitted and addressed various additional proposed improvements and other related issues for project team evaluation.

### **MEETING EVALUATION FORM**

Seven meeting evaluation forms were submitted, all indicating the information shared at the meeting was useful, and offering other suggestions for future stakeholder interactions.

### **NEXT STEPS / ADJOURNMENT**

Mr. Endicott reported that the next and final community meeting is planned for February 2014 and will be focused on proposed improvements in Middletown as part of the Middletown CAP. The SR 29 EFS and Middletown CAP will be presented to the Lake County Planning Commission and Lake APC in February.



# SR 29 South Corridor EFS and Middletown CAP

## Community Advisory Committee Meeting #4 Summary

January 29, 2014, 3:30 p.m. – 4:30 p.m.  
Middletown High School Multi-Use Facility  
15846 Wardlaw Street, Middletown, Calif.

### MEETING ATTENDANCE

Six members of SR 29 Engineered Feasibility Study (EFS)/Middletown Community Action Plan (CAP) Community Advisory Committee attended the January 29 meeting. Meeting participants included:

#### Project Development Team

Name	Organization
Rex Jackman	Caltrans District 1
Terri Persons	Lake APC
Paul Miller	Omni-Means
Mrudang Shah	Omni-Means
Gene Endicott	Endicott Communications

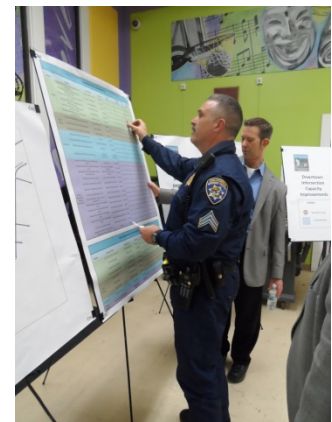
#### Community Advisory Committee (CAC)

Name	Organization
Voris Brumfield	United Methodist Church
Brock Falkenberg	Lake County Office of Education
Jim Comstock	Lake County Board of Supervisors
Carlos Negrete	Middletown Rancheria
Larry Galupe	Twin Pine Casino
Brian Engle	California Highway Patrol

The focus of this meeting was proposed transportation improvements included in the Middleton CAP.

### MEETING SUMMARY

Gene Endicott, facilitator, welcomed meeting participants, led the introduction of the project team, and reviewed the meeting agenda. Paul Miller, Omni Means, then reviewed proposed improvements included in the draft Middleton CAP. Mr. Endicott then explained and facilitated the CAC voting process on the proposed Middleton improvements.





## SR 29 South Corridor EFS and Middletown CAP

Participants were given dots and asked to submit votes to identify those Middletown transportation improvements they considered “high,” “medium” or “low” priorities. Results of the CAC voting process were as follows:

### High Priority

- Calistoga Street (SR 29) / Main Street (SR 175)  
Intersection- **NB & SB Left Turn Lanes**
- Calistoga Street (SR 29) - Wardlaw Street to Butts Canyon Road- **Center Left-turn Lane**
- Calistoga Street (SR 29) - Wardlaw Street to Butts Canyon Road - **Shoulder Widening**
- Calistoga Street (SR 29) / Butts Canyon Road - **Optical Speed Bars**
- Calistoga Street (SR 29) / Wardlaw Street - **Turn Lanes**
- Calistoga Street (SR 29) / Main Street (SR175) - **EB & WB Left-Turn Lanes**
- Calistoga Street (SR 29) / Wardlaw Street - **Roundabout**
- High School and Elementary School - **Access and Parking Modifications**
- Calistoga Street (SR 29) - Wardlaw Street to Bible Church Drwy. (west side) - **Sidewalk**
- Adventist School Driveway - **Left-Turn Lanes**
- Rancheria Road - **Colorized Shoulders**
- Rancheria Road to Pine Street - **Multi-Use Path**



### Medium Priority

- Calistoga Street (SR 29) / Butts Canyon Road - **Gateway Monuments**
- Calistoga Street (SR 29) / Butts Canyon Road - **Colorized Shoulders**
- Calistoga Street (SR 29) / Butts Canyon Road - **Intersection Control**
- Calistoga Street (SR 29) - Lake Street to Douglas Street - **Bike Lanes, On-Street Parking & Sidewalks**
- Calistoga Street (SR 29) at Callayomi, Douglas, Armstrong, Young - **Sidewalk Bulbouts and Decorative Crosswalks**
- Berry Street - Wardlaw Street to SR 175 - **Roadway Widening and Sidewalks**
- Bush Street - Wardlaw Street to SR 175 - **Roadway Widening and Sidewalks**
- Young Street - Barnes Street to SR 29 - **Roadway Widening and Sidewalks**
- Main Street (SR 175) - Barnes Street to Washington St. - **Roadway Widening and Sidewalks**
- Washington Street - Wardlaw Street to Douglas Street - **Roadway Widening and Sidewalks**
- Armstrong Street - Bush Street to Washington Street - **Roadway Widening and Sidewalks**
- Douglas Street - Bush Street to Washington Street - **Roadway Widening and Sidewalks**
- Callayomi Street - Bush Street to Washington Street - **Roadway Widening and Sidewalks**
- Rancheria Road - **Gateway Monuments**
- Rancheria Road - **Optical Speed Bars**





## SR 29 South Corridor EFS and Middletown CAP

### Low Priority

- Calistoga Street (SR 29) - Wardlaw Street to Butts Canyon Road - **Radar Feedback Signs**
- Calistoga Street (SR 29) - Butts Canyon Road to Bar X Ent. Rd. - **Radar Feedback Signs**
- Calistoga Street (SR 29) - Butts Canyon Road to St. Helena Drive - **Shoulder Widening**
- Calistoga Street (SR 29) - Rancheria Road to Pine Street - **Multi-Use Path**
- Pine Street - South End to Hill Street - **Roadway Widening and Sidewalks**
- Dry Creek Cut-Off to Lake Street - **Radar Feedback Signs**
- CJS Ranch Driveway - **Left-Turn Lanes**
- Dry Creek Cut-Off to Lake Street - **Shoulder Widening**
- Dry Creek Cut-Off - **Left-Turn Lanes**



### NEXT STEPS / ADJOURNMENT

Mr. Endicott reported that the SR 29 EFS and Middletown CAP will be presented to the Lake APC board and County Board of Supervisors in February 2014, concluding the project.



# SR 29 South Corridor EFS and Middletown CAP

## Community Meeting #4 Summary

### DATE/LOCATION

January 29, 2014

5 p.m. - 7 p.m.

Middletown High School Multi-Use Facility  
15846 Wardlaw Street, Middletown

### PUBLICITY AND NOTICING

Community meeting announcements were sent via email to area stakeholders and the Community Advisory Council (CAC), and meeting information was posted to the project website ([www.LakeCountySR29.com](http://www.LakeCountySR29.com)).

A news release was sent twice to the following media outlets:

- Clearlake Observer
- Lake County News
- Middletown Times Star
- Napa Valley Register
- Santa Rosa Press Democrat
- Weekly Calistogan
- Ukiah Daily Journal
- St. Helena Star
- Lake County Record-Bee
- KXBX, KNTI, KUKI, KWINE, KPZ

### MEETING ATTENDEES

Approximately 20 community stakeholders attended the meeting.



Project team members in attendance included:

- Rex Jackman, Caltrans District 1
- Terri Persons, Lake APC
- Todd Mansell, Lake County
- Kevin Ingram, Lake County
- Paul Miller, Omni-Means
- Mrudang Shah, Omni-Means
- Gene Endicott, Endicott Communications





## SR 29 South Corridor EFS and Middletown CAP

### MEETING PURPOSE

This meeting was the last of four planned community meetings designed to solicit stakeholder feedback on the State Route 29 South Corridor Engineered Feasibility Study (EFS) and Middletown Community Action Plan (CAP). The focus of this meeting was the Middleton CAP.

### MEETING SUMMARY

Gene Endicott, facilitator, welcomed meeting participants, led the introduction of the project team, and reviewed the meeting agenda. Paul Miller, Omni Means, then reviewed proposed improvements included in the draft Middleton CAP. Mr. Endicott then explained and facilitated the stakeholder voting process on the proposed Middletown improvements.



Participants were given dots and asked to submit votes regarding whether they “agree” or “disagree” that the appropriate transportation improvements were identified for the Middletown community. Participants also were provided with project comment cards to add additional qualitative feedback.

### STAKEHOLDER VOTING RESULTS

Stakeholders strongly supported the proposed improvements, as indicated in the voting results that follow.

Most of the proposed improvements were strongly supported by stakeholders. Exceptions included gateway monuments at SR 29 and Butts Canyon Road, eastbound and westbound left-turn lanes at SR 29 and Main Street (SR 175), roundabout at SR 29 and Butts Canyon Road, widening and sidewalks at Pine Street – South End to Hill Street. (Voting result tables follow.)

### PROJECT COMMENT CARDS

Two project comment cards were submitted – one requesting a traffic light at SR 29 and Rancheria Road, and the other addressing issues at SR 29 and SR 175 and SR 29 and Wardlaw Street.

### NEXT STEPS / ADJOURNMENT

Mr. Endicott reported that the SR 29 EFS and Middletown CAP will be presented to the Lake APC board and County Board of Supervisors in February 2014, concluding the project.





