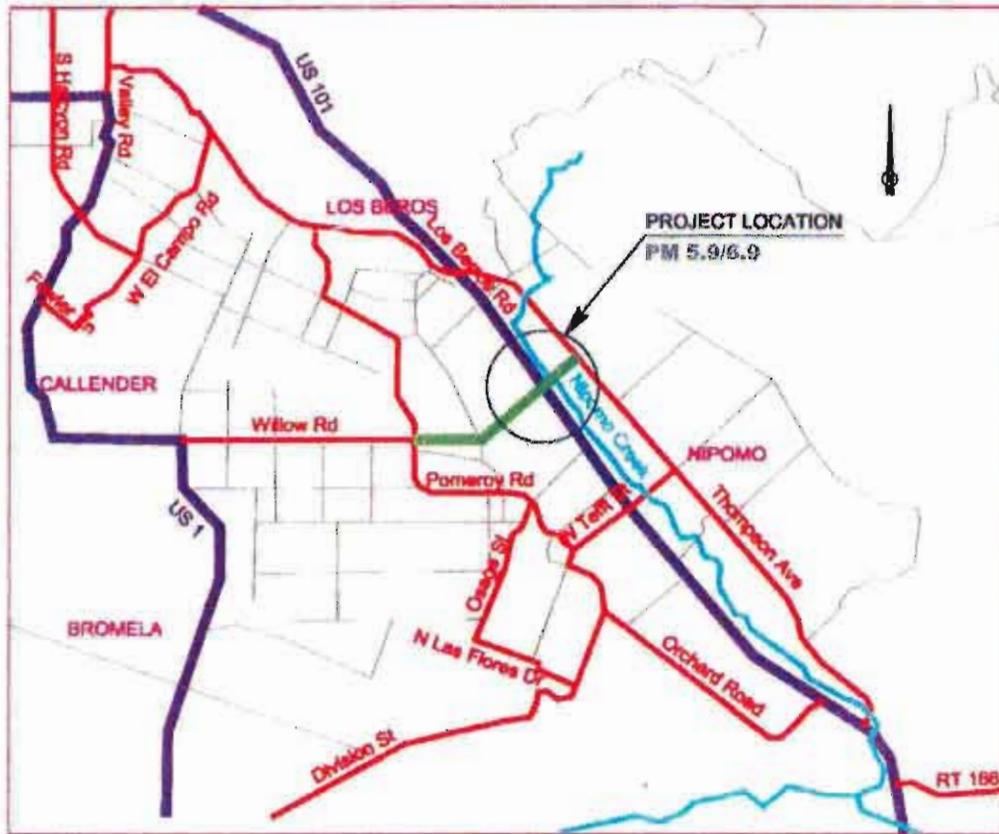
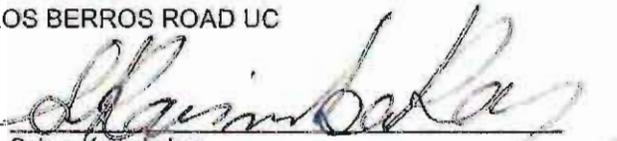


Project Report



ON ROUTE 101 In San Luis Obispo County FROM 0.9 MILE NORTH OF TEFFT STREET OC TO 1.6 MILE SOUTH OF LOS BERROS ROAD UC

I have reviewed the right of way information contained in this Project Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate.


Spiros Karimbakas
Central Region Division Chief
Right Of Way

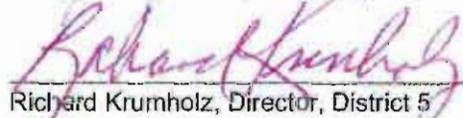
Date

APPROVAL RECOMMENDED BY:


Doug Heumann, Project Manager

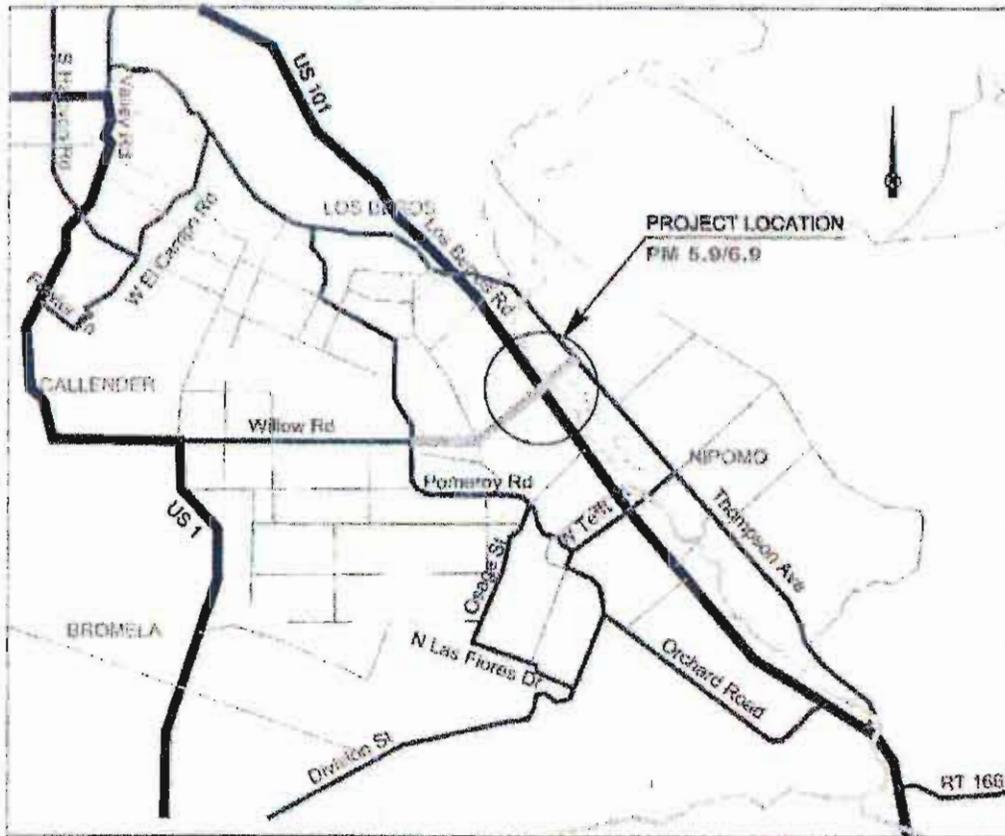
Date

APPROVED BY:


Richard Krumholz, Director, District 5

Date

Project Report



ON ROUTE 101 In San Luis Obispo County FROM 0.9 MILE NORTH OF TEFFT STREET OC TO 1.6 MILE SOUTH OF LOS BERROS ROAD UC

I have reviewed the right of way information contained in this Project Report and the RAW Data Sheet attached hereto, and find the data to be complete, current and accurate.

APPROVAL RECOMMENDED BY:

APPROVED BY:

Spiros Karimbakas 3/18/09

Spiros Karimbakas
Central Region Division Chief
Right Of Way
Date

Douglas Heumann 3/25/09

Doug Heumann, Project Manager
Date

Richard Krumholz 3/27/09

Richard Krumholz, Director, District 5
Date

This Project Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



Chuong Nguyen
REGISTERED CIVIL ENGINEER

TABLE OF CONTENTS

- 1. INTRODUCTION..... 1
- 2. RECOMMENDATION..... 2
- 3. BACKGROUND 3
- 4. NEED AND PURPOSE..... 5
 - A. PROBLEMS, DEFICIENCIES, JUSTIFICATION..... 5
 - B. REGIONAL & SYSTEM PLANNING 5
 - C. TRAFFIC 7
- 5. ALTERNATIVES 12
 - A. VIABLE ALTERNATIVES 12
 - B. REJECTED ALTERNATIVES..... 16
 - C. NEW INTERCHANGE CONCEPTUAL APPROVAL..... 18
- 6. CONSIDERATIONS REQUIRING DISCUSSION..... 24
 - A. HAZARDOUS WASTE 24
 - B. VALUE ANALYSIS 25
 - C. RESOURCE CONSERVATION 25
 - D. RIGHT OF WAY ISSUES..... 26
 - E. RELOCATION IMPACT STUDIES 26
 - F. AIRSPACE LEASE AREAS..... 26
 - G. ENVIRONMENTAL ISSUES..... 26
 - H. AIR QUALITY CONFORMITY 32
 - I. TITLE VI CONSIDERATIONS 33
 - J. STORM WATER QUALITY 33
- 7. OTHER CONSIDERATIONS AS APPROPRIATE..... 34
 - A. PUBLIC HEARING PROCESS..... 34
 - B. ROUTE MATTERS..... 34
 - C. PERMITS 34
 - D. COOPERATIVE AGREEMENTS 35
 - E. OTHER AGREEMENTS..... 35
 - F. INVOLVEMENT WITH A NAVIGABLE WATERWAY..... 35
 - G. TRANSPORTATION MANAGEMENT PLAN FOR USE DURING CONSTRUCTION 35
 - H. STAGE CONSTRUCTION 35
 - I. ACCOMMODATION OF OVERSIZE LOADS..... 36
 - J. OTHER APPROPRIATE TOPICS..... 36
- 8. PROGRAMMING 37
 - A. COST SUMMARY 37
 - B. FUNDING SUMMARY 37
 - C. MILESTONE SCHEDULE 38
- 9. REVIEWS 39
- 10. PROJECT PERSONNEL 40
- 11. DISTRIBUTION LIST 41

12. LIST OF ATTACHMENTS..... 41

- 1. VICINITY MAP
- 2. CIRCULATION ELEMENT OF THE COUNTY TRANSPORTATION PLAN
- 3. SOUTH COUNTY INLAND AREA PLAN
- 4. EXISTING AND 2030 AM AND PM PEAK HOUR TRAFFIC VOLUMES
- 5. PROJECT GEOMETRIC PLAN, PROFILE, AND TYPICAL SECTIONS
- 6. PROJECT CONSTRUCTION COST ESTIMATE
- 7. RIGHT OF WAY DATA SHEET
- 8. STORM WATER DATA REPORT COVER SHEET
- 9. TRAFFIC MANAGEMENT PLAN (TMP) CHECKLIST
- 10. SUPPORTING LETTERS OF FUNDING
- 11. RISK REGISTER
- 12. APPROVED SEIR
- 13. APPROVED EA/FONSI

1. INTRODUCTION

In order to enhance traffic circulation, access and relieve congestion within the Nipomo area of southern San Luis Obispo County, the County of San Luis Obispo proposes to construct a new interchange and connection of Willow Road with Route 101, and provide a new County Road connection of Willow Road from Route 101 east to Thompson Road. The project is intended to provide a much needed east-west arterial connection to Route 1 and the Black Lake – Callander area and to relieve traffic demand at the Tefft Street interchange with Route 101. Funding for this project will come from County of San Luis Obispo road fees and SLOCOG RTIP FY 09-10 STIP fund allocations.

The Preferred Alternative is the Build Alternative, which will construct a new modified diamond undercrossing interchange. The estimated combined right of way and construction cost of the proposed interchange and local roadway extension and environmental mitigation is \$31.7 million in 2009 dollars, divided as follows:

	Willow/Route 101 Interchange (STATE)	Willow Road Extension to Thompson Road (COUNTY)	TOTAL
Subtotal Construction	\$ 23,619,000	\$ 4,951,000	\$ 28,570,000
Right of Way	\$ 2,573,580	\$ 562,440	\$ 3,136,020
Total Cost	\$ 26,192,580	\$ 5,513,440	\$ 31,706,020

In addition, \$2 million is budgeted by the County of San Luis Obispo for mitigation of oak trees.

Attachment 1 shows the vicinity map for the proposed project limits.

2. RECOMMENDATION

After the circulation of the Environmental Assessment (EA) and consideration of public comments received, the Build Alternative was selected as the Preferred Alternative. The Build Alternative meets the purpose and need of the proposed project, and incorporates avoidance and/or minimization measures that would reduce the project's environmental effects. The Build Alternative is consistent with the San Luis Obispo Council of Governments' 2005 Regional Transportation Plan for a new interchange facility in this location and is included in the 2006 Regional Transportation Improvement Program.

The Build Alternative would reduce forecasted traffic congestion on Route 101 at Tefft Street and at Los Berros Road resulting from area growth. Without the Build Alternative, these two locations would require additional infrastructural improvements, particularly substantial at Route 101/Tefft Street to achieve a satisfactory level of service. The Build Alternative would also improve emergency access to the Nipomo area via ROUTE 101. The No Build Alternative would not meet the purpose and need of the project.

Caltrans, as assigned by the Federal Highway Administration, has determined that the action does not significantly impact the environment and has issued a Finding of No Significant Impact, in accordance with the National Environmental Policy Act. As the Preferred Alternative meets the project purpose and need, it is recommended that the project proceed to the design phase.

It is recommended that the Build Alternative be approved, which includes construction of a new modified-diamond undercrossing interchange, from 05-SLO-101 PM 5.9 to PM 6.9, and that the project proceed to design phase.

It is recommended that the California Transportation Commission approve a new connection to Route 101 at 05-SLO-101 PM 6.4.

It is also recommended that a Cooperative Agreement covering the participation in the new connection be negotiated and executed between Caltrans and the County of San Luis Obispo. Cooperative features include design and construction, to be completed by the County, with oversight from Caltrans. Maintenance responsibility of the constructed improvements within state right-of-way would be by Caltrans.

The County of San Luis Obispo has been consulted with respect to the Preferred Alternative, their views have been considered in its development and design, and the County is in accord with the plan as presented.

3. BACKGROUND

A. PROJECT HISTORY

As part of San Luis Obispo County's General Plan development, a circulation element was adopted for needed roadway infrastructure in the South Coast region. Traffic modeling has shown that the existing interchanges at Tefft Street and Los Berros in the community of Nipomo, in south San Luis Obispo County are inadequate to serve the expected development. Moreover, the existing local street network does not have sufficient capacity to handle expected traffic. **Attachment 2** provides the relevant maps from the County Transportation Plan Circulation Element. **Attachment 3** provides the relevant maps from the South County Inland Area Plan.

The County of San Luis Obispo (County) proposes to construct a new Route 101/Willow Road interchange between Post Mile (PM) 5.9 and Post Mile (PM) 6.9. LSA Associates, on behalf of San Luis Obispo County with oversight by Caltrans, prepared a Draft Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) to address project impacts associated with the interchange and Willow Road extension to Thompson Road.

A Project Study Report (PSR) for construction of Route 101 and Willow Road was prepared by San Luis Obispo County in January 2000 and approved by Caltrans on February 8, 2000. In the PSR, riparian oak habitat was identified as a potential issue of concern. Table S-1 of the Draft Environmental Assessment summarizes the potential adverse impacts of the No Build alternative and the Build alternative.

Alternative 1 of the PSR is the Preferred Alternative.

Separate project documentation has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The County of San Luis Obispo (County) is the lead agency under CEQA and Caltrans, as delegated by the Federal Highway Administration (FHWA), is the lead agency under NEPA.

For CEQA, a Supplemental Environmental Impact Report (EIR) was prepared by LSA Associates on behalf of the County, and certified on May 9, 2006 by the County Board of Supervisors for the proposed project.

The County is now underway with right of way acquisition and engineering to construct Willow Road from Pomeroy Road to about 500 ft west of U.S. Route 101, and to construct the North Frontage Road from Willow Road south to Sandydale Drive. The construction of this project will be completed prior to construction of the U.S. 101/Willow Road interchange.

The Preferred Alternative includes two components: 1) the construction of the Willow Road/Route 101 interchange, ramps, undercrossing and bridge, which will be within existing and future state right of way; and, 2) Willow Road from the North Frontage Road across Nipomo Creek to Thompson Road, which will be a County road in future County right of way. The completion of both components will provide a complete connection from Route 101 to Thompson Road, with "independent utility" as required by FHWA.

B. COMMUNITY INTERACTION

A general public meeting was held by the County Department of Planning and Building in June 2004 to provide opportunity for members of the public and public agencies to verbally comment or request clarification about the proposed project and related document. A May 2006 public hearing was held for the interchange and Willow Road extension project per CEQA guidelines. No significant community opposition was noted at that meeting. An Environmental Assessment, prepared in accordance with NEPA guidelines, was circulated to the public from March 10, 2008 to April 24, 2008. The public hearing for the Draft EA was held on April 9, 2008. While there was not any specific public opposition noted to the project, several concerns were raised as follows:

- Oak Tree Mitigation. The Sierra Club and some members of the public expressed concern about the level of oak tree impact, mitigation and the need to environmentally clear mitigation sites. This has been addressed in the responses to comments.
- Property Owner Notification. Adjacent property owners (particularly the adjacent nursery) wanted assurance that they will be adequately contacted throughout the remainder of project planning and construction. In addition, property owners were concerned that access be made available to all existing parcels within the project limits. This has been addressed in the responses to comments.
- Bike Lanes and Equestrian Access. The public requested that the County give consideration to bike lanes and an equestrian trail along Willow Road within the project limits. The project provides shoulders and an unpaved area that would allow these uses within the interchange limits. This has been addressed in the responses to comments.

Comment letters were received on the draft document. Responses to the comments on the circulated document are provided in Appendix I: Public Comments and Responses, of the EA.

C. EXISTING FACILITY

Route 101 Highway

Route 101 is a regional freeway extending through San Luis Obispo County north through the Bay Area and south to the Los Angeles basin. Route 101 serves as an important route for traffic between the "Five Cities" area (including Arroyo Grande, Grover Beach, Pismo Beach, Shell Beach, Oceano), and San Luis Obispo to the north and Santa Maria to the south. Through the Nipomo area, Route 101 is a four lane access controlled facility with 12' wide lanes, 10' wide outside shoulders, 4' wide inside shoulders and a 40' wide median. The existing side slopes vary from 1:2 to 1:3 and the right of way is 180' wide within the project area. The existing pavement is asphalt concrete flexible pavement in good condition. The general terrain is relatively flat and consists of agricultural/farmland within valley floor.

The existing drainage system for Route 101 consists of inlets and ditches. The majority of the inlets are located in the median of Route 101, while the ditches are located along both sides of the freeway. The runoff from the freeway is collected through these facilities and conveyed underneath the Route 101 via cross drains which eventually flows into Nipomo Creek. Topography shows that the project area's runoff generally flows easterly, towards Nipomo Creek.

The community of Nipomo is served by three existing interchanges on Route 101. They are Route 166 Junction (PM 0.80), Tefft Street (PM 4.85), and Los Berros – Thompson Road (PM 7.84) The proposed Willow Road interchange undercrossing of Route 101 (PM 6.40) is 1.44 miles from the Los Berros Road interchange and 1.55 miles from the Tefft Street interchange.

Willow Road

Willow Road is currently a discontinuous rural road that provides a primary link to State Route 1 on the Nipomo Mesa, Black Lake village, rural residences, nurseries, and vacant lots along its various segments. Willow Road is a two lane roadway and includes several different segments within the study area. Willow Road will be constructed between Hetrick Road and the West Route 101 Frontage Road, prior to construction of the Route 101 Willow Road connection.

The design and operating speed for Route 101 is 65 mph, and 55 mph for Willow Road within the project area.

4. NEED AND PURPOSE

A. PROBLEMS, DEFICIENCIES, JUSTIFICATION

The Nipomo area has been growing at a rapid pace as a residential, retirement, and service community. As a result, the growth rate in the Nipomo area has been much higher than the San Luis Obispo County average. According to data from the U.S. Census Bureau, the County had a total population of 217,162 in 1990, of which the Nipomo area comprised 7,109. By 2000, the population of the County had increased to 246,681 (a 14 percent increase), while the Nipomo area had increased to 12,626 (a 78 percent increase). The number of housing units in the Nipomo area increased from 2,386 units in 1990 to 4,147 in 2000, a 74 percent increase.

The Nipomo area is served by three existing interchanges on Route 101, including Hutton Road (SR-166) on the south, Tefft Street in the central area, and Los Berros Road/Thompson Road on the north. Over the past decade, traffic forecasts in the Nipomo area have shown that the existing Tefft Street interchange and the existing Los Berros/Thompson Road interchange along with the local road system will be inadequate to serve projected development during peak traffic periods. This will subject the public to recurring congestion and delay as well as increasing traffic on the existing local street network. Of the three existing interchanges, only the Tefft Street interchange is located centrally to existing and planned developments. Los Berros-Thompson Road and Hutton Road (SR-166), are located at the fringe of future development, with the focus of future development being north of the existing Tefft interchange.

The California Department of Finance (DOF) estimates that the Nipomo area will continue to grow at a higher rate than the County average over the next 20 years, increasing by approximately 40 percent to 17,754 in 2020. The DOF estimates that the County population will increase by approximately 30 percent to 323,114 in 2020. This local and regional population growth is expected to result in increased local and commuter traffic along Route 101. The Tefft Street interchange currently experiences congestion during the peak periods, and modeling of area traffic over the past 15 years has shown that the existing Tefft Street interchange is not adequately designed to serve expected growth in the area. Traffic operations at the Tefft Street interchange and the Los Berros Road interchange are expected to worsen as traffic volumes increase throughout the area due to increases in local and regional activity associated with population and employment growth. Moreover, the existing local street network does not have sufficient capacity to handle future traffic volumes either to or from Route 101.

The primary purpose of the proposed project is to achieve the following objectives:

- Provide circulation improvements to accommodate existing and planned future growth as identified in the South County Area Plan.
- Enhance access for emergency vehicles to the Nipomo area via Willow Road and a new connection with Route 101.
- Reduce the need for and extent of improvements required to improve the level of service (LOS) at the Route 101/Tefft Street interchange in Nipomo.

B. REGIONAL & SYSTEM PLANNING

Route 101 serves as the Principal Arterial to the region and focused route on the Integrated Roadway System (IRRS) and is on the National Highway System (NHS). This improvement was listed in the Route 101 Corridor Study (1988), the South County Circulation Study (1994/1995) and again in the 2000 model update, and the Circulation Element of the County General Plan. It is listed in the San Luis Obispo Council of Governments (SLOCOG) Regional Transportation Plan (RTP) and SLOCOG's Regional Transportation Improvement Program (RTIP) (Project ID #RPSTPL-5949[072]).

Highway Systems

The federal functional classification of Route 101 is Principal Arterial. Route 101 is part of the National Highway System (NHS) identified in the federal Transportation Equity Act for the 21st Century (TEA-21). The federal Department of Defense incorporation with the Department of Transportation has also identified Route 101 as a Strategic Highway Corridor Network (STRAHNET) route. The route is designated route on the National Truck Network under federal Surface Transportation Assistance Act (STAA).

State Planning

Route 101 is on the Interregional Road System (IRRS) and is designated Focus Route in the Caltrans Interregional Transportation Strategic Plan (ITSP). Route 101 is also a State Highway Extra Legal Road (SHELL) Route. According to Transportation Concept Report (TCR) October 2001, the facility is operating at peak/non-peak LOS D/C. It is projected to reach peak/non-peak LOS F/F by year 2020. The ultimate concept for Route 101 is 6-lanes as per TCR.. This project will accommodate a future 6-laning of Route 101.

Regional Planning

In San Luis Obispo County the most important part of the regional highway system is Route 101. It accommodates interregional, regional and urban traffic. Route 101 is a four-lane facility throughout the County with the exception of the 6-lane segment along the Cuesta Grade. The proposed Route 101/Willow Road interchange was originally identified in the Route 101 Corridor Study completed by SLOCOG in 1988. SLOCOG's 2005 RTP identifies a new interchange at Route 101/Willow Road as a major proposed mid-term project and the eastern extension of Willow Road from Route 101 to Thompson Road as a major short-term project

Local Planning

The Preferred Alternative is consistent with long-range land use and circulation planning for the project study area, and is consistent with the Land Use and Circulation Elements of the San Luis Obispo County General Plan.

Transit Operator Planning

There are no local transit systems that are to be connected to Willow Road. Willow Road has no bus/rail/bike route per the updated general plan of San Luis Obispo County.

Circulation and Economic Development

According to the 2001 Regional Transportation Plan, high peak-hour traffic volumes in the Nipomo area can be attributed to bi-directional commuting by residents of the South County area who work either in the City of San Luis Obispo or northern Santa Barbara County. Existing land uses in the Nipomo area are diverse, ranging from urban uses surrounding the Tefft Street interchange on Route 101 to residential rural and agricultural uses on the Nipomo Mesa. There is increased residential suburban-style development on the Nipomo Mesa, including the completion of the Cypress Ridge and Black Lake Specific Plans, and the construction of a new high school at Thompson and Melschau Roads. The conversion of agricultural lands to residential and urban uses on the Nipomo Mesa is a trend that is expected to continue.

The General Plan Circulation Element and the South County Circulation Study have both examined the long-range transportation needs of the South County planning area as the county continues to grow and develop under the provisions of the General Plan Land Use Element. Future developments that are proposed in accordance with the General Plan Land Use Element include the Woodlands Specific Plan development (currently under construction) and Canada Ranch Specific Plan. The current local roadway system is considered very limited to accommodate future developments, as many roads are entirely unpaved. The construction of a new interchange at Route 101/Willow Road is part of the supporting infrastructure included in the South County Circulation Study and County General Plan that is necessary to accommodate the planned developments on the Nipomo Mesa

The interchange would provide direct access to the Willow Road Extension Project, and would provide improved access to areas west of Route 101 and to recent residential developments and the high school on Thompson Road. In addition, the project provides for future striping of Class II bike lanes through the interchange limits, consistent with the County's Circulation Element.

The Willow Road Extension Project is to be constructed in three phases by the County; Phase 1 includes construction of Willow Road from Misty Glen Place to Hetrick Road; Phase 2 includes construction of Willow Road to the Route 101 Frontage Road and the northerly extension of the Frontage Road from Sandysdale Drive to Willow Road; Phase 3 includes the construction of the interchange with Route 101 and the extension of Willow Road to Thompson Road. Phase 1 is expected to open December 2010, Phase 2 is expected to open December 2012 and Phase 3 is expected to open in Spring 2013.

C. TRAFFIC

The Final Traffic Operations Report for this project was prepared by Fehr & Peers Associates Inc. in December 2004 and updated in August 29, 2007 and September 12, 2007. The analysis included the freeway merge and diverge analysis of Los Berros Road, Tefft Street and future Willow Road interchange ramps with Route 101. The study intersections included the local road and ramp intersections at Los Berros, Tefft Street and the future Willow Road interchange. The Traffic Operations Report was approved by the District on September 6, 2007. The final report was issued September 12, 2007. **Attachment 4** provides existing and future traffic forecasts from the Traffic Operations Report.

Existing Traffic Conditions

Table 1 shows the existing morning and afternoon peak-hour traffic Level of Service for the six arterial intersections analyzed for the proposed project. The County's level of service standard for urban roadways is LOS C or better, and Caltrans' operational goal for study area intersections (with and without signals) is the cusp of Level of Service C/D or better. As shown in Table 1, all of the arterial intersections are operating at Level of Service C or better during the morning and afternoon peak hours, except for the southbound Route 101 ramp intersection with Tefft Street, which currently operates at Level of Service E during both the morning and afternoon peak hours. The relatively high traffic volumes and existing intersection configuration with the offset on-ramp contribute to poor operations at this location.

Because of existing congestion at the Tefft Street and Los Berros interchanges, drivers go out of their way and travel longer distances to avoid using one or both of the interchanges. Currently, queues on the freeway off-ramps do not back up onto Route 101 at the Tefft Street interchange. However, if this congestion continues, it will add to the Level of Service deficiencies and safety concerns at existing roads and interchanges.

**TABLE 1
EXISTING TRAFFIC CONDITIONS**

Arterial Intersections	Morning Peak Hour		Afternoon Peak Hour	
	Delay	LOS	Delay	LOS
Southbound Route 101 Ramps/Los Berros Road	13.5	B	18.1	C
Northbound Route 101 Ramps/Los Berros Road	17.7	C	21.4	C
Southbound Route 101 Ramps/Tefft Street	65.9	E	62.3	E
Northbound Route 101 Ramps/Tefft Street	25.0	C	34.5	C

* Exceeds Level of Service standard

Source: Final Traffic Operations Report, December 2004/September 12, 2007 Revisions

Year 2030 Traffic Conditions – No-Build Scenario

Table 2 shows the forecasted traffic conditions for the study area intersections in 2030 without the proposed project. Without construction of the proposed Route 101/Willow Road interchange, traffic volumes will increase significantly in the immediate vicinity of the Tefft Street and Los Berros Road interchanges. As shown in Table 2, all of the Route 101 arterial intersections at Los Berros Road and Tefft Street are expected to operate at unacceptable levels of service (Levels of Service E and F), except for the Los Berros southbound ramps and the Tefft Street northbound ramps in the morning peak hour.

**TABLE 2
2030 NO-PROJECT TRAFFIC CONDITIONS**

Arterial Intersections	Morning Peak Hour			Afternoon Peak Hour		
	Delay	LOS		Delay	LOS	
Southbound Route 101 Ramps/Los Berros Road	20.4	C		73.9	F	*
Northbound Route 101 Ramps/Los Berros Road	376.0	F	*	427.3	F	*
Southbound Route 101 Ramps/Tefft Street	104.2	F	*	149.5	F	*
Northbound Route 101 Ramps/Tefft Street	40.7	D		55.1	E	*
* Exceeds Level of Service standard						

Source: Final Traffic Operations Report, December 2004/September 12, 2007 Revisions, 2030 No-Build Scenario

With increased traffic volumes in 2030, it is anticipated that vehicle queues at off-ramp intersections would spill back onto the Route 101 freeway during peak hours. In this scenario, vehicles controlled by a signal or stop sign would queue back up onto the off-ramp and extend into the outside freeway lane. Motorists on the freeway would not be expecting stopped traffic, and this would potentially degrade safety. The Final Traffic Operations Report identified the potential for spillback onto Route 101 at the Tefft Street interchange off-ramps in 2030. Assuming existing lane configurations at the Route 101/Tefft Street interchange in 2030, the northbound and southbound off-ramp vehicle queues are projected to spill back onto the Route 101 freeway during both the morning and afternoon peak hours.

Another concern is the potential for out-of-direction travel to continue on the existing arterial roads and interchanges. If this practice continues, it will add to the level of service deficiencies and safety concerns at these existing roads and interchanges.

If the proposed Route 101/Willow Road interchange is not constructed, both the Los Berros Road interchange would require signalization, and the Tefft Street interchange and Tefft Street corridor would require major improvements, all at greater costs than if the proposed project were constructed. For example, if Willow Road were not extended with a new interchange at Route 101, the following improvements would be necessary at Tefft/Route 101 to achieve a satisfactory level of service:

- Demolish and reconstruct all the existing ramps;
- Widen and lengthen the bridge at the Route 101/Tefft Street overcrossing;
- Widen Tefft Street and Pomeroy Road to include additional through and left-turn lanes;
- Eliminate adjacent intersections and provide additional improvements to the local road network to provide adequate circulation;
- Acquire extensive amounts of residential and commercial right-of-way on the northeastern and southwestern quadrants of the interchange and along Tefft Street and Pomeroy Road west of the interchange.
- Modify South Frontage Road where it ends at Hill Street;
- Extend Mary Avenue to Hill Street; and
- Improve signalized intersections at Tefft Street/Mary Avenue, Tefft Street/Route 101 northbound ramps and Tefft Street/Route 101 southbound ramps.

These improvements would require substantial right-of-way and/or building acquisitions, cause greater environmental impacts and result in an increase in travel times over those with the Route 101/Willow Road Interchange Project. The required improvements to Tefft Street and Los Berros Road interchanges, without the proposed Willow Road interchange, are estimated to cost \$68,000,000.

As a comparison, if the proposed Route 101/Willow Road interchange were constructed, necessary modifications to Tefft Street would be more modest, including:

- Widen the existing southbound on-ramp;
- Widen the northbound on-ramp to two lanes;
- Re-stripe Tefft Street within the existing structure limits and construct minor improvements to selected Tefft Street intersections;
- Improve South Frontage Road and selected South Frontage Road intersections; and,
- Extend Mary Avenue to Hill Street.

If the proposed Route 101/Willow Road interchange is constructed, the total investment for the Willow Road interchange and the necessary Tefft Street and Los Berros Road improvements are estimated to cost \$42,000,000, nearly 40% less than without the Willow Road interchange.

Year 2030 Traffic Conditions –Build Scenario

Over time, traffic volumes throughout the project vicinity will increase as a result of local and regional growth. The County has forecasted traffic volumes to the year 2030, assuming that the proposed project would be constructed. Much of the increased traffic within the project vicinity is largely the result of anticipated growth on the west side of the freeway, such as the Woodlands development. Some growth and additional traffic are also expected east of Route 101 in “Olde Towne” Nipomo. **Table 3** shows the traffic conditions for the study area intersection in 2030 with construction of a new Route 101 interchange at Willow Road. Data for the 2030 no-build conditions, including the percentage of change in delay, are provided for comparison.

**TABLE 3
2030 PROPOSED PROJECT AND NO-BUILD TRAFFIC CONDITIONS**

Design Year (2030) and Preferred Alternative Intersection Level of Service Summary						
Intersection	Average Delay in Seconds*/Level of Service					
	2030 No-Build Alternative		Build Alternative			
	Morning Delay/ LOS	Afternoon Delay/ LOS	Morning Delay/ LOS	% Delay Change	Afternoon Delay/ LOS	% Delay Change
Los Berros Road/ Route 101 Southbound Ramps**	20.4/C	73.9/F	15.2/C	-25.5%	31.1/D	-58.0%
Los Berros Road/ Route 101 Northbound Ramps**	376.0/F	427.3/F	36.3/E	-90.4%	92.3/F	-78.4%
Willow Road/ West Frontage Road**	8.5/A	9.1/A	12.3/B	+45.0%	16.3/C	+79.1%
Willow Road / Route 101 Southbound Ramps**	N/A	N/A	16.8/C	N/A	18.9/C	N/A
Willow Road/ Route 101 Northbound Ramps**	N/A	N/A	11.5/B	N/A	9.5/A	N/A
Willow Road/ Thompson Road**	N/A	N/A	8.8/A	N/A	9.7/A	N/A
Tefft Street/ Route 101 Southbound Ramps/ South Frontage Road	104.2/F	149.5/F	81.2/F	-22.1%	93.3/F	-37.6%

Design Year (2030) and Preferred Alternative Intersection Level of Service Summary						
Intersection	Average Delay in Seconds*/Level of Service					
	2030 No-Build Alternative		Build Alternative			
	Morning Delay/ LOS	Afternoon Delay/ LOS	Morning Delay/ LOS	% Delay Change	Afternoon Delay/ LOS	% Delay Change
Tefft Street/ Route101 Northbound Ramps	40.7/D	55.1/E	28.5/C	-30.0%	35.8/D	-35.1%
* Delays in excess of 120 seconds are presented for comparison purposes only. Delays above this threshold are not considered accurate since the calculation is unreliable with excessive congestion. Bold type indicates unacceptable (such as LOS E or F) traffic operations. ** These ramps are analyzed as unsignalized, stop controlled intersections						

Source: Final Traffic Operations Report, December 2004/September 12, 2007 Revisions

Provision of the new interchange at Willow Road would result in reduced traffic volumes at all of the arterial intersections at the Tefft Street and Los Berros Road ramps. **Table 3** also shows that a new interchange at Willow Road would also reduce traffic delays for all time periods and improve levels of service for some time periods.