## SR 29 South Corridor EFS and Middletown CAP

Downtown Priority Improvement Plan					
Category	Location	Enhancement	Total Cost	Agree	Disagree
Safety	Calistoga Street (SR 29) / Main Street (SR 175) Intersection	NB & SB Left-Turn Lanes	\$130,000	100.00%	0.00%
	Calistoga Street (SR 29) - Wardlaw Street to Butts Canyon Road	Radar Feedback Signs	\$91,000	83.33%	16.67%
	Calistoga Street (SR 29) - Butts Canyon Road to Bar X Ent. Rd.	Radar Feedback Signs	\$130,000	85.71%	14.29%
	Calistoga Street (SR 29) - Wardlaw Street to Butts Canyon Road	Center Left-Turn Lane	\$1,170,000	75.00%	25.00%
	Calistoga Street (SR 29) - Wardlaw Street to Butts Canyon Road	Shoulder Widening	\$1,300,000	100.00%	0.00%
	Calistoga Street (SR 29) - Butts Canyon Road to St. Helena Drive	Shoulder Widening	\$2,470,000	75.00%	25.00%
Traffic Calming	Calistoga Street (SR 29) / Butts Canyon Road	Gateway Monuments	\$97,500	42.86%	57.14%
	Calistoga Street (SR 29) / Butts Canyon Road	Optical Speed Bars	\$13,000	80.00%	20.00%
	Calistoga Street (SR 29) / Butts Canyon Road	Colorized Shoulders	\$32,500	66.67%	33.33%
Congestion	Calistoga Street (SR 29) / Wardlaw Street	Turn Lanes	\$780,000	100.00%	0.00%



## SR 29 South Corridor EFS and Middletown CAP

	Calistoga Street (SR 29) / Main Street (SR175)	EB & WB Left-Turn Lanes	\$130,000	40.00%	60.00%
	Calistoga Street (SR 29) / Wardlaw Street	Roundabout	\$2,210,000	0.00%	100.00%
	Calistoga Street (SR 29) / Butts Canyon Road	Roundabout or Signal Control	\$3,250,000	50.00%	50.00%
			\$3,510,000	100.00%	0.00%
Bicycle Pedestrian Parking Equestrian	Calistoga Street (SR 29) - Rancheria Road to Pine Street	Multi-Use Path	\$2,080,000	100.00%	0.00%
	Calistoga Street (SR 29) - Lake Street to Douglas Street	Bike Lanes, On-Street Parking & Sidewalks	\$2,340,000	100.00%	0.00%
	Calistoga Street (SR 29) at Callayomi, Douglas, Armstrong, Young	Sidewalk Bulbouts and Decorative Crosswalks	\$650,000	100.00%	0.00%
	High School and Elementary School	Access and Parking Modifications	\$150,000	100.00%	0.00%
	Berry Street - Wardlaw Street to SR 175	Roadway Widening and Sidewalks	\$960,000	100.00%	0.00%
	Bush Street - Wardlaw Street to SR 176	Roadway Widening and Sidewalks	\$840,000	100.00%	0.00%
	Young Street - Barnes Street to SR 29	Roadway Widening and Sidewalks	\$1,010,000	100.00%	0.00%
	Main Street (SR 175) - Barnes Street to Washington St.	Roadway Widening and Sidewalks	\$1,430,000	100.00%	0.00%
	Washington Street -	Roadway Widening and	\$1,690,000	100.00%	0.00%



## SR 29 South Corridor EFS and Middletown CAP

	Wardlaw Street to Douglas Street	Sidewalks			
	Armstrong Street - Bush Street to Washington Street	Roadway Widening and Sidewalks	\$470,000	100.00%	0.00%
	Douglas Street - Bush Street to Washington Street	Roadway Widening and Sidewalks	\$420,000	100.00%	0.00%
	Callayomi Street - Bush Street to Washington Street	Roadway Widening and Sidewalks	\$510,000	100.00%	0.00%
	Pine Street - South End to Hill Street	Roadway Widening and Sidewalks	\$2,930,000	50.00%	50.00%
	Calistoga Street (SR 29) - Wardlaw Street to Bible Church Drwy. (west side)	Sidewalk	\$780,000	100.00%	0.00%
<b>Priority Improvement Plan South of Downtown</b>					
<b>Category</b>	<b>Location on SR 29</b>	<b>Enhancement</b>	<b>Total Cost</b>	<b>Agree</b>	<b>Disagree</b>
	Dry Creek Cut-Off to Lake Street	Radar Feedback Signs	\$91,000	71.43%	28.57%
	CJS Ranch Driveway	Left-Turn Lanes	\$1,820,000	100.00%	0.00%
	Adventist School Driveway	Left-Turn Lanes	\$1,170,000	80.00%	20.00%
	Dry Creek Cut-Off to Lake Street	Shoulder Widening	\$2,080,000	80.00%	20.00%
Traffic Calming	Rancheria Road	Gateway Monuments	\$97,500	100.00%	0.00%





## SR 29 South Corridor EFS and Middletown CAP

	Rancheria Road	Optical Speed Bars	\$13,000	100.00%	0.00%
	Rancheria Road	Colorized Shoulders	\$32,500	83.33%	16.67%
Congestion	Dry Creek Cut-Off	Left-Turn Lanes	\$1,170,000	100.00%	0.00%
Bicycle Pedestrian Equestrian	Rancheria Road to Pine Street	Multi-Use Path	\$2,080,000	100.00%	0.00%

# **APPENDIX B**

## **COST ESTIMATES**

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

### Project Description:

Location: SR 29 @ Main Street (SR 175)

Proposed Improvements (Scope): NB & SB Left-Turn Lanes and Protected Left-Turn Signal Phasing

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	100,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	100,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	100,000
	rounded \$	100,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

01-LAK

PM 5.8

EA

Program Code

## I. ROADWAY ITEMS

## Section 1: Earthwork

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing		LS	\$ 40 000	\$ -	
Develop Water Supply		LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ -

## Section 2: Pavement Structural

## Section

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$	

### **Section 3: Drainage**

<b>Section 3: Drainage</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				<b>Total Drainage</b>	<b>\$</b>

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

<b>Section 4: Specialty Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
				Subtotal Specialty Items	\$ 30 000
<b>Section 5: Traffic Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 2 000	\$ 2 000	
Traffic Signals	1	EA	\$ 25 000	\$ 25 000	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 5 000	\$ 5 000	
Transportation Management Plan	1	LS	\$ -	\$ -	
Temp K Rail		LS	\$ -	\$ -	
				Subtotal Traffic Items	\$ 33 600
				TOTAL SECTIONS 1 - 5	\$ 63 600

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE
				01-LAK
				5.8
				EA
				Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 63 600	x( 10% )*	\$ 6 360	
			Total Minor Items	\$ 6 360

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 63 600			
Minor Items	\$ 6 360			
Sum	\$ 69 960	x( 10% )*	\$ 6 996	
			Total Roadway Mobilization	\$ 6 996

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 63 600			
Minor Items	\$ 6 360			
Sum	\$ 69 960	x( 10% )*	\$ 6 996	

#### Contingencies

Subtotal Sections 1 - 5	\$ 63 600			
Minor Items	\$ 6 360			
Sum	\$ 69 960	x( 30% )**	\$ 20 988	
			Total Roadway Additions	\$ 27 984
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 104 940

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.



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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width ft. (out to out)			
Span Lengths ft.			
Total Area Sq. Ft.			
Footing Type (pile/spread)			
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)			
Total Cost for Structure	\$ -	\$ -	
Remove Existing Structures			
*Add additional structures as necessary			
SUBTOTAL STRUCTURES ITEMS			\$ -
Railroad Related Costs			\$ -
TOTAL STRUCTURES ITEMS			\$ -
Estimate Prepared By		Phone	Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### Project Description:

Location: SR 29 S/O Dry Creek Cut-Off

Proposed Improvements (Scope): Install NB Solar Powered Radar Feedback Sign

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	70,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	70,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	70,000
	rounded \$	70,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing		LS	\$ 40 000	\$ -	
Develop Water Supply		LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ -

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ -

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ 1 000	\$ -	
Traffic Delineation Items		LS	\$ -	\$ -	
Traffic Signals		EA		\$ -	
Small Sign Foundation	1	LS	\$ 1 500	\$ 1 500	
Roadside Signs (Radar Feedback)	1	LS	\$ 15 000	\$ 15 000	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 500	\$ 500	
Transportation Management Plan	1	LS	\$ 1 200	\$ 1 200	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 18 200
TOTAL SECTIONS 1 - 5					\$ 48 200

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### II. ROADSIDE ITEMS

<u>Section 6: Planting and Irrigation</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

### Section 7: Roadside Management and Safety Section

<u>Section 7: Roadside Management and Safety Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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				DIST-CO-RTE	
				01-LAK	
				PM	4.5
				EA	
				Program Code	
<b>Section 8: Minor Items</b>				<b>Unit Cost</b>	<b>Section Cost</b>
Subtotal Sections 1 - 7	\$	48 200	x( 10% )*	\$	4 820
				Total Minor Items	\$ 4 820
<b>Section 9: Roadway Mobilization</b>					
Subtotal Sections 1 - 5	\$	48 200			
Minor Items	\$	4 820			
Sum	\$	53 020	x( 10% )*	\$	5 302
				Total Roadway Mobilization	\$ 5 302
<b>Section 10: Roadway Additions</b>					
<i>Supplemental</i>					
Subtotal Sections 1 - 5	\$	48 200			
Minor Items	\$	4 820			
Sum	\$	53 020	x( 10% )*	\$	5 302
<i>Contingencies</i>					
Subtotal Sections 1 - 5	\$	48 200			
Minor Items	\$	4 820			
Sum	\$	53 020	x( 30% )**	\$	15 906
				Total Roadway Additions	\$ 21 208
TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)					\$ 79 530

Estimate Prepared By OMNI-MEANSPhone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5
EA	
Program Code	

### Project Description:

Location: SR 29 @ Butts Canyon Road

Proposed Improvements (Scope): Install SB Solar Powered Radar Feedback Sign

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	70,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	70,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	70,000
	rounded \$	70,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

01-LAK

PM 6.5

EA

### Program Code

## I. ROADWAY ITEMS

## Section 1: Earthwork

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing		LS	\$ 40 000	\$ -	
Develop Water Supply		LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ -

## **Section 2: Pavement Structural**

## Section

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$	-

### **Section 3: Drainage**

<b>Section 3: Drainage</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				<b>Total Drainage</b>	<b>\$ -</b>

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ 1 000	\$ -	
Traffic Delineation Items		LS	\$ -	\$ -	
Traffic Signals		EA		\$ -	
Small Sign Foundation	1	LS	\$ 1 500	\$ 1 500	
Roadside Signs (Radar Feedback)	1	LS	\$ 15 000	\$ 15 000	
Remove Exisitng Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 500	\$ 500	
Transportation Management Plan	1	LS	\$ 1 200	\$ 1 200	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 18 200
TOTAL SECTIONS 1 - 5					\$ 48 200

Sheet 3 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE 01-LAK
				PM 6.5
				EA
				Program Code
				<hr/>
<b>Section 8: Minor Items</b>				
Subtotal Sections 1 - 7	\$ 48 200	x( 10% )*	\$ 4 820	<b>Section Cost</b>
			Total Minor Items	\$ 4 820
<b>Section 9: Roadway Mobilization</b>				
Subtotal Sections 1 - 5	\$ 48 200			
Minor Items	\$ 4 820			
Sum	\$ 53 020	x( 10% )*	\$ 5 302	
			Total Roadway Mobilization	\$ 5 302
<b>Section 10: Roadway Additions</b>				
<i>Supplemental</i>				
Subtotal Sections 1 - 5	\$ 48 200			
Minor Items	\$ 4 820			
Sum	\$ 53 020	x( 10% )*	\$ 5 302	
<i>Contingencies</i>				
Subtotal Sections 1 - 5	\$ 48 200			
Minor Items	\$ 4 820			
Sum	\$ 53 020	x( 30% )**	\$ 15 906	
			Total Roadway Additions	\$ 21 208
<b>TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)</b>				<b>\$ 79 530</b>

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>6.5</u>
EA	<u>          </u>
Program Code	<u>          </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>
Bridge Name	<u>                    </u>	<u>                    </u>	<u>                    </u>
Structure Type	<u>                    </u>	<u>                    </u>	<u>                    </u>
Width ft. (out to out)	<u>                    </u>	<u>                    </u>	<u>                    </u>
Span Lengths ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>
Total Area Sq. Ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>
Footing Type (pile/spread)	<u>                    </u>	<u>                    </u>	<u>                    </u>
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>                    </u>	<u>                    </u>	<u>                    </u>
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>                    </u>
Remove Existing Structures	<u>                    </u>	<u>                    </u>	<u>                    </u>
*Add additional structures as necessary			

SUBTOTAL STRUCTURES ITEMS	<u>\$ -</u>
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Railroad Related Costs	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$ -</u>
------------------------	-----------------------------	-----------------------------	-----------------------------	-------------

TOTAL STRUCTURES ITEMS	<u>\$ -</u>
------------------------	-------------

Estimate Prepared By	<u>                    </u>	Phone	<u>                    </u>	Date	<u>                    </u>
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(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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DIST-CO-RTE

KP(PM) \_\_\_\_\_  
EA \_\_\_\_\_  
PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 & 14.3
EA	
Program Code	

### Project Description:

Location: SR 29 N/O Spruce Grove Road (south)

Proposed Improvements (Scope): Install NB and SB Solar Powered Radar Feedback Sign

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	100,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	100,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	100,000
rounded	\$	100,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 & 14.3
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing		LS	\$ 40 000	\$ -	
Develop Water Supply		LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ -

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ -

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
Total Drainage					\$ -

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK  
PM 12.8 & 14.3  
EA  
Program Code

<b>Section 4: Specialty Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<b>Section 5: Traffic Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Lighting		LS	\$ 1 000	\$ -	
Traffic Delineation Items		LS	\$ -	\$ -	
Traffic Signals		EA		\$ -	
Small Sign Foundation	2	LS	\$ 1 500	\$ 3 000	
Roadside Signs (Radar Feedback)	2	LS	\$ 15 000	\$ 30 000	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	2	LS	\$ 500	\$ 1 000	
Transportation Management Plan	2	LS	\$ 1 200	\$ 2 400	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 36 400
TOTAL SECTIONS 1 - 5					\$ 66 400

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 & 14.3
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and

#### Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE 01-LAK
				PM 12.8 & 14.3
				EA
				Program Code
				<hr/>
<b>Section 8: Minor Items</b>			<b>Unit Cost</b>	<b>Section Cost</b>
Subtotal Sections 1 - 7	\$ 66 400	x( 10% )*	\$ 6 640	
			Total Minor Items	\$ 6 640
 <b>Section 9: Roadway Mobilization</b>				
Subtotal Sections 1 - 5	\$ 66 400			
Minor Items	\$ 6 640			
Sum	\$ 73 040	x( 10% )*	\$ 7 304	
			Total Roadway Mobilization	\$ 7 304
 <b>Section 10: Roadway Additions</b>				
<i>Supplemental</i>				
Subtotal Sections 1 - 5	\$ 66 400			
Minor Items	\$ 6 640			
Sum	\$ 73 040	x( 10% )*	\$ 7 304	
 <i>Contingencies</i>				
Subtotal Sections 1 - 5	\$ 66 400			
Minor Items	\$ 6 640			
Sum	\$ 73 040	x( 30% )**	\$ 21 912	
			Total Roadway Additions	\$ 29 216
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 109 560

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 & 14.3
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### Project Description:

Location: SR 29 - Grange Road to Guenoc Lane

Proposed Improvements (Scope): Shoulder Widening and Median

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,690,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,690,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,690,000
rounded	\$	1,700,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	4 732	CY	\$ 30	\$ 141 973	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 211 973

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	2180	TON	\$ 125	\$ 272 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	3230	CY	\$ 85	\$ 274 550	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 547 050

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ 108 000	\$ 108 000	
			Subtotal Specialty Items	\$	138 000

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	131 600
			TOTAL SECTIONS 1 - 5	\$	1 028 623

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

					DIST-CO-RTE
					01-LAK
					PM 9.2 - 9.7
					EA
					Program Code

### Section 8: Minor Items

				Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 1 028 623	x( 10% )*	\$ 102 862		
			Total Minor Items	\$ 102 862	

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 1 028 623				
Minor Items	\$ 102 862				
Sum	\$ 1 131 486	x( 10% )*	\$ 113 149		
			Total Roadway Mobilization	\$ 113 149	

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 1 028 623				
Minor Items	\$ 102 862				
Sum	\$ 1 131 486	x( 10% )*	\$ 113 149		

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 1 028 623				
Minor Items	\$ 102 862				
Sum	\$ 1 131 486	x( 30% )**	\$ 339 446		
			Total Roadway Additions	\$ 452 594	
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 697 229	

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.



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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>9.2 - 9.7</u>
EA	<u>                    </u>
Program Code	<u>                    </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Structure Type	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Width ft. (out to out)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Span Lengths ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Area Sq. Ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Footing Type (pile/spread)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>                    </u>	
Remove Existing Structures	<u>                    </u>	<u>                    </u>	<u>                    </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>                    </u>	Phone	<u>                    </u>	Date <u>                    </u>

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	_____	100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.8
EA	
Program Code	

### Project Description:

Location: SR 29 @ Hartmann Road

Proposed Improvements (Scope): Install Roundabout

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	3,290,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	3,290,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	3,290,000
	rounded \$	3,300,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.8
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9 053	CY	\$ 30	\$ 271 581	
Imported Borrow	3333	CY	\$ 45	\$ 150 000	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 491 581

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	4170	TON	\$ 125	\$ 521 250	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	6180	CY	\$ 85	\$ 525 300	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 1 046 550

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
Total Drainage					\$ 50 000

Sheet 2 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.8
EA	
Program Code	

<b>Section 4: Specialty Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	287	CY	\$ 800	\$ 229 600	
Utility Relocations		LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	259 600
<b>Section 5: Traffic Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Lighting	1	LS	\$ 16 000	\$ 16 000	
Traffic Delineation Items		LS	\$ -	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs		LS	\$ -	\$ -	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 100 000	\$ 100 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	150 000
			TOTAL SECTIONS 1 - 5	\$	1 997 731

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.8
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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DIST-CO-RTE  
01-LAK

---

PM 9.8

---

EA

---

Program Code

---

### Section 8: Minor Items

			<u>Unit Cost</u>	<u>Section Cost</u>
Subtotal Sections 1 - 7	\$ 1 997 731	x( 10% )*	\$ 199 773	
			Total Minor Items	\$ 199 773

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 1 997 731			
Minor Items	\$ 199 773			
Sum	\$ 2 197 504	x( 10% )*	\$ 219 750	
			Total Roadway Mobilization	\$ 219 750

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 1 997 731			
Minor Items	\$ 199 773			
Sum	\$ 2 197 504	x( 10% )*	\$ 219 750	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 1 997 731			
Minor Items	\$ 199 773			
Sum	\$ 2 197 504	x( 30% )**	\$ 659 251	
			Total Roadway Additions	\$ 879 002
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 3 296 257

Estimate Prepared By OMNI-MEANS

Phone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>9.8</u>
EA	<u>          </u>
Program Code	<u>          </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>          </u>	<u>          </u>	<u>          </u>	
Structure Type	<u>          </u>	<u>          </u>	<u>          </u>	
Width ft. (out to out)	<u>          </u>	<u>          </u>	<u>          </u>	
Span Lengths ft.	<u>          </u>	<u>          </u>	<u>          </u>	
Total Area Sq. Ft.	<u>          </u>	<u>          </u>	<u>          </u>	
Footing Type (pile/spread)	<u>          </u>	<u>          </u>	<u>          </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>          </u>	<u>          </u>	<u>          </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>          </u>	
Remove Existing Structures	<u>          </u>	<u>          </u>	<u>          </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>          </u>	<u>          </u>	<u>          </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>          </u>	Phone	<u>          </u>	Date <u>          </u>

(If appropriate, attach additional pages and backup)



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 100 000	100.00%	\$ 100 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 100 000	TOT. ESC. R/W	\$ 100 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.5
EA	
Program Code	

### Project Description:

Location: SR 29 N/O Hidden Valley Road

Proposed Improvements (Scope): Install SB Solar Powered Radar Feedback Sign

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	70,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	70,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	70,000
	rounded \$	70,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

01-LAK

PM 11.5

EA

Program Code

## I. ROADWAY ITEMS

## Section 1: Earthwork

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing		LS	\$ 40 000	\$ -	
Develop Water Supply		LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ -

## Section 2: Pavement Structural

## Section

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$	-

### **Section 3: Drainage**

Section 3: Drainage	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.5
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	30 000

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ 1 000	\$ -	
Traffic Delineation Items		LS	\$ -	\$ -	
Traffic Signals		EA		\$ -	
Small Sign Foundation	1	LS	\$ 1 500	\$ 1 500	
Roadside Signs (Radar Feedback)	1	LS	\$ 15 000	\$ 15 000	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 500	\$ 500	
Transportation Management Plan	1	LS	\$ 1 200	\$ 1 200	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	18 200
			TOTAL SECTIONS 1 - 5	\$	48 200