At the Tefft Street intersection, the projected reduction in delay would be between 20 percent and 40 percent with the new Route 101/Willow Road interchange in place.

The southbound ramps at Los Berros Road would be improved to Level of Service D (from Level of Service F) in the afternoon peak hour, while the northbound ramps at Los Berros Road would be improved to Level of Service E (from Level of Service F) in the morning peak hour. The northbound ramps at Tefft Street would be improved to Level of Service C (from Level of Service D) in the morning peak hour and Level of Service D (from Level of Service E) in the afternoon peak hour. The improvement in levels of service at the arterial intersections indicates that the proposed Route 101/Willow Road interchange would provide congestion relief at the Tefft Street and Los Berros Road ramps.

Additional capacity improvements beyond the scope of the proposed Route 101/Willow Road Interchange Project would still be required to provide acceptable levels of service at the southbound Route 101 ramp intersection at Tefft Street. In addition, a new traffic signal would be required at the northbound Route 101 ramp intersection at Los Berros Road.

The traffic expected to use Willow Road west of Route 101 is generated by future growth in the area and from re-distribution among the Los Berros Road, Willow Road and Tefft Street interchanges. Even with future growth, the proposed interchange would reduce annual travel by 1,155,000 vehicle hours and 1,842,000 vehicle miles in the year 2030. These reductions are due to the following: (1) Willow Road would provide more direct access to several areas of Nipomo, and (2) some existing traffic that currently must travel farther and longer to get to either the Los Berros/Thompson or Tefft Street interchanges would instead use the new interchange. In addition to increased travel efficiency, the proposed Route 101/Willow Road interchange would provide a safer circulation system by diverting future travel away from non-standard county roads (Pomeroy Road, Hetrick Road, and Summit Station Road) to a fully standard-designed interchange and road extension.

The Final Traffic Operations Report identified the potential for spill-back onto Route 101 at the Tefft Street interchange off-ramps in 2030. Assuming existing lane configurations at the Route 101/Tefft Street interchange and construction of the proposed Route 101/Willow Road interchange, the southbound off-ramp (during both the morning and afternoon peak hour) and the northbound off-ramp (in the afternoon peak hour) are projected to continue to spill back onto Route 101, but not to the same extent as in the 2030 no-project condition.

However, with construction of the proposed project, the northbound off-ramp would not be projected to spill back onto Route 101 during the morning peak hour.

As also shown in **Table 3**, the No-Build Alternative would result in increases in traffic, leading to unacceptable delays and deteriorations in level of service at several ramp junctions and intersections by 2030. Figure 2.6 illustrates 2030 No-Project Traffic Volumes.

The Preferred Alternative would improve emergency access to the Nipomo Mesa region by providing an additional access across the freeway and reducing congestion at nearby interchanges. The proposed new interchange at Willow Road would provide a direct route from Nipomo Station 20 to existing and proposed developments east and west of Route 101, reducing emergency response times in the project area.

Traffic Collision Analysis

Caltrans provided Traffic Accident Surveillance and Analysis System (TASAS) data for a three year period for Route 101 between Los Berros Road and Tefft Street at or near the ramp junctions of these two existing interchanges for the three year period from July 2003 through June 2006 . The data indicated that a total of 23 collisions occurred on Route 101 mainline (PM 5.80 to PM 6.90). Collision rates as derived from TASAS summary from July 1, 2003 through June 30, 2006 for freeway mainline within the study area are provided in **Table 4**. This data shows the mainline rate of fatal collisions is lower than the statewide average. District traffic safety staff has reviewed this data and determined that it is current for use in this Project Report.

**TABLE 4
 TASAS DATA SUMMARY**

Location Route 101- From PM 5.8 to PM 6.9	Average Rate (Collisions/Million Vehicles)			Actual Rate (Collisions/Million Vehicles)		
	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
Mainline (Tefft to Los Berros)	0.010	0.26	0.69	0.000	0.10	0.34
Note: Total collisions include fatal plus injuries plus property damage only (PDO) collisions. Thus, the total rate may not equal the sum of the Fatal and Fatal + injury rate. Bold indicates where actual rate exceeds statewide average.						

Emergency Access

Portions of the Nipomo Mesa are not easily accessible from Route 101 due to the distance between existing interchanges and the amount of unpaved roads within the local roadway network. As a result, access for fire protection and emergency response services in the Nipomo area is limited to routes along Tefft Street, Pomeroy Road and Los Berros Road. Nipomo Station 20 (at 450 Pioneer Street) provides fire protection and emergency response services to the Nipomo Mesa. The proposed new interchange at Route 101/Willow Road interchange would provide a direct route from Nipomo Station 20 to existing and proposed developments east and west of Route 101, reducing emergency response times in this area.

5. ALTERNATIVES

A. VIABLE ALTERNATIVES

Preferred Alternative – Construct New Modified-Compact Diamond.

A Modified-Compact Diamond (Type L-1) Undercrossing Interchange is the Preferred Alternative at this location. The interchange is proposed where the Willow Road Extension Project (a separate project funded by the County) would cross Route 101, between Route 101 PM 5.9 and PM 6.9.

Proposed Engineering Features

The proposed project is a new Modified Compact Diamond (Type L-1) interchange with an undercrossing, northbound and southbound on and off-ramps. A 1,110 ft long segment of Willow Road would be constructed and would accommodate standard vertical curves and grades for the Willow Road undercrossing to achieve a standard design speed of 55 mph on Willow Road. Willow Road will have standard 12 ft. travel lanes and 10 ft. outside shoulders.

The northbound off-ramp would be a 1 lane exit, and would be widened to 2 lanes prior to the Willow Road intersection, including a left and through lane and single right turn lane. The northbound on-ramp would be a single lane with an HOV bypass and provisions for ramp metering. The southbound exit ramp would be a single lane exit, and widened to two lanes with a single left and through lane and single right turn lane at the Willow Road intersection. The southbound on-ramp would be a single lane with an HOV bypass and provisions for ramp metering. All ramps would have standard 12 ft. lanes, 4 ft. inside shoulder and 8 ft. outside shoulders.

Willow Road would be four lanes under Route 101, with one through lane and one 12 ft. wide left turn lane in each direction. Approach lanes on Willow Road would include 12 ft. wide queue storage lanes for the left turns.

Soldier pile retaining walls would be required for the northbound exit ramp. Initial construction would provide stop sign control for ramp movements at the Willow Road ramp terminals. Traffic signals would be eventually installed at the northbound and southbound ramp terminals with Willow Road when warranted. Initial construction will include roadway safety lighting

Route 101 would be reconstructed within the project limits to provide standard 12 ft. travel lanes, 8 ft inside shoulders and 10 ft. outside shoulders. The proposed Route 101 bridges at Willow Road would be two single-span cast-in-place (CIP)/pre-stressed (PS) concrete box girder structures approximately 142 feet in length, 6.5 feet in depth and 41'-10" in width for each bridge. The width and the clearance between two bridges would provide adequate space for two future standard lanes and standard inside shoulders. This configuration will match the Route 101 cross section existing at Tefft Street Interchange. The bridges would incorporate short seat type abutments supported on driven piles. Standard vertical clearance under the bridges would be provided. The bridge design proposed has been modified from the Draft Project Report, based on recommendations from Value Analysis study.

The proposed drainage system will have runoff from the ramps flow towards Willow Road. Runoff from the ramps will be collected by conveyances that will eventually tie into inlets near the intersections of the ramps and Willow Road. Runoff from the west, outside Caltrans right-of-way, will collect into the western ditches of the proposed drainage system. Rainfall collected on Route 101 will flow into inlets placed at the edges of pavement and in the median. On Willow Road, for the western portion prior to the ramp intersection and the eastern portion after the ramp intersection (before the Nipomo Creek Bridge), runoff will be collected by the means of unlined ditches adjacent to the roadway. The unlined ditches on the western portion will then be collected into inlets. On Willow Road, between the ramp intersections, rainfall will be collected by inlets placed along shoulders. All runoff collected from the ramps and Willow Road will eventually be collected into a mainline culvert running down the center of Willow Road and will outfall into a rock-sloped protected area near Nipomo Creek on the east side of the project area before flowing into Nipomo Creek.

Stage construction would be required to maintain two lanes in each direction on Route 101 traffic at all times in order to construct the Route 101 bridge over Willow Road and ramp tie-ins. Bridge construction would be completed in two phases. The first phase would shift northbound traffic to the median of Route 101, using temporary pavement, in order to construct the northbound Willow Road undercrossing structure. Phase 2 would shift SB Route 101 traffic to the temporary median pavement to allow the construction of the southbound Willow Undercrossing Structure. Phase 3 would shift traffic on Route 101 back to the completed bridges, with restoration of the median to preconstruction conditions. Standard 50:1 taper transitions for traffic shifts would be provided during each shift.

Updated geometric layouts, typical sections and profile drawings for this alternative are shown in **Attachment 5**.

Nonstandard Mandatory and Advisory Design Features

Mandatory Exception 1

Interchange spacing from the proposed interchange to Tefft Street is 1.57 miles, and to Los Berros Road is 1.34 miles. The interchange spacing between the proposed Willow Road interchange and the existing Los Berros Road interchange (classified as rural) does not meet the required 2.0 mile rural interchange spacing requirement. As a result, a design exception fact sheet was approved by Caltrans headquarters as part of the Project Study Report in January 2000. The exception to the minimum interchange spacing was justified based on the following conditions.

1. The County of San Luis Obispo, after considering seven alternative alignments for Willow Road, selected two alignments for further analysis and design. These two alignments are referred to as Alternative 1 (Alignment 2) and Alternative 2 (Alignment 4). A route selection Environmental Impact Report, adopted by the County in April 1999, selected Alternative 1 (Alignment 2) as the environmentally superior alternative.
2. The proposed Willow Road interchange would provide for a connection to a major high volume linkage (Willow Road) from Route 101 to Route 1. The closest routes, Los Berros Road and Division Street, are approximately 4.5 miles to the north and south of Willow Road, respectively. Both are high volume roads without shoulders.
3. Alternative 1 would provide the least environmentally impacting alignment as the interchange and approaches would avoid habitat and archeological resources.
4. If an interchange was constructed at the standard interchange spacing location, existing residential and commercial areas would be significantly impacted due to relocation of frontage road and interchange footprint.
5. The proposed project will reduce congestion and enhance safety of the adjacent Tefft Street interchange and on the local surface street network by providing a new direct connection to Route 101.
6. Construction of an alternative would cost an additional 50% in right of way and construction.
7. Spacing would provide better weaving operation than standard interchange location. Weaving distances of greater than 5,000 feet to both the Tefft Street and Los Berros Road interchanges will be provided, both exceeding the 1,600 feet minimum weaving distance.

The Project Engineer has reviewed this approved design exception and finds that the conditions justifying the exception are still valid. Caltrans HQ Geometrician and Design Coordinator concur that the approved interchange spacing exception is still valid.

Advisory Exception 1

The side slopes between Route 101 main line and the northbound ramps are proposed to be 2:1 or flatter in two locations. For new construction, widening, or where slopes are otherwise being modified, embankment slopes should be 4:1 or flatter. This exception is required to minimize right of way impact and potential impact to the riparian area. An advisory design exception fact sheet was approved by Caltrans on November 5, 2007.

High Occupancy Vehicle (HOV) (Bus and Carpool) Lanes

HOV bypass lanes are proposed for the northbound and southbound on-ramps for this project. HOV bypass lanes will be striped out until ramp metering is installed.

Ramp Metering

This project will provide conduit and pull boxes for ramp metering equipment in anticipation of potential future ramp metering.

CHP Enforcement Areas

CHP enforcement areas are provided in the project at the ramp meter stop bar on the northbound and southbound entrance ramps.

Park and Ride Facilities

The southwest quadrant of the proposed interchange at Route 101/Willow Road, outside of the southbound on-ramp, is the proposed location for a future park and ride facility. The park and ride lot would provide approximately 50 parking spaces and would include a bus drop-off area and bicycle racks. The project limits identified in the Environmental Assessment (EA) encompass portions of the Willow Road Extension Project (a separate project being administered by the County), including a North Frontage Road, which will be completed before completion of the proposed interchange. The North Frontage Road is included within the NEPA project limits because of its connection to the future proposed Park and Ride lot. Access to the Park and Ride lot, which is identified as a "Tier 1" Park and Ride improvement project in the 2005 San Luis Obispo Council of Governments Park and Ride Development Study, would be provided via a driveway located directly off of North Frontage Road. The San Luis Obispo Council of Governments will be responsible for construction funding of the Park and Ride lot. The lot will be a phase of the proposed project, and is anticipated to be constructed after a few years of the interchange opening.

Utilities and Other Owner Involvement

There are some electrical or gas utility relocations required by the project. There are existing AT&T facilities and SoCal Gas facilities on the west side of US 101, which will be relocated by the County to outside of the proposed State right of way prior to construction of West Frontage Road. These will be relocated well in advance of the interchange construction. There are also existing high pressure oil lines parallel to the Route 101 freeway on the east side, but outside of the proposed state right of way. These facilities will need to be protected during construction of Willow Road east of Route 101.

Railroad Involvement

There are no active railroads existing in the vicinity of the project.

Highway Planting

Proposed highway planting will consist of drought resistant vegetation immediately following interchange construction under a separate contract, which will include a 3-year plant establishment period. Those portions of the project within the state right-of-way will be re-vegetated in accordance with Caltrans requirements. For portions of the project within the County right-of-way, permanent erosion control will be provided. Mitigation of oak trees along with a 3-year plant establishment period will be completed under a separate contract by the County of San Luis Obispo. Funding for highway planting and oak tree mitigation has been identified by the County and included in the project budget.

Erosion Control

Embankment slopes exposed to weather (i.e. not protected by paving) are expected to be seeded by erosion control Type D. Normal maintenance of surface drainage areas and slope areas will be included in the project design plans.

Noise Barriers

The primary source of noise that would affect sensitive noise receptors in the project area is from vehicular traffic on Willow Road west and east of the interchange. No mitigation measures are necessary along Route 101 or within the proposed interchange right of way.

Non-Motorized and Pedestrian Features

The Preferred Alternative will provide bicycle accessibility initially via a 10-foot paved shoulder along Willow Road through the interchange limits with a 2% shoulder cross slope provided. This shoulder can be re-striped to include a 6 ft. bike lane when corresponding striping is completed along Willow Road. Pedestrian access will be initially provided via unpaved surfaces in both directions on Willow Road behind curb and gutter with ADA ramps where appropriate. Allowance is made for future sidewalks on both sides of Willow Road and a future equestrian trail on the south side of Willow Road. Pedestrian crossing of the Route 101 freeway ramp intersections will be controlled initially by stop signs for traffic movements and by future pedestrian signals with pedestrian push buttons, when traffic signals are warranted.

Needed Roadway Rehabilitation and Upgrading

Existing Route 101 pavement will be utilized for traffic detours during the construction of the bridges over Route 101. The Route 101 pavement section will be retained except in areas that are widened. Provisions for contractor repair of damaged pavement will be included in the project specifications.

Needed Structure Rehabilitation and Upgrading

A new Route 101 bridge over Willow Road and a new bridge on Willow Road over Nipomo Creek will be constructed in this project. There are no existing structures that require structure rehabilitation.

Cost Estimate

Estimated costs, including 15% contingency, in 2009 dollars for the Route 101 interchange and Willow Road connection to Thompson Road are as follows:

2009 ESTIMATED COSTS

Item	Interchange	Route 101 to Thompson	Total
Roadway	\$ 19,740,000	\$ 3,226,000	\$ 22,966,000
Structure	\$ 3,879,000	\$ 1,725,000	\$ 5,604,000
Subtotal Construction	\$ 23,619,000	\$ 4,951,000	\$ 28,570,000
Right of Way/Utilities	\$ 2,573,580	\$ 562,440	\$ 3,136,020
Total Cost	\$ 26,192,580	\$ 5,513,440	\$ 31,706,020

Cost estimates for the work within State and County right of way are provided in **Attachment 6**.

An additional \$2,000,000 is budgeted by the County of San Luis Obispo for oak tree mitigation.

Effect of Special Funded Proposal on State Highway

Freeway and ramp junction analysis was completed for the proposed interchange using 2030 peak hour traffic volumes, and approved by Caltrans in December 2004. Based on the HCM methodology, all of the ramps at Willow Road would operate at LOS D during both peak hours. The northbound off-and on-ramps at this location would include extended merge and diverge distances of 540 feet and 625 feet, respectively. No further mitigation is recommended at this time. Future ramp metering would also be beneficial to merging operations on the freeway and is planned at the on ramps.

The northbound off-ramp to Tefft Street is expected to operate at LOS E during the PM peak hour under all scenarios. The northbound off-ramp to Los Berros Road is also expected to operate at LOS E under all scenarios. These more congested operating conditions are caused by high traffic volumes on the freeway mainline. There is no mitigation proposed for these locations.

No-Build Alternative

Under the No-Build Alternative, Route 101 would remain in its current condition with no interchange at Willow Road. The no-build condition includes the construction of the Willow Road Extension project to the west of Route 101. It would connect the Willow Road extension from Pomeroy Road to 50 feet west of the Route 101 right-of-way and then south on the frontage road to Sandydale Drive. Eastbound traffic could access the freeway to the north at Los Berros by traveling north on Pomeroy or access the freeway to the south by heading south along the frontage road and taking the Tefft Street interchange. The no build alternative would not entail any modifications to Route 101 and does not construct any roadway segments east of Route 101. This alternative would do nothing to relieve traffic congestion at the Route 101 interchanges at Tefft Street and Los Berros Road. There would be no further improvements to circulation or emergency access as identified in the South County Area Plan and no reduction to future traffic levels on Los Berros Road, West Tefft Street, and Pomeroy Road. The need for major modification of the Route 101/Tefft Street and Los Berros-Thompson Road interchanges would remain.

Without the project being constructed, increases in traffic would lead to unacceptable delay at several ramp junctions and intersections by 2030. During both the morning and afternoon peak hours, unacceptable level of service would be experienced at the northbound Route 101 ramp/Los Berros Road intersection, the southbound Route 101 ramp/Tefft Street intersection and the northbound Route 101/Los Berros off-ramp. During the peak afternoon hours, unacceptable level of service would also be experienced at the northbound Route 101/Tefft Street off-ramp, the southbound Route 101/Los Berros intersection, and the northbound Route 101/Tefft Street intersection. Projected 2030 traffic would potentially congest both the northbound and southbound Route 101/Tefft Street ramp intersections to the extent that vehicles would back up onto Route 101.

The No Build Alternative is not selected, since it does not meet the Purpose and Need for the project.

B. REJECTED ALTERNATIVES

Following are rejected alternatives that were initially proposed and developed either in the Project Study Report or the subsequent traffic operations report.

Alternatives Considered in the Project Study Report

In addition to the proposed Build Alternative (PSR Alternative 1), one other build alternative (PSR Alternative 2) was studied. It involved construction of an overcrossing interchange located on a different route alignment crossing Route 101 approximately ¼ mile south of the Build Alternative. This alternative alignment was considered during the previous 1999 EIR for the Willow Road Extension Project and found to have greater environmental impacts than the Build Alternative alignment which was also evaluated. The PDT rejected PSR Alternative 2 from further study based on anticipated environmental impacts identified during the 1999 EIR process.

Alternatives Considered in the Traffic Operations Report

In addition to the proposed Build Alternative, two alternatives with no Willow Road interchange were studied in the Traffic Operations Study, originally approved in December 2004, with an update approved in September 2007 by Caltrans. The following alternatives assume the "Additional Improvements Required for Acceptable Operations" (Traffic Operations Report, Table 10) are included for discussion purposes of costs. The improvements are necessary at Tefft and Los Berros interchanges to provide acceptable design year LOS for all ramp intersections and junctions, in order to eliminate spillback conditions that would affect state highway mainline operations.

- **Tefft Street Improvements Only (Traffic Report Alternative 3)**

The Traffic Operations Study, prepared by Fehr & Peers Transportation Consultants in 1994, analyzed a No Build Alternative that would not construct a new interchange at Willow Road and Route 101, but would improve the existing Tefft Street/Route 101 interchange. Under this alternative, both the southbound and northbound ramps to Route 101 at Tefft Street would be widened so that they could obtain turn lanes. This alternative eases congestion at the Tefft Street interchange by adding to the capacity of that interchange to handle traffic. The existing overcrossing structure would need to be replaced. Also, traffic signals at the Los Berros interchange would be needed in the future, as warranted. This alternative was rejected for the following reasons:

- *It would fail to provide circulation improvements identified in the Purpose and Need; and*
- *This alternative would require a significant amount of property acquisition and related costs for the improvements for the Tefft Street/Route 101 reconstruction.*

The PDT rejected this alternative from further study based on not meeting the purpose and need.

- **Frontage Road between Sanddydale Drive and Los Berros Road (Traffic Report Alternative 2)**

This alternative would extend continuously from Willow Road north to Los Berros Road and would connect with the Willow Road extension from Pomeroy Road to 50 feet west of the Route 101 right-of-way. Traffic that reaches the eastern end of Willow Road could access the freeway either by moving north along the frontage road and using the Los Berros interchange or by heading south along the frontage road and taking the Tefft Street interchange. The alternative would not entail any modifications to Route 101 and it does not construct any roadway segments east of Route 101. The existing overcrossing structure at the Tefft Interchange would need to be replaced. Also, traffic signals at the Los Berros interchange would be needed in the future, as warranted. This alternative was rejected for the following reasons:

- *This alternative does not provide an interchange or direct access on to Route 101; therefore, it would not provide a new direct connection between SR 1 and Route 101, one of the circulation improvements identified in the County's South County Area Plan.*
- *Enhanced emergency access through the provision of an alternative connection to Route 101 and a new recreational trail from Thompson Road to SR-1 would not be provided.*
- *Additional noise impacts from traffic would occur to sensitive receptors (homes) along the alternative frontage road to Los Berros*
- *Additional air quality impacts in the long-term due to increased traffic congestion in the long-term.*
- *Increased impacts to public services including emergency access (no additional connection to Route 101), no increased access to Route 101 for police and fire service vehicles and increased potential for impacts to underground utilities during construction of the frontage road to Los Berros Road.*
- *Greater overall impacts to biological resources, in particular, oak trees and oak woodland habitat, from construction of the proposed location of the frontage road north to Los Berros Road.*
- *This alternative would require a significant amount of property acquisition and related costs for the improvements for the Tefft Street/Route 101 reconstruction.*

The PDT rejected this alternative from further study based on not meeting the purpose and need.

C. NEW INTERCHANGE CONCEPTUAL APPROVAL

In accordance with Caltrans Design Information Bulletin 77 and PDPM “Chapter 27 Article 5”, Caltrans has granted conceptual approval of the new interchange with the approval of the PSR in January 2000. The following summarizes the justification presented for the new interchange.

1. Interchange Justification

Requirement: It must be demonstrated that the existing interchanges and/or local roads and streets in the corridor can neither provide the necessary traffic service nor be improved to satisfactorily accommodate the design-year traffic demands.

Assessment: The build alternative meets this criterion. Two alternatives were evaluated that would reconstruct adjacent existing interchanges and/or local roads to accommodate appropriate design year LOS, without the new Willow Road interchange.

The two alternatives are in the \$68-71 million cost range, while the Preferred Alternative would initially cost \$34 million with an additional \$10 million that would be needed for future adjacent interchange modifications (at Tefft Street and Los Berros) for a total comparison value of \$42 million. The future adjacent interchange modifications would be needed for appropriate LOS in the 2030 forecast year and most likely would be undertaken incrementally as warranted by level of service. All of these proposals would provide equivalent levels of service for the design year traffic demands. The least expensive alternative proposal to reconstruct the existing adjacent interchanges would cost 62% more than the Willow Road interchange proposal (including the cost of the adjacent interchange modifications.). See the following Equivalent Cost Comparison Table for individual component costs and total equivalent costs of alternatives for comparison purposes.

ALTERNATIVE COST COMPARISON TABLE					
Improvement Component	Cost in Millions (source document)	With Willow Interchange	Without Willow Interchange		
		Preferred Alternative	No Project	Alternative 2 (Full Frontage Rd.)	Alternative 3 (Adjacent I/C Improvements)
Reconstruct Tefft I/C	\$26 m (ongoing studies)			\$26 m	\$26 m
Widen Tefft Street Corridor	\$40 m (Willow PSR escalated)			\$ 40 m	\$ 40 m
Partially Improve Tefft I/C (as required warranted by 20 yr. LOS)	\$6 m (estimated)	\$6 m			
Signalize SB Los Berros I/C ramps (as required warranted by 20 yr. LOS)	\$1 m (estimated)			\$1 m	\$1 m
Signalize NB Los Berros I/C ramps (as required warranted by 20 yr. LOS)	\$1 m (estimated)	\$1 m		\$1 m	\$1 m
Construct Frontage Road North	\$ 3 m (estimated)	\$3 m		\$3 m	
Construct Willow Interchange Includes Willow to Thompson and mitigation	\$ 34 m (Willow DED)	\$ 34 m			
TOTAL IN MILLIONS ->		\$44 m	\$ 0 m	\$ 71 m	\$ 68 m

DEFINITIONS: PSR – Project Study Report DED – Draft Environmental Document

2. Consideration of Alternatives

Requirement: All reasonable alternatives for design options, location and transportation system management type improvements (such as ramp metering, mass transit and High Occupancy Vehicle (HOV) facilities) have been assessed and provided for if currently justified, or provisions are included for accommodating such facilities if a future need is identified.

Assessment:

A. Design Options

Various interchange designs were studied as follows: a Modified Diamond/Partial Cloverleaf, a Modified "Tight" Diamond, and a Modified "Tight-Spread" Diamond. The design for the Modified Diamond/Partial Cloverleaf interchange included a diamond configuration on the west side of the freeway and a partial cloverleaf configuration in the southeast quadrant. The partial cloverleaf would require acquisition of a much larger portion of the C&M Nursery property, although no right-of-way would be acquired in the northeast quadrant of the interchange.

The Modified "Tight" Diamond interchange design involved moving the southbound Route 101 on- and off-ramps closer to the freeway than currently proposed by the project. However, the northbound off-ramp would be slightly farther from Route 101. This interchange design would reduce the distance between off-ramps to about 91.4 meters (300 feet). This is less than Caltrans design guidelines, which recommend at least 160 meters (525 feet) between off-ramps.

The Modified "Compact" Diamond interchange design involves moving the northbound Route 101 on- and off-ramps closer to the freeway and moving the southbound Route 101 on- and off-ramps farther from the freeway, which is currently proposed by the project. This interchange design allows for a future addition of a loop on-ramp for southbound traffic. The boundaries are reduced on the east side of the Route 101/Willow Road interchange due to right of way constraints, but increased on the west side. This proposed interchange was determined to be the most desirable improvement at the proposed Route 101/Willow Road interchange. The other two interchange designs had the potential to create operational and safety constraints, and increase impacts to identified archaeological sites.

During the Value Analysis phase, a Partial Cloverleaf Type L-8 interchange was also considered. This alternative was rejected by the VA team due to extended time frame to reassess environmental impacts, re-circulate ED and PR, and redesign the interchange.

B. Location

In 1993, at the direction of the County Board of Supervisors, the County Engineering Department evaluated six alternative alignment locations for an extension of Willow Road from Pomeroy Road east to a new interchange at Route 101. Four of the alternatives were rejected thereafter, as they were proposed to be located along Live Oak Ridge Road and/or Cherokee Road which caused concerns from local residents over traffic, safety, noise and air quality impacts from additional traffic and close proximity of their residences. The remaining two alternatives (both on new roadway alignments approaching the crossing of the state highway) were determined to have the fewest impacts and authorized by the County Board of Supervisors in 1996 for detailed review. These two alternatives, Alignment 2 and Alignment 4, were the subject of environmental review and analysis in the County's 1999 Final EIR on the project. Several variations of Alignments 2 and 4 were analyzed in the 1999 FEIR. Through review and consideration of the information in the 1999 FEIR, the County Board of Supervisors approved a locally preferred alternative within Alignment 2, which is the currently proposed alignment for proposed Willow Interchange.

C. Transportation System Management Type Improvements

The build alternative would include future HOV ramp bypasses and ramp metering at freeway entrance ramps. Ramp metering will be constructed as a means of managing future increasing

congestion at the on ramp junctions with mainline traffic. The Nipomo area is currently served by Central Coast Area Transit Route No. 10, which runs between San Luis Obispo and Santa Maria. This route also serves the Five Cities (Shell Beach, Pismo Beach, Grover Beach, Oceano, and Arroyo Grande) area. Land has been set aside for a future Park and Ride lot in the southwest quadrant of the Route 101/Willow Road interchange, including about 50 parking spaces, a bus drop-off area, and bicycle racks. The proposed future Park and Ride lot (to be constructed by San Luis Obispo Council of Government as part of a separate project) would connect with the existing Nipomo Transit service, which is based at the Nipomo Recreation Center/Park and Ride at South Frontage Road and Tefft Street.

3. Interchange Spacing

Requirement: The proposal must comply with the spacing requirements of the Highway Design Manual and this Design Information Bulletin. If not, design exception approval for the proposed deviation must be requested and obtained before the project would be considered for conceptual (PSR) approval. A minimum of 1.0 mile must be provided between interchanges.

Assessment: Interchange spacing from the proposed interchange to Tefft Street is 1.57 miles and to Los Berros Road is 1.34 miles. The interchange spacing between the proposed Willow Road interchange and the existing Los Berros Road interchange (classified as rural) does not meet the required 2.00-mile rural interchange spacing requirement. As a result, a design exception fact sheet was approved by Caltrans headquarters as part of the Project Study Report in January 2000. The project engineer recently has reviewed this approved design exception and finds that the anticipated future conditions resulting in that decision have not changed and the decision remains valid.

4. No Significant Adverse Impact

Requirement: The proposed interchange does not have a significant adverse impact on the safety and operation of the highway facility based on an analysis of current and future traffic.

Assessment:

Ramp intersections - The build alternative for the Willow Road Interchange meets Caltrans operational goals (the cusp of LOS C/D or better) for Route 101 for ramp intersection LOS. Based on the HCM methodology, all of the ramp intersections for the new interchange would operate at LOS C or better during both peak hours through the 2030 forecast year. Ramp intersections for Los Berros and Tefft Interchanges would see significant congestion reduction due to construction of the new interchange, however further improvements would be needed at those interchanges in order to meet desired level of service standards. See the summary data below.

**DESIGN YEAR (2030) INTERSECTION LOS SUMMARY
SOURCE: TRAFFIC OPERATION REPORT**

Intersection	Average Delay ¹ / LOS					
	No Project Alternative		Alternative 1 (Preferred)		Percentage Reduction in Delay from No Project	
	AM	PM	AM	PM	AM	PM
LOS BERROS INTERCHANGE						
- SB Ramps	20.4/C	73.9/F	15.2/C	31.1/D	-25%	-43%
- NB Ramps	376.0/F	427.3/F	36.3/E (2)	92.3/F (2)	-90%	-79%

DESIGN YEAR (2030) INTERSECTION LOS SUMMARY
SOURCE: TRAFFIC OPERATION REPORT

Intersection	Average Delay ¹ / LOS					
	No Project Alternative		Alternative 1 (Preferred)		Percentage Reduction in Delay from No Project	
	AM	PM	AM	PM	AM	PM
WILLOW ROAD INTERCHANGE						
- SB Ramps	N/A	N/A	16.8/C	18.9/C	N/A	N/A
- NB Ramps	N/A	N/A	11.5/B	9.5/A	N/A	N/A
TEFFT STREET INTERCHANGE						
- SB Ramps	104.2/F (1)	149.5/F	81.2/F (2)	93.3/F (2)	-22%	-62%
- NB Ramps	40.7/D	55.1/E	28.5/C	35.8/D	-30%	-35%
NOTES: Source: Fehr & Peers Associates, Inc., August 2007 Traffic Operations RE[port (1) Delays in excess or 120 seconds are presented for comparison purposes only. Delays above this threshold are not considered accurate since the calculation is unreliable with excessive congestion. (2) Additional improvements needed to meet desired level of service.						

Adjacent interchange modifications are necessary in the future to accommodate increasing volumes on the highway corridor and local roads of Nipomo, as warranted. See Traffic Report, Table 10, "Additional Improvements Required for Acceptable Operations" (replicated below) for individual components. See the following Equivalent Cost Comparison Table for individual component costs and total equivalent costs of alternatives for comparison purposes.

TRAFFIC REPORT - TABLE 10
ADDITIONAL IMPROVEMENTS REQUIRED FOR ACCEPTABLE OPERATIONS
UNDER EXISTING AND 2030 CONDITIONS

Improvement	Existing	No Project (A)	Alternative 1 (Preferred) (B)	Alternative 2 (C)	Alternative 3 (D)
TEFFT / ROUTE 101 SB RAMPS					
Add NB Right-turn Lane (1)	x	x	x	x	-
Add SB Right-turn Lane (2)	-	x	x	x	-
Add 2 nd WB Left-turn Lane (3)	-	x	-	x	-
TEFFT / ROUTE 101 NB RAMPS					
Add WB Right-turn Lane (4)	-	x	-	x	-
LOS BERROS / ROUTE 101 SB RAMPS					
Signalize	-	x	-	x	x
LOS BERROS / ROUTE 101 NB RAMPS					
Signalize	-	x	x	x	x
Source: Fehr & Peers Associates, Inc., October 2003, May 2004 and August 2007.					

- NOTES: (1) For NB traffic on Frontage Road turning east on Tefft Street.
 (2) For SB traffic on ramp turning west on Tefft Street.
 (3) For WB traffic on Tefft Street turning south on frontage road (requires future widened on Tefft Street OC).
 (4) For WB traffic on Tefft Street turning north onto on-ramp.
- (A) No Project assumes Willow Road is constructed west of Route 101 to west frontage road and west frontage road is completed south to Sandydale.
 (B) Alternative 1 – Construct Willow Road interchange and Willow Road to Thompson Road.
 (C) Alternative 2 – Add frontage road construction North to Summit Station Road.
 (D) Alternative 3 – Reconstruct Tefft Street corridor and Tefft Street Interchange.