Sheet 3 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.5
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
				Subtotal Planting and Irrigation	\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Roadside Management and Safety Section	\$ -
				TOTAL SECTIONS 6 & 7	\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE
				01-LAK
				PM 11.5
				EA
				Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 48 200	x( 10% )*	\$ 4 820	
			Total Minor Items	\$ 4 820

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 48 200			
Minor Items	\$ 4 820			
Sum	\$ 53 020	x( 10% )*	\$ 5 302	
			Total Roadway Mobilization	\$ 5 302

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 48 200			
Minor Items	\$ 4 820			
Sum	\$ 53 020	x( 10% )*	\$ 5 302	

#### Contingencies

Subtotal Sections 1 - 5	\$ 48 200			
Minor Items	\$ 4 820			
Sum	\$ 53 020	x( 30% )**	\$ 15 906	
			Total Roadway Additions	\$ 21 208
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 79 530

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>11.5</u>
EA	<u>          </u>
Program Code	<u>          </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>          </u>	<u>          </u>	<u>          </u>	
Structure Type	<u>          </u>	<u>          </u>	<u>          </u>	
Width ft. (out to out)	<u>          </u>	<u>          </u>	<u>          </u>	
Span Lengths ft.	<u>          </u>	<u>          </u>	<u>          </u>	
Total Area Sq. Ft.	<u>          </u>	<u>          </u>	<u>          </u>	
Footing Type (pile/spread)	<u>          </u>	<u>          </u>	<u>          </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>          </u>	<u>          </u>	<u>          </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>          </u>	
Remove Existing Structures	<u>          </u>	<u>          </u>	<u>          </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>          </u>	<u>          </u>	<u>          </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>          </u>	Phone	<u>          </u>	Date <u>          </u>

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 - 14.3
EA	
Program Code	

### Project Description:

Location: SR 29 - N/O Spruce Grove Road (south)

Proposed Improvements (Scope): Shoulder Widening

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	6,180,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	6,180,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	6,180,000
rounded	\$	6,200,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 - 14.3
EA	_____
Program Code	_____

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	27 534	CY	\$ 30	\$ 826 027	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 896 027

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	8720	TON	\$ 125	\$ 1 090 000	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	12910	CY	\$ 85	\$ 1 097 350	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 2 187 350

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 500 000	\$ 500 000	
				Total Drainage	\$ 500 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 - 14.3
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ 45 000	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	30 000

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 11 000	\$ 11 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	135 600
			TOTAL SECTIONS 1 - 5	\$	3 748 977

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	12.8 - 14.3
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE 01-LAK
			PM	12.8 - 14.3
			EA	
			Program Code	

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 3 748 977	x( 10% )*	\$ 374 898	
			Total Minor Items	\$ 374 898

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 3 748 977			
Minor Items	\$ 374 898			
Sum	\$ 4 123 874	x( 10% )*	\$ 412 387	
			Total Roadway Mobilization	\$ 412 387

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 3 748 977			
Minor Items	\$ 374 898			
Sum	\$ 4 123 874	x( 10% )*	\$ 412 387	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 3 748 977			
Minor Items	\$ 374 898			
Sum	\$ 4 123 874	x( 30% )**	\$ 1 237 162	
			Total Roadway Additions	\$ 1 649 550
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 6 185 812

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>12.8 - 14.3</u>
EA	<u>                    </u>
Program Code	<u>                    </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Structure Type	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Width ft. (out to out)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Span Lengths ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Area Sq. Ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Footing Type (pile/spread)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>                    </u>	
Remove Existing Structures	<u>                    </u>	<u>                    </u>	<u>                    </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>                    </u>	Phone	<u>                    </u>	Date <u>                    </u>

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	17.8
EA	
Program Code	

### Project Description:

Location: SR 29 @ C Street

Proposed Improvements (Scope): NB and SB Left-Turn Lanes

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,310,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,310,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,310,000
	rounded \$	1,400,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	17.8
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	3 559	CY	\$ 30	\$ 106 773	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 176 773

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	1640	TON	\$ 125	\$ 205 000	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	2430	CY	\$ 85	\$ 206 550	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 411 550

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
				Total Drainage	\$ 50 000

Sheet 2 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	17.8
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ 108 000	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 131 600
TOTAL SECTIONS 1 - 5					\$ 799 923

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	17.8
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)	AC	\$ -	\$ -	
Replacement Planting		\$ -	\$ -	
Irrigation Modification		\$ -	\$ -	
Relocate Existing Irrigation Facilities		\$ -	\$ -	
Irrigation Crossovers	LS	\$ -	\$ -	
Subtotal Planting and Irrigation				\$ -

#### Section 7: Roadside Management and Safety Section

Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments		\$ -	\$ -	
Gore Area Pavement	SF		\$ -	
Pavement beyond Gore Area			\$ -	
Miscellaneous Paving			\$ -	
Erosion Control/Slope Protection	AC		\$ -	
Side Slopes/Embankment Slopes			\$ -	
Fencing	LF		\$ -	
Roadside Facilities			\$ -	
Relocate Roadside Facilities/Features		\$ -	\$ -	
		\$ -	\$ -	
Subtotal Roadside Management and Safety Section				\$ -
TOTAL SECTIONS 6 & 7				\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 17.8

EA

Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 799 923	x( 10% )*	\$ 79 992	
			Total Minor Items	\$ 79 992

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 799 923			
Minor Items	\$ 79 992			
Sum	\$ 879 916	x( 10% )*	\$ 87 992	
			Total Roadway Mobilization	\$ 87 992

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 799 923			
Minor Items	\$ 79 992			
Sum	\$ 879 916	x( 10% )*	\$ 87 992	

#### Contingencies

Subtotal Sections 1 - 5	\$ 799 923			
Minor Items	\$ 79 992			
Sum	\$ 879 916	x( 30% )**	\$ 263 975	
			Total Roadway Additions	\$ 351 966
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 319 874

Estimate Prepared By OMNI-MEANS

Phone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	17.8
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	19.3 - 20.3
EA	
Program Code	

### Project Description:

Location: SR 29 - S/O SR 53

Proposed Improvements (Scope): NB Truck Climbing Lanes

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	8,260,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	8,260,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	8,260,000
	rounded \$	8,300,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	19.3 - 20.3
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	43 022	CY	\$ 30	\$ 1 290 667	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 1 360 667

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	11880	TON	\$ 125	\$ 1 485 000	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	17600	CY	\$ 85	\$ 1 496 000	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 2 981 000

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 500 000	\$ 500 000	
				Total Drainage	\$ 500 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK  
PM 19.3 - 20.3  
EA  
Program Code

<b>Section 4: Specialty Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ 45 000	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<b>Section 5: Traffic Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 11 000	\$ 11 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 135 600
TOTAL SECTIONS 1 - 5					\$ 5 007 267

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	19.3 - 20.3
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE
				01-LAK
				19.3 - 20.3
				EA
				Program Code

### Section 8: Minor Items

			<u>Unit Cost</u>	<u>Section Cost</u>
Subtotal Sections 1 - 7	\$ 5 007 267	x( 10% )*	\$ 500 727	
			Total Minor Items	\$ 500 727

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 5 007 267			
Minor Items	\$ 500 727			
Sum	\$ 5 507 993	x( 10% )*	\$ 550 799	
			Total Roadway Mobilization	\$ 550 799

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 5 007 267			
Minor Items	\$ 500 727			
Sum	\$ 5 507 993	x( 10% )*	\$ 550 799	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 5 007 267			
Minor Items	\$ 500 727			
Sum	\$ 5 507 993	x( 30% )**	\$ 1 652 398	
			Total Roadway Additions	\$ 2 203 197
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 8 261 990

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.



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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>19.3 - 20.3</u>
EA	<u>                    </u>
Program Code	<u>                    </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Structure Type	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Width ft. (out to out)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Span Lengths ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Area Sq. Ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Footing Type (pile/spread)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>                    </u>	
Remove Existing Structures	<u>                    </u>	<u>                    </u>	<u>                    </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>                    </u>	Phone	<u>                    </u>	Date <u>                    </u>

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM)

EA

PP No.

-

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### Project Description:

Location: SR 29 @ Wardlaw Street

Proposed Improvements (Scope): EB & WB Left-Turn & SB RT Lanes and Protected Left-Turn Signal Phasing

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	550,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	550,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	550,000
	rounded \$	600,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

01-LAK

PM 5.9

EA

Program Code

## I. ROADWAY ITEMS

## Section 1: Earthwork

<b><u>Section 1: Earthwork</u></b>	<b><u>Quantity</u></b>	<b><u>Unit</u></b>	<b><u>Unit Price</u></b>	<b><u>Unit Cost</u></b>	<b><u>Section Cost</u></b>
Roadway Excavation	293	CY	\$ 30	\$ 8 800	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing		LS	\$ 40 000	\$ -	
Develop Water Supply		LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 8 800

## Section 2: Pavement Structural

## Section

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	140	TON	\$ 125	\$ 17 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	200	CY	\$ 85	\$ 17 000	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$	34 500

### Section 3: Drainage

<u>Section 3: Drainage</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
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Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	67	CY	\$ 800	\$ 53 360	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 83 360
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 2 000	\$ 2 000	
Traffic Signals	1	EA	\$ 200 000	\$ 200 000	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 5 000	\$ 5 000	
Transportation Management Plan	1	LS	\$ -	\$ -	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 208 600
TOTAL SECTIONS 1 - 5					\$ 335 260

Sheet 3 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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DIST-CO-RTE  
01-LAK

---

PM 5.9

---

EA

---

Program Code

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### Section 8: Minor Items

			<u>Unit Cost</u>	<u>Section Cost</u>
Subtotal Sections 1 - 7	\$ 335 260	x( 10% )*	\$ 33 526	
			Total Minor Items	\$ 33 526

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 335 260			
Minor Items	\$ 33 526			
Sum	\$ 368 786	x( 10% )*	\$ 36 879	
			Total Roadway Mobilization	\$ 36 879

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 335 260			
Minor Items	\$ 33 526			
Sum	\$ 368 786	x( 10% )*	\$ 36 879	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 335 260			
Minor Items	\$ 33 526			
Sum	\$ 368 786	x( 30% )**	\$ 110 636	