Ramp Junctions. Table 7 from the Traffic Operations Report, replicated below, presents the results of the ramp junction analysis for the study interchanges under each project alternative using 2030 peak hour traffic volumes.

**TRAFFIC REPORT TABLE 7
DESIGN YEAR (2030) RAMP JUNCTION LOS SUMMARY**

Route 101 Ramp Junction Location	Density / LOS							
	No Project		Alternative 1 (Preferred)		Alternative 2		Alternative 3	
	AM	PM	AM	PM	AM	PM	AM	PM
Southbound off-ramp – Los Berros Rd.	29 / D	31 / D	29 / D	31 / D	29 / D	31 / D	29 / D	31 / D
Southbound on-ramp – Los Berros Rd.	31 / D	32 / D	31 / D	32 / D	31 / D	32 / D	31 / D	32 / D
Southbound off-ramp – Willow Rd.	N/A	N/A	32 / D	32 / D	N/A	N/A	N/A	N/A
Southbound on-ramp – Willow Rd.	N/A	N/A	31 / D	33 / D	N/A	N/A	N/A	N/A
Southbound off-ramp – Tefft St.	32 / D	33 / D	31 / D	33 / D	32 / D	33 / D	32 / D	33 / D
Southbound on-ramp – Tefft St.	31 / D	30 / D	31 / D	30 / D	31 / D	30 / D	31 / D	30 / D
Northbound off-ramp – Tefft St.	30 / D	37 / E	30 / D	37 / E	30 / D	37 / E	30 / D	37 / E
Northbound on-ramp – Tefft St.	29 / D	34 / D	32 / D	34 / D	34 / D	34 / D	29 / D	34 / D
Northbound off-ramp – Willow Rd.	N/A	N/A	32 / D	35 / D	N/A	N/A	N/A	N/A
Northbound on-ramp – Willow Rd.	N/A	N/A	35 / D	35 / D	N/A	N/A	N/A	N/A
Northbound off-ramp – Los Berros Rd.	35 / D	36 / E	36 / E	36 / E	35 / D	36 / E	35 / D	36 / E
Northbound on-ramp – Los Berros Rd.	34 / D	32 / D	34 / D	32 / D	34 / D	32 / D	34 / D	32 / D

Source: Fehr & Peers Associates, Inc. November 2004, August 2007
 Note: Density is in passenger cars per lane-mile. **Bold** type indicates LOS E or F operations.

Based on the HCM methodology, most of the ramps are expected to operate at LOS D. The northbound off-ramp to Tefft Street is expected to operate at LOS E during the PM peak hour under all scenarios due to mainline traffic. The northbound off-ramp to Los Berros Road is also expected to operate at LOS E due to mainline traffic. These more congested operating conditions are caused by high traffic volumes on the freeway mainline. All of the ramps at Willow Road would operate at LOS D during both peak hours under Alternative 1, the only scenario that includes the construction of these ramps.

5. Connection to Public Road

Requirement: The proposed interchange connects to a public road only and would provide all traffic movements. If not, design exception approval from CTC and new freeway agreement is required.

Assessment: The proposed interchange alternative would connect only to Willow Road, which is a public street. Minimum spacing from ramp intersections to local roads or driveways would be 500 feet. Access control would meet HDM requirements along Willow Road, between the South Frontage Road and the Nipomo Creek Bridge. CTC approval of this new connection and a new freeway agreement is required.

6. Meets Local Planning

Requirement: The proposal considers and is consistent with local and regional land use and transportation plans.

Assessment: The interchange is currently identified as an approved project in the San Luis Obispo County RTIP, to be implemented before 2010. The Willow Road alignment is currently contained in the San Luis Obispo County Roadway Master Plan. The build alternative meets this criterion. According to the County's South County Area Plan, Circulation Element, the "Highway 101/Tefft Street interchange cannot adequately serve the expanding population, [and] poses serious limitations on movement of emergency vehicles" (Circulation Element p.5-4). Construction of an interchange with an extension of Willow Road (Circulation Element p.5-9, 5-10) is discussed in the Circulation Element as a way to relieve circulation problems at Tefft Street.

In addition, improvement to arterials including the extension of Willow Road "easterly from Pomeroy Road to intersect Highway 101 at a proposed interchange, then east to Thompson Road with rural arterial standards, including a Class II bike lane" (Circulation Element p.5-10) is discussed to carry traffic between population centers and to serve large volumes of traffic within an urban area. The proposed paving and shoulder limits at the interchange will accommodate Class II bike lanes. Lastly, the Circulation Element proposes improvements of the North Frontage Road "from Sandydale to the proposed interchange at the Willow Road extension" (Circulation Element p.5-13) to enable traffic to move between minor roads or streets and arterial roads or streets. Through review and consideration of the information in the 1999 FEIR, the County Board of Supervisors approved a locally preferred alternative within Alignment 2 on April 13, 1999.

7. Coordination with Development

Requirement: The request for a new or revised interchange generated by new or expanded development requires appropriate coordination between development and related or otherwise-required transportation system improvements.

Assessment: The build alternative meets this criterion. The roadway system planned to support the Route 101/Willow Road interchange would provide adequate collection and distribution of traffic to and from the interchange. Access control would meet HDM requirements along Willow Road, between the South Frontage Road and the Nipomo Creek Bridge. The planned roadway system would connect to existing adjacent roadways and such as the West Frontage Road, Thompson Road, Hetrick Road and Route 1 to the west.

6. CONSIDERATIONS REQUIRING DISCUSSION

A. HAZARDOUS WASTE

The following discussion of hazardous materials is based on a database research provided by Environmental Data Resources, Inc (EDR), November 2004, and a visual inspection of the area. The results of the EDR database search are available in their entirety at the County of San Luis Obispo, Department of Planning and Building (Topographic Map Report 2004; Radius Map 2004; Aerial Photography Print Service 2004).

There are a variety of land uses within the project study area, some of which have the potential to generate or use hazardous materials. These uses include gas pipelines, surface materials, agricultural and ranch lands, a nursery operation, and oil pipelines. Evidence of an underground natural gas pipeline, owned by Southern California Edison, was noted along the western boundary of Route 101. Minor evidence of surface hazardous materials were noted on private property at the same location of the proposed park-and-ride lot, west of Route 101 and north of Cherokee Place. The potentially hazardous surface materials include:

- Six small metal tanks. The contents of the tanks were undetermined and no surface stains were noted.
- Five small oil tanks. The contents of the tanks were undetermined and no surface stains were noted.

No hazardous materials were identified or determined within the tanks and, therefore, no adverse impacts are anticipated.

East of Route 101, the land use consists of scattered grazing areas and croplands. Agricultural areas lie west of the proposed interchange and within the project footprint. In addition, C&M Nursery is located east of Route 101, in the southeast quadrant of the proposed interchange. C&M Nursery has been operating since the early 1970's and is located on approximately 12.1 hectares (30.0 acres). It is mostly devoted to the cultivation of avocado and citrus trees, with soil stockpiles in the northern portion, small greenhouse structures in the central portion, and potted trees in the southern portion. Various pesticides and fungicides have been used within this property to fumigate imported soils and reduce the potential for root rot. Pesticides are applied to the trees from a truck-mounted spray unit. The use of pesticides in the area is monitored by the County Department of Agriculture; however, trace amounts of pesticides may be present on surface soils due to nursery operations.

Two Unocal pipelines are located east of Route 101 and west of Thompson Road. These pipes are the 8.0-inch Orcutt and 12.0-inch Santa Maria pipelines. They are buried approximately 12 feet beneath the ground surface.

Other possible areas of environmental concern include the LR Braggs Company and Gibbs International Trucks. LR Braggs Company is an active waste oil operator located at 483 North Frontage Road in Nipomo and Gibbs International Trucks has an active hazardous materials operating permit and is located at 215 8th Street in Nipomo.

The database research conducted for this analysis (EDR, November 2004) indicated no hazardous materials have been recorded within or adjacent to the project study area and no further investigations are required.

Elevated levels of soil contaminants, such as lead, may be present along the shoulders of Route 101 due to airborne deposition from automobiles. If elevated levels of lead are confirmed within the soils adjacent to Route 101, their mere presence will not adversely affect human or environmental health.

If the soils are found to have elevated levels of lead in excess of regulatory limits and they are disturbed during construction activities, then they may have to be disposed of an approved landfill.

Asphalt roadways containing petroleum compounds and oil drippings may be a source of adjacent soils contamination. These compounds are within the roadway base and are not mobile. Oil drippings and petroleum compounds do not generally seep through the roadway and, therefore, are not considered dangerous from a local or regional perspective.

Southern California Edison owns and operates an underground natural gas pipeline adjacent to and west of Route 101. In addition, the Unocal pipelines, designated the Orcutt and Santa Maria oil pipelines, transverse the agricultural land between Thompson Road and Route 101. The pipelines will be relocated by the County prior to construction of the interchange. No adverse impacts are anticipated.

The County is among the counties listed as containing serpentine and ultramafic rock, and asbestos or ultramafic rock may be encountered during construction activities. A general location guide shows no areas of naturally occurring asbestos (NOA) in the project vicinity. In the unforeseen event of the discovery of ultramafic or asbestos containing materials, the County shall comply with all requirements outlined in the Asbestos ATCM for Construction, Grading, Quarrying and Surface Mining Operations to minimize any impacts caused by NOA.

The eastern portion of the proposed project is directly adjacent to the northern portion of C&M Nursery. Activities within project study area on nursery property include temporary soil and equipment storage. No hazardous materials were identified and no adverse impacts are anticipated.

Although oil and propane tanks were identified on private property west of Route 101 and north of Cherokee Place, no hazardous materials were identified or determined within the tanks and, therefore, no adverse impacts are anticipated.

The Preferred Alternative would not create any hazards to the public or the environment through foreseeable upset and accident conditions involving the release of hazardous materials. Hazardous materials could potentially be transported on the proposed Route 101/Willow Road interchange. However, use of the proposed interchange would not emit hazardous emissions or involve hazardous materials handling. The project study area is not located on the list of hazardous materials sites compiled per Government Code Section 65962.5.

The Preferred Alternative will not result in any impacts associated with Hazardous Materials.

B. VALUE ANALYSIS

A formal VA study was conducted from March 3-7, 2008. Recommendations adopted by Caltrans and the County include the following:

- Use strand fence in lieu of chain link
- Build two two-lane bridges on Route 101 instead of one bridge

C. RESOURCE CONSERVATION

There are no major facilities which can be salvaged and relocated from this project. However, whenever possible, existing roadway features such as signs, light standards, guardrails, and other associated hardware would be relocated or stockpiled to be used at a later date.

The proposed interchange improvements would result in a more efficient movement of traffic through the project corridor. The proposed project would not conflict with adopted energy conservation plans, use non-renewable resources in a wasteful manner, or result in the loss of available mineral resources.

D. RIGHT OF WAY ISSUES

Implementation of the Preferred Alternative will require acquisition of right of way along Route 101 and along the Willow Road alignment in order to construct the interchange and Willow Road extension to Thompson Road. Right-of-way acquisition is estimated to cost approximately \$1,097,580 in current dollars for the interchange construction, and \$383,000 for the portion of Willow Road to Thompson Road. The total right-of-way take is 21.29 acres which consists of 7 partial acquisitions for the interchange, and 7.09 acres of 3 partial acquisitions for the Willow Road extension to Thompson Road. The initial site assessment shows no evidence of sites with hazardous waste or material in the construction limits. No RAP displacement is required. Updated Right of Way Data Sheets for right of way acquisition are provided in **Attachment 7**.

E. RELOCATION IMPACT STUDIES

No business or housing will be relocated or impacted due to construction of the Preferred Alternative.

F. AIRSPACE LEASE AREAS

The proposed project is not within an area of high land values having potential for future airspace leases.

G. ENVIRONMENTAL ISSUES

The County of San Luis Obispo, as the lead agency for CEQA, certified an EIR for route selection in April 1999. This was a Tier 1 document which selected Alignment 2 as the environmentally superior alternative. In May 2006, the County, again as Lead Agency approved a Supplemental EIR for the interchange and Willow Road extension project. The SEIR, as approved by San Luis Obispo County, is provided in **Attachment 12**.

For the interchange construction an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) has been prepared in accordance with NEPA and Caltrans' environmental procedures, with Caltrans as lead agency under NEPA Delegation. The EA/FONSI, as provided in **Attachment 13**, is the appropriate document for the proposal.

Impacts of the proposed project and major mitigation requirements of the Environmental Document are summarized in the following table. One new mitigation measure was added to the Utilities and Emergency Services Section as a result from the public circulation of the EA.

Potential Impact	Build Alternative	Major Mitigation Requirements
Land Use	None	None
Growth	The Route 101/Willow Road interchange would accommodate existing and planned future growth and is identified in the General Plan Circulation Element, the South County Area Plan and other regional planning documents; therefore, no growth impacts are anticipated to result from the proposed project.	None
Farmlands	For the project, 27.5 acres of farmland would be converted directly or indirectly, including 3.3 acres of Unique Farmland. The project would take 6.12 acres of Williamson Act properties.	None

Potential Impact	Build Alternative	Major Mitigation Requirements
<p>Utilities and Emergency Services</p>	<p>A section of underground natural gas line (4.1 decimeters [16"] in diameter) on the west side of Route 101 in the area where the southbound on-ramp would be located would be relocated during the prior Willow Road Extension and North Frontage Road project. No underground utility lines or overhead electrical lines or poles would require relocation as part of the interchange project. All utilities would be protected in place with the proposed project.</p> <p>The proposed project would improve vehicular access to the Nipomo area, assisting fire protection, emergency services, and law enforcement efforts.</p>	<p><u>Existing Service Mains.</u> The County Department of Public Works shall submit the final project design plans to the Southern California Gas Company, Southern California Edison, the Nipomo Community Services District, Pacific Bell, State of California, Department of Water Resources and the local cable television provider for review no less than 90 days prior to construction in order to identify the location of existing service mains, provide for any necessary relocation of facilities and prevent any unexpected service interruptions.</p> <p><u>Construction Notification.</u> The County Department of Public Works shall ensure that all project plans and specifications include the following note: "Please telephone Underground Service Alert (USA) toll free at 1-800-642-2444 forty-eight hours prior to the start of construction. For best response, provide as much notice as possible, up to ten working days." This notification will allow adequate time to locate and mark existing utility facilities.</p> <p><u>DWR Encroachment Permit.</u> The County of San Luis Obispo Department of Public Works shall submit an application to obtain an Encroachment Permit from the Department of Water Resources timed so as to receive the permit prior to commencement of construction within DWR's right of way.</p>
<p>Traffic and Transportation/ Pedestrian and Bicycle Facilities</p>	<p>The proposed project would have beneficial impacts on levels of service at three vicinity intersections and would reduce delay at other study area intersections, improving traffic operations at all study area intersections.</p>	<p>Included in design.</p>
<p>Visual/ Aesthetics</p>	<p>The removal of oak woodland habitat is considered a potentially substantial visual impact given its visibility from Route 101 and its visual contribution to the landscape.</p> <p>Construction of the proposed project would generate additional light and glare in the project study area.</p> <p>Short-term visual impacts from construction activities that disrupt the existing surface appearance.</p>	<p><u>Revegetation Plan.</u> All slopes and areas disturbed by grading for any proposed project facilities are to be planted with drought-resistant vegetation immediately following construction. Those portions of the project within state highway right-of-way will be revegetated in accordance with Caltrans requirements.</p> <p>In a follow-up project by the County, larger shrubs and trees shall be planted in groupings or clusters in the vicinity of Route 101 in order to buffer views from the freeway and to shield external views of the proposed interchange facility while also providing adequate line-of-sight for motorists.</p> <p><u>Project Lighting.</u> Within portions of the project that are in the County right-of-way, all project lighting shall comply with requirements of the County. Within State highway right-of-way, Caltrans design standards for lighting shall apply. To the extent allowed, illumination levels and light standard heights shall be as low as possible while still providing for adequate safety. The number of street lights designed for project roadways shall be minimized to reduce potential light and glare impacts while providing required illumination for access and safety.</p>
<p>Water Quality and Storm Water Runoff</p>	<p>The bridge construction over Nipomo Creek may increase the short-term potential for pollutant discharge into the creek.</p> <p>Increased impervious surfaces would increase the volume of runoff during a storm, and may lead to downstream erosion.</p>	<p><u>Construction Related Impacts.</u> The County shall comply with the provisions of the <i>NPDES Permit Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation Order No. 99-06-DWQ National Pollution Discharge Elimination System No. CAS000003</i>, as they relate to construction activities for the project.</p>

Potential Impact	Build Alternative	Major Mitigation Requirements
		<p>This shall include a <i>Notification of Construction</i> to the Central Coast Regional Water Quality Control Board at least 30 days prior to the start of construction, preparation and implementation of a Storm Water Pollution Prevention Plan and a <i>Notice of Completion</i> to the Central Coast Regional Water Quality Control Board on completion of construction and stabilization of the site.</p> <p><u>Long-Term Impacts.</u> The County shall follow the procedures outlined in the <i>Storm Water Quality Handbook, Project Planning and Design Guide</i> for implementing Treatment Control best management practices for the project, such as the proposed vegetated swales/strips. This shall include coordination with the Central Coast Regional Water Quality Control Board with respect to feasibility, maintenance, and monitoring of Treatment Control best management practices as set forth in Caltrans' <i>Statewide Storm Water Management Plan</i>.</p>
<p>Geology, Soils, Seismic, and Topography</p>	<p>The Wilmar Avenue fault is near the project study area. A major earthquake could cause warping or fracturing of the ground surface.</p> <p>Offset along faults near the eastern and western ends of the project could produce uplift and/or tilting of the roadway. Uplift and tilting could crack pavement and structural sections.</p> <p>Differential consolidation and seismic settlement may warp or crack roads.</p> <p>Localized areas of perched ground water exist in some areas that may increase the occurrence of liquefaction.</p> <p>Expansive soils may repeatedly expand and contract, damaging structures (and pavement) that rest on them. The only expansive soils within the project study area are Cropley Clay series soils.</p> <p>Cut and fill slopes created during construction of the proposed project could create conditions conducive to landslides.</p> <p>Dunes to the west of Route 101 readily erode when their vegetative cover is disturbed, such as during construction.</p>	<p><u>Conformance to Applicable Standards.</u> Project design and grading plans prepared by the Project Engineer shall conform to applicable County and State Construction Standards for roads and bridges. These standards must be implemented in the plans prior to County and Caltrans approval of the final Plans, Specifications and Estimates.</p> <p><u>Erosion Control.</u> Plant native drought-resistant vegetation that requires limited irrigation pursuant to County and Caltrans requirements.</p> <p><u>Mitigation of Potential Erosion.</u> To control potential erosion, all slopes and areas disturbed by grading for any proposed project facilities shall be planted with native drought resistant vegetation by the designated landscape contractor immediately following each applicable phase of construction.</p> <p><u>Erosion Control Maintenance.</u> Periodic maintenance of areas disturbed by construction of project facilities shall be conducted during and after project construction by the Project Contractor in order to control erosion gullying and wind erosion.</p> <p><u>Mitigation of Potentially Liquefiable, Collapsible or Expansive Soils.</u> If areas of potentially liquefiable, collapsible, or expansive soils are identified during design-level geotechnical investigations, appropriate design measures shall be implemented in the design plan prepared by the Project Engineer prior to County and Caltrans approval of the final Plans,</p>
<p>Paleontology</p>	<p>Nonrenewable paleontological resources could be affected by project-related excavation, particularly at depths below 1.8 meters (6 feet).</p>	<p><u>Paleontological Resource Impact Mitigation Program.</u> Prior to initiating construction, a County-approved project paleontologist shall prepare a Paleontological Resource Impact Mitigation Program. All fossils collected during this work, along with the itemized inventory of these specimens, will be deposited in an appropriate museum repository for permanent curation and storage.</p>
<p>Hazardous Waste/ Materials</p>	<p>Elevated levels of soils contaminants, such as lead, may be present along the shoulders of Route 101 due to airborne deposition from automobiles.</p>	<p><u>Soil Contamination.</u> To confirm whether lead contaminants are present in surface soils adjacent to Route 101, soil sampling and testing shall be conducted by a County-approved soil scientist prior to completion of project plans, specifications, and estimates.</p>

Potential Impact	Build Alternative	Major Mitigation Requirements
	<p>If the soils are found to have elevated levels of lead in excess of regulatory limits and they are disturbed during construction activities, they may have to be disposed of at an approved landfill.</p>	
Air Quality	<p>Use of heavy equipment and earth-moving operation during project construction can generate fugitive dust and combustion emissions that may have substantial temporary impacts of local air quality.</p>	<p><u>San Luis Obispo Air Pollution Control District Asphalt Paving Regulations.</u> The construction contractor shall adhere to the requirements of San Luis Obispo County Air Pollution Control District rules and regulations on cutback and emulsified asphalt paving materials. Prior to application, the County shall contact the San Luis Obispo County Air Pollution Control District for verification.</p> <p><u>Pre-Construction Asbestos Detection Program.</u> Prior to the start of any construction activities, the County shall conduct borings in the project study area to test for the occurrence of ultramafic or asbestos-containing materials.</p> <p><u>Construction Workday.</u> The County shall limit the length of the construction workday period, if necessary.</p> <p><u>Construction Phasing.</u> The County shall phase construction activities, if appropriate, so that fugitive dust and other emissions being generated do not exceed daily thresholds.</p> <p><u>PM₁₀ and Dust Emissions Reduction.</u> Implementation of appropriate measures from the following list can substantially reduce fugitive dust emissions. Incorporation of measures from Section 10 of Caltrans Standard Specifications is mandatory for this project.</p> <p>The construction contractor shall adhere to the requirements of San Luis Obispo County Air Pollution Control District CEQA Air Quality Handbook to reduce fugitive dust emissions. The Best Available Control Technology for construction equipment (CBACT) and Section 10: Dust Control of the Caltrans Standard Construction Specifications shall be adhered to during the project construction.</p>
Global Climate Change	<p>The proposed project would reduce the regional vehicle miles traveled and CO₂ emissions, resulting in a net reduction in regional greenhouse gas emissions.</p>	None.
Noise	<p>Four of the five sensitive residential receptor locations would experience a substantial increase in traffic noise level. The transport of construction equipment and materials to the project study area would incrementally raise noise levels on access roads leading to the site. Noise generated during excavation, grading, and roadway construction would increase short-term noise impacts.</p>	<p><u>Construction Hours.</u> The County shall restrict construction activities to the hours between 7:00 a.m. and 9:00 p.m. on Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays and Sundays.</p> <p><u>Caltrans Sound Control Requirements.</u> To minimize the construction-related noise impacts for existing residences adjacent to the project study area, the County shall ensure that the project follows Caltrans Standard Specifications, Section 7.10/I "Sound Control Requirements."</p>

Potential Impact	Build Alternative	Major Mitigation Requirements
<p>Natural Communities</p>	<p>Direct removal of vegetation, including:</p> <ul style="list-style-type: none"> • 11.54 acres of oak woodland • 5.44 acres of annual grassland • 1.44 acres of disturbed Maritime Chaparral • 2.53 acres of ruderal herbaceous • 0.25 acre of disturbed ruderal • 0.066 acre of freshwater marsh • 0.022 acre of Willow riparian <p>Potential indirect effects including both construction-related effects, such as fuel spills from construction equipment, and future operations effects on adjacent vegetation, such as those caused by runoff and maintenance activities.</p> <p>Spread of invasive exotic plant species along the proposed alignments and within future roadside maintenance areas due to disturbance of existing plant communities.</p> <p>Indirect effects associated with the proposed crossing over Nipomo Creek, such as noise, lights and increase human activity, would affect wildlife movement within the Nipomo Creek corridor.</p>	<p><u>Construction Fencing.</u> All construction-related activities shall be confined to the proposed boundaries by installing construction fencing along the boundary to prevent any construction activities from encroaching into adjacent areas.</p> <p><u>Project Biologist.</u> Prior to initiating construction, Caltrans and the County shall designate a qualified project biologist responsible for overseeing biological monitoring, regulatory compliance, and restoration activities in association with project construction in accordance with the adopted avoidance and/or minimization measures and applicable law.</p> <p><u>Monitoring Reports.</u> During construction, the project biologist shall provide quarterly monitoring reports documenting compliance with the avoidance and minimization measures, and shall submit the monitoring report to Caltrans, the County, and the appropriate resource agencies. All recommended remedial work shall be completed within 30 days of identification unless the biologist determines another time is more biologically appropriate.</p> <p><u>Sensitive Habitat Buffers.</u> Permanent fences or other approved methods (such as planting suitable native trees and shrubs in the buffer area between the side of the road and native habitats) shall be used to discourage off-road disturbance from pedestrians and vehicles in sensitive habitat areas. Project construction plans shall include these measures in the specifications.</p> <p><u>Oak Tree Replacement.</u> Mitigation for removal or damage of oak trees must be accomplished by replacing trees removed or damaged at a ratio in accordance with County standards. The County requires a 4:1 replacement of oak trees greater than 15.2 centimeters (6 inches) in diameter at breast height removed by construction activities. Affected or damaged trees shall be replaced at a 2:1 ratio.</p> <p><u>Habitat Creation, Conservation, and Enhancement Plan.</u> A Habitat Creation, Conservation, and Enhancement Plan shall be prepared to mitigate maritime chaparral and oak woodland habitats, as well as any riparian habitats associated with Nipomo Creek, affected or removed during construction in accordance with agency and County requirements.</p> <p><u>Habitat Conservation.</u> A conservation easement shall be selected by the County to preserve a large area of high-quality sensitive habitat that contains the same sensitive species, specifically the sand almond, sand mesa manzanita, and California spineflower, at similar population levels as will be affected by the proposed project.</p>
<p>Natural Communities</p>		<p><u>Habitat Conservation.</u></p> <p>The County Department of Public Works will be responsible for keeping track of the land, resources, and monitoring efforts and provide this information to the County Planning and Building Department (Environmental Division) and Caltrans District 5 Environmental Planning.</p> <p>Habitat enhancement shall be implemented at a 2:1 ratio as this option includes sensitive habitats that are already owned by the County and preserved that are not part of any other mitigation program. This option may provide an opportunity to fulfill the County tree replacement</p>

Potential Impact	Build Alternative	Major Mitigation Requirements
		<p><u>Dust Control Program.</u> The County and construction contractor shall ensure that a dust control program is in place during construction so that native trees and shrubs are not damaged due to dust covering the leaves. A maximum speed limit of 15 miles per hour will be posted on all construction routes. Watering trucks shall be used regularly with sufficient frequency to eliminate visible dust behind construction vehicles.</p> <p><u>Best Management Practices.</u> The County and construction contractor shall ensure that best management practices are employed to minimize erosion from the construction of project facilities and deposition of soil or sediment in offsite areas, especially in the vicinity of the riparian/wetlands areas associated with Nipomo Creek, east of Route 101. This measure shall be included in the construction plan specifications.</p> <p><u>Creek Crossing Lighting.</u> The use of lights on the proposed creek crossing shall be minimized to reduce impacts on wildlife movement under the crossing.</p> <p><u>Bridge over Nipomo Creek.</u> Prior to project design plan approval, the County of San Luis Obispo Public Works Department shall ensure that the design of the new bridge over Nipomo Creek shall include solid concrete railing, which decreases noise from traffic.</p>
Wetlands and Other Waters	0.088 acre of wetland and 0.017 acre of non-wetland waters subject to U.S. Army Corps of Engineers and California Department of Fish and Game jurisdiction.	<p><u>Avoidance of Work During the Rainy Season.</u> Construction activities in the Nipomo Creek area shall occur outside the rainy season to minimize sedimentation within the drainage. Project construction plans shall include this measure in the specifications.</p> <p><u>Conditions of Approval to Address Impacts to Jurisdictional Waters.</u> To reduce impacts to riparian habitats and associated drainages subject to U.S. Army Corps of Engineers and/or California Department of Fish and Game jurisdiction, the following are required:</p> <ul style="list-style-type: none"> • A U.S. Army Corps of Engineers authorization pursuant to Section 404 of the Clean Water Act. • A Section 1602 Streambed Alteration Agreement with the California Department of Fish and Game. • A Habitat Mitigation and Monitoring plan. • Storm Water Pollution Prevention Plan and Best Management Practices.
Plant Species	<p>Removal of 18 individual sand mesa manzanita, 2 individual Miles' milk vetch, 28 individual sand almond, and 185 individual spineflower.</p> <p>Potential indirect impacts caused by runoff from increased compaction and increased amounts of impervious surfaces.</p>	<p><u>Nonnative Vegetation Removal.</u> The construction contractor and project biologist shall ensure that no invasive nonnative plant material shall be brought onto the construction site.</p> <ul style="list-style-type: none"> • Prior to exotic plant removal, the County shall retain a qualified biologist to conduct focused protocol surveys to determine the presence or absence of sensitive species within the area slated for exotic vegetation removal. • Exotic weed removal shall be completed during the fall and winter months. • Soils that contain a high concentration of invasive seeds shall be disposed of at an approved offsite location or buried onsite. • All seed mixes used for erosion control purposes shall be native or considered non-aggressive by a qualified biologist and shown on all applicable plans.

Potential Impact	Build Alternative	Major Mitigation Requirements
		<ul style="list-style-type: none"> Pre-construction Plant Surveys. The project biologist shall perform pre-construction surveys in appropriate habitats, within and adjacent to the project boundary, for sensitive species. <u>Pismo Clarkia Surveys</u>. The final project boundary shall be surveyed by the project biologist as designated by the County, during the blooming period for Pismo clarkia (May–July) prior to construction.
Animal Species	<p>Loss of native and nonnative habitats that provide nesting, foraging, and denning opportunities for wildlife species, including:</p> <ul style="list-style-type: none"> California horned lizard California legless lizard Merlin Loggerhead shrike American badger White-tailed kite Northern harrier Cooper’s hawk Bell’s sage sparrow <p>Indirect impacts resulting from construction/operation noise, street lighting, storm water runoff, erosion, increased mortality associated with vehicular interaction, urban pests, and invasive plant material.</p>	<p><u>Pre-construction Wildlife Surveys</u>. As the project study area provides suitable bat habitat, during the spring and summer (May–August) and prior to vegetation removal or alteration of existing structures, the County shall designate a qualified bat biologist to survey all potential roosting habitat proposed for removal by the proposed construction. Additionally, a qualified biologist will conduct pre-construction tracking surveys for the American badger.</p> <p><u>Vegetation Removal Restriction/Nesting Birds</u>. In accordance with the Federal Migratory Bird Treaty Act, during construction, vegetation removal or construction activities shall not occur during the primary nesting season for local birds (February 1–September 1) where oak woodlands, wetlands, and maritime chaparral occur on, or adjacent to, the proposed project.</p>
Threatened and Endangered Species	Loss of native and nonnative habitats that provide nesting, foraging, and denning opportunities for wildlife species.	<p><u>Pismo Clarkia Surveys</u>. The final project boundary shall be surveyed by the project biologist as designated by the County, during the blooming period for Pismo clarkia (May–July) prior to construction.</p> <p><u>California Red-Legged Frog Surveys</u>. Construction activities in the Nipomo Creek area shall occur outside the rainy season to ensure that the proposed project would not affect California red-legged frog.</p>
Invasive Species	Potential for invasive plant species to be imported to the adjacent native habitats and the Nipomo Creek drainage via contaminated construction equipment or imported materials such as soils.	No non-native plant material shall be brought onto the construction site, including ensuring that invasive species are not used in project-related landscaping/restoration plans.

H. AIR QUALITY CONFORMITY

The project study area is located within the SLOAPCD jurisdiction. The Preferred Alternative for the Route 101/Willow Road Interchange Project is consistent with and included within the approved 2005 SLOCOG RTP. The Project is also included in the approved SLOCOG 2006 RTIP. The design concept and scope of the proposed project is consistent with the project description in the 2005 RTP, the 2006 RTIP, and the assumptions in SLOCOG’s regional emissions analysis. The proposed project will also comply with all SLOAPCD requirements.

I. TITLE VI CONSIDERATIONS

Provisions for future pedestrian and bike access through the interchange have been provided in the design of the Preferred Alternative, consisting of 10-foot shoulders, 8-foot pedestrian ways, and provisions for wheelchair ramps at future signalized intersections.

J. STORM WATER QUALITY

The cover sheet of the approved Storm Water Data Report for the Preferred Alternative is provided in **Attachment 8**. The Disturbed Soil Area (DSA) of the project is 18.02 acres, determined through the use of 500-scale topographic mapping supplemented by Caltrans' as-builts, USGS quadrangle maps, survey data, and field investigation.

The area of evaluation includes the disturbed cut/fill slopes and new paved areas. Construction site BMP's and temporary erosion and water pollution control features will be proposed for temporary areas for construction (e.g. contractors yard, borrow/disposal areas, storage area, access roads, etc) and will be included in the SWPPP in the final design phase. The existing impervious surface area is 6.24 acres and the impervious surface area after project completion is 13.14 acres within the project limits.

The entire project area will be within the existing and future State (Caltrans) right of way. In the project study area, groundwater levels are approximately at elevation between elevation +335 feet and +341 feet (approximately 30 feet below existing ground surface). The groundwater is anticipated to vary with the passage of time due to seasonal groundwater fluctuation, surface and subsurface flows, ground surface run-off, water level on adjacent Nipomo Creek, and other factors. The project is located on the Nipomo Mesa, which geologically consists of the Pre-Flandrian age Callander Dune Complex, approximately 69-77 feet thick. These deposits are characterized as moderately well sorted fine to medium grained sand, with minor layers of fine-graded sand, clay, and silts. Along Nipomo Creek, a narrow strip of fluvial material consisting predominantly of sand, gravel, silt, and clay.

Proposed Permanent Treatment BMPs to be used on the Project:

- The project is not required to provide permanent treatment BMPs since the interchange area is outside the Nipomo Urban Reserve boundary and is not part of an MS4 System.

Proposed Temporary Construction Site BMPs to be used on Project:

- The construction site BMPs shall include appropriate selections for temporary soil stabilization, temporary sediment control, wind erosion control, tracking control, non-storm water control, and waste management and materials pollution control. No dewatering is expected within the project limits. The estimated cost of Temporary Construction Site BMPs is approximately 1.4% of the total project cost.

Maintenance BMPs:

- The project is not required to provide any maintenance BMPs since the project is not located within any designated MS4 areas.

7. OTHER CONSIDERATIONS AS APPROPRIATE

A. Public Hearing Process

The public hearing for Draft EA was held on April 9, 2008.

Verbal comments received at the meeting included general support for the project and some residents and business owners encouraged the construction of the project as soon as possible. Several members of the public provided comments to the court reporter for documentation and others filled out comment cards.

While there was not any specific public opposition noted to the project, several concerns were raised as follows:

- **Oak Tree Mitigation.** The Sierra Club and some members of the public expressed concern about the level of oak tree impact, mitigation and the need to environmentally clear mitigation sites. This has been addressed in the responses to comments.
- **Property Owner Notification.** Adjacent property owners (particularly the adjacent nursery) wanted assurance that they will be adequately contacted throughout the remainder of project planning and construction. In addition, property owners were concerned that access be made available to all existing parcels within the project limits. This has been addressed in the responses to comments.
- **Bike Lanes and Equestrian Access.** The public requested that the County give consideration to bike lanes and an equestrian trail along Willow Road within the project limits. The project provides shoulders and an unpaved area that would allow these uses within the interchange limits. This has been addressed in the responses to comments.

The County of San Luis Obispo supports the Preferred Alternative. No changes in the project design or mitigating features resulted from the ED circulation and the public hearing process.

B. Route Matters

The Preferred Alternative will introduce a new connection via interchange on Route 101 at Willow Road, which will accommodate future six lanes on Route 101. The new connection will be required to be approved by the California Transportation Commission. San Luis Obispo County will submit a local resolution requesting the new connection with a funding commitment. The County will initiate the superseding freeway agreement also by local resolution requesting the change. The County will execute the superseding freeway agreement following either the referencing of the public hearing for the original agreement, or following a new public hearing conducted for the revision. Caltrans will submit the approved Project Report to the CTC requesting approval of the new connection. Execution of the Freeway Agreement by the State is withheld until after CTC approval.

C. Permits

The following permits, reviews, and approval would be required for the proposed project:

- A Section 404 Permit for Discharge of Dredge or Fill Material Into Waters of the United States from the U.S. Army Corps of Engineers;
- A Section 401 Certification for a Water Discharge Permit from the Regional Water Quality Control Board;
- A 1602 Permit for Streambed Alteration from the California Department of Fish and Game; and,
- An Encroachment Permit from the State of California, Department of Transportation for construction of the Route 101/Willow Road interchange.

D. Cooperative Agreements

The County is responsible for preparation of the Project Report (PR), Environmental Document (ED), and Plans, Specifications, and Estimates (PS&E). The PR, ED, and PS&E will be prepared by Consultants retained by the County. Caltrans will provide oversight to the project at State's own expense. The County of San Luis Obispo and Caltrans will enter into cooperative agreements to provide for Caltrans oversight of the project development and construction administration activities to be undertaken by the County. In addition, the County is responsible for all R/W activities, including Resolutions of Necessity.

A Cooperative Agreement covering the participation in a new connection will be negotiated between Caltrans and the County after the California Transportation Commission approves the connection and sets the participating terms. This will occur immediately after PA&ED is complete as outlined in PDPM Chapter 27.

E. Other Agreements

FHWA has delegated approval to Caltrans for modifications on Route 101. San Luis Obispo County will initiate a superseding Freeway Agreement. Execution of the Freeway Agreement by the State will occur after CTC approval. FHWA would need to approve the disposal of access control.

F. Involvement with a Navigable Waterway

No navigable waterway is located within the interchange area.

G. Transportation Management Plan for Use during Construction

Preliminary studies undertaken as part of concept design development have addressed the feasibility of maintaining traffic on Route 101 during construction. It is expected that at least two lanes in each direction will remain open on Route 101 at all times (except for temporary lane closures for placement of temporary barrier) and there will be no significant traffic delay anticipated for this project.

A Transportation Management Plan (TMP) checklist is provided in **Attachment 9**. The District 5 TMP Coordinator has approved the TMP checklist. During the final design stage, a detailed TMP would be prepared. Restricted speed zones would be enforced during construction.

H. Stage Construction

The following base assumptions/criteria have been established to develop the stage construction for proposed project:

- Provide construction staging without significant reduction in traffic operations, inconvenience to public traffic or design standards.
- Maintain existing traffic pattern as much as possible.
- Minimize utility relocations and reconstruction.
- Minimize right of way impacts.
- Minimize detouring of traffic through local streets.

Stage construction and traffic handling plans will be provided in the PS&E package. The construction of the Willow Road undercrossing bridge will be constructed in two phases. Stage construction would be required to maintain two lanes in both directions of Route 101 traffic at all times in order to construct the Route 101 bridge over Willow Road and ramp tie-ins. Bridge construction would be completed in two phases. The first phase would shift northbound traffic to the median of Route 101, using temporary pavement, in order to construct the northbound Willow Undercrossing structure. Phase 2 would shift SB traffic to temporary median pavement to allow the construction of the southbound Willow Undercrossing Structure. Standard 50:1 taper transitions for traffic shifts would be provided during each shift. Once this construction is complete, traffic will be shifted to its final configuration on Route 101.

I. Accommodation of Oversize Loads

The project is designed to provide passage of vehicles of unrestricted height through the Route 101 corridor across the interchange area of Willow Road.

J. Other Appropriate Topics

There are no other topics that have a bearing on the approval of the project.

8. PROGRAMMING

A. COST SUMMARY

Escalated costs for construction, right of way and support costs are shown in the following table.

CAPITAL AND SUPPORT COST SUMMARY

PROJECT FUNDING COMPONENT	FISCAL YEAR						TOTAL
	2006/07	2007/08	2008/09	2009/10	2010/11*	2011/12*	
PA & ED	\$700.0						\$ 700.0
PS & E		\$1,900.0					\$ 1,900.0
R/W Capital			\$1,490.0	\$1,636.7			\$ 3,126.7
R/W Support			\$ 149.0				\$ 149.0
Subtotal Project Development	\$700.0	\$1,900.0	\$1,639.0	\$1,636.7			\$ 5,875.7
Construction Capital					\$24,446.0	\$5,124.0	\$29,570.0
Mitigation				\$2,000.0			\$ 2,000.0
Construction Support					\$ 2,500.0	\$ 510.0	\$ 3,030.0
Subtotal Construction	\$0.0	\$0.0	\$ 0.0	\$2,000.0	\$26,946.0	\$5,634.0	\$34,580.0
Total Project	\$700.0	\$1,900.0	\$1,639.0	\$3,636.7	\$26,946.0	\$5,634.0	\$40,455.7

* construction cost escalated at 3.5% per year

B. FUNDING SUMMARY

Funding for the project will be provided by a combination of San Luis Obispo County Road Improvement Fee (CRIF) funds, Municipal Bonds and SLOCOG RTIP FY 09-10 STIP fund allocations, as follows:

FUNDING SUMMARY

Fund Source	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	Amount
CRIF	\$700.0	\$1,800.0	\$1,639.0	\$ 2,636.7			\$ 6,775.7
STIP Funding		\$ 100.0		\$10,000.0			\$10,100.0
Woodlands Fee Advance					\$ 5,475.0	\$5,634.0	\$11,109.0
County Loan					\$ 6,000.0		\$6,000.0
Municipal Bonding					\$ 6,471.0		\$6,471.0
Total Funds	\$700.0	\$1,900.0	\$1,639.0	\$12,636.7	\$17,946.0	\$5,634.0	\$40,455.7

This project's funding is in SLOCOG's constrained funding plan. See supporting letters from the County of San Luis Obispo and SLOCOG in **Attachment 10**.

C. MILESTONE SCHEDULE

Following is the Milestone Schedule for both the interchange and the extension of Willow Road to Thompson Road. Design and construction administration is anticipated to be done by the County of San Luis Obispo, with oversight by Caltrans.

No.	Milestone	Date
1.	M010 - APPROVE PID	02/08/2000
2.	M015 – PROGRAM PROJECT	02/08/2000
3.	M020 - BEGIN ENVIRONMENTAL	05/14/2003
4.	M040 - BEGIN PROJECT REPORT	01/01/2006
5.	M100 - APPROVE DPR	02/29/2008
6.	M120 - CIRCULATE DED	03/10/2008
7.	M160 - APPROVE FED	04/01/2009
8.	M200 - PA & ED	04/01/2009
9.	MXXX - HQ PREPARE NEW CONNECTION REPORT	05/01/2009
10.	MXXX – CTC ADOPTS NEW CONNECTION	09/04/2009
11.	M210 - BEGIN DESIGN (BY COUNTY)	10/01/2008
12.	M224 - RIGHT OF WAY MAPS (BY COUNTY)	05/15/2009
13.	M225 - RIGHT OF WAY APPRAISALS (BY COUNTY)	08/13/2009
14.	M275 - GENERAL PLANS	12/31/2008
15.	M313 - 60% CONST REVIEW COMPLETED	07/10/2009
16.	M315 - 95% CONST REVIEW COMPLETED	11/28/2009
17.	M378 - DRAFT STRUCTURES PS&E	03/04/2010
18.	M380 - PROJECT PS&E	04/15/2010
19.	M410 - RIGHT OF WAY CERTIFICATION	05/26/2010
20.	M460 - READY TO LIST	06/01/2010
21.	M480 – COUNTY ADVERTISE	06/12/2010
22.	M495 - AWARD	08/28/2010
23.	M500 - APPROVE CONSTRUCTION CONTRACT	09/14/2010
24.	M600 - CONTRACT ACCEPTANCE	11/15/2012
25.	M700 – FINAL REPORT	02/15/2013
26.	M800 – END PROJECT	05/01/2013

D. RISK REGISTER

The Risk Register is provided in **Attachment 11**.

9. REVIEWS

1. The Project Study Report gained District Approval in February 2000.
2. Mandatory Design exceptions were approved in January 2000.
3. The Traffic Operations Report was approved October 2007.
4. Advisory Design exceptions were approved on November 5, 2007.
5. The Storm Water Data Report was approved on November 13, 2007.
6. The Geometric Plans were reviewed by the District and Headquarters Geometrician, Mike Janzen, in October 2007.
7. The Draft Project Report was approved on February 29, 2008.

10. PROJECT PERSONNEL

The following are personnel who may be contacted for inquiries concerning this Project Report.

CALTRANS

Doug Heumann Project Manager	(805) 549-3788
John Fouche, Design Engineer	(805) 549-3330
Paul McClintic, Traffic Engineer	(805) 549-3473

SAN LUIS OBISPO COUNTY

Dave Flynn, San Luis Obispo County Engineering	(805) 781-4463
Dale Ramey, San Luis Obispo County Engineering	(805) 788-2931
John Farhar, San Luis Obispo County Environmental	(805) 781-5714

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC. (CIVIL/STRUCTURAL)

Keith Meyer, Principal	(408) 280-2772
John Nguyen, Design Manager	(408) 280-2772
Allen Wang, Structural Engineer	(408) 280-2772

FEHR & PEERS ASSOCIATES (TRAFFIC)

Sorhab Rashid	(408) 278-1700
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LSA ASSOCIATES (ENVIRONMENTAL)

Jill O'Connor	(805) 782-0745
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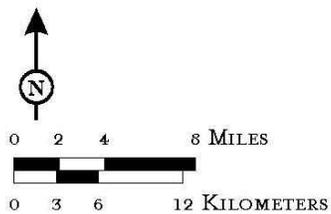
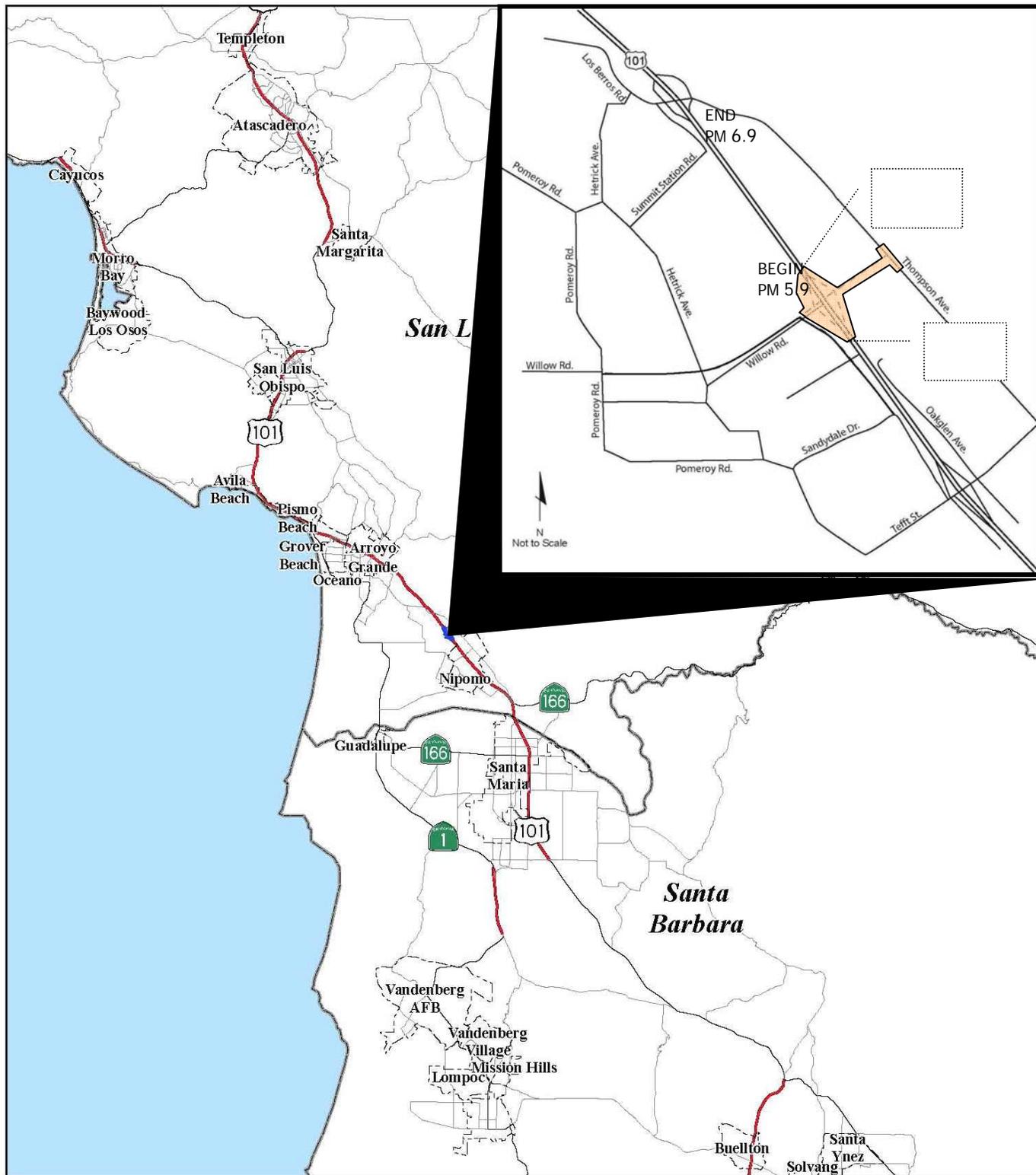
11. DISTRIBUTION LIST

- SAN LUIS OBISPO COUNTY PUBLIC WORKS (2)
- SAN LUIS OBISPO COUNTY PLANNING (2)
- CALTRANS:
 - FHWA (1)
 - Project Manager (1)
 - Design Manager (2)
 - Resident Engineer (1)
 - District Maintenance (1)
 - District Traffic Safety (1)
 - Region Materials (1)
 - Region Right of Way (1)
 - PPM (1)
 - District Surveys (2)
 - HQ DES/OPPM (1)
 - D05 Advance Planning (1)
 - D05 Region Planning (1)
 - Surveys/R/W Engineering (1)
 - Environmental Planning, Specialists (1)
 - Environmental Planning, Generalists (1)
 - D05 Maintenance (1)
 - D05 Materials Lab (1)
 - Landscape Architecture (1)
 - Construction (2)
 - Traffic Operations (1)
 - Records Resource Center (RRC) Major Projects (3)
 - Division of Design – Reports Unit (2)
 - ESC/Office of Special Funded Projects/Design Oversight Branch A (1)

12. LIST OF ATTACHMENTS

1. VICINITY MAP
2. CIRCULATION ELEMENT OF THE COUNTY TRANSPORTATION PLAN
3. SOUTH COUNTY INLAND AREA PLAN
4. EXISTING AND 2030 AM AND PM PEAK HOUR TRAFFIC VOLUMES
5. PROJECT GEOMETRIC PLAN, PROFILE, AND TYPICAL SECTIONS
6. PROJECT CONSTRUCTION COST ESTIMATE
7. RIGHT OF WAY DATA SHEET
8. STORM WATER DATA REPORT COVER SHEET
9. TRAFFIC MANAGEMENT PLAN (TMP) CHECKLIST
10. SUPPORTING LETTERS OF FUNDING
11. RISK REGISTER
12. APPROVED SEIR
13. APPROVED EA/FONSI

ATTACHMENT 1
Vicinity Map



ATTACHMENT 2
Maps from the
Circulation Element - County Transportation Plan

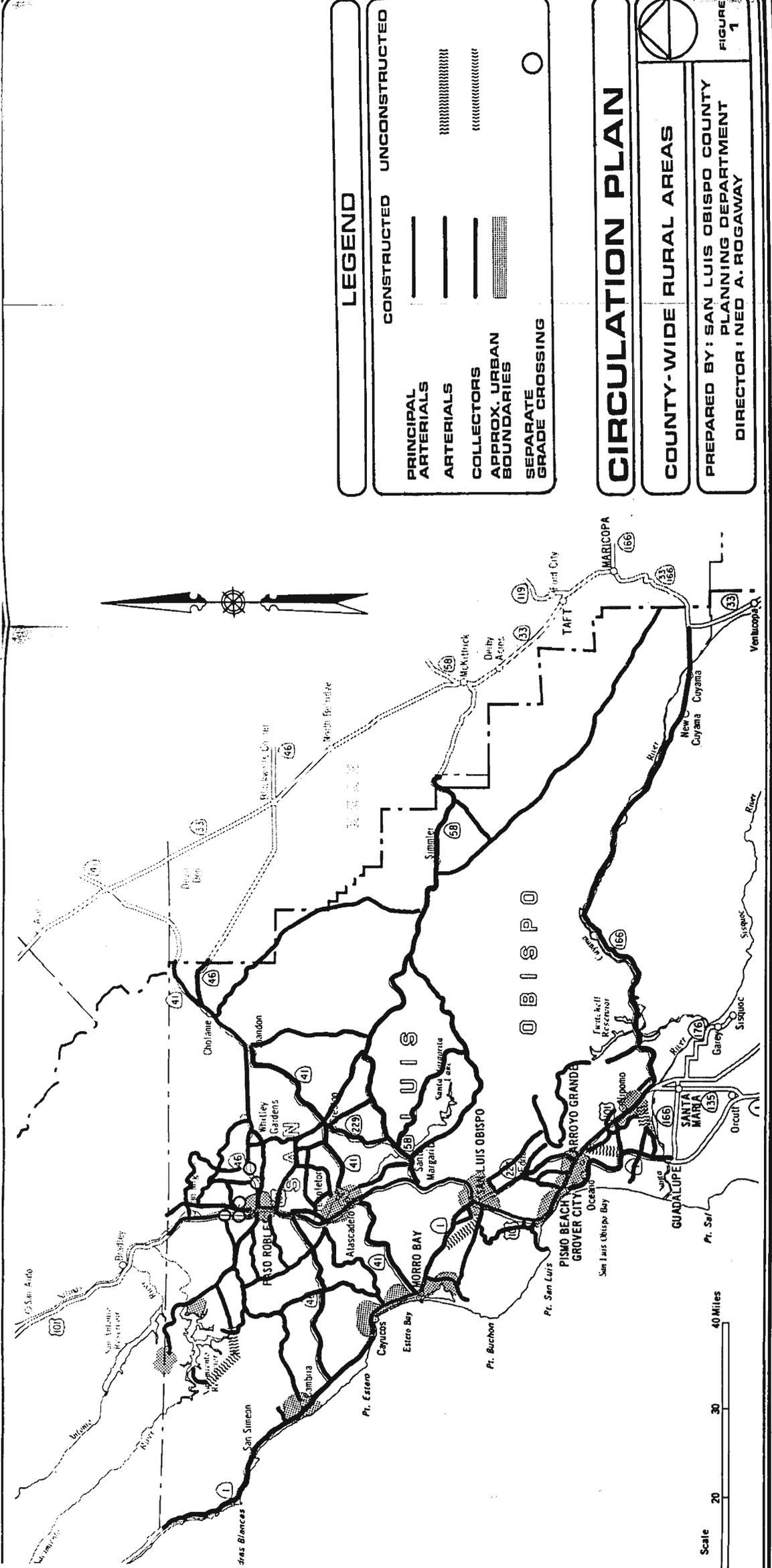


TRANSPORTATION PLAN

- CIRCULATION ELEMENT
- BIKEWAYS ELEMENT
- TRANSIT ELEMENT
- AVIATION ELEMENT
- OTHER TRANSPORTION
MODES ELEMENT

SAN LUIS OBISPO COUNTY
CALIFORNIA

JUNE 1979



LEGEND

<p>PRINCIPAL ARTERIALS —————</p> <p>ARTERIALS —————</p> <p>COLLECTORS —————</p> <p>APPROX. URBAN BOUNDARIES ▨▨▨▨▨▨▨▨▨▨</p> <p>SEPARATE GRADE CROSSING ○</p>	<p>UNCONSTRUCTED - - - - -</p> <p>UNCONSTRUCTED </p>
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CIRCULATION PLAN

COUNTY-WIDE RURAL AREAS

PREPARED BY: SAN LUIS OBISPO COUNTY
PLANNING DEPARTMENT
DIRECTOR: NED A. ROGAWAY



LEGEND

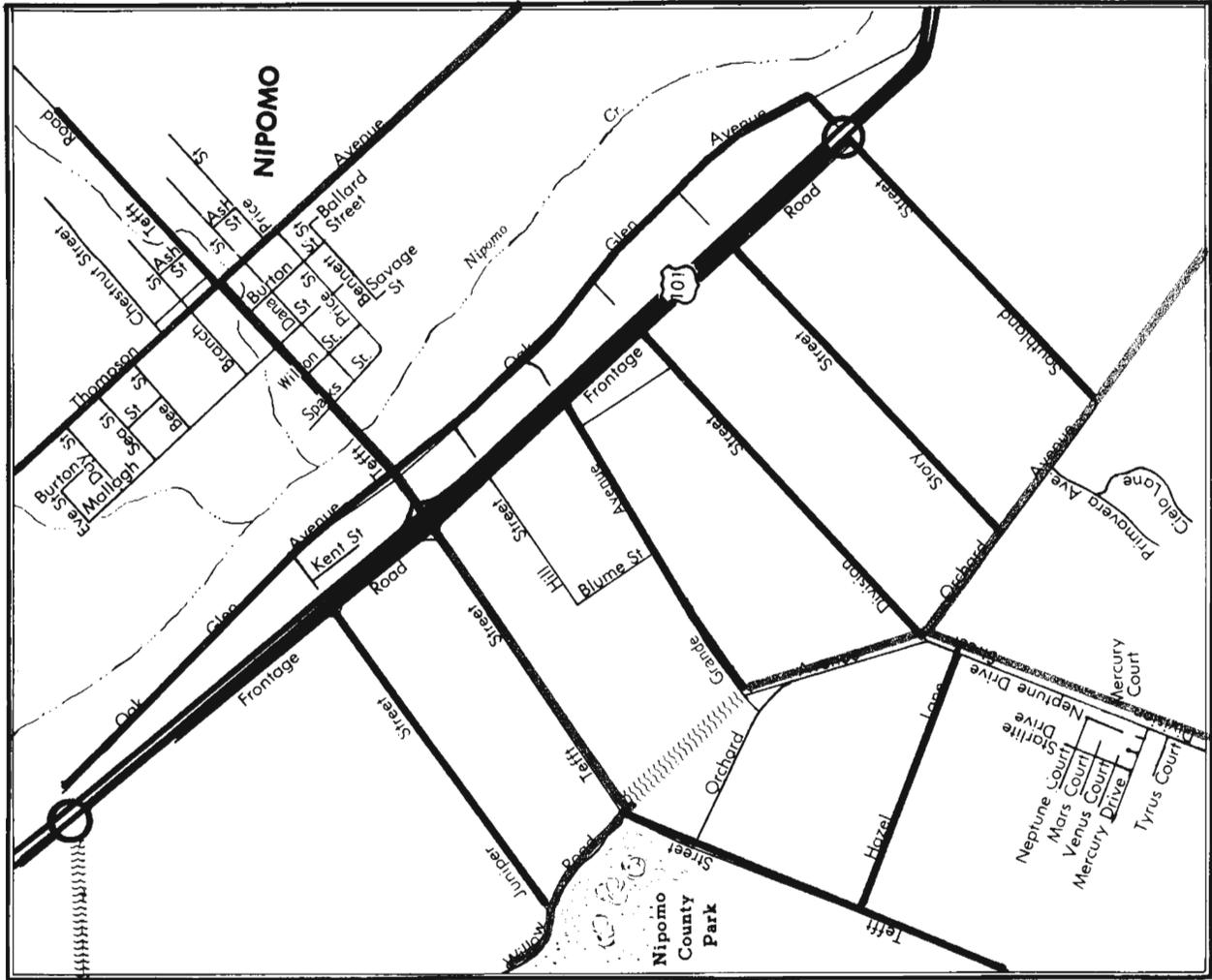
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URBAN ARTERIALS	—————	—————
LOCAL ARTERIALS	—————	—————
COLLECTORS	—————	~~~~~
SEPARATE GRADE CROSSING	○	

CIRCULATION PLAN

SOUTH COUNTY PLANNING AREA

FIGURE 9

PREPARED BY: SAN LUIS OBISPO COUNTY
 PLANNING DEPARTMENT
 DIRECTOR: NED A. ROGOWAY



NIPOMO

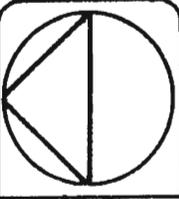
LEGEND

PRINCIPAL ARTERIALS		CONSTRUCTED	UNCONSTRUCTED
URBAN ARTERIALS			
LOCAL ARTERIALS			
COLLECTORS			
SEPARATE GRADE CROSSING			

CIRCULATION PLAN

SOUTH COUNTY PLANNING AREA

FIGURE 10



PREPARED BY: SAN LUIS OBISPO COUNTY
 PLANNING DEPARTMENT
 DIRECTOR: NED A. ROGOWAY

ATTACHMENT 3
Maps from the
South County Inland Area Plan

COUNTY OF SAN LUIS OBISPO

THE LAND USE AND CIRCULATION ELEMENTS
OF THE SAN LUIS OBISPO COUNTY GENERAL PLAN

SOUTH COUNTY - INLAND

Table of Contents

ADOPTED BY
THE SAN LUIS OBISPO COUNTY BOARD OF SUPERVISORS
SEPTEMBER 22, 1980 - RESOLUTION 80-350
UPDATED
MARCH 15, 1994 - RESOLUTION 94-126