Total Roadway Additions	\$ 147 514
TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 553 179

Estimate Prepared By OMNI-MEANS

Phone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.7
EA	
Program Code	

### Project Description:

Location: SR 29 @ CJS Ranch Supply Driveway

Proposed Improvements (Scope): NB and SB Left-Turn Lanes

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,310,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,310,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,310,000
	rounded \$	1,400,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.7
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	3 559	CY	\$ 30	\$ 106 773	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 176 773

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	1640	TON	\$ 125	\$ 205 000	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	2430	CY	\$ 85	\$ 206 550	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 411 550

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
				Total Drainage	\$ 50 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.7
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 131 600
TOTAL SECTIONS 1 - 5					\$ 799 923

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.7
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 4.7  
EA  
Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 799 923	x( 10% )*	\$ 79 992	
			Total Minor Items	\$ 79 992

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 799 923			
Minor Items	\$ 79 992			
Sum	\$ 879 916	x( 10% )*	\$ 87 992	
			Total Roadway Mobilization	\$ 87 992

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 799 923			
Minor Items	\$ 79 992			
Sum	\$ 879 916	x( 10% )*	\$ 87 992	

#### Contingencies

Subtotal Sections 1 - 5	\$ 799 923			
Minor Items	\$ 79 992			
Sum	\$ 879 916	x( 30% )**	\$ 263 975	
			Total Roadway Additions	\$ 351 966
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 319 874

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.7
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width ft. (out to out)			
Span Lengths ft.			
Total Area Sq. Ft.			
Footing Type (pile/spread)			
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)			
Total Cost for Structure	\$ -	\$ -	
Remove Existing Structures			
*Add additional structures as necessary			

SUBTOTAL STRUCTURES ITEMS	\$ -
---------------------------	------

Railroad Related Costs	\$ -
------------------------	------

TOTAL STRUCTURES ITEMS	\$ -
------------------------	------

Estimate Prepared By	Phone	Date
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(If appropriate, attach additional pages and backup)



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
EA \_\_\_\_\_  
PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.9
EA	
Program Code	

### Project Description:

Location: SR 29 @ Adventist School Driveway

Proposed Improvements (Scope): SB Left-Turn Lanes

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	880,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	880,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	880,000
	rounded \$	900,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.9
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	1 780	CY	\$ 30	\$ 53 387	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 123 387

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	820	TON	\$ 125	\$ 102 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	1220	CY	\$ 85	\$ 103 700	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 206 200

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
Total Drainage					\$ 50 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.9
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 2 000	\$ 2 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	126 600
			TOTAL SECTIONS 1 - 5	\$	536 187

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.9
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 4.9  
EA  
Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 536 187	x( 10% )*	\$ 53 619	
			Total Minor Items	\$ 53 619

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 536 187			
Minor Items	\$ 53 619			
Sum	\$ 589 805	x( 10% )*	\$ 58 981	
			Total Roadway Mobilization	\$ 58 981

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 536 187			
Minor Items	\$ 53 619			
Sum	\$ 589 805	x( 10% )*	\$ 58 981	

#### Contingencies

Subtotal Sections 1 - 5	\$ 536 187			
Minor Items	\$ 53 619			
Sum	\$ 589 805	x( 30% )**	\$ 176 942	
			Total Roadway Additions	\$ 235 922
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 884 708

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.9
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5 - 5.3
EA	
Program Code	

### Project Description:

Location: SR 29 - Dry Creek Cut-Off to Lake Street

Proposed Improvements (Scope): Shoulder Widening (remainder of section)

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,600,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,600,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,600,000
	rounded \$	1,600,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5 - 5.3
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	1 674	CY	\$ 30	\$ 50 219	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 120 219

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	780	TON	\$ 125	\$ 97 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	1150	CY	\$ 85	\$ 97 750	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 195 250

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 500 000	\$ 500 000	
Total Drainage					\$ 500 000

Sheet 2 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5 - 5.3
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ 45 000	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 3 000	\$ 3 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 127 600
TOTAL SECTIONS 1 - 5					\$ 973 069

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5 - 5.3
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 4.5 - 5.3  
EA  
Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 973 069	x( 10% )*	\$ 97 307	
			Total Minor Items	\$ 97 307

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 973 069			
Minor Items	\$ 97 307			
Sum	\$ 1 070 376	x( 10% )*	\$ 107 038	
			Total Roadway Mobilization	\$ 107 038

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 973 069			
Minor Items	\$ 97 307			
Sum	\$ 1 070 376	x( 10% )*	\$ 107 038	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 973 069			
Minor Items	\$ 97 307			
Sum	\$ 1 070 376	x( 30% )**	\$ 321 113	
			Total Roadway Additions	\$ 428 150
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 605 563

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5 - 5.3
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### Project Description:

Location: SR 29 - Grange Road to Guenoc Lane

Proposed Improvements (Scope): Shoulder Widening and Center Left-Turn Lane

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,890,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,890,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,890,000
	rounded \$	1,900,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	6 023	CY	\$ 30	\$ 180 693	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 250 693

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	2780	TON	\$ 125	\$ 347 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	4110	CY	\$ 85	\$ 349 350	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 696 850

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 40 000	\$ 40 000	
				Total Drainage	\$ 40 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 131 600
TOTAL SECTIONS 1 - 5					\$ 1 149 143

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and

##### Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 9.2 - 9.7

EA

Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 1 149 143	x( 10% )*	\$ 114 914	
			Total Minor Items	\$ 114 914

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 1 149 143			
Minor Items	\$ 114 914			
Sum	\$ 1 264 058	x( 10% )*	\$ 126 406	
			Total Roadway Mobilization	\$ 126 406

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 1 149 143			
Minor Items	\$ 114 914			
Sum	\$ 1 264 058	x( 10% )*	\$ 126 406	

#### Contingencies

Subtotal Sections 1 - 5	\$ 1 149 143			
Minor Items	\$ 114 914			
Sum	\$ 1 264 058	x( 30% )**	\$ 379 217	
			Total Roadway Additions	\$ 505 623
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 896 087

Estimate Prepared By OMNI-MEANS

Phone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7



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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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	DIST-CO-RTE
	01-LAK
PM	9.2 - 9.7
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5 - 6.9
EA	
Program Code	

### Project Description:

Location: SR 29 - Butts Canyon Road to St. Helena Drive

Proposed Improvements (Scope): Shoulder Widening

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$ 1,860,000
TOTAL STRUCTURAL ITEMS	\$ -
SUBTOTAL CONSTRUCTION COSTS	\$ 1,860,000
TOTAL RIGHT OF WAY ITEMS	
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 1,860,000
rounded	\$ 1,900,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5 - 6.9
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	2 753	CY	\$ 30	\$ 82 603	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 152 603

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	1270	TON	\$ 125	\$ 158 750	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	1880	CY	\$ 85	\$ 159 800	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 318 550

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 500 000	\$ 500 000	
Total Drainage					\$ 500 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5 - 6.9
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ 45 000	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 5 000	\$ 5 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 129 600
TOTAL SECTIONS 1 - 5					\$ 1 130 753

Sheet 3 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5 - 6.9
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 6.5 - 6.9

EA

Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 1 130 753	x( 10% )*	\$ 113 075	
			Total Minor Items	\$ 113 075

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 1 130 753			
Minor Items	\$ 113 075			
Sum	\$ 1 243 828	x( 10% )*	\$ 124 383	
			Total Roadway Mobilization	\$ 124 383

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 1 130 753			
Minor Items	\$ 113 075			
Sum	\$ 1 243 828	x( 10% )*	\$ 124 383	

#### Contingencies

Subtotal Sections 1 - 5	\$ 1 130 753			
Minor Items	\$ 113 075			
Sum	\$ 1 243 828	x( 30% )**	\$ 373 148	
			Total Roadway Additions	\$ 497 531
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 865 742

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.5 - 6.9
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
EA \_\_\_\_\_  
PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.1 - 5.0
EA	
Program Code	

### Project Description:

Location: SR 29 - Rancheria Road to Pine Street

Proposed Improvements (Scope): Class I Bike Lane

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,540,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,540,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,540,000
	rounded \$	1,600,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.1 - 5.0
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	6 970	CY	\$ 30	\$ 209 088	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 279 088

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	1790	TON	\$ 125	\$ 223 750	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	2640	CY	\$ 85	\$ 224 400	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 448 150

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
Total Drainage					\$ 50 000

Sheet 2 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.1 - 5.0
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 4 000	\$ 4 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 4 800	\$ 4 800	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 131 800
TOTAL SECTIONS 1 - 5					\$ 939 038

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.1 - 5.0
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 4.1 - 5.0

EA

Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 939 038	x( 10% )*	\$ 93 904	
			Total Minor Items	\$ 93 904

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 939 038			
Minor Items	\$ 93 904			
Sum	\$ 1 032 942	x( 10% )*	\$ 103 294	
			Total Roadway Mobilization	\$ 103 294

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 939 038			
Minor Items	\$ 93 904			
Sum	\$ 1 032 942	x( 10% )*	\$ 103 294	

#### Contingencies

Subtotal Sections 1 - 5	\$ 939 038			
Minor Items	\$ 93 904			
Sum	\$ 1 032 942	x( 30% )**	\$ 309 883	
			Total Roadway Additions	\$ 413 177
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 549 413

Estimate Prepared By OMNI-MEANS

Phone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.1 - 5.0
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.3 to 5.6
EA	
Program Code	

### Project Description:

Location: SR 29 - Lake Street to Douglas Street

Proposed Improvements (Scope): Roadway Widening and Sidewalks

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	2,280,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	2,280,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	2,280,000
	rounded \$	2,300,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.3 to 5.6
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	3 872	CY	\$ 30	\$ 116 160	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	0	LS	\$ 40 000	\$ -	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 146 160

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	1790	TON	\$ 125	\$ 223 750	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	2640	CY	\$ 85	\$ 224 400	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 448 150

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 100 000	\$ 100 000	
Total Drainage					\$ 100 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.3 to 5.6
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	587	CY	\$ 800	\$ 469 360	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 499 360
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting	1	LS	\$ 48 000	\$ 48 000	
Traffic Delineation Items		LS	\$ 6 000	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 8 000	\$ 8 000	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 100 000	\$ 100 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 190 000
TOTAL SECTIONS 1 - 5					\$ 1 383 670