Revised June 2007

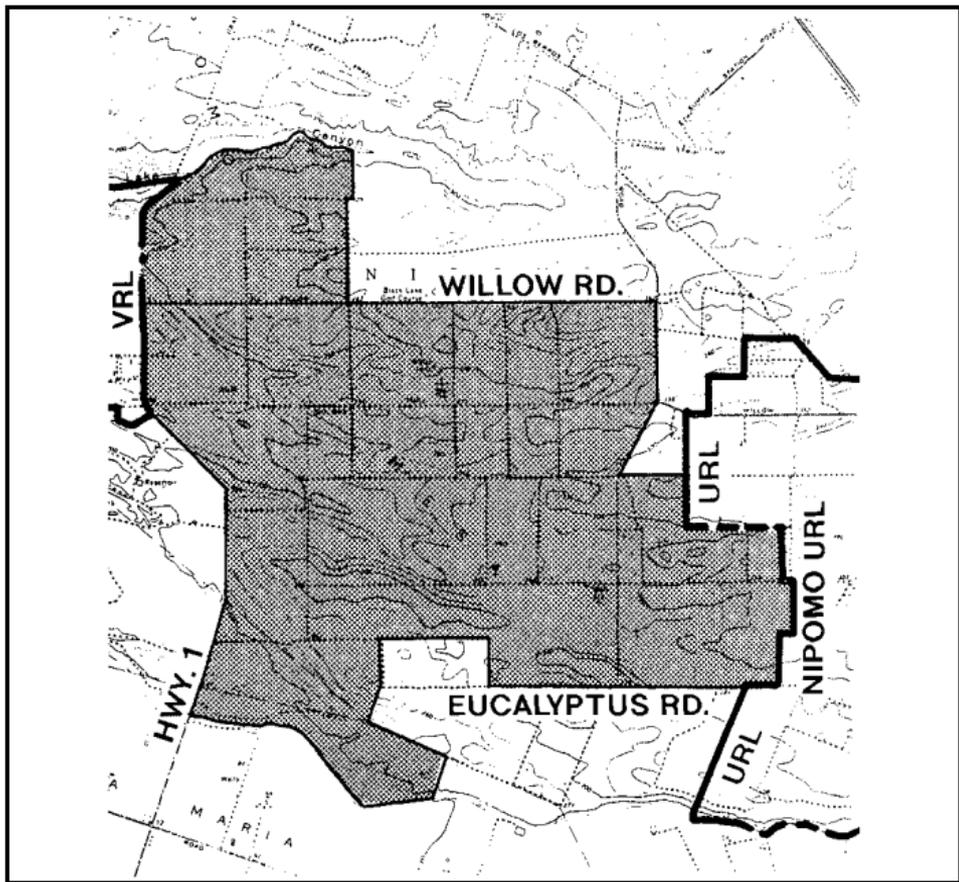


Figure 4-6: Area in Which a Rural Village May Be Proposed

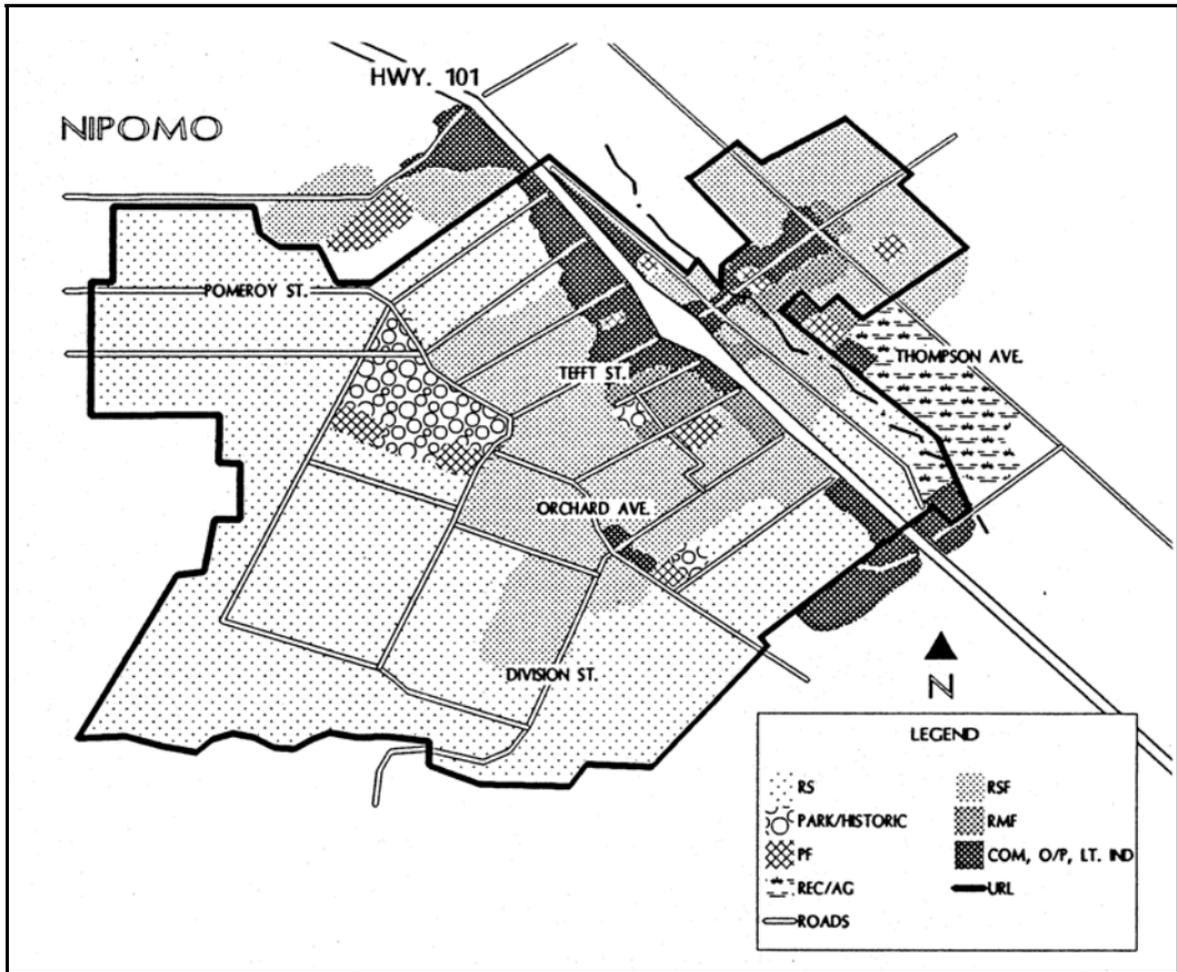


Figure 4-7: Conceptual Plan for Nipomo

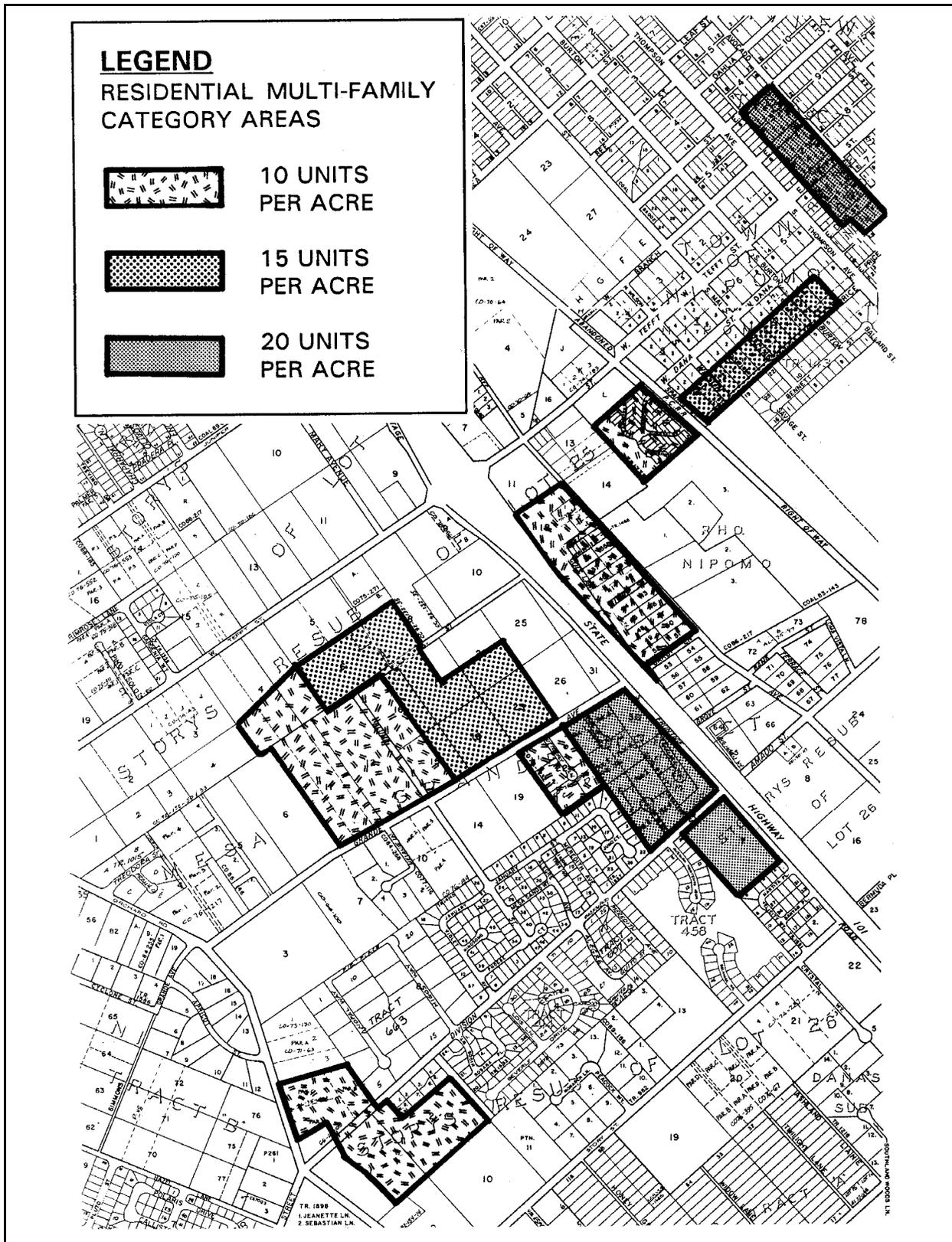


Figure 4-10: Residential Multi-Family Areas in Nipomo

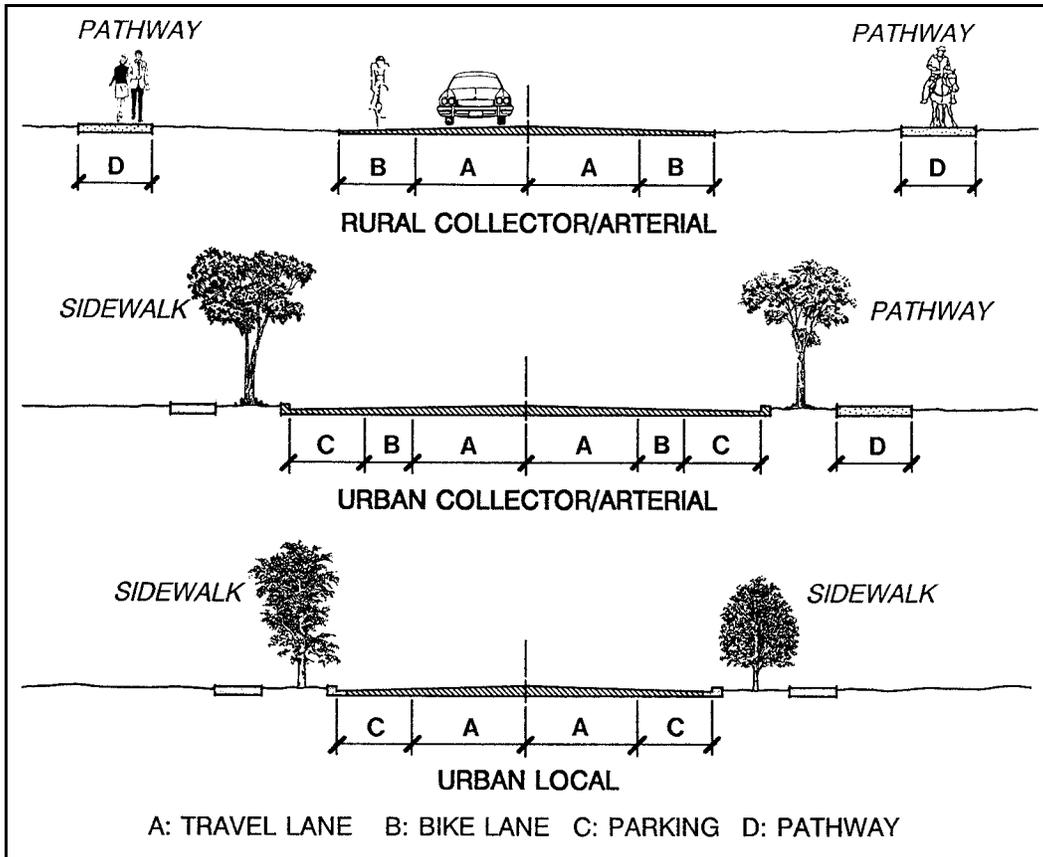


Figure 5-1: Selected Street Improvements

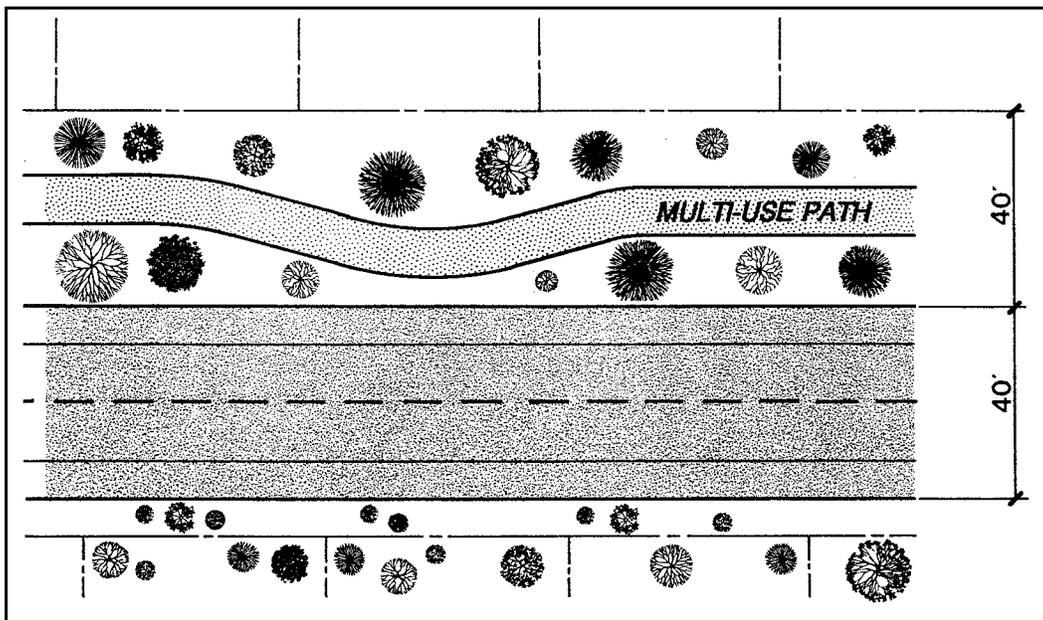


Figure 5-2: Multi-use Path

The South County Circulation Study is an annual report approved by the Board of Supervisors that updates routes, capacities and necessary fees. It identifies the road improvements needed to maintain safe and efficient traffic conditions on collector and arterial streets and roads. The study identifies the projected years when improvements will be needed as population growth increases within the capacity of the area plan. Those estimates provide an indication when funding will be needed for many of the following listed road improvement projects.

The South County Circulation Study also provides estimates of the costs to construct the necessary projects, and it evaluates different funding methods, which are summarized briefly below:

- **Federal aid.** An existing federal aid grant program combines with state matching funds and other funding sources.
- **Local transportation fund.** Existing one quarter of one percent of all state gasoline sales tax provides for unmet transit needs and for street and highway projects when transit needs are determined to be met.
- **State gasoline tax.** Existing sources include the local generation of state gasoline tax, fines and forfeitures and license fees.
- **General funds.** Traditional source of local funding by annual appropriation of county General Fund money by the Board of Supervisors.
- **Assessment districts/Community service districts.** A potential but difficult to implement measure of calculating the benefit of road improvements to each property, and assessing property owners their share, while many road users will not be contributing to funding the improvements.
- **Mello-Roos community facilities district.** Another potential district that would collect a special tax to pay as you go or to repay a bond. Once the initial district is formed, separate non-contiguous sub-districts within it may be formed more readily.
- **Local motor vehicle fuel taxation.** State authorization (SB 215, 1981) enables the county and the cities to increase the per gallon tax on gasoline in increments of one cent, subject to approval by a majority of voters. Funding originates with the user upon purchases of gasoline.
- **Sales tax increase.** A potential method is to submit a proposal to increase the sales tax for approval by county voters, based on an expenditure plan with the ballot measure. A half-cent increase would probably provide sufficient funds to implement most of the recommended projects for the South County planning area.
- **Road improvement fee.** Existing Road Improvement Fee Ordinance No. 2379 (1988) allows the county to collect fees to fund road construction projects that are needed to mitigate cumulative traffic impacts. These projects are on the busier streets and do not involve small, local streets. The Board of Supervisors adopted two areas of benefit in the South County planning area on January 17, 1989, in which fees are collected from new residential and non-residential development. These fees are projected to pay for the major road improvements identified by dates in this plan. However, these fees will not pay for improving smaller local roads and streets.
- **Cooperative roads program.** A cooperative roads program would offer improvements on the basis of loan funding repaid by affected land owners.

Without these recommended improvements, other off-setting transportation programs or any adjustments to land use policy, the area will face a declining quality of service on its roadways as growth continues, characterized by increased congestion, delay and decreased safety. This plan recognizes that safe traffic conditions on the road system must be maintained. The Resource Management System provides an annual review of road capacities so that early transportation funding decisions can be made.

Road Improvement Projects

The following sections are a listing of the major improvements needed for the road system to accommodate traffic that is expected from the land uses allowed by this plan. The roads are classified according to the needs of the planning area, and improvement projects are listed with the year they are projected to be necessary. The circulation plan maps show the locations of proposed streets that are listed. It is recognized that the following projects are subject to change with the annual update of the South County Circulation Study, which projects the dates when projects should begin.

Where a year is not shown for a project, the road project is not essential for safe regional travel, but it may be desirable for convenient access to the planned areas of development if funding becomes available. Improvement standards are more specifically shown in the Public Works Department's "Standard Improvement Specifications and Drawings." The listed order does not imply any priority.

Principal Arterials

Principal arterials function to carry traffic between population centers. The following improvements are projected:

Highway 101

Highway 101 serves as the area's principal arterial to carry traffic on long trips. The following improvements are projected:

There are two proposed interchanges: one at the future Willow Road extension and one at Southland Street. These are needed to relieve congestion at the Tefft Street/101 interchange, the only connection between east and west Nipomo. Construct an interchange with an extension of Willow Road. A full interchange should be planned at Southland Street, in accordance with Caltrans and Federal design standards; "hook" on and off ramps may be constructed as interim measures.

Widen Highway 101 to six lanes in stages from Arroyo Grande to Santa Maria as needed depending on the success of alternative transportation and land use strategies to mitigate traffic congestion.

Efforts should continue with Caltrans to prepare and implement a freeway landscaping plan for the right-of-way passing through the Nipomo urban reserve line, to include median and roadside planting.

Arterials

The functional purpose of arterial roads is to carry traffic between population centers and to serve large volumes of traffic within an urban area. Several roads shown as existing arterials are being used for this purpose, but improvements will be needed to achieve county standards for most arterial roads as development continues.

Safe pedestrian and bicycle passage, and equestrian travel where appropriate, is a priority and shall be ensured with separated multi-use pathways consistent with the County Parks and Recreation Element.

Highway 1

Improve curves at the Callender Road and Willow Road intersections. Along the length of Highway 1, construct paved shoulders at a minimum width of four feet to improve vehicular and bicyclists' safety.

Willow Road

Extend easterly from Pomeroy Road to intersect Highway 101 at a proposed interchange, then east to Thompson Road with rural arterial standards, including a Class II bike lane.

Pomeroy Road

Improve that portion of Pomeroy Road between Sandydale Drive and West Tefft Street to urban arterial standards. Improve to rural arterial standards from Sandydale Road to Willow Road in phases.

Los Berros Road

Improve to rural arterial standards.

Orchard Road

Improve to urban arterial standards with four lanes, landscaped center median and Class II bicycle lanes between West Tefft Street and Southland Street. Maintenance of the median should be established when the project's funding is considered.

Improve to two lane rural arterial standards from Southland Street to Joshua Road. Orchard Road should have (minimum) the same 8-foot paved shoulders that Joshua and Hutton Roads will have, between Joshua Road and Tefft Street.

Joshua and Hutton Roads

Improve to two-lanes with 8-foot paved shoulders from Orchard Avenue to Cuyama Lane as a parallel route to Highway 101.

Thompson Avenue

Improve to urban two-lane standards within the urban reserve line, with landscaped center median where practical and Class II bicycle lanes. Maintenance of the median must be established when the project's funding is considered.

Tefft Street

Improve to urban arterial standards with four lanes, a landscaped center median and Class II bicycle lanes from Orchard Road to South Oakglen Avenue. Maintenance of the median should be established when the project's funding is considered.

Tefft Street/Highway 101 Interchange

Widen the freeway bridge to four traffic lanes with Class II bike lanes and wide, lighted and fenced sidewalks, as shown in Figure 5-6. North Frontage Road is closed to through traffic from Tefft Street and shall be utilized as a multi-use pathway between Tefft and Juniper Streets.

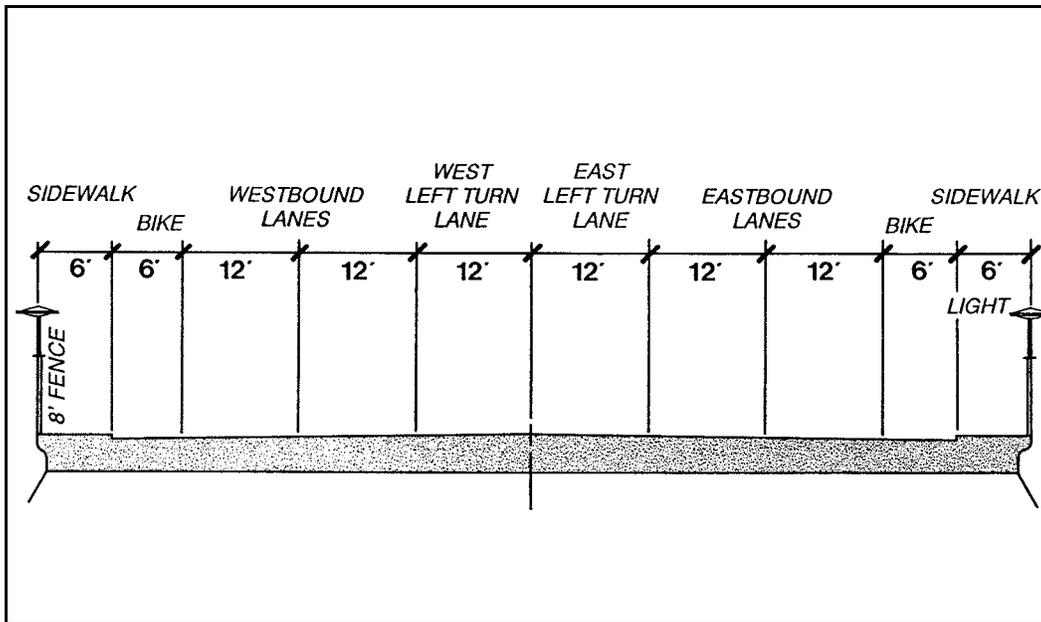


Figure 5-5: Highway 101/Tefft Street Overcrossing

Collectors

Collector roads or streets function to enable traffic to move between minor roads or streets and arterial roads or streets. Collectors are important routes for pedestrians, bicyclists and equestrians to connect to neighborhood destinations. They are also important in an overall bicycle and equestrian network to circumvent the faster-speed arterials wherever possible. Several roads shown as existing collector roads are being used for this purpose, but they are inadequate and improvements will be needed to achieve county standards for most collector roads.

Mary Avenue

Construct from Tefft Street to Grande Street, and extend north to Inga Avenue, as a two-lane urban collector as development occurs.

South Oakglen

Improve with two traffic lanes and Class II bike lanes.

Las Flores Drive

Improve to urban collector standards from Osage to Tefft Street.

Hazel Lane

Improve to urban collector standards between Tefft and Division Streets.

Camino Caballo

Improve as a two-lane collector, with a multi-use path as a pedestrian, bicyclist and equestrian by-pass route for Willow Road.

Osage Road

Improve to urban collector standards between Las Flores Drive and Camino Caballo.

Halcyon Road

Improve to two-lane rural standards with Class II bike lanes north from El Campo Road to Highway 1 in Oceano. Improve to two-lane rural standards from El Campo Road east to Zenon Road as development occurs.

Summit Station Road

Improve as a rural collector with Class II bike lanes from North Frontage Road to Hetrick Road as new development occurs.

Pomeroy Road

Improve to rural collector standards between Los Berros Road and Willow Road, including Class II bicycle lanes or separate routes if possible. Make local improvements to horizontal and vertical alignments. Provide drainage improvements in the Los Berros Valley area where the road climbs onto the Nipomo Mesa.

The Pomeroy Road section between Willow Road and Tefft Street should be evaluated with community and/or neighborhood groups for corrections to perceived safety hazards for pedestrians, bicyclists and equestrians in the Class II bike lanes. Considerations to correct this problem should include: a) develop alternate routes for pedestrians, equestrians and bicyclists along local streets or other collectors, b) separate multi-use trail on one side of Pomeroy, including on a portion of the Nipomo Regional Park. Safe pedestrian crossings on Pomeroy to the Nipomo regional Park should be added at Inga, Juniper Street and Camino Caballo, including possibly underground tunnels.

El Campo Road

Improve to rural collector standards from Halcyon Road to Los Berros Road.

Stanton Road

Improve to two-lane rural standards from Chesapeake Road to Los Berros Road.

Black Lake Canyon Crossing (Zenon Road, etc.)

Additional analysis must be completed prior to any road grading or improvements being installed. The analysis needs to consider alternative routes for emergency and traffic circulation purposes and crossing and road drainage alternatives, their impacts to the canyon's sensitive wetland habitat and whether there are adequate mitigation measures to minimize these impacts.

North Frontage Road

Improve to urban collector standards from Sandydale to the proposed interchange at the Willow Road extension.

Hetrick Road

Improve to a two-lane rural standard with Class II bike lanes as a parallel route to Highway 101, from Pomeroy Road north to Aden Way.

Aden Way

Improve to two-lane rural standards with Class II bike lanes from Pomeroy Road to Hetrick Road, as a link in an east/west connection between Halcyon Road and Highway 101.

Callender Road

Improve to two-lane rural road standards from Sheridan Road west to Highway 1.

Sheridan Road

Improve to urban collector standards from Highway 1 north to Callender Road.

Mesa Road

Extend and improve to rural collector standards between Highway 1 and Osage ROAD. Improve to urban collector standards between Osage Road and Tefft Street.

Oso Flaco Road

Improve to rural collector standards, with a Class II bike lane from Highway 1 west to its end.

Local Streets

Access to individual properties usually occurs from local or minor streets. There are many local streets that will need to be installed as the planning area develops. The lack of an adequate circulation system has plagued the area for many years, especially on the Nipomo Mesa, where dirt roads may exist but are located on private property, or they exist as private easements.

Local streets need to be developed to a minimum level of improvement throughout the Nipomo Mesa, including the villages, in order for these areas to develop to their potential. These road improvements should be made as a condition of approval of land divisions, or alternative methods of funding may be to construct roads through a county service area and the establishment of an assessment district, or a cooperative road program. The Public Works Department will respond to requests from property owners for road improvements by providing information on the funding mechanism and the process of development roads.

Pedestrian, bicycle and equestrian passage along local streets are important for children within their neighborhoods and for access to destinations such as local schools, other neighborhoods and parks. Local streets also provide alternate routes for multi-use paths to avoid congested collector streets or arterials. People living along these local streets and neighborhoods should have direct input to determine the needs and type of design for pedestrian passage. Where that need has been determined, that is, where a local street leads to a regional trail, multi-use paths along one side of local streets are recommended where practical.

Some roads should be abandoned where they would conflict with area development or sensitive areas. An example of the former is in the Los Berros Village townsite and the latter is represented by a road platted in the bottom of Black Lake Canyon. Road abandonment proceedings can be initiated by the Board of Supervisors upon property owner requests or recommendations of staff. Abandonment by the county only involves the public's right to use the roadway, however, and does not affect private easement rights of the owners of land within the platted subdivision.

Within urban and village areas, local streets should be planned in a network of cross-streets to avoid concentrating traffic on a few large-scale streets, illustrated in Figure 5-3. The more connections between streets that are established, the easier and more convenient it will be not only to drive between destinations but also to walk and avoid vehicle trips entirely. Such connections may include pedestrian pathways and emergency vehicle accesses as well, particularly where culs-de-sac are utilized.

Trails and Multi-Use Paths

There is a high level of interest among local citizens for establishing a multi-use trails system for pedestrian, bicycle and equestrian use, as shown in Figure 5-6. A trail system needs to be developed for circulation among the suburban and rural residential areas and to link them to the recreation areas. The priorities for establishing a multi-use trails network are:

1. Safe routes for children on foot and bicycle, especially to schools;
2. Safe pedestrian, bicycle and equestrian passage from neighborhoods to frequent destinations, schools, parks, shopping facilities and adjacent neighborhoods;
3. Linking a local multi-use trails system to regional destinations, such as nearby cities and Oso Flaco Lake;
4. Avoid sensitive resources, such as riparian/wetland vegetation and cultural resources.

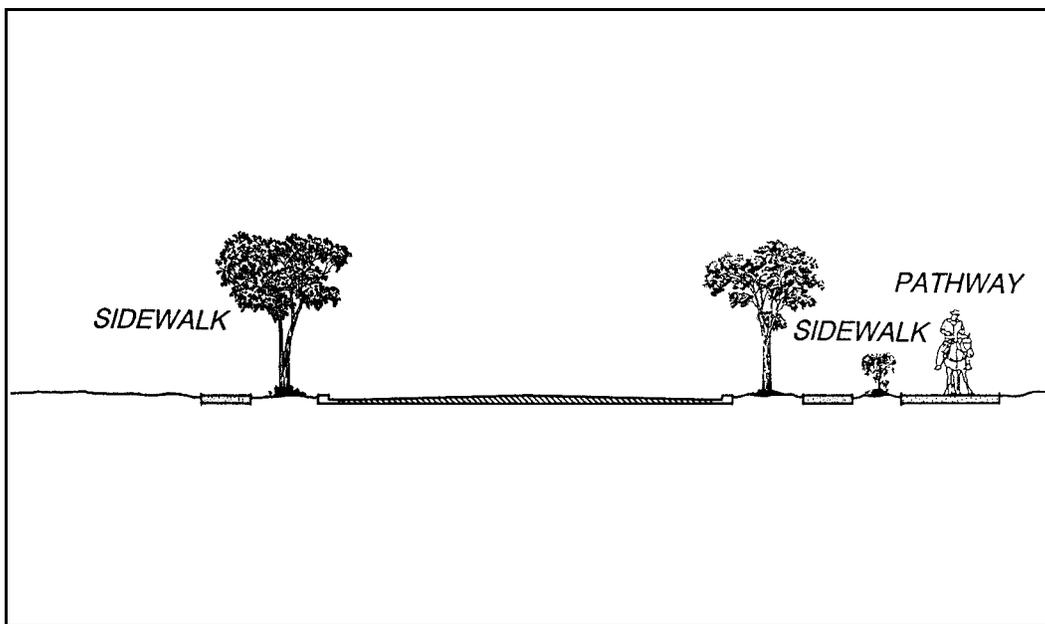


Figure 5-6: Multi-use Path

By providing safe routes between neighborhoods, parks and open space, and to shopping facilities, multi-use trails can enhance the quality of life by fostering a sense of a "village" community. The proposed routes should use public rights of way (beside existing roads and across county-owned open spaces). Also, as new developments are reviewed, easement dedications should be sought from willing landowners and developers to extend the multi-use trails system. Economic incentives for land owners and developers should be provided to encourage participation. In the event a trails easement is granted, the gross acreage should be used for calculating allowable density, rather than the normally required net acreage. Where feasible, costs for development of the multi-use trail by the land owner or developer should be in lieu of developing curb, gutter and sidewalk.

Roadside Pathways. Any public road improvement within the suburban, rural and agricultural land use categories, whether publicly or privately financed, should include either the County Standard A-1X pedestrian/equestrian path or a multi-use path. The location of multi-use paths shall be in accordance with the adopted County Parks and Recreation Element.

Staging Areas. The Lienzo Charro Arena should become a multi-use equestrian facility within the Nipomo Regional Park as the location for a central staging area for a trails network throughout the South County. Brush Poppers' Arena on Highway 1 is an important equestrian site for the north Nipomo Mesa. Foothill Farms on East Tefft Street is an important equestrian destination and staging area on the east side of Nipomo.

Concern has been expressed that trails should not run through areas designated for agriculture because of potential trespass and vandalism problems. In order to address these problems and to design a trail system, a countywide Trails Committee has been established as a sub-committee of the county Parks and Recreation Commission.

D. OTHER TRANSPORTATION MODES

Transit

The county has a goal of providing reasonable public transportation to meet the mobility needs of all residents for access to essential public services, medical services, educational, recreational and employment opportunities and as a means to reduce air pollution, traffic congestion, parking problems and foreign oil imports. Objectives to meet this goal include the following:

1. **Service level.** Develop and support a regional and community fixed route transit system connecting all major population centers, and promote transit use as an environmentally sound transportation alternative to the private vehicle.
2. **Convenience.** Provide increases in transit service convenience to make transit an attractive transportation mode, with a target of 10% minimum increase in ridership each year, with 75% seat occupancy on each bus during peak periods.
3. **Pollution mitigation.** Use transit services as one part of a coordinated effort to reduce air pollution.

Current Transit Needs

Presently, the South County planning area is served by one fixed route bus system (CCAT Route 14) from San Luis Obispo to Santa Maria. The new route to Santa Maria, if successful, will provide an important transportation link. A "senior van" provides access to the Five Cities area and San Luis Obispo. The Five Cities area to the north is served by the South County Area Transit System (SCAT) which operates under a joint powers agreement between the county and the member cities. The Regional Handicapped System also provides van service to Nipomo.

There is an on-going effort to eliminate the deficiency in public transit between South County communities and Santa Maria. Agreements should be reached with operators within Santa Barbara County to extend fixed route bus service by jointly funding it. A regional transit route that connects Nipomo with San Luis Obispo and Santa Maria should be planned. According to the Area Coordinating Council's Transportation Planning Agency, Nipomo has the population to support a dial-a-ride service or commuter transit service.

Planned Transit Development

The short-term plan for transit service to this area is to provide frequent regional transit runs (Central Coast Area Transit), and establish dial-a-ride in the Nipomo urban area when warranted. As densities and total population build, the long-term plan for transit development is the creation of sub-routes or fixed shuttle routes connecting south county residential and commercial centers along the Highway 101 corridor. In this way the frequency can be increased to shorter periods between buses, inducing residents to consider transit as a viable alternative to the private automobile.

Bus stops will be divided into regional stops and sub-regional stops. The sub-regional stops can be bus pullouts that will accommodate school buses, and can be converted to full regional bus stop standards if population densities increase as planned. Bus stops should be integrated into commercial or office development or at least provided shelters. Other details of bus stop development should be utilized that are listed in the regional transportation plan.

Land Use and Transit

A primary objective of the short and long-range transit \development plan is to maximize transit use by land use planning that encourages non-automotive use. All new development should be reviewed to encourage transit use.

While transit is most efficient through high density corridors, much of the south county is designated for low density development in response to other planning goals for the area. However, concentrations of development can facilitate and encourage the use of public transit. These centers may be separated from each other by open space to preserve the rural character of the south county area.

Each transit-oriented center should provide higher density housing, allow mixed-uses, and have convenient walking access less than one-fourth mile between residences, working, open space and public transit, consequently encouraging residents to travel by bus, walking or bicycling.

The major fixed route service for the area is expected to continue to be CCAT regional routes. Acting as feeder services, local dial-a-ride systems will interface with the fixed route lines at major transfer points. Within 10 to 20 years, a deviated fixed route through the communities may be feasible to link with the regional system.

Transit-oriented Development Policies

Transit-oriented development policies are needed in land use planning and in the review of discretionary project and subdivision applications to encourage and enhance transit usage within the planning area. Transit-oriented standards apply to development in Article 9 of the Land Use Ordinance (Section 22.112 - South County Planning Area). The following policies should guide land use planning:

1. Along major transit corridors, urban densities should be achieved in urban village centers that will have a mix of employment and higher density residential zoning to encourage transit, walking and bicycling. Minimum densities as well as maximum densities should be set within these activity centers to provide a population threshold for convenient transit.

Automobile oriented uses such as service stations, car sales lots and drive-through retail should not be located within these activity centers so that there will be areas that encourage walking, biking and transit use. Mixed compatible use should be encouraged within the centers, allowing for the development of areas where walking can access homes, offices and stores.

2. Open space or agricultural separators (greenbelts) are important between communities to prevent sprawl or strip commercial development that can interfere with development of urban village centers. The most effective land use categories to retain low-density development are Agriculture, Rural Lands, Residential Rural and Open Space.
3. Parallel routes to Highway 101 should be established on Hetrick Road and Orchard Avenue to facilitate access north and south through the area, for general transportation and for connecting multi-modal transit stops.
4. On-site services should be encouraged at urban village centers, including child care, personal services, cafes, pharmacy and convenience stores in residential areas, as well as restaurants, banks, general retail stores in employment centers.

Bikeways

Bikeways provide convenient routes for bicycle travel and encourage recreation and non-automobile transportation. There are several types of bikeways described in Framework for Planning, Part I of the Land Use Element. Summarized here, they include Class I bike paths (separated from the road for the exclusive use of bicycles), Class II bike lanes (at least four feet of maintained and marked shoulder of a road, for semi-exclusive use of bicyclists), and Class III bike routes (shared traffic lane with automobiles designated by signs). The Regional Transportation Plan, adopted by the San Luis Obispo Area Council of Governments, provides additional background information.

Objectives and Policies

1. **Regional bikeway system.** Create an area-wide bikeway system to provide for efficient and safe transportation for bicycle commuters.

Encourage local jurisdictions and major employers to provide bicycle parking facilities at major destination points such as shopping centers, public facilities, transit hubs, and park-and-ride lots to increase the use of bicycles.
2. **Safe bikeway improvements.** Provide safe travel for school children, the commuter and the recreational rider.

Encourage all new development to include 5'- 8' Class II bikeways along all new collectors and arterials, where terrain permits, as shown in Figure 5-7. Width and class should be determined by factors such as vehicle speed, traffic volumes, terrain and road width.
3. **Bicycle safety program.** Increase efforts to implement yearly bike safety programs in all public and private schools.
4. **Transportation demand management, (TDM).** Encourage use of bikes as an alternative transportation mode to reduce single occupancy vehicle (SOV) travel thereby reducing air pollution.
 - a. Encourage employers with 25 or more employees to reduce SOV travel with an organized program that includes bike use.

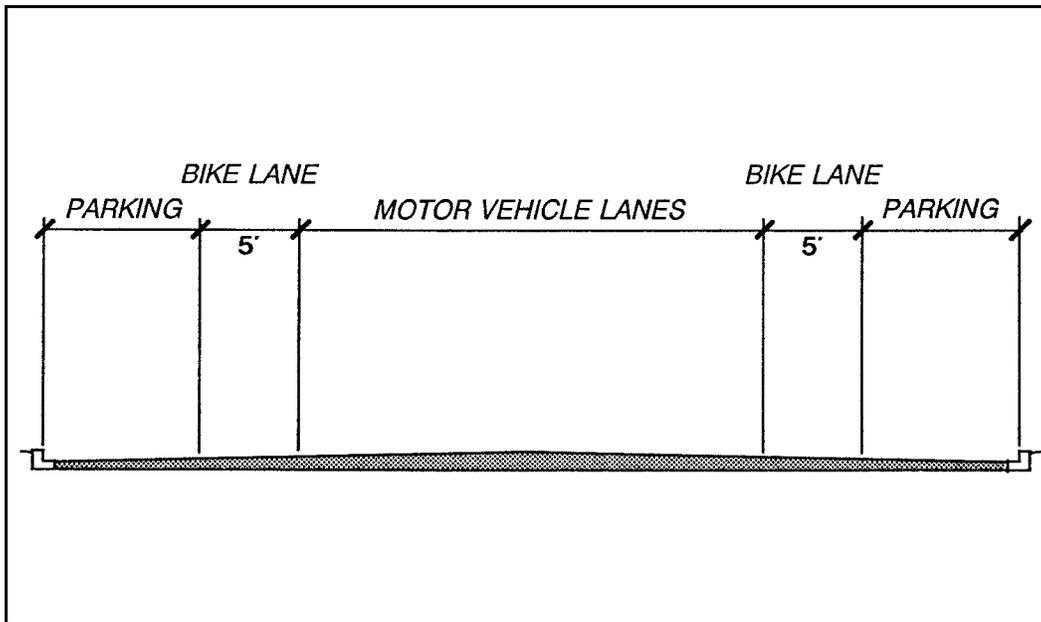


Figure 5-7: Class II Bike Lanes

5. **Recreation.** Develop Class I bikeways with multi-use trails through public recreational areas and along public right of ways where deemed appropriate due to scenic and/or recreational resources. Dedicated public easements should be sought, and economic incentives for private land owners should be considered where unique scenic, recreational or historical routes coincide with private property, and where connections are desired between recreational and scenic areas. The protection of natural resources should also be achieved. Prepare a plan for Class I bikeways along appropriate routes through the planning area, to connect major destinations for different age groups, as part of an areawide pathway planning project.