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.3 to 5.6
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 5.3 to 5.6

EA

Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 1 383 670	x( 10% )*	\$ 138 367	
			Total Minor Items	\$ 138 367

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 1 383 670			
Minor Items	\$ 138 367			
Sum	\$ 1 522 037	x( 10% )*	\$ 152 204	
			Total Roadway Mobilization	\$ 152 204

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 1 383 670			
Minor Items	\$ 138 367			
Sum	\$ 1 522 037	x( 10% )*	\$ 152 204	

#### Contingencies

Subtotal Sections 1 - 5	\$ 1 383 670			
Minor Items	\$ 138 367			
Sum	\$ 1 522 037	x( 30% )**	\$ 456 611	
			Total Roadway Additions	\$ 608 815
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 2 283 056

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.3 to 5.6
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ -	100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.0 to 6.2
EA	
Program Code	

### Project Description:

Location: SR 29 - Wardlaw Street to Bible Church Driveway

Proposed Improvements (Scope): Sidewalk along west side of highway

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	520,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	520,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	520,000
	rounded \$	600,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.0 to 6.2
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	0	LS	\$ 40 000	\$ -	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Earthwork	\$ 30 000	

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$ -	

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 100 000	\$ 100 000	
			Total Drainage	\$ 100 000	

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK  
PM 6.0 to 6.2  
EA  
Program Code

<b>Section 4: Specialty Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	117	CY	\$ 800	\$ 93 840	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 123 840
<b>Section 5: Traffic Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Lighting	1	LS	\$ -	\$ -	
Traffic Delineation Items		LS	\$ -	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 8 000	\$ 8 000	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 25 000	\$ 25 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 67 000
TOTAL SECTIONS 1 - 5					\$ 320 840

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.0 to 6.2
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)	AC	\$ -	\$ -	
Replacement Planting		\$ -	\$ -	
Irrigation Modification		\$ -	\$ -	
Relocate Existing Irrigation Facilities		\$ -	\$ -	
Irrigation Crossovers	LS	\$ -	\$ -	
Subtotal Planting and Irrigation				\$ -

#### Section 7: Roadside Management and Safety Section

Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments		\$ -	\$ -	
Gore Area Pavement	SF		\$ -	
Pavement beyond Gore Area			\$ -	
Miscellaneous Paving			\$ -	
Erosion Control/Slope Protection	AC		\$ -	
Side Slopes/Embankment Slopes			\$ -	
Fencing	LF		\$ -	
Roadside Facilities			\$ -	
Relocate Roadside Facilities/Features		\$ -	\$ -	
		\$ -	\$ -	
Subtotal Roadside Management and Safety Section				\$ -
TOTAL SECTIONS 6 & 7				\$ -

Sheet 4 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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DIST-CO-RTE  
01-LAK

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PM 6.0 to 6.2

---

EA

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Program Code

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### Section 8: Minor Items

			<u>Unit Cost</u>	<u>Section Cost</u>
Subtotal Sections 1 - 7	\$	320 840	x( 10% )*	\$ 32 084
Total Minor Items				<u>\$ 32 084</u>

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$	320 840		
Minor Items	\$	32 084		
Sum	\$	352 924	x( 10% )*	\$ 35 292
Total Roadway Mobilization				<u>\$ 35 292</u>

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$	320 840		
Minor Items	\$	32 084		
Sum	\$	352 924	x( 10% )*	\$ 35 292

#### *Contingencies*

Subtotal Sections 1 - 5	\$	320 840		
Minor Items	\$	32 084		
Sum	\$	352 924	x( 30% )**	\$ 105 877
Total Roadway Additions				<u>\$ 141 170</u>
TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)				<u>\$ 529 386</u>

Estimate Prepared By OMNI-MEANS

Phone (916) 782-8688

Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

Sheet 5 of 7

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>6.0 to 6.2</u>
EA	<u>                    </u>
Program Code	<u>                    </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Structure Type	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Width ft. (out to out)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Span Lengths ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Area Sq. Ft.	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Footing Type (pile/spread)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>                    </u>	<u>                    </u>	<u>                    </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>                    </u>	
Remove Existing Structures	<u>                    </u>	<u>                    </u>	<u>                    </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>                    </u>	Phone	<u>                    </u>	Date <u>                    </u>

(If appropriate, attach additional pages and backup)



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_

EA \_\_\_\_\_

PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ -	100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### Project Description:

Location: SR 29 @ Dry Creek Cut-Off

Proposed Improvements (Scope): NB Left-Turn Lanes

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	880,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	880,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	880,000
	rounded \$	900,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	1 780	CY	\$ 30	\$ 53 387	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 123 387

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	820	TON	\$ 125	\$ 102 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	1220	CY	\$ 85	\$ 103 700	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 206 200

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
				Total Drainage	\$ 50 000

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations		LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 2 000	\$ 2 000	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 33 000	\$ 33 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 126 600
TOTAL SECTIONS 1 - 5					\$ 536 187

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 4.5  
EA  
Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 536 187	x( 10% )*	\$ 53 619	
			Total Minor Items	\$ 53 619

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 536 187			
Minor Items	\$ 53 619			
Sum	\$ 589 805	x( 10% )*	\$ 58 981	
			Total Roadway Mobilization	\$ 58 981

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 536 187			
Minor Items	\$ 53 619			
Sum	\$ 589 805	x( 10% )*	\$ 58 981	

#### Contingencies

Subtotal Sections 1 - 5	\$ 536 187			
Minor Items	\$ 53 619			
Sum	\$ 589 805	x( 30% )**	\$ 176 942	
			Total Roadway Additions	\$ 235 922
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 884 708

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.



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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	4.5
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

### Project Description:

Location: SR 29 @ Main Street (SR 175)

Proposed Improvements (Scope): EB & WB Left-Turn Lanes and Protected Left-Turn Signal Phasing

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	100,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	100,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	100,000
	rounded \$	100,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

01-LAK

PM 5.8

EA

### Program Code

## I. ROADWAY ITEMS

## Section 1: Earthwork

[illegible]

## Section 2: Pavement Structural

## Section

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$	-

### **Section 3: Drainage**

<u>Section 3: Drainage</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	0	CY	\$ 800	\$ -	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 30 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 2 000	\$ 2 000	
Traffic Signals	1	EA	\$ 25 000	\$ 25 000	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 5 000	\$ 5 000	
Transportation Management Plan	1	LS	\$ -	\$ -	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 33 600
TOTAL SECTIONS 1 - 5					\$ 63 600

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 5.8  
EA  
Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 63 600	x( 10% )*	\$ 6 360	
			Total Minor Items	\$ 6 360

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 63 600			
Minor Items	\$ 6 360			
Sum	\$ 69 960	x( 10% )*	\$ 6 996	
			Total Roadway Mobilization	\$ 6 996

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 63 600			
Minor Items	\$ 6 360			
Sum	\$ 69 960	x( 10% )*	\$ 6 996	

#### Contingencies

Subtotal Sections 1 - 5	\$ 63 600			
Minor Items	\$ 6 360			
Sum	\$ 69 960	x( 30% )**	\$ 20 988	
			Total Roadway Additions	\$ 27 984
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 104 940

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.8
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footings Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
 \_\_\_\_\_  
 KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### Project Description:

Location: SR 29 @ Wardlaw Street

Proposed Improvements (Scope): Install Roundabout

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	1,630,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	1,630,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,630,000
	rounded \$	1,700,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	4 914	CY	\$ 30	\$ 147 429	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	0	LS	\$ 40 000	\$ -	
Develop Water Supply	0	LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 147 429

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	2270	TON	\$ 125	\$ 283 750	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	3360	CY	\$ 85	\$ 285 600	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 569 350

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
				Total Drainage	\$ 50 000

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	56	CY	\$ 800	\$ 44 480	
Utility Relocations		LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	74 480

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting	1	LS	\$ 16 000	\$ 16 000	
Traffic Delineation Items		LS	\$ 16 000	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs		LS	\$ -	\$ -	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 100 000	\$ 100 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	150 000
			TOTAL SECTIONS 1 - 5	\$	991 259

Sheet 3 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

PM 5.9  
EA  
Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 991 259	x( 10% )*	\$ 99 126	
			Total Minor Items	\$ 99 126

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 991 259			
Minor Items	\$ 99 126			
Sum	\$ 1 090 385	x( 10% )*	\$ 109 039	
			Total Roadway Mobilization	\$ 109 039

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 991 259			
Minor Items	\$ 99 126			
Sum	\$ 1 090 385	x( 10% )*	\$ 109 039	

#### Contingencies

Subtotal Sections 1 - 5	\$ 991 259			
Minor Items	\$ 99 126			
Sum	\$ 1 090 385	x( 30% )**	\$ 327 116	
			Total Roadway Additions	\$ 436 154
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 1 635 578

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	5.9
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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DIST-CO-RTE

KP(PM) \_\_\_\_\_  
EA \_\_\_\_\_  
PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 200 000	100.00%	\$ 200 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 200 000	TOT. ESC. R/W	\$ 200 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### Project Description:

Location: SR 29 @ Butts Canyon Road

Proposed Improvements (Scope): Install Roundabout

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	2,460,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	2,460,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	2,460,000
	rounded \$	2,500,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	6 803	CY	\$ 30	\$ 204 098	
Imported Borrow	2500	CY	\$ 45	\$ 112 500	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 386 598

#### Section 2: Pavement Structural

<u>Section</u>	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	3140	TON	\$ 125	\$ 392 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	4640	CY	\$ 85	\$ 394 400	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 786 900

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
Total Drainage					\$ 50 000

Sheet 2 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	111	CY	\$ 800	\$ 88 880	
Utility Relocations		LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	118 880

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting	1	LS	\$ 16 000	\$ 16 000	
Traffic Delineation Items		LS	\$ 21 000	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs		LS	\$ 3 200	\$ -	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 100 000	\$ 100 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	150 000
			TOTAL SECTIONS 1 - 5	\$	1 492 378

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

		DIST-CO-RTE 01-LAK
	PM	6.3
	EA	
	Program Code	

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 1 492 378	x( 10% )*	\$ 149 238	
			Total Minor Items	\$ 149 238

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 1 492 378			
Minor Items	\$ 149 238			
Sum	\$ 1 641 616	x( 10% )*	\$ 164 162	
			Total Roadway Mobilization	\$ 164 162

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 1 492 378			
Minor Items	\$ 149 238			
Sum	\$ 1 641 616	x( 10% )*	\$ 164 162	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 1 492 378			
Minor Items	\$ 149 238			
Sum	\$ 1 641 616	x( 30% )**	\$ 492 485	
			Total Roadway Additions	\$ 656 646
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 2 462 423

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM)

EA

PP No.