Proposed Commuter-oriented Projects

The following is a list of the recommended bicycle routes that should be constructed to provide a local bikeway system and link it to the regional system:

Class I Bike Paths

Pacific Coast Railroad

Construct a Class I bike path within the Pacific Coast Railroad right-of-way and/or the State Water Project easement between, and connecting to, the Thompson Road/Highway 101 interchange through Nipomo to the Highway 166/101 interchange adjacent to an equestrian/walking path. Connect this route to Thompson Road and south Oakglen Street and the Dana Adobe site by obtaining public easements for a bike lane and multi-use trail in a linear park, consistent with the County Parks and Recreation Element.

Highway 101/Santa Maria River

Provide a separate Class I Bike Path in the reconstruction and widening of the Highway 101/Santa Maria River bridge, or an alternate seasonal surface crossing, to connect between the Pacific Coast Railroad right of way, Cuyama Lane and Santa Maria.

Nipomo Regional Park

Class I bicycle lane with a multi-use trail around the perimeter of the Nipomo Regional Park.

Highway 1

Class I bicycle lane to coincide with the Juan Bautista De Anza National Historical Trail and Bike Centennial Pacific Coast Route.

Recreation Center to Nipomo Regional Park/Dana School

Develop a Class I Bike Lane between the Nipomo Youth Recreation Center and the Nipomo regional Park, by way of Hill Street to Orchard Avenue.

Recreation Center to Nipomo School

Class I bike lane extend between the Nipomo Youth Recreation Center to Nipomo School.

Class II Bike Lanes

Highway 1 from Valley Road south to Santa Barbara County where Class I bikeways in conjunction with the Juan Bautista De Anza National Historical Trail and Bike Centennial Pacific Coast Route are not developed.

Valley Road from Highway 1 to the city of Arroyo Grande.

Los Berros Road from Valley Road to Thompson Road/Highway 101 interchange, then Thompson Road to Cuyama Lane/Highway 166.

Willow Road from Highway 1 to Thompson Road.

Pomeroy Road from Los Berros Road to Tefft Street.

Tefft Street from Thompson Road to Las Flores Drive.

Orchard Avenue, Joshua and Hutton Roads to Cuyama Lane, then on Cuyama Lane to Thompson Road.

Division Street from Orchard Avenue to Highway 1.

Oso Flaco Lake Road from Highway 1 to the west end of the road.

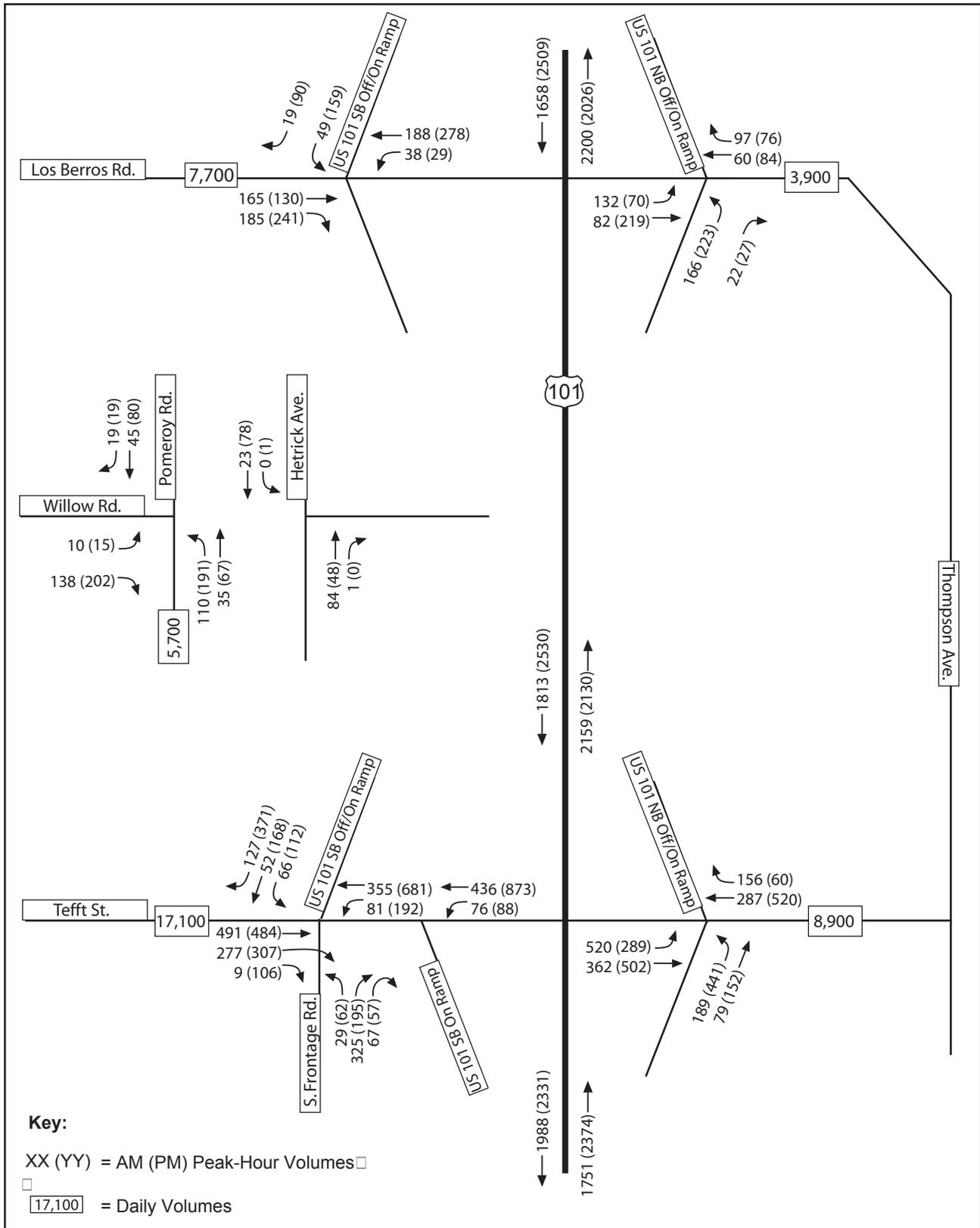
All urban collector and arterial streets within the Nipomo urban area as funds are available and road improvements are constructed. High priority should be given to routes that serve school children.

Carpooling - Park and Ride Lots

Park and ride lots are transfer areas where people may drive or carpool to the lot, park their vehicles and continue on with another carpool or transit route. The Clean Air Plan and the Regional Transportation Plan have emphasized park and ride lots as transportation system management measures to shift away from single occupancy vehicle travel.

The overall goal for park and ride lots is to provide convenient locations for transferring commuters from single-occupancy vehicles into carpools, van pools and public transit. Criteria are needed to standardize the location, amenities and design of lots. A bicycle bus trailer should be included in South County bus service.

ATTACHMENT 4
Existing, 2030 AM and PM Peak Hour Traffic Volumes



Willow Road - US 101 Interchange

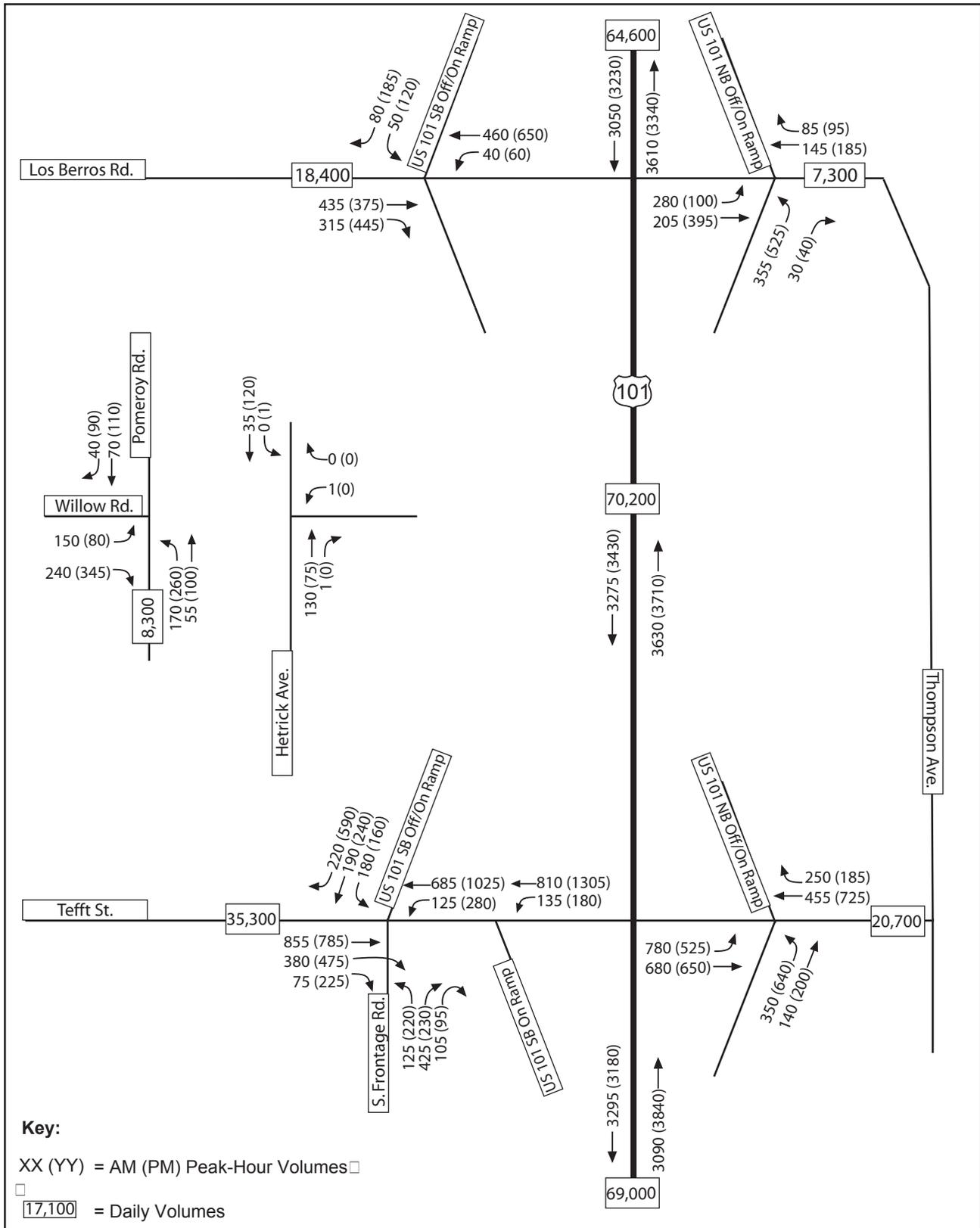


FEHR & PEERS
 TRANSPORTATION CONSULTANTS

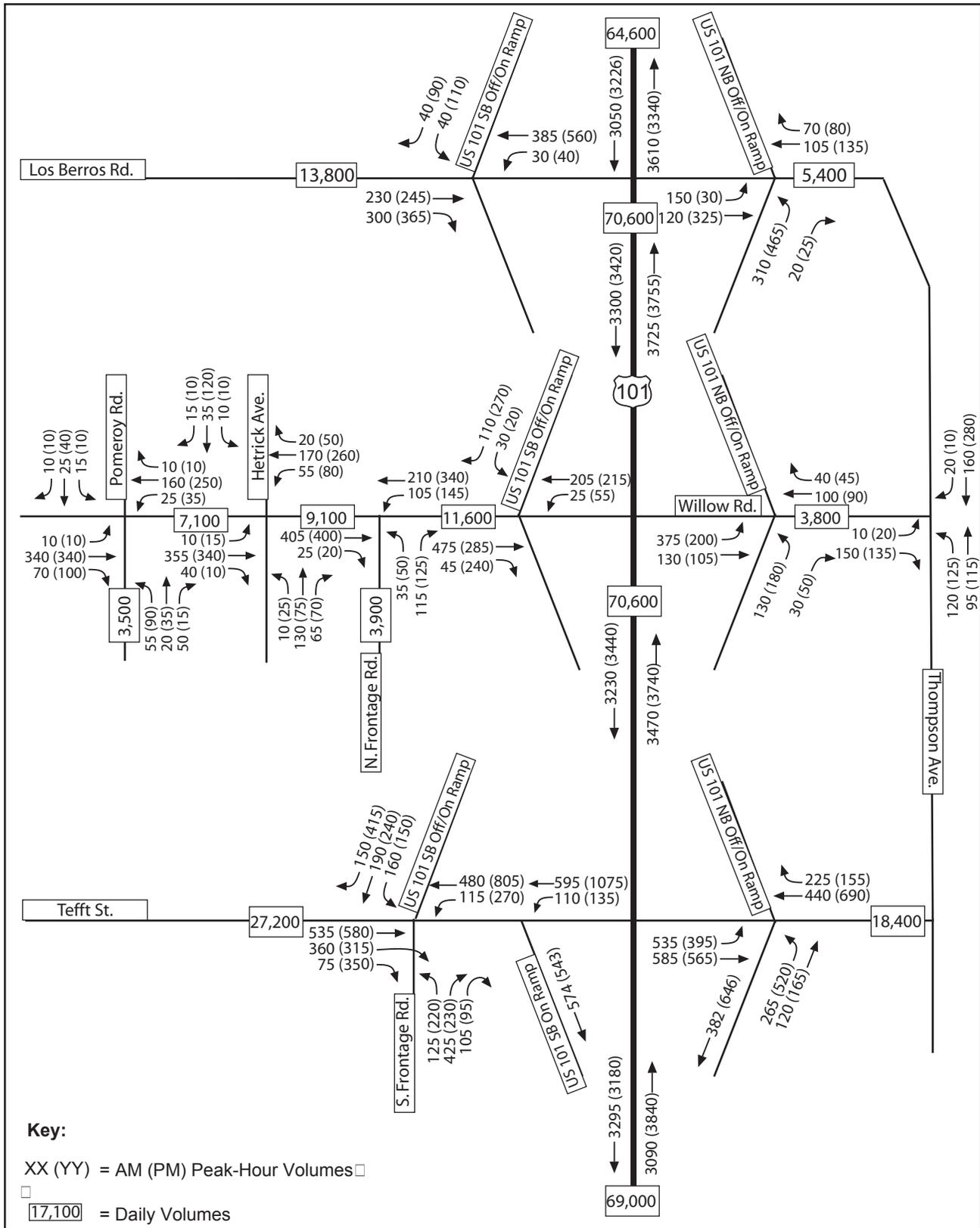
December 2004
 1035-613

EXISTING TRAFFIC VOLUMES

Figure 3



Willow Road - US 101 Interchange



Willow Road - US 101 Interchange

ATTACHMENT 5
Project Geometric Plan, Profile, and Typical Sections

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**

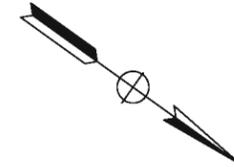
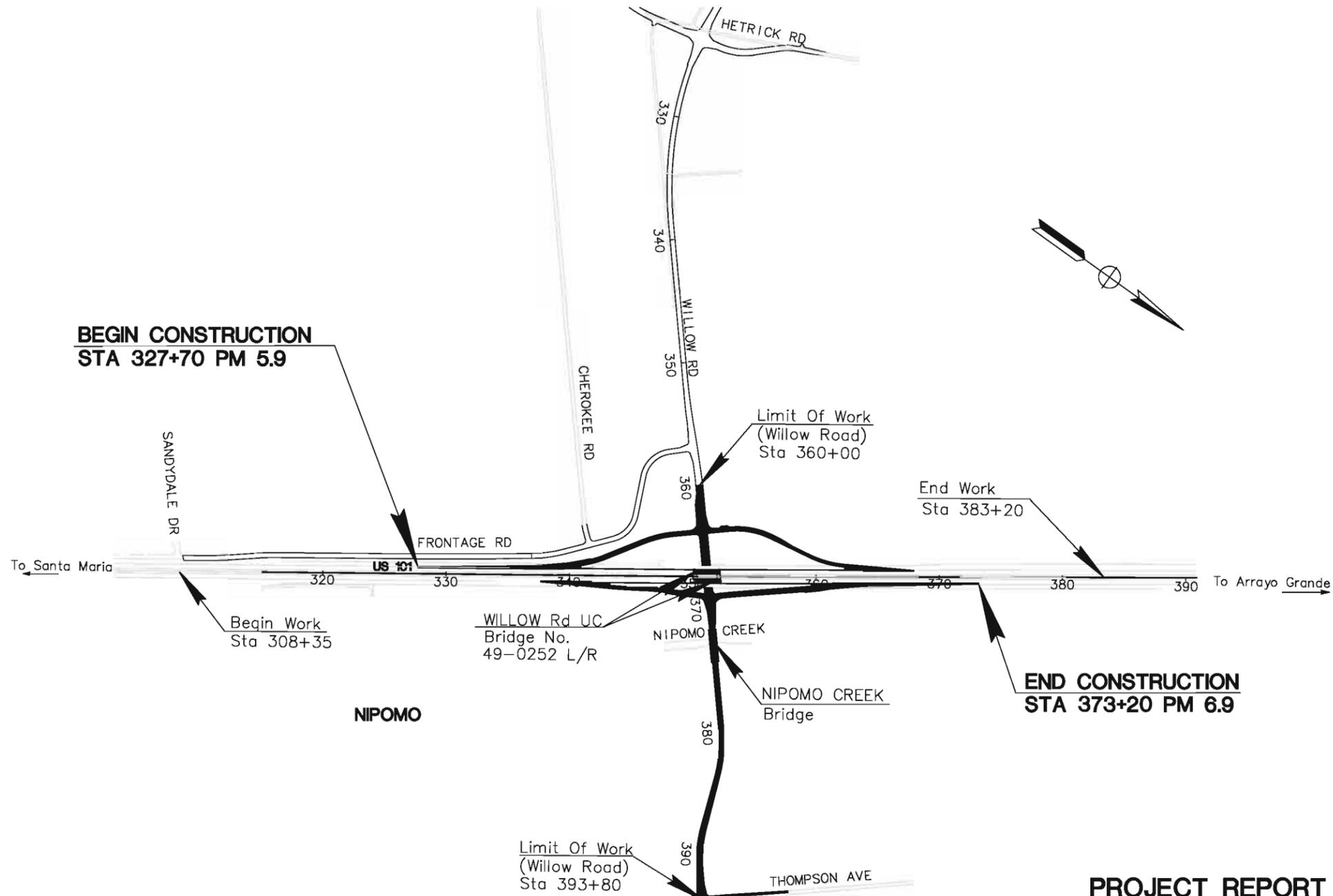
IN SAN LUIS OBISPO COUNTY
**FROM 0.9 MILE NORTH OF TEFFT STREET OC
TO 1.6 MILES SOUTH OF LOS BERROS ROAD UC**

To be supplemented by Standard Plans dated May 2006

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
05	SLO	101	5.9/6.9		



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DATE
REGISTRATION NO.
DESIGN OVERSIGHT APPROVAL PRINTED NAME
SIGNATURE
PROJECT ENGINEER

Approved as to Features Affecting
County of San Luis Obispo

Project Manager _____ Date _____
Registered Civil Engineer



Plans Approval Date _____

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1055 MONTEREY STREET
SAN LUIS OBISPO, CALIFORNIA 93408

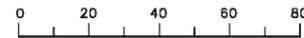
RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

Contract No. _____

**PROJECT REPORT
JANUARY 2009**

NO SCALE

FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS



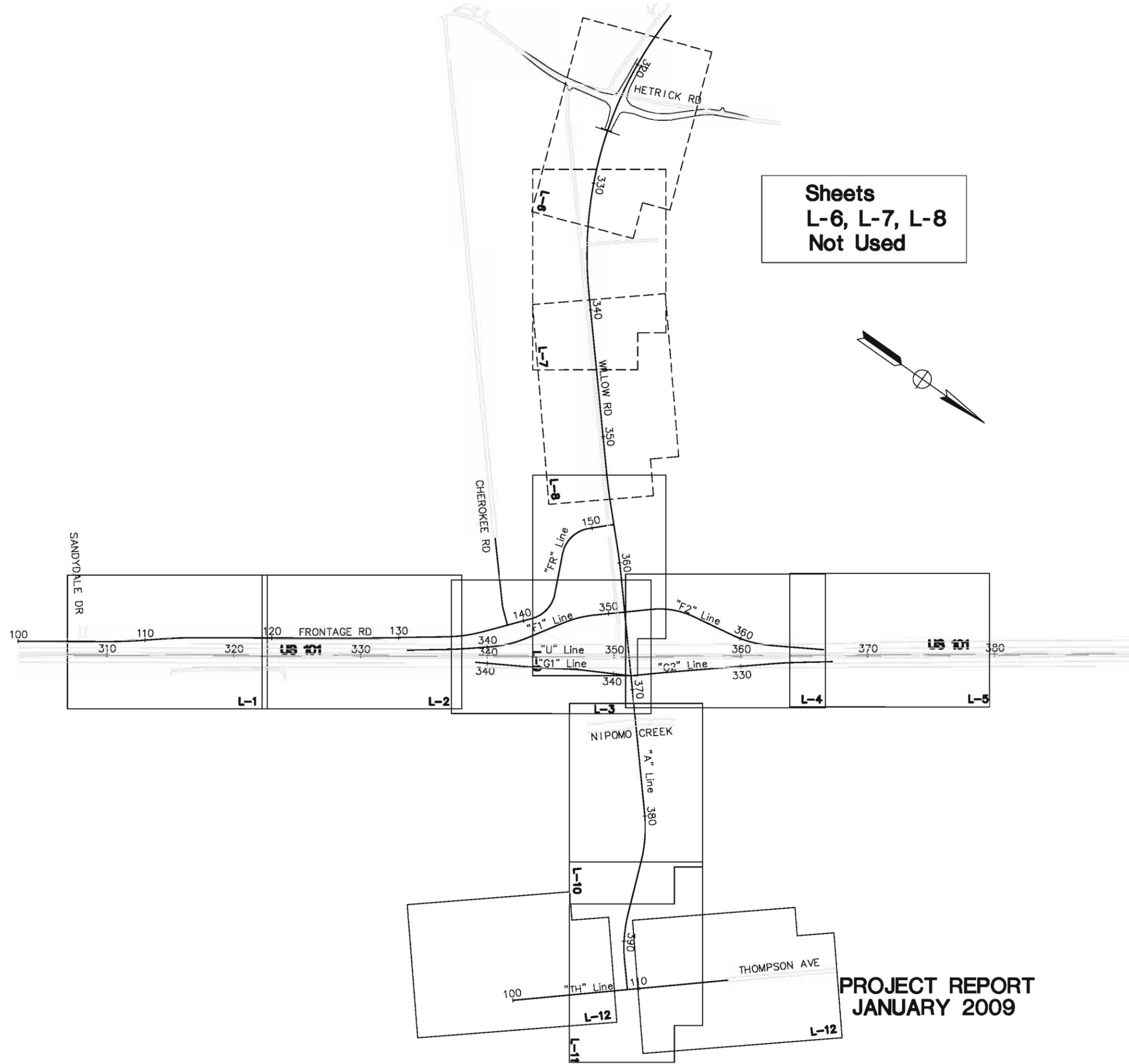
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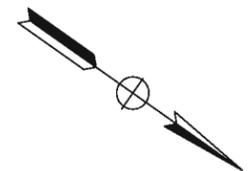
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			CHECKED BY	CN	09/08	DATE	REVISOR



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		
PROFESSIONAL CIVIL ENGINEER					
PLANS APPROVAL DATE					
COUNTY OF SAN LUIS OBISPO PUBLIC WORKS & TRANSPORTATION DEPARTMENT 1050 MONTEREY STREET SAN LUIS OBISPO, CA 93408					
RAJAPPAN & MEYER CONSULTING ENGINEERS, INC. 1038 LEIGH AVENUE, SUITE 100 SAN JOSE, CALIFORNIA 95126					
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**Sheets
L-6, L-7, L-8
Not Used**



**PROJECT REPORT
JANUARY 2009**

KEY MAP AND LINE INDEX
NO SCALE
K-1

RELATIVE BORDER SCALE
15 IN INCHES

USERNAME => \$USER
DGN FILE => \$REQUEST

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DATE PLOTTED -> \$DATE
TIME PLOTTED -> \$TIME
LAST REVISION
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DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		



PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE _____

COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

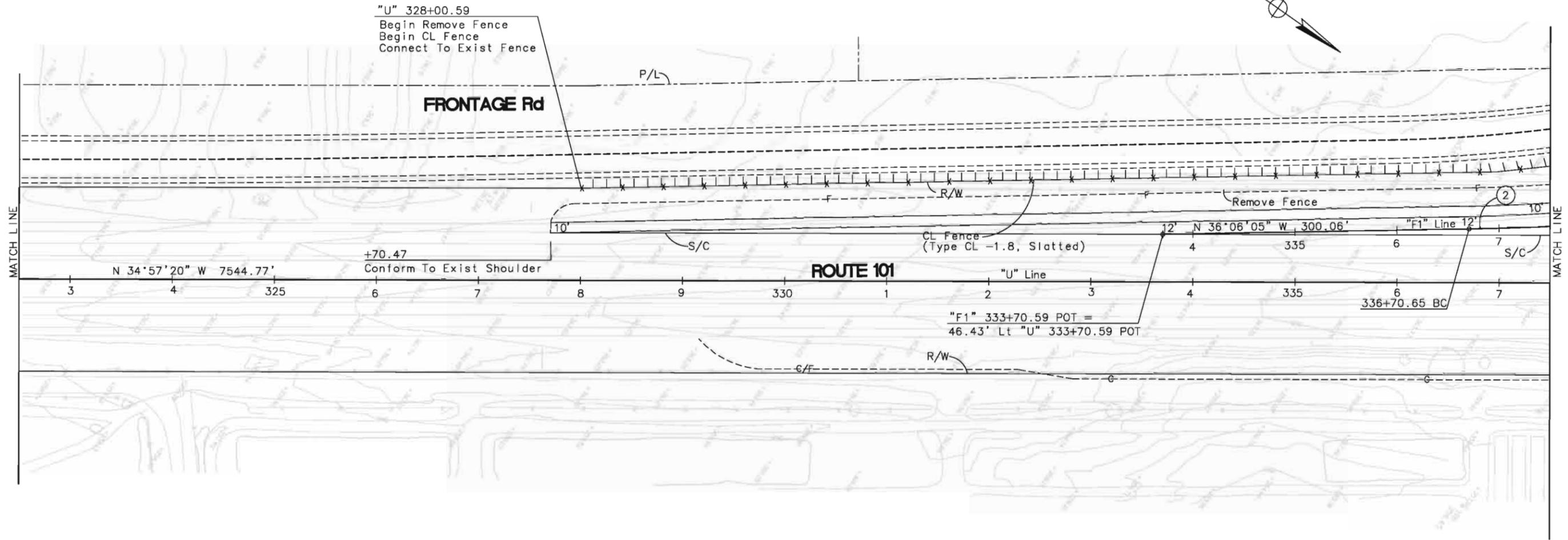
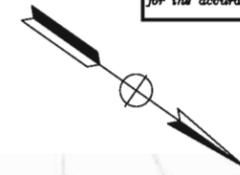
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 CONSULTING ENGINEERS, INC.
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 SAN JOSE, CALIFORNIA 95126

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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

CURVE DATA

No.	RADIUS	DELTA	TANGENT	LENGTH	N	E
②	3000.00'	3°11'29"	83.57'	167.10'	2212742.83	5811568.86



REQUEST STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Coltrane
 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY
 CHECKED BY
 HA CN
 DATE 09/08
 REVISIONS BY
 DATE
 REVISIONS BY
 DATE

**PROJECT REPORT
 JANUARY 2009**

LAYOUT
 SCALE 1"=50'

L-2

RELATIVE BORDER SCALE 15 IN INCHES
 0 1 2 3

USERNAME => \$USER
 DGN FILE => \$REQUEST

CU

EA 047450

LAST REVISION 00-00-00
 DATE PLOTTED => \$DATE
 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

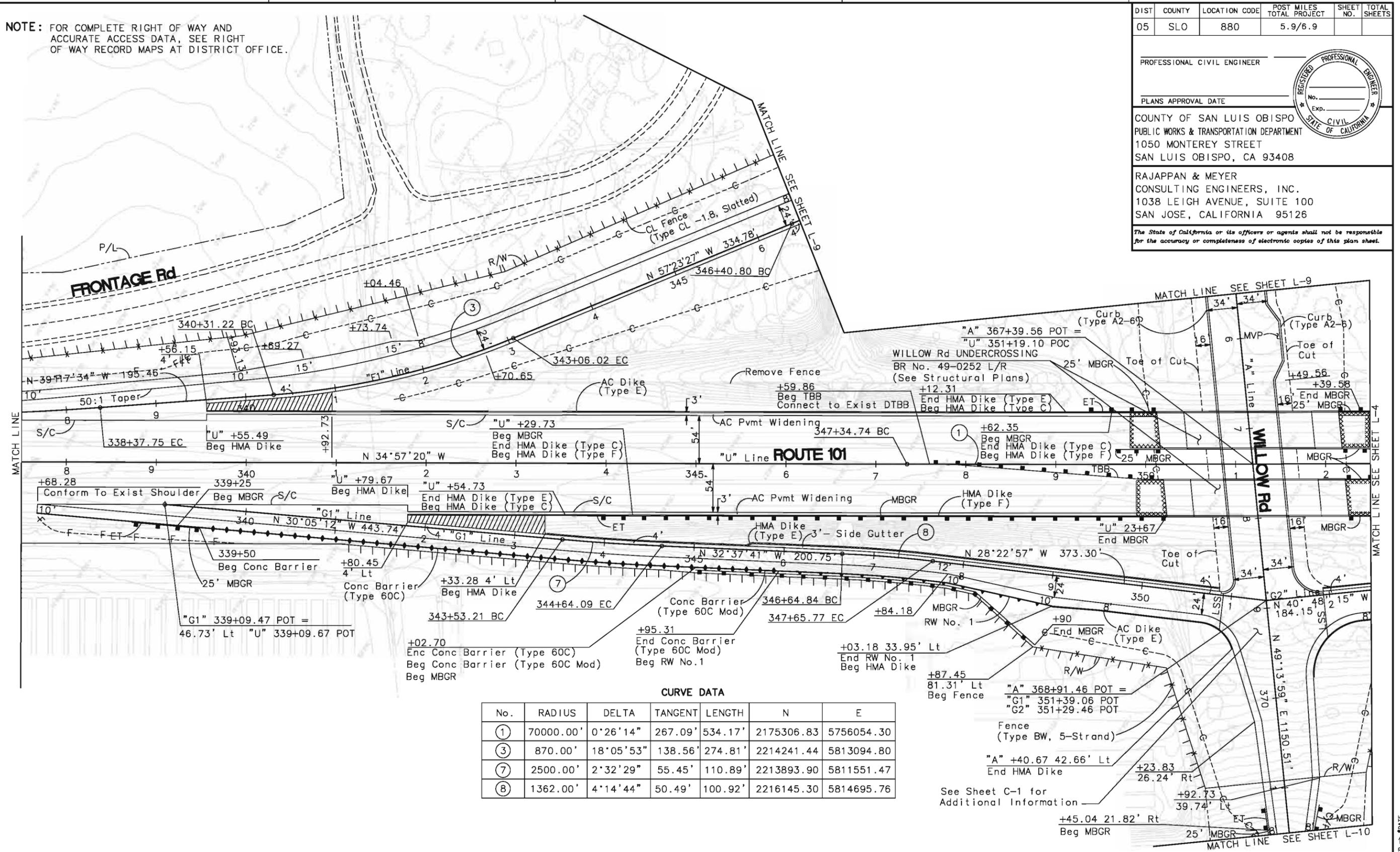


COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



CURVE DATA

No.	RADIUS	DELTA	TANGENT	LENGTH	N	E
①	70000.00'	0°26'14"	267.09'	534.17'	2175306.83	5756054.30
③	870.00'	18°05'53"	138.56'	274.81'	2214241.44	5813094.80
⑦	2500.00'	2°32'29"	55.45'	110.89'	2213893.90	5811551.47
⑧	1362.00'	4°14'44"	50.49'	100.92'	2216145.30	5814695.76

**PROJECT REPORT
 JANUARY 2009**

LAYOUT
 SCALE 1"=50'
L-3

DATE REVISED BY
 09/08 HA
 09/08 CN

DATE REVISED
 09/08 HA
 09/08 CN

DESIGN OVERSIGHT

DEPARTMENT OF TRANSPORTATION



RELATIVE BORDER SCALE 15 IN INCHES

USERNAME -> \$USER
 DGN FILE -> \$REQUEST

CU EA 047450

DATE PLOTTED -> \$DATE
 TIME PLOTTED -> \$TIME
 LAST REVISION 00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE

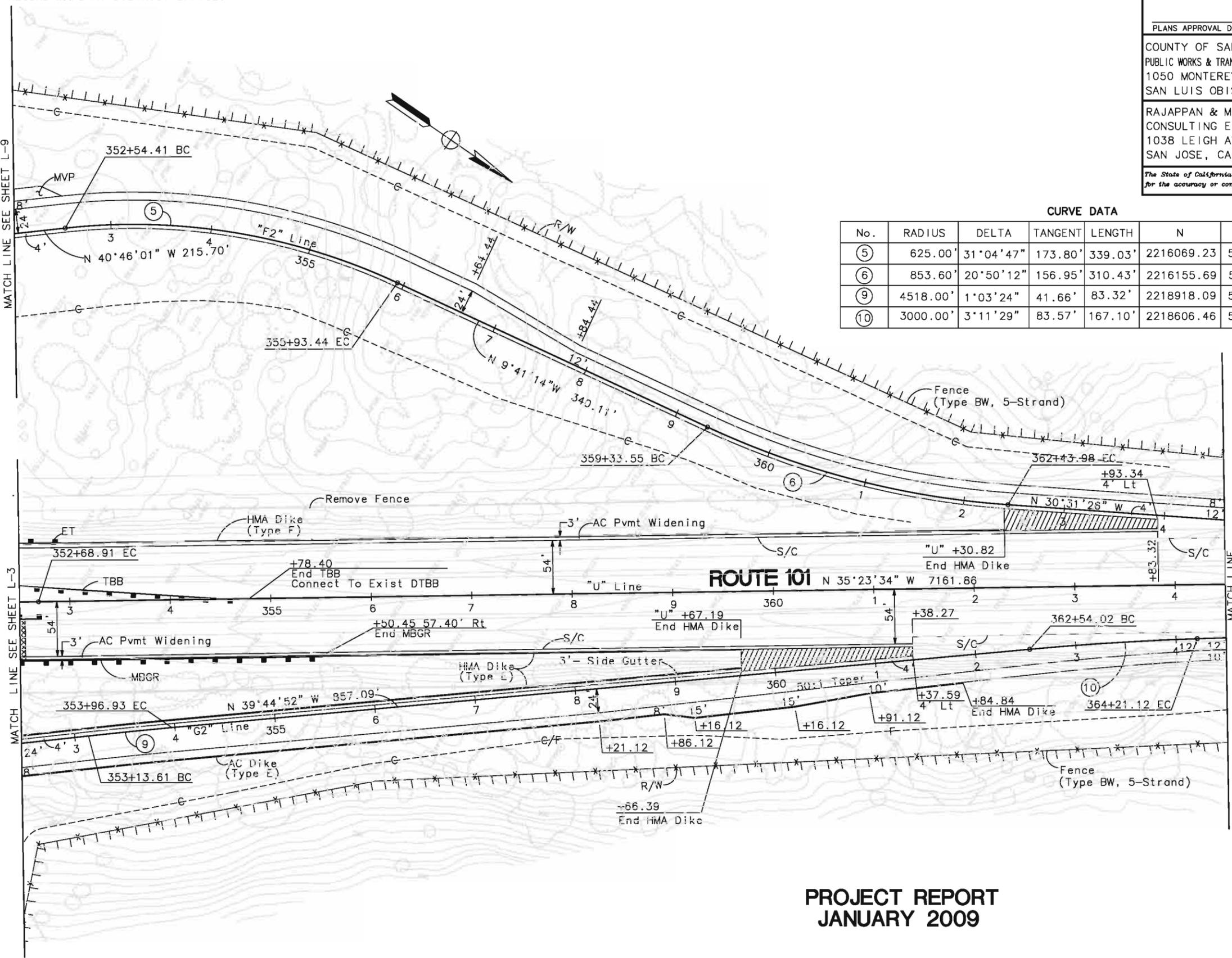


COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

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CURVE DATA

No.	RADIUS	DELTA	TANGENT	LENGTH	N	E
⑤	625.00'	31°04'47"	173.80'	339.03'	2216069.23	5813271.48
⑥	853.60'	20°50'12"	156.95'	310.43'	2216155.69	5811756.74
⑨	4518.00'	1°03'24"	41.66'	83.32'	2218918.09	5816619.58
⑩	3000.00'	3°11'29"	83.57'	167.10'	2218606.46	5814904.41

REQUEST STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY
 CHECKED BY
 DATE REVISED BY
 HA 09/08
 CN 09/08
 DATE REVISED



**PROJECT REPORT
 JANUARY 2009**

LAYOUT
 SCALE 1"=50'
L-4



USERNAME => \$USER
 DGN FILE => \$REQUEST

CU EA 047450

DATE PLOTTED => \$DATE
 TIME PLOTTED => \$TIME
 LAST REVISION
 00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		



PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE _____
 COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408
 RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

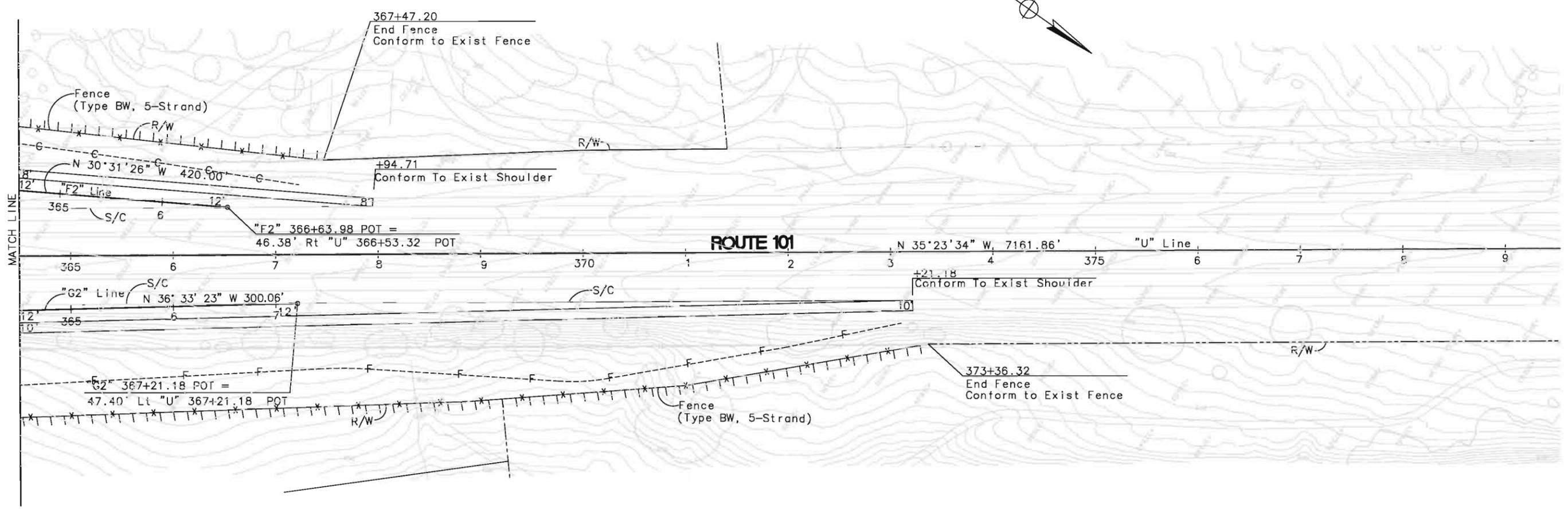
DATE	REVISION	BY
09/08	HA	CN
09/08	CN	

CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISION

DESIGN OVERSIGHT

DEPARTMENT OF TRANSPORTATION

STATE OF CALIFORNIA



PROJECT REPORT
 JANUARY 2009

LAYOUT
 SCALE 1"=50'
 L-5

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME -> \$USER
 DGN FILE -> \$REQUEST

CU

EA 047450

DATE PLOTTED -> \$DATE
 TIME PLOTTED -> \$TIME
 LAST REVISION
 00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		



PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

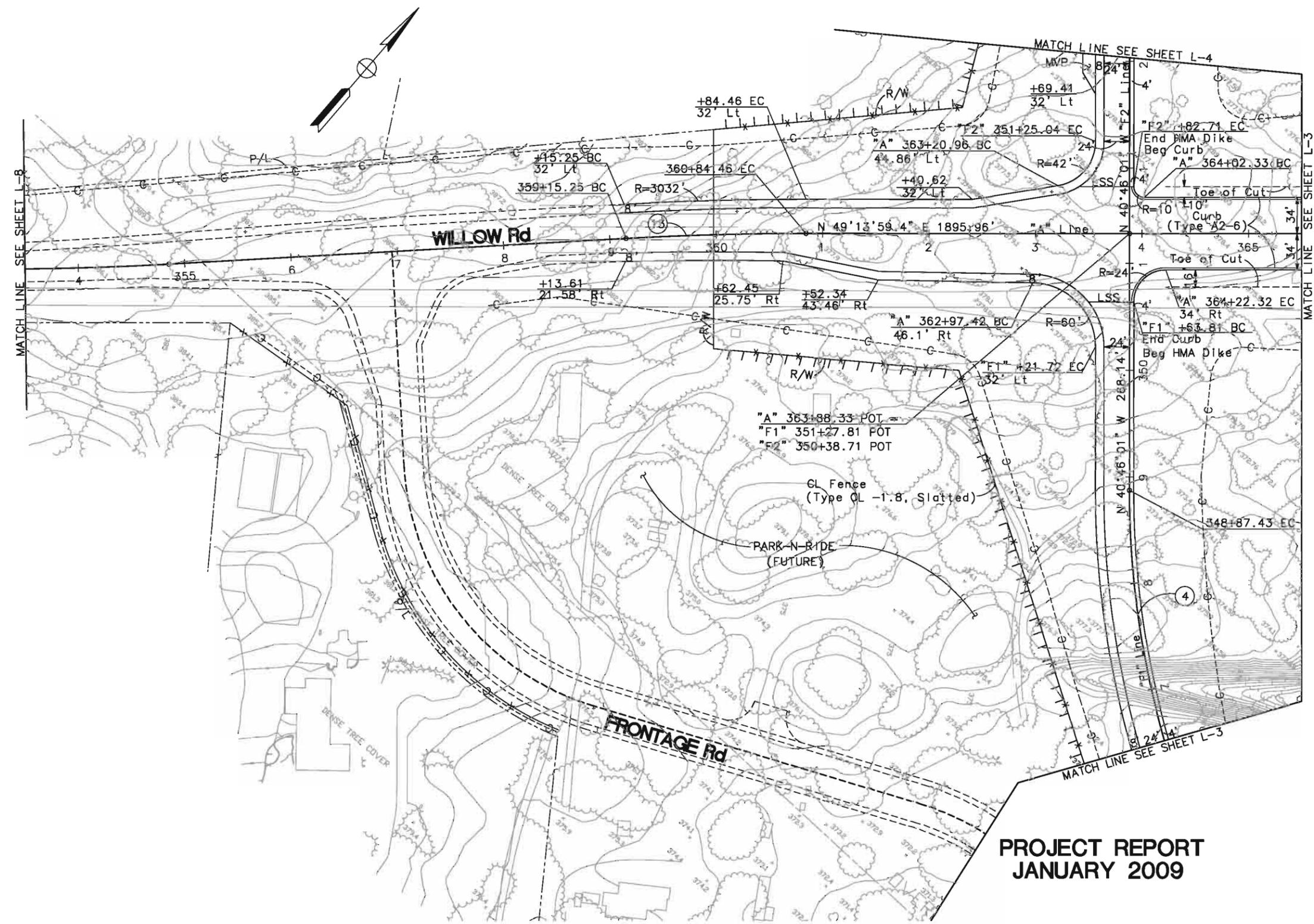
COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

No.	RADIUS	DELTA	TANGENT	LENGTH	N	E
⑬	3000.00'	3°13'55"	84.63'	169.22'	2213027.22	5814667.79
④	850.00'	16°37'26"	124.18'	246.62'	2215870.73	5813739.71



DATE	REVISOR	BY
09/08		
HA	CN	09/08
DESIGNED BY	CHECKED BY	DATE
		REVISED

DESIGN OVERSIGHT

DEPARTMENT OF TRANSPORTATION

STATE OF CALIFORNIA - **Caltrans**

PROJECT REPORT
JANUARY 2009

LAYOUT
SCALE 1"=50'
L-9



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DGN FILE => \$REQUEST

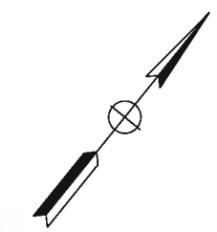
CU EA 047450

LAST REVISION DATE PLOTTED => \$DATE
00-00-00 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

No.	RADIUS	DELTA	TANGENT	LENGTH	N	E
14	1100.00'	19°42'03"	191.00'	378.23'	2215704.25	5514863.07



PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN OVERSIGHT

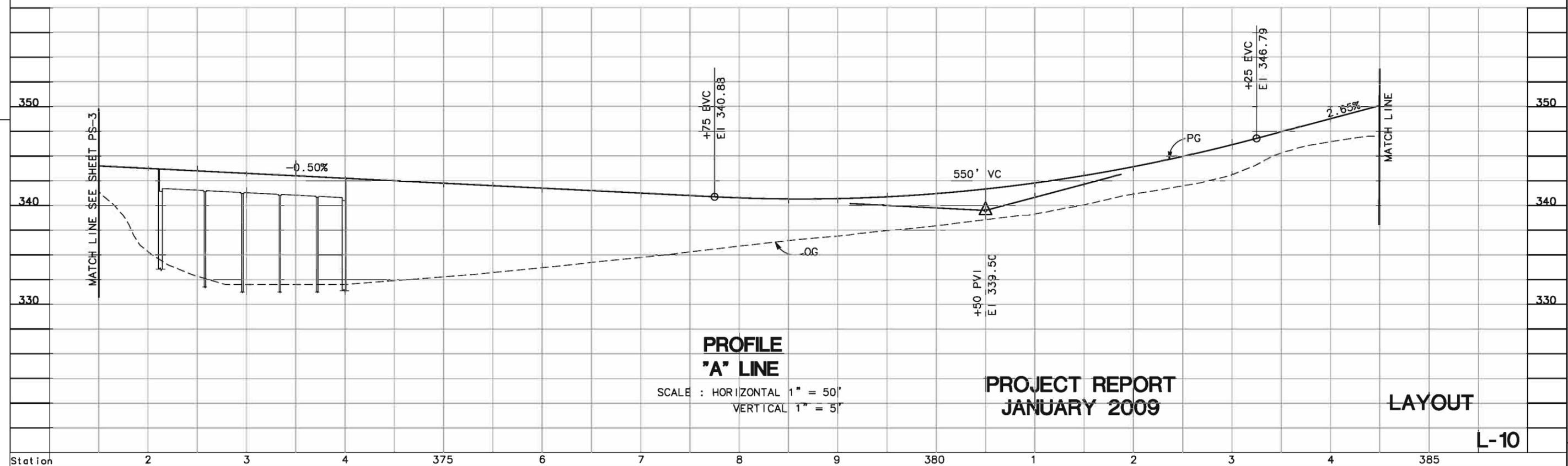
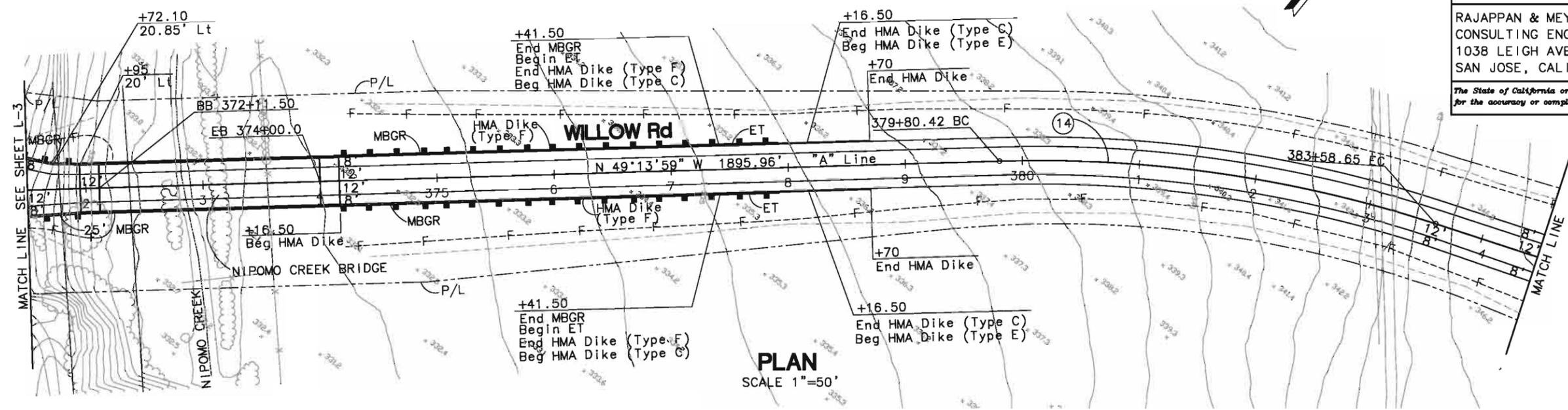
DATE 06/08
HA 06/08
CN 06/08

REVISOR BY DATE REVISION

CALCULATED/DESIGNED BY
CHECKED BY

STATION

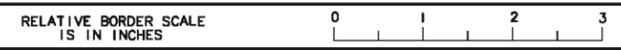
Exc
Emb



PROJECT REPORT
JANUARY 2009

LAYOUT

L-10



USERNAME => \$USER
DGN FILE => \$REQUEST

CU EA 047450

LAST REVISION DATE PLOTTED => DATE
00-00-00 TIME PLOTTED => TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

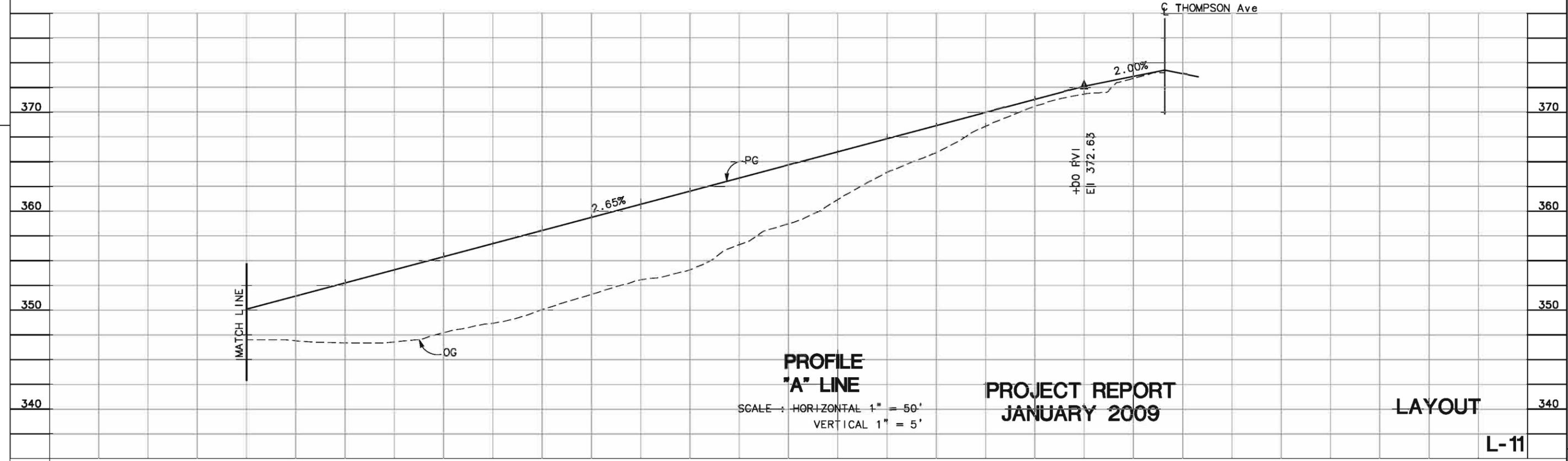
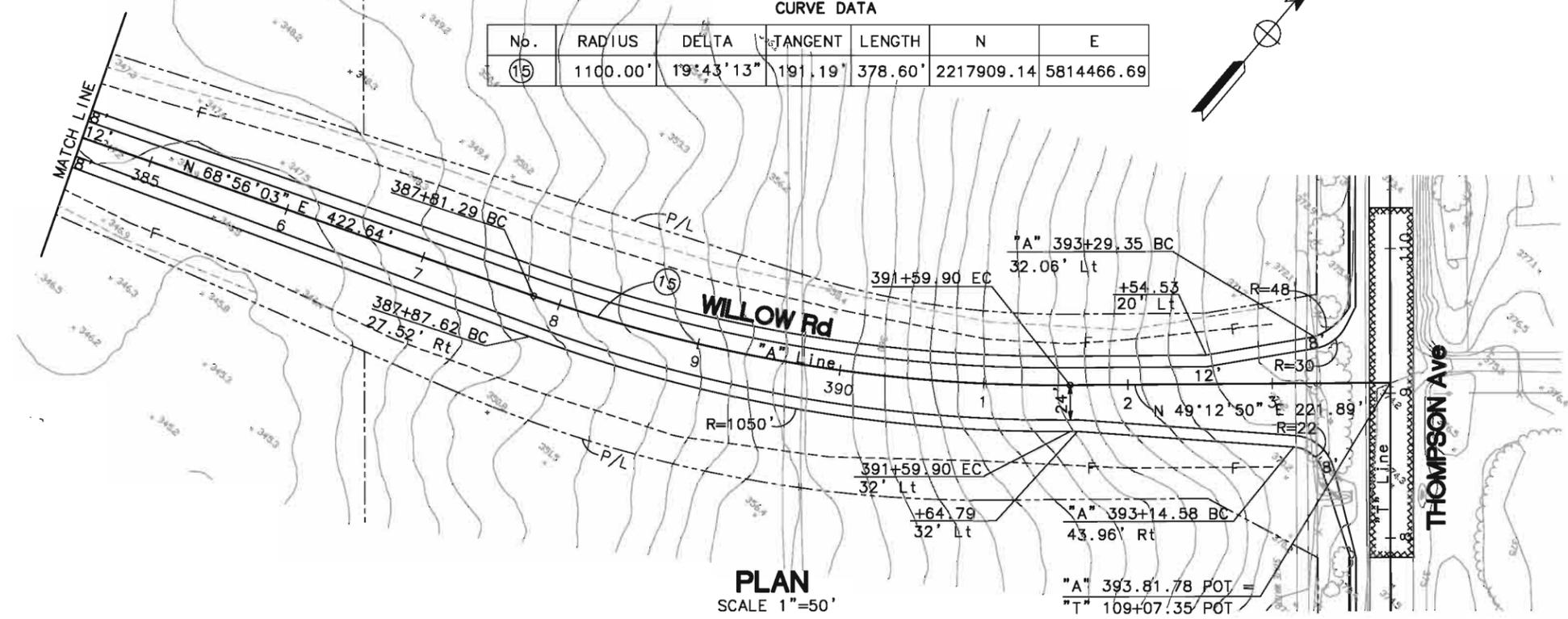
RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126



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NOTE: FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

No.	RADIUS	DELTA	TANGENT	LENGTH	N	E
15	1100.00'	19°43'13"	191.19'	378.60'	2217909.14	5814466.69



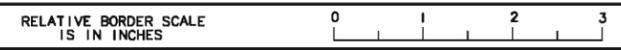
PROJECT REPORT
JANUARY 2009

LAYOUT

L-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
\$REQUEST
CY Exc
Emb

DESIGN OVERSIGHT
CALCULATED/DESIGNED BY
CHECKED BY
DATE 06/08
REVISOR BY
DATE REVISOR



USERNAME => \$USER
DGN FILE => \$REQUEST

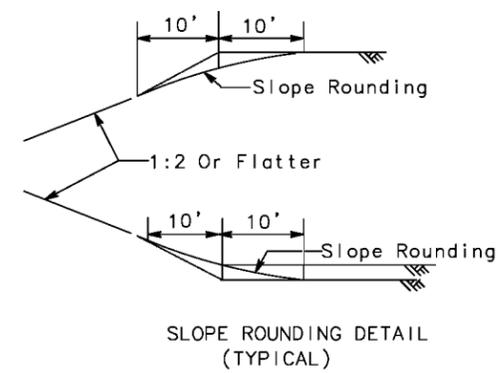
CU EA 047450

LAST REVISION DATE PLOTTED => \$DATE
00-00-00 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

DESIGN DESIGNATION

FOR SB 101 OFF RAMP:
 ADT (2006)= N/A D=100%
 ADT (2030)= 2,500 T=4%
 DHV= 290 TI= 8.5
 ESAL= 415,120



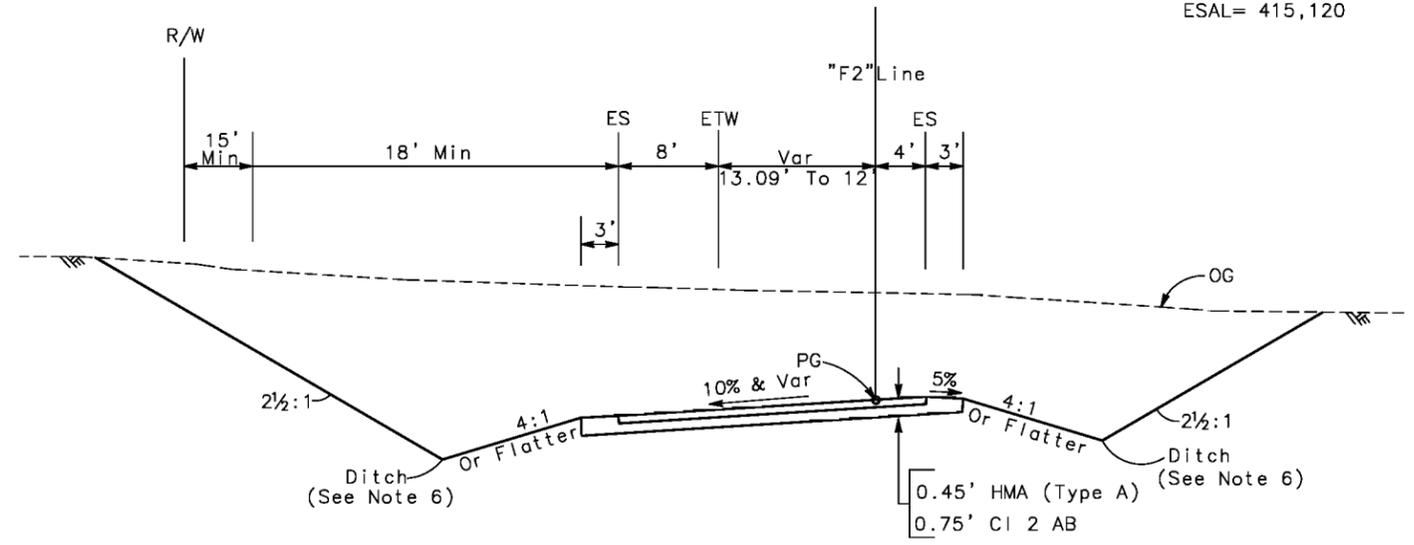
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE _____

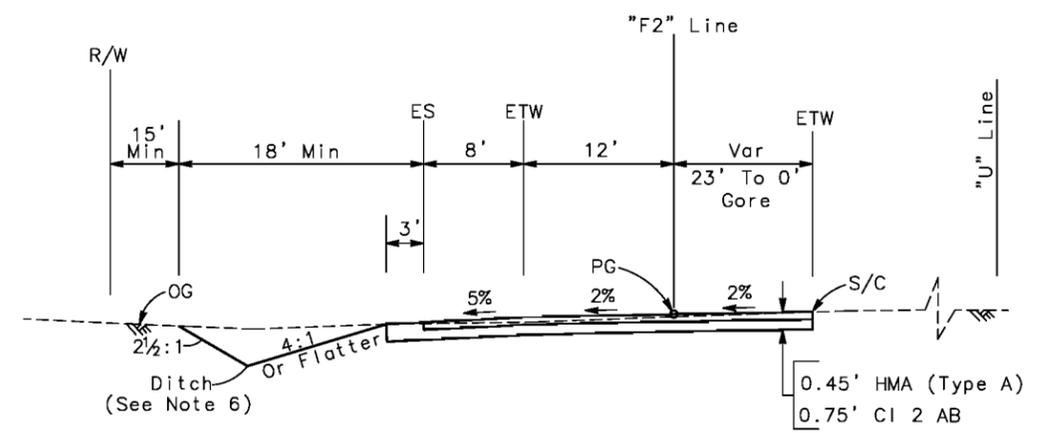
COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

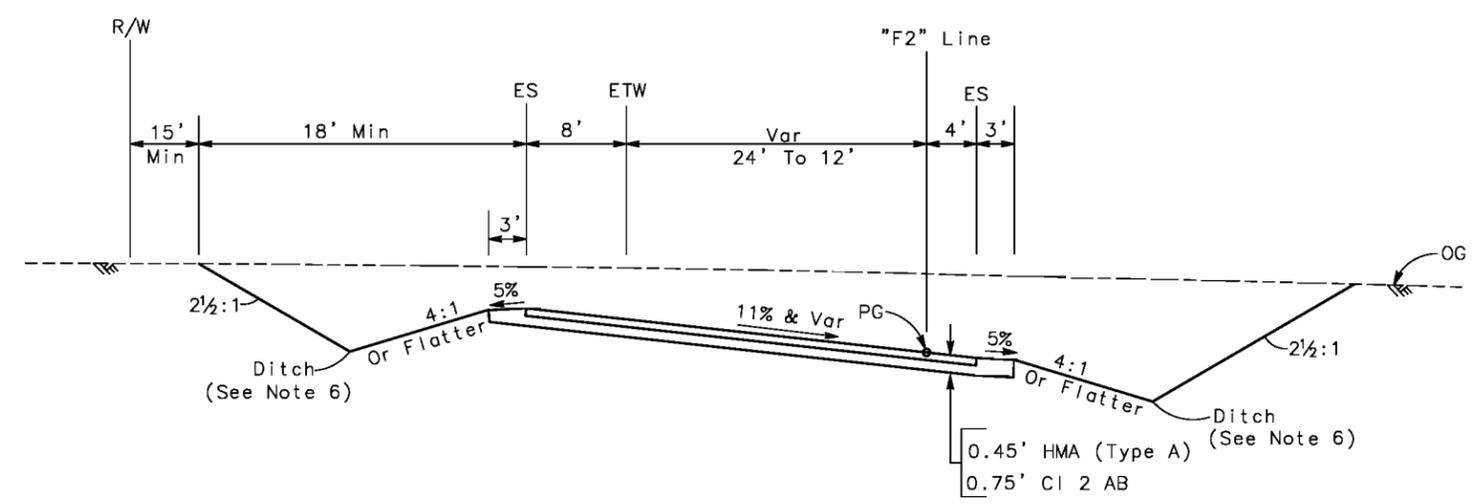
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



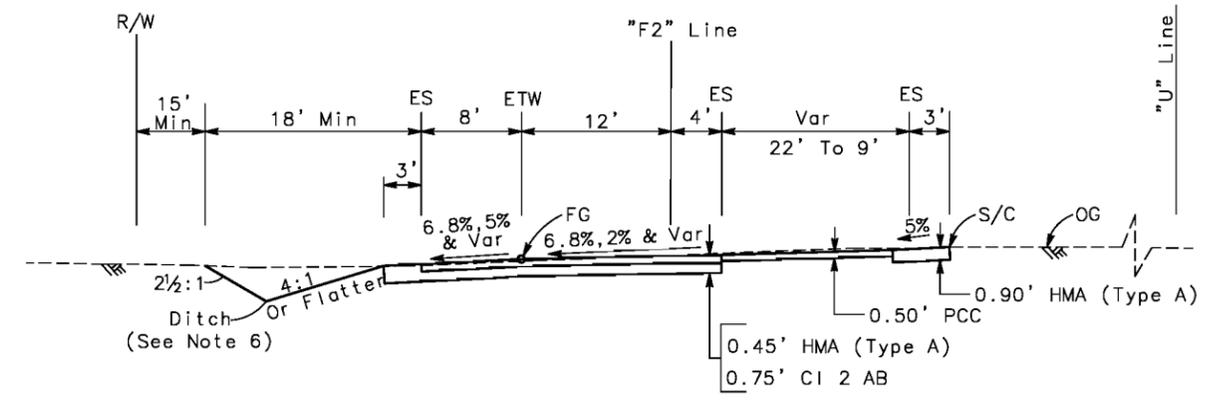
SB ROUTE 101 OFF RAMP
 STA F2 357+73.50 TO 362+40.30



SB ROUTE 101 OFF RAMP
 STA F2 363+93.34 TO 366+63.98



SB ROUTE 101 OFF RAMP
 STA F2 351+22.90 TO 357+73.50



SB ROUTE 101 OFF RAMP
 STA F2 362+40.30 TO 363+93.34

PROJECT REPORT
JANUARY 2009

TYPICAL CROSS SECTION
 NO SCALE

X-2

REVISIONS: (Grid with 'x' marks)

DESIGN OVERSIGHT

DEPARTMENT OF TRANSPORTATION

STATE OF CALIFORNIA - CALTRANS



USERNAME => \$USER
 DGN FILE => \$REQUEST

CU EA 047450

LAST REVISION: 00-00-00
 DATE PLOTTED => \$DATE
 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