-

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 100 000	100.00%	\$ 100 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 100 000	TOT. ESC. R/W	\$ 100 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### Project Description:

Location: SR 29 @ Butts Canyon Road

Proposed Improvements (Scope): SB & WB Left-Turn & NB RT Lanes and Protected Left-Turn Signal Phasing

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	2,660,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	2,660,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	2,660,000
	rounded \$	2,700,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	6 519	CY	\$ 30	\$ 195 556	
Imported Borrow	4167	CY	\$ 45	\$ 187 500	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 453 056

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	3000	TON	\$ 125	\$ 375 000	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	4450	CY	\$ 85	\$ 378 250	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 753 250

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

<b>Section 4: Specialty Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	20	CY	\$ 800	\$ 16 000	
Utility Relocations	1	LS	\$ 36 000	\$ 36 000	
			Subtotal Specialty Items	\$	82 000

<b>Section 5: Traffic Items</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Unit Cost</b>	<b>Section Cost</b>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals	1	EA	\$ 200 000	\$ 200 000	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 26 000	\$ 26 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	324 600
			TOTAL SECTIONS 1 - 5	\$	1 612 906

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE
				01-LAK
			PM	6.3
			EA	
			Program Code	

Section 8: Minor Items			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 1 612 906	x( 10% )*	\$ 161 291	
			Total Minor Items	\$ 161 291

Section 9: Roadway Mobilization				
Subtotal Sections 1 - 5	\$ 1 612 906			
Minor Items	\$ 161 291			
Sum	\$ 1 774 196	x( 10% )*	\$ 177 420	
			Total Roadway Mobilization	\$ 177 420

### Section 10: Roadway Additions

#### *Supplemental*

Subtotal Sections 1 - 5	\$ 1 612 906			
Minor Items	\$ 161 291			
Sum	\$ 1 774 196	x( 10% )*	\$ 177 420	

#### *Contingencies*

Subtotal Sections 1 - 5	\$ 1 612 906			
Minor Items	\$ 161 291			
Sum	\$ 1 774 196	x( 30% )**	\$ 532 259	
			Total Roadway Additions	\$ 709 678
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 2 661 294

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	6.3
EA	
Program Code	

### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
EA \_\_\_\_\_  
PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 100 000	100.00%	\$ 100 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 100 000	TOT. ESC. R/W	\$ 100 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.2
EA	
Program Code	

### Project Description:

Location: SR 29 @ Hidden Valley Road

Proposed Improvements (Scope): Install Roundabout

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	2,970,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	2,970,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	2,970,000
	rounded \$	3,000,000

Estimate Prepared By: OMNI-MEANS

Date \_\_\_\_\_

Approved By \_\_\_\_\_  
Project Manager Signature

Phone No. (916) 782-8688

Date \_\_\_\_\_

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.2
EA	
Program Code	

### I. ROADWAY ITEMS

#### Section 1: Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9 542	CY	\$ 30	\$ 286 248	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Earthwork					\$ 356 248

#### Section 2: Pavement Structural

Section	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	3950	TON	\$ 125	\$ 493 750	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	5840	CY	\$ 85	\$ 496 400	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Pavement Structural Section					\$ 990 150

#### Section 3: Drainage

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
Total Drainage					\$ 50 000

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
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<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	287	CY	\$ 800	\$ 229 600	
Utility Relocations		LS	\$ 48 000	\$ -	
Subtotal Specialty Items					\$ 259 600

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting	1	LS	\$ 16 000	\$ 16 000	
Traffic Delineation Items		LS	\$ 21 000	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs		LS	\$ 3 200	\$ -	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 100 000	\$ 100 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 150 000
TOTAL SECTIONS 1 - 5					\$ 1 805 998

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
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### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE
				01-LAK
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				<hr/>
				Program Code
				<hr/>
<b>Section 8: Minor Items</b>				
Subtotal Sections 1 - 7	\$ 1 805 998	x( 10% )*	<u>\$ 180 600</u>	<u>Section Cost</u>
			Total Minor Items	\$ 180 600
				<hr/>
<b>Section 9: Roadway Mobilization</b>				
Subtotal Sections 1 - 5	\$ 1 805 998			
Minor Items	\$ 180 600			
Sum	\$ 1 986 598	x( 10% )*	\$ 198 660	
			Total Roadway Mobilization	\$ 198 660
				<hr/>
<b>Section 10: Roadway Additions</b>				
<i>Supplemental</i>				
Subtotal Sections 1 - 5	\$ 1 805 998			
Minor Items	\$ 180 600			
Sum	\$ 1 986 598	x( 10% )*	\$ 198 660	
<i>Contingencies</i>				
Subtotal Sections 1 - 5	\$ 1 805 998			
Minor Items	\$ 180 600			
Sum	\$ 1 986 598	x( 30% )**	\$ 595 979	
			Total Roadway Additions	\$ 794 639
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 2 979 897
				<hr/>

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
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### II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
EA \_\_\_\_\_  
PP No. \_\_\_\_\_ -

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 20 000	100.00%	\$ 20 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 20 000	TOT. ESC. R/W	\$ 20 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.2
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Program Code	

### Project Description:

Location: SR 29 @ Hidden Valley Road

Proposed Improvements (Scope): Install Traffic Signal

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	480,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	480,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	480,000
	rounded \$	500,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

01-LAK

PM 11.2

EA

Program Code

## I. ROADWAY ITEMS

## Section 1: Earthwork

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	\$ -	CY	\$ 30	\$ -	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	0	LS	\$ 40 000	\$ -	
Develop Water Supply	0	LS	\$ 30 000	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ -

## Section 2: Pavement Structural

## Section

Section	Quantity	Unit	Unit Price	Unit Cost	Section Cost
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	0	TON	\$ 125	\$ -	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	0	CY	\$ 85	\$ -	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
			Subtotal Pavement Structural Section	\$	-

### Section 3: Drainage

<b><u>Section 3: Drainage</u></b>	<b><u>Quantity</u></b>	<b><u>Unit</u></b>	<b><u>Unit Price</u></b>	<b><u>Unit Cost</u></b>	<b><u>Section Cost</u></b>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				<b>Total Drainage</b>	<b>\$ -</b>

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
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<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ -	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	20	CY	\$ 800	\$ 16 000	
Utility Relocations	1	LS	\$ -	\$ -	
Subtotal Specialty Items					\$ 46 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals	1	EA	\$ 200 000	\$ 200 000	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 15 000	\$ 15 000	
Transportation Management Plan	1	LS	\$ 26 000	\$ 26 000	
Temp K Rail		LS	\$ -	\$ -	
Subtotal Traffic Items					\$ 249 600
TOTAL SECTIONS 1 - 5					\$ 295 600

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
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### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
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### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 295 600	x( 10% )*	\$ 29 560	
			Total Minor Items	\$ 29 560

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 295 600			
Minor Items	\$ 29 560			
Sum	\$ 325 160	x( 10% )*	\$ 32 516	
			Total Roadway Mobilization	\$ 32 516

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 295 600			
Minor Items	\$ 29 560			
Sum	\$ 325 160	x( 10% )*	\$ 32 516	

#### Contingencies

Subtotal Sections 1 - 5	\$ 295 600			
Minor Items	\$ 29 560			
Sum	\$ 325 160	x( 30% )**	\$ 97 548	
			Total Roadway Additions	\$ 130 064
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 487 740

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
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Program Code	

### II. STRUCTURE ITEMS

(SEE ATTACHED BRIDGE GENERAL PLAN ESTIMATE)

	No. 1	No. 2	No. 3	
Bridge Name				
Structure Type				
Width ft. (out to out)				
Span Lengths ft.				
Total Area Sq. Ft.				
Footing Type (pile/spread)				
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)				
Total Cost for Structure	\$ -	\$ -		
Remove Existing Structures				
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				\$ -
Railroad Related Costs				\$ -
TOTAL STRUCTURES ITEMS				\$ -
Estimate Prepared By		Phone		Date

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)		100.00%	\$ -
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ -	TOT. ESC. R/W	\$ -

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.9
EA	
Program Code	

### Project Description:

Location: SR 29 @ Spruce Grove Road (south)

Proposed Improvements (Scope): Install Roundabout

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	3,660,000
TOTAL STRUCTURAL ITEMS	\$	-
SUBTOTAL CONSTRUCTION COSTS	\$	3,660,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	3,660,000
	rounded \$	3,700,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.9
EA	
Program Code	

### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	19 025	CY	\$ 30	\$ 570 764	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 640 764

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	4860	TON	\$ 125	\$ 607 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	7200	CY	\$ 85	\$ 612 000	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 1 219 500

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)	1	LS	\$ 50 000	\$ 50 000	
				Total Drainage	\$ 50 000

Sheet 2 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.9
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Program Code	

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ 900 000	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	167	CY	\$ 800	\$ 133 360	
Utility Relocations		LS	\$ 48 000	\$ -	
			Subtotal Specialty Items	\$	163 360
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting	1	LS	\$ 16 000	\$ 16 000	
Traffic Delineation Items		LS	\$ 21 000	\$ -	
Traffic Signals		EA		\$ -	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs		LS	\$ 3 200	\$ -	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 100 000	\$ 100 000	
Transportation Management Plan	1	LS	\$ 34 000	\$ 34 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	150 000
			TOTAL SECTIONS 1 - 5	\$	2 223 624

Sheet 3 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
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Program Code	

### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
Subtotal Planting and Irrigation					\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
Subtotal Roadside Management and Safety Section					\$ -
TOTAL SECTIONS 6 & 7					\$ -

Sheet 4 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

				DIST-CO-RTE
				01-LAK
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				EA
				Program Code

### Section 8: Minor Items

			Unit Cost	Section Cost
Subtotal Sections 1 - 7	\$ 2 223 624	x( 10% )*	\$ 222 362	
			Total Minor Items	\$ 222 362

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 2 223 624			
Minor Items	\$ 222 362			
Sum	\$ 2 445 987	x( 10% )*	\$ 244 599	
			Total Roadway Mobilization	\$ 244 599

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 2 223 624			
Minor Items	\$ 222 362			
Sum	\$ 2 445 987	x( 10% )*	\$ 244 599	

#### Contingencies

Subtotal Sections 1 - 5	\$ 2 223 624			
Minor Items	\$ 222 362			
Sum	\$ 2 445 987	x( 30% )**	\$ 733 796	
			Total Roadway Additions	\$ 978 395
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)	\$ 3 668 980

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	<u>01-LAK</u>
PM	<u>11.9</u>
EA	<u>          </u>
Program Code	<u>          </u>

### II. STRUCTURE ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>	
Bridge Name	<u>          </u>	<u>          </u>	<u>          </u>	
Structure Type	<u>          </u>	<u>          </u>	<u>          </u>	
Width ft. (out to out)	<u>          </u>	<u>          </u>	<u>          </u>	
Span Lengths ft.	<u>          </u>	<u>          </u>	<u>          </u>	
Total Area Sq. Ft.	<u>          </u>	<u>          </u>	<u>          </u>	
Footing Type (pile/spread)	<u>          </u>	<u>          </u>	<u>          </u>	
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	<u>          </u>	<u>          </u>	<u>          </u>	
Total Cost for Structure	<u>\$ -</u>	<u>\$ -</u>	<u>          </u>	
Remove Existing Structures	<u>          </u>	<u>          </u>	<u>          </u>	
*Add additional structures as necessary				
SUBTOTAL STRUCTURES ITEMS				<u>\$ -</u>
Railroad Related Costs	<u>          </u>	<u>          </u>	<u>          </u>	<u>\$ -</u>
TOTAL STRUCTURES ITEMS				<u>\$ -</u>
Estimate Prepared By	<u>          </u>	Phone	<u>          </u>	Date <u>          </u>

(If appropriate, attach additional pages and backup)

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM)

EA

PP No.

-

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 40 000	100.00%	\$ 40 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 40 000	TOT. ESC. R/W	\$ 40 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

Sheet 7 of 7

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
	01-LAK
PM	11.9
EA	
Program Code	

### Project Description:

Location: SR 29 @ Spruce Grove Road (south)

Proposed Improvements (Scope): Install Traffic Signal and NBRTL and WBLTL

Alternative: \_\_\_\_\_

### SUMMARY OF PROJECT COST ESTIMATE:

TOTAL ROADWAY/ROADSIDE ITEMS	\$	970,000
TOTAL STRUCTURAL ITEMS	\$	360,000
SUBTOTAL CONSTRUCTION COSTS	\$	1,330,000
TOTAL RIGHT OF WAY ITEMS		
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	1,330,000
	rounded \$	1,400,000

Estimate Prepared By: OMNI-MEANS Date \_\_\_\_\_

Approved By \_\_\_\_\_ Phone No. (916) 782-8688 Date \_\_\_\_\_  
Project Manager Signature

Sheet 1 of 7



## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
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### I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	1 793	CY	\$ 30	\$ 53 778	
Imported Borrow	0	CY	\$ 45	\$ -	
Clearing & Grubbing	1	LS	\$ 40 000	\$ 40 000	
Develop Water Supply	1	LS	\$ 30 000	\$ 30 000	
			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Earthwork	\$ 123 778

### Section 2: Pavement Structural

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
PCC Pavement (Off-Ramps)		CY	\$ -	\$ -	
RAC-G			\$ -	\$ -	
Hot Mix Asphalt	380	TON	\$ 125	\$ 47 500	
Lean Concrete Base			\$ -	\$ -	
Cement-Treated Base			\$ -	\$ -	
Aggregate Base	560	CY	\$ 85	\$ 47 600	
Treated Permeable Base			\$ -	\$ -	
Aggregate Sub-Base			\$ -	\$ -	
Pavement Reinforcing Fabric			\$ -	\$ -	
Edge Drains			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Pavement Structural Section	\$ 95 100

### Section 3: Drainage

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Large Drainage Facilities (Basins)		LS	\$ -	\$ -	
Pumping Plants		LS		\$ -	
Storm Drains					
Minor Concrete (Ditch Lining)		CY		\$ -	
Project Drainage (minor)		LS		\$ -	
				Total Drainage	\$ -

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

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<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Retaining Walls		LS	\$ 300 000	\$ -	
Rock Slope Protection		LS	\$ -	\$ -	
Bridge Abutment Protection		LS	\$ -	\$ -	
Barriers and Guardrails		LS	\$ -	\$ -	
Treatment BMP's	1	LS	\$ 5 000	\$ 5 000	
Prepare SWPPP	1	LS	\$ 10 000	\$ 10 000	
Construction Site BMP's	1	LS	\$ 5 000	\$ 5 000	
Environmental Compliance	1	LS	\$ 10 000	\$ 10 000	
Minor Concrete (curb,gutter & sw)	20	CY	\$ 800	\$ 16 000	
Utility Relocations	1	LS	\$ -	\$ -	
			Subtotal Specialty Items	\$	46 000
<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting		LS	\$ -	\$ -	
Traffic Delineation Items	1	LS	\$ 7 000	\$ 7 000	
Traffic Signals	1	EA	\$ 200 000	\$ 200 000	
Overhead Sign Structures		LS	\$ -	\$ -	
Roadside Signs	1	LS	\$ 1 600	\$ 1 600	
Remove Existing Signs & Striping		LS		\$ -	
Traffic Control Systems	1	LS	\$ 90 000	\$ 90 000	
Transportation Management Plan	1	LS	\$ 26 000	\$ 26 000	
Temp K Rail		LS	\$ -	\$ -	
			Subtotal Traffic Items	\$	324 600
			TOTAL SECTIONS 1 - 5	\$	589 478

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

	DIST-CO-RTE
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### II. ROADSIDE ITEMS

#### Section 6: Planting and Irrigation

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Highway Planting (Separate Project)		AC	\$ -	\$ -	
Replacement Planting			\$ -	\$ -	
Irrigation Modification			\$ -	\$ -	
Relocate Existing Irrigation Facilities			\$ -	\$ -	
Irrigation Crossovers		LS	\$ -	\$ -	
				Subtotal Planting and Irrigation	\$ -

#### Section 7: Roadside Management and Safety Section

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Vegetation Control Treatments			\$ -	\$ -	
Gore Area Pavement		SF		\$ -	
Pavement beyond Gore Area				\$ -	
Miscellaneous Paving				\$ -	
Erosion Control/Slope Protection		AC		\$ -	
Side Slopes/Embankment Slopes				\$ -	
Fencing		LF		\$ -	
Roadside Facilities				\$ -	
Relocate Roadside Facilities/Features			\$ -	\$ -	
			\$ -	\$ -	
				Subtotal Roadside Management and Safety Section	\$ -
				TOTAL SECTIONS 6 & 7	\$ -

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## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE  
01-LAK

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### Section 8: Minor Items

Subtotal Sections 1 - 7	\$ 589 478	x( 10% )*	\$ 58 948	<b>Unit Cost</b>	<b>Section Cost</b>
				Total Minor Items	\$ 58 948

### Section 9: Roadway Mobilization

Subtotal Sections 1 - 5	\$ 589 478				
Minor Items	\$ 58 948				
Sum	\$ 648 426	x( 10% )*	\$ 64 843		
			Total Roadway Mobilization		\$ 64 843

### Section 10: Roadway Additions

#### Supplemental

Subtotal Sections 1 - 5	\$ 589 478				
Minor Items	\$ 58 948				
Sum	\$ 648 426	x( 10% )*	\$ 64 843		

#### Contingencies

Subtotal Sections 1 - 5	\$ 589 478				
Minor Items	\$ 58 948				
Sum	\$ 648 426	x( 30% )**	\$ 194 528		
			Total Roadway Additions		\$ 259 370
			TOTAL ROADWAY ITEMS - (Subtotal of Sections 1 - 10)		\$ 972 638

Estimate Prepared By OMNI-MEANS Phone (916) 782-8688 Date \_\_\_\_\_

\* Use 5% - 10%.

\*\*Use 25% at the PSR stage or a higher or lower rate if justified.

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

01-LAK

11.9

EA

Program Code

## II. STRUCTURE ITEMS

**(SEE ATTACHED BRIDGE GENERAL PLAN ESTIMATE)**

	No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width ft. (out to out)	20		
Span Lengths ft.	60		
Total Area Sq. Ft.	1200		
Footing Type (pile/spread)			
Cost Per Sq. Ft. (incl. 10% mobilization and 25% contingency)	\$ 300		
Total Cost for Structure	\$ 360 000	\$ -	
Remove Existing Structures			
*Add additional structures as necessary			
	SUBTOTAL STRUCTURES ITEMS		\$ 360 000
Railroad Related Costs			\$ -
	TOTAL STRUCTURES ITEMS		\$ 360 000

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup)

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST-CO-RTE

KP(PM) \_\_\_\_\_  
 EA \_\_\_\_\_  
 PP No. \_\_\_\_\_ - \_\_\_\_\_

### III. RIGHT OF WAY

Right of way estimates should consider the probable highest and best use and type and intent of improvement at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance, see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands & damages to remainder(s)	\$ 20 000	100.00%	\$ 20 000
Utility Relocation (State share)	\$ -	%	\$ -
Clearance/Demolition	\$ -	%	\$ -
RAP	\$ -	%	\$ -
Title and Excrow Fees	\$ -	%	\$ -
CONSTRUCTION CONTRACT WORK	\$ -	%	\$ -
TOTAL RIGHT OF WAY (CURRENT VALUE)**	\$ 20 000	TOT. ESC. R/W	\$ 20 000

\*\* Current total value for use on Sheet 1 of 6

\*Escalated to assumed year of advertising of \_\_\_\_\_.

\*\* Current total value for use on Sheet 1 of 6

Estimate Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Date \_\_\_\_\_

(If appropriate, attach additional pages and backup including Right of Way Data Sheet)

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