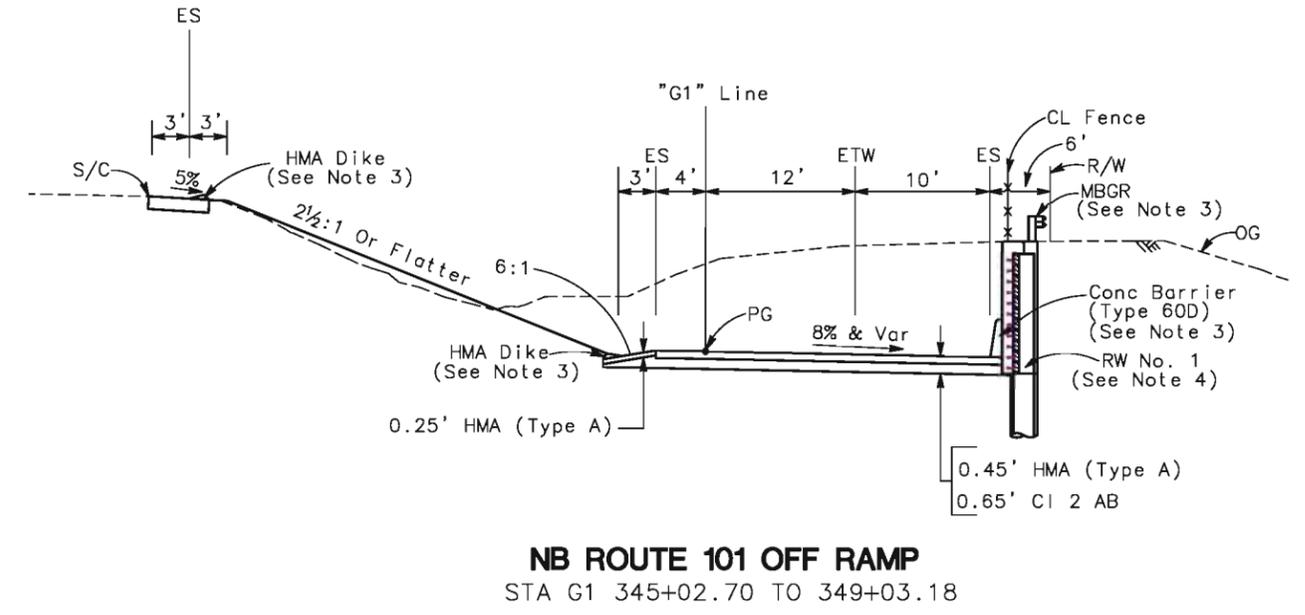
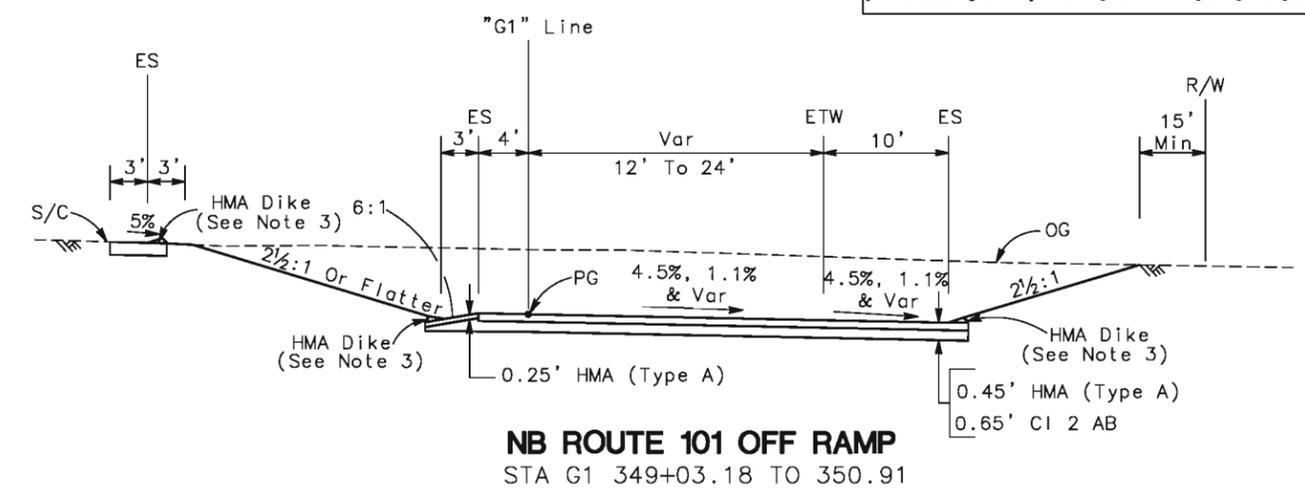
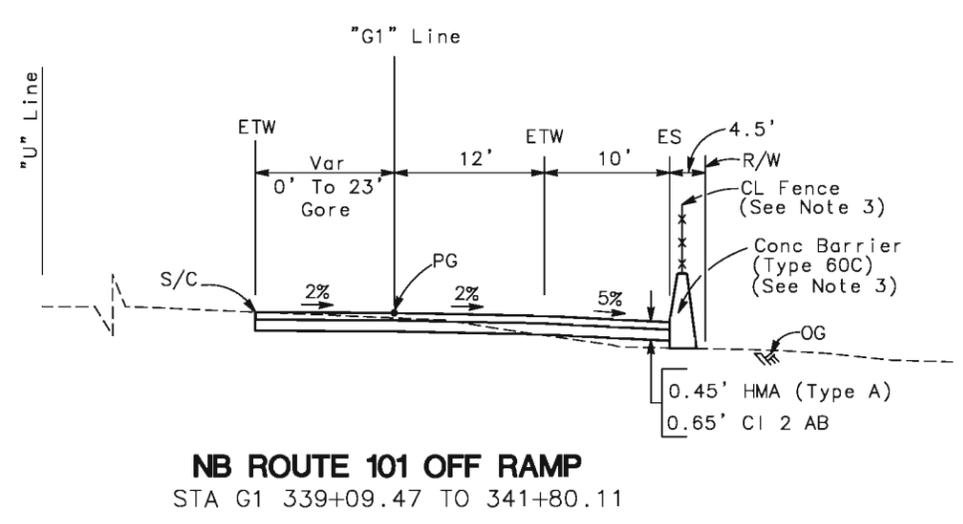
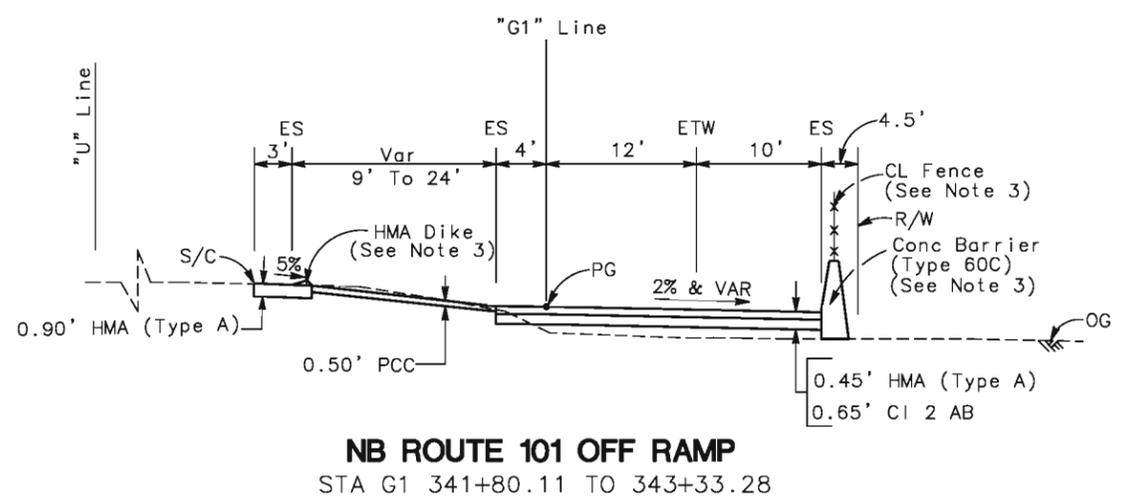
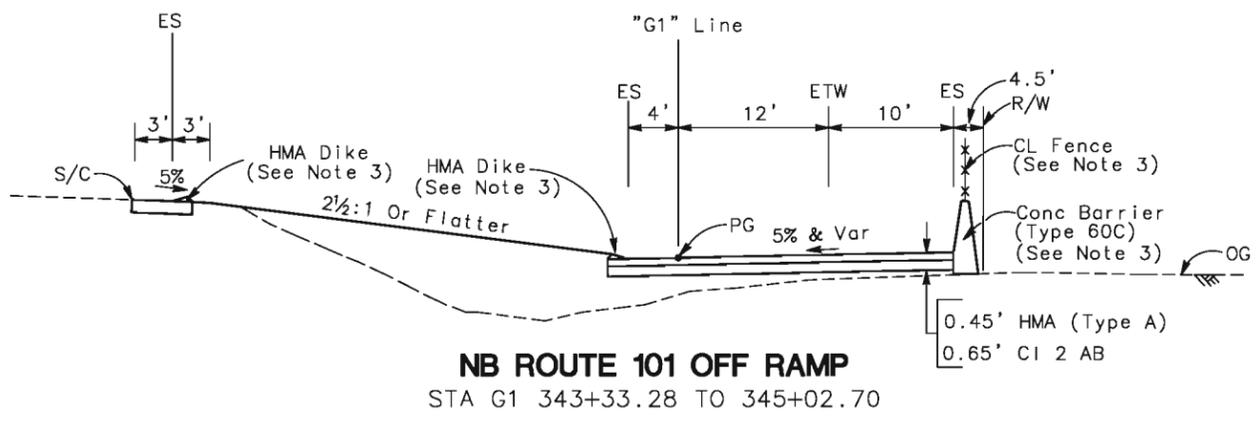
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



DESIGN DESIGNATION

FOR NB 101 OFF RAMP:

ADT (2006)= N/A D=100%
ADT (2030)= 2,200 T= 4%
DHV= 230 TI=8.0
ESAL= 368,720



REVISIONS

NO.	DATE	BY	REVISION
1	09/08	HA	DESIGNED
2	09/08	CN	CHECKED

DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



PROJECT REPORT
JANUARY 2009

TYPICAL CROSS SECTION
NO SCALE

X-3

USERNAME => \$USER
DGN FILE => \$REQUEST

CU

EA 047450

DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME
00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

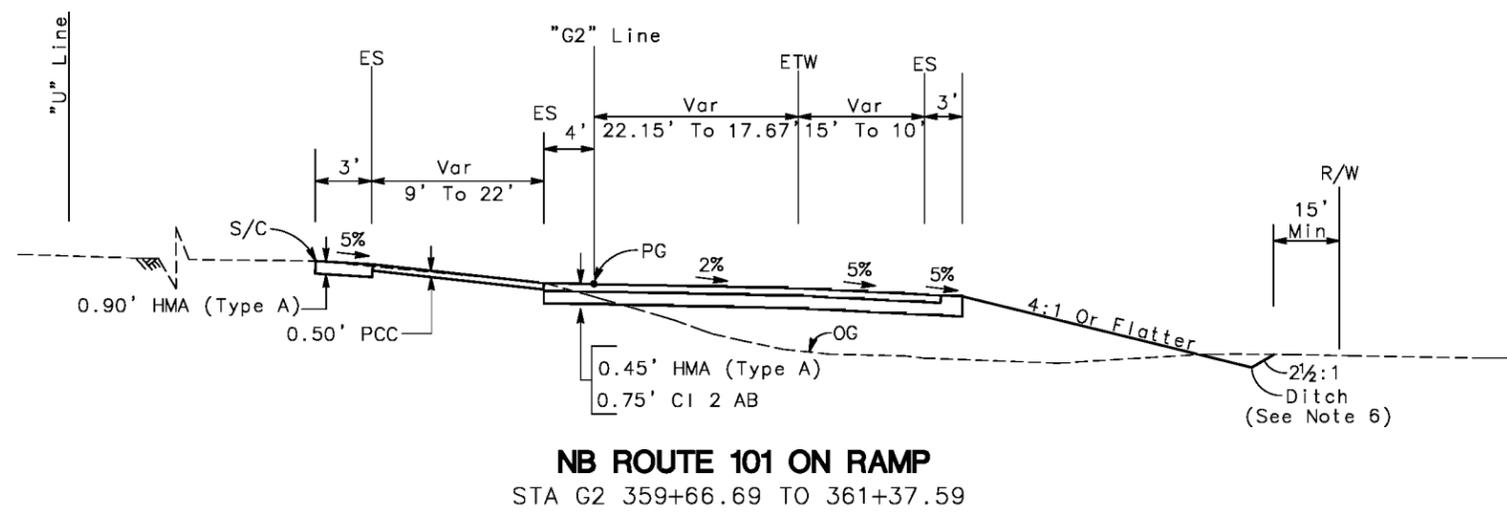
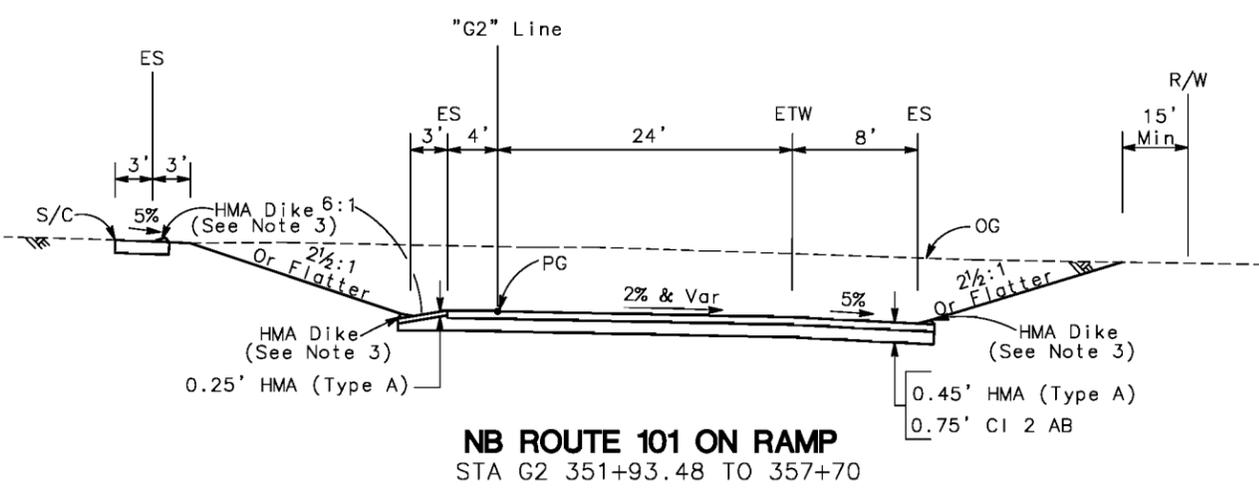
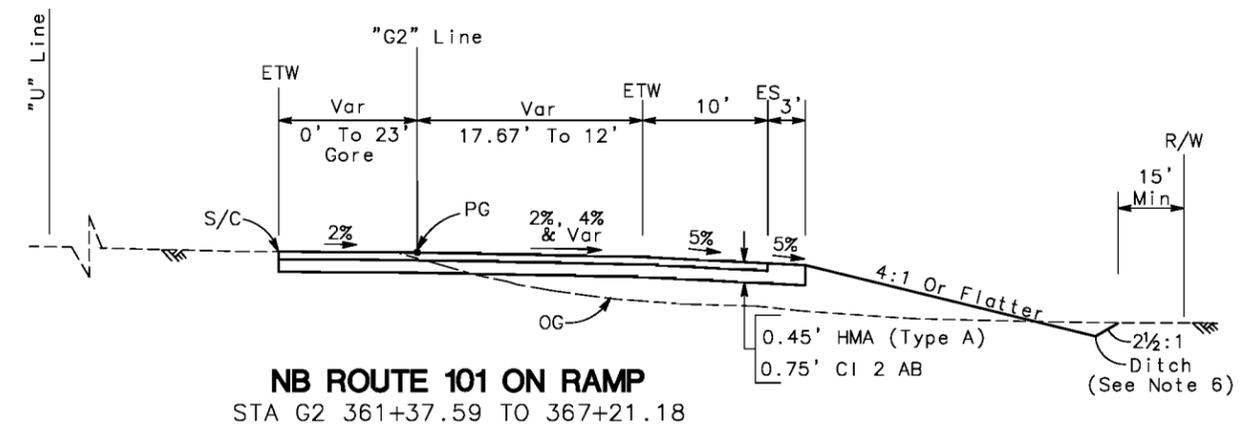
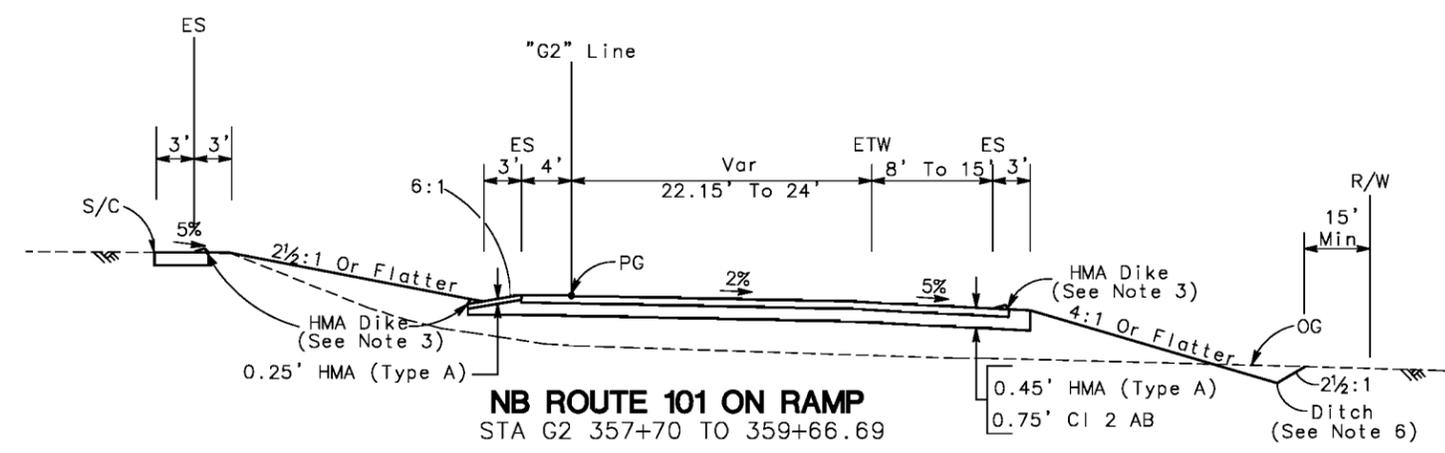
COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126



DESIGN DESIGNATION

FOR NB 101 ON RAMP:
ADT (2006)= N/A D=100%
ADT (2030)= 3,700 T=4%
DHV= 415 TI=8.5
ESAL= 616,620



PROJECT REPORT
JANUARY 2009

TYPICAL CROSS SECTION
NO SCALE

X-4

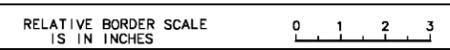
REVISIONS

NO.	DATE	BY	REVISION
1	09/08	HA	DESIGNED
2	09/08	CN	CHECKED
3	09/08		REVISOR
4	09/08		DATE
5	09/08		REVISION

DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



USERNAME => \$USER
DGN FILE => \$REQUEST

CU EA 047450

DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME
00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

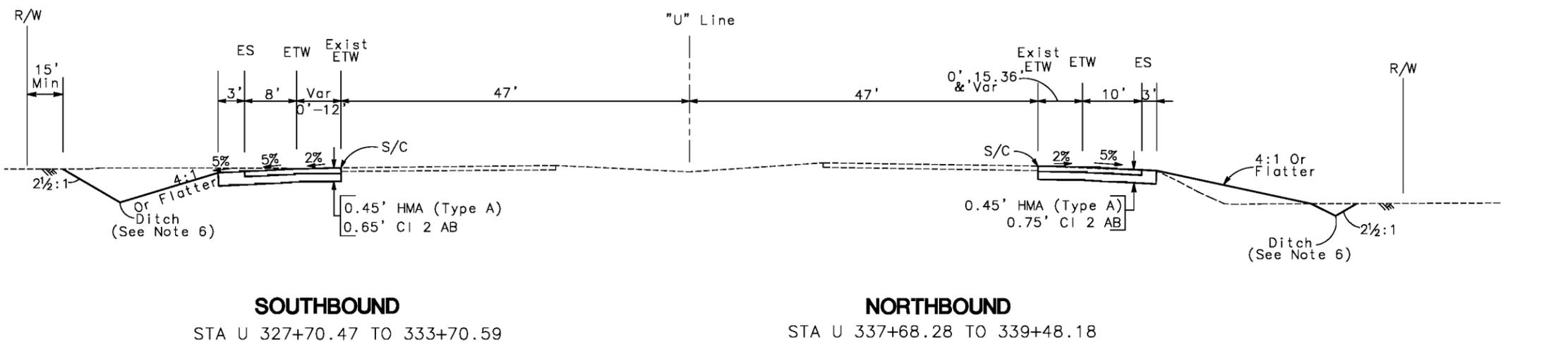
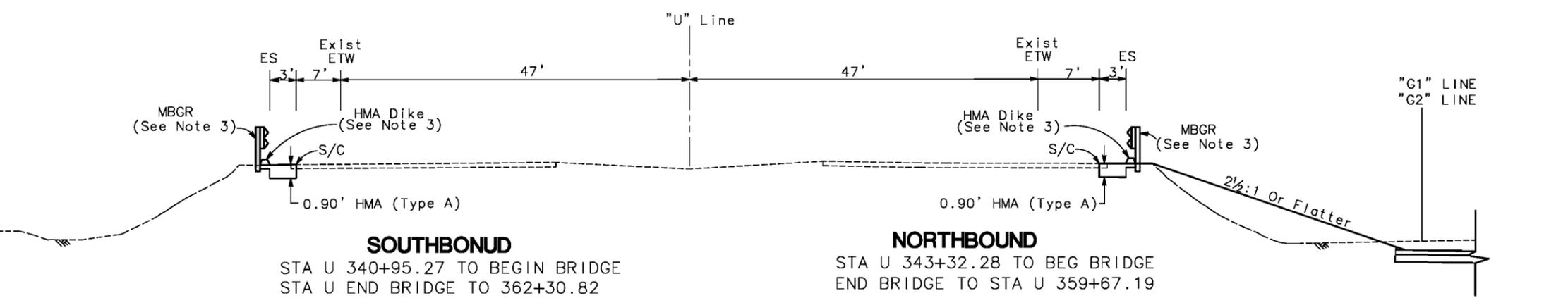
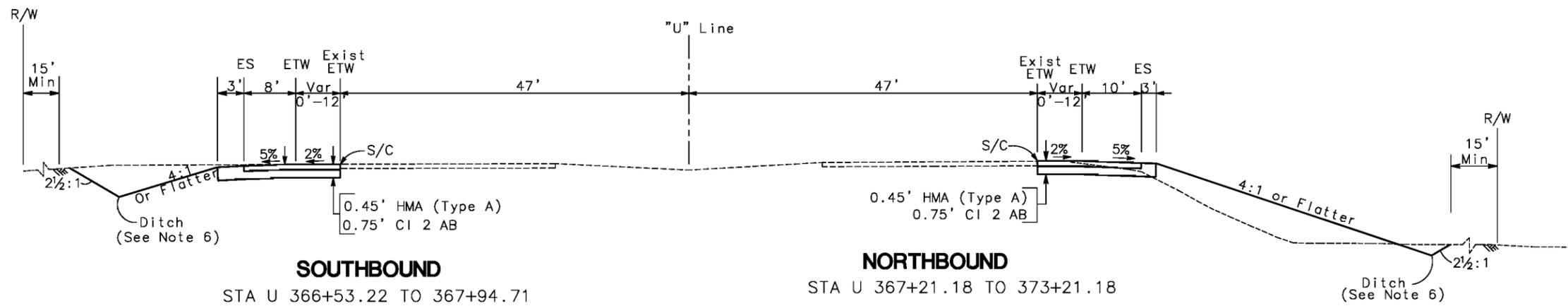
PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE



COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

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DESIGN DESIGNATION

FOR US 101:

ADT (2006)= 53,500	D= 52% NB
ADT (2030)= 90,000	T= 4%
DHV= 7,175	V= 65 mph
ESAL= 23,024,500	TI= 13.5

REVISIONS:

NO.	DATE	BY	REVISION
1	09/08	HA	DESIGNED
2	09/08	CN	CHECKED
3			REVISOR
4			DATE

DESIGN OVERSIGHT

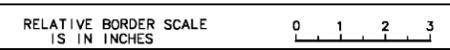
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



PROJECT REPORT
 JANUARY 2009

TYPICAL CROSS SECTION
 NO SCALE

X-5



USERNAME => \$USER
 DGN FILE => \$REQUEST

CU EA 047450

LAST REVISION
 00-00-00
 DATE PLOTTED => \$DATE
 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE



COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

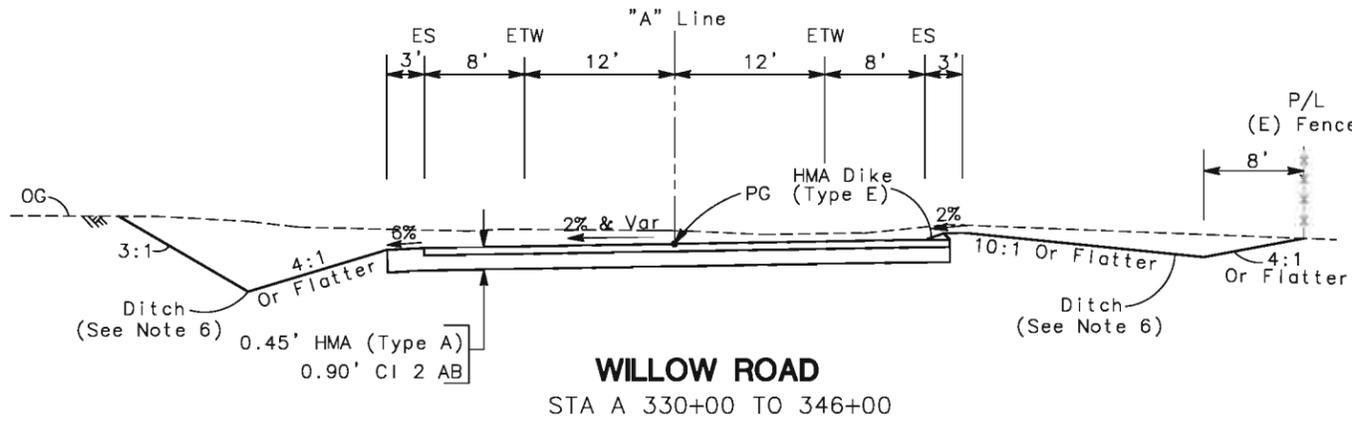
RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

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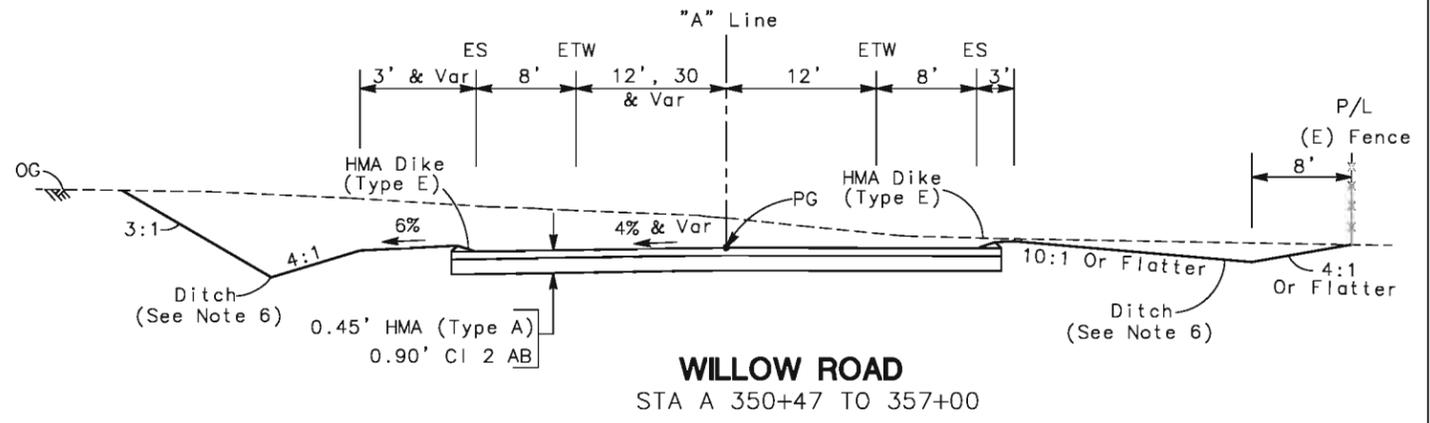
DESIGN DESIGNATION

FOR WILLOW ROAD:

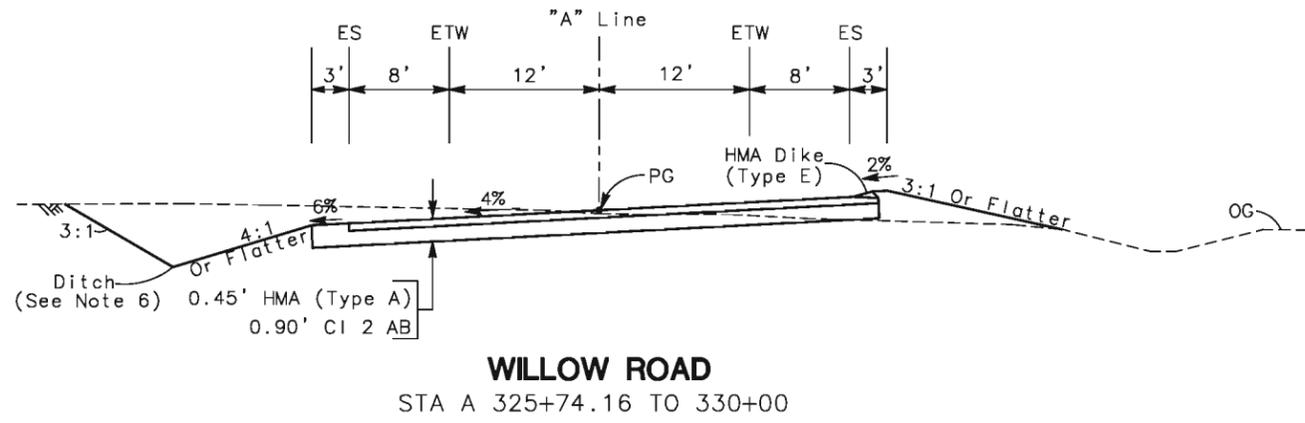
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 ESAL= 1,033,120 TI= 9.5



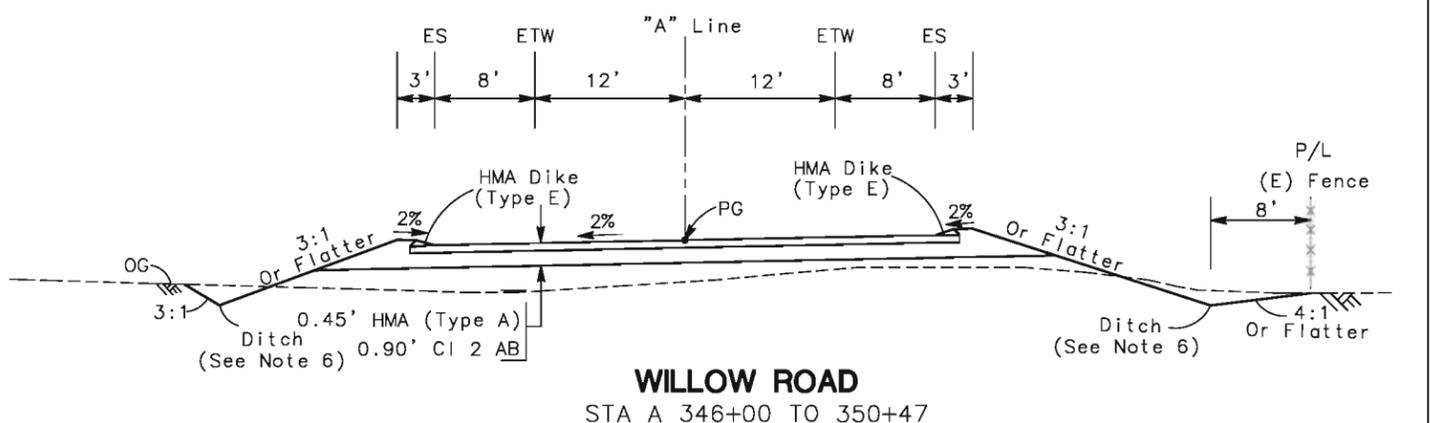
WILLOW ROAD
 STA A 330+00 TO 346+00



WILLOW ROAD
 STA A 350+47 TO 357+00



WILLOW ROAD
 STA A 325+74.16 TO 330+00



WILLOW ROAD
 STA A 346+00 TO 350+47

PROJECT REPORT
JANUARY 2009

TYPICAL CROSS SECTION
 NO SCALE

X-6



USERNAME => \$USER
 DGN FILE => \$REQUEST

CU EA 047450

DATE	REVISION	BY
09/08	HA	CN
09/08	CN	

DESIGN OVERSIGHT

DEPARTMENT OF TRANSPORTATION



DATE PLOTTED => \$DATE
 TIME PLOTTED => \$TIME
 00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

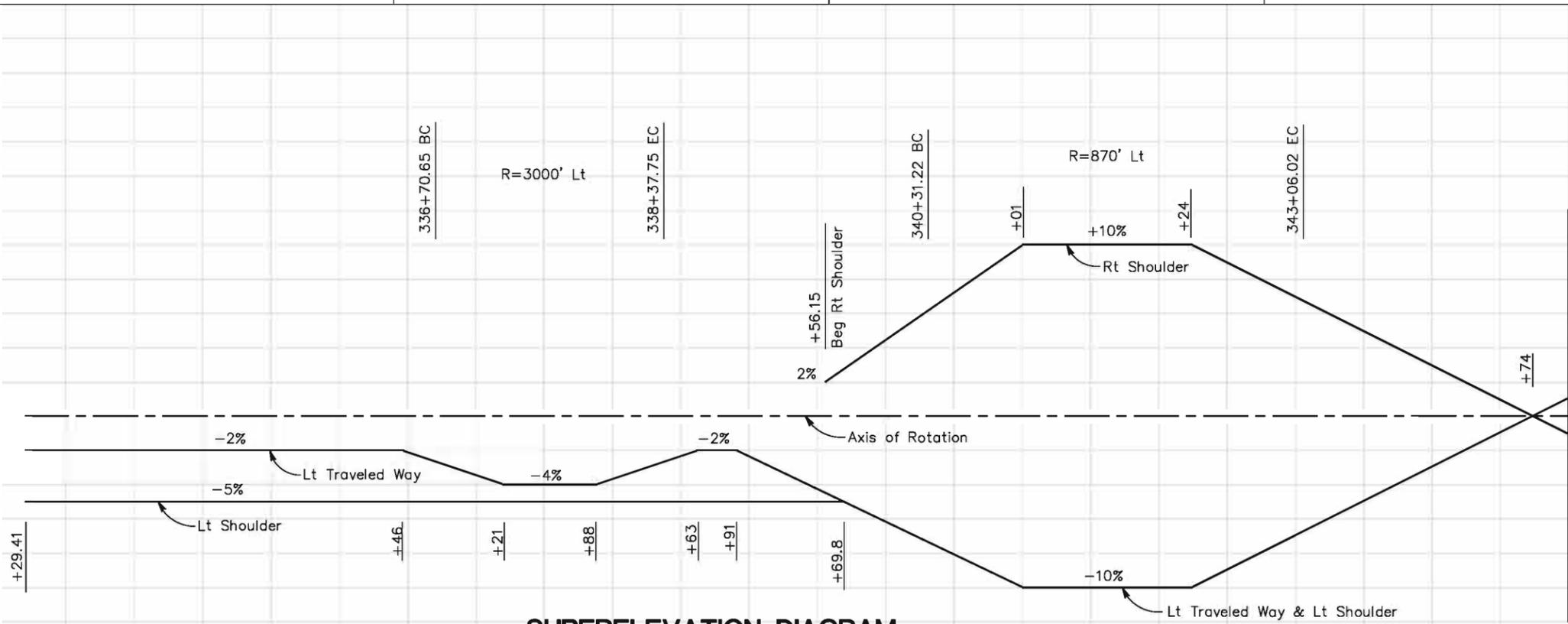
RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

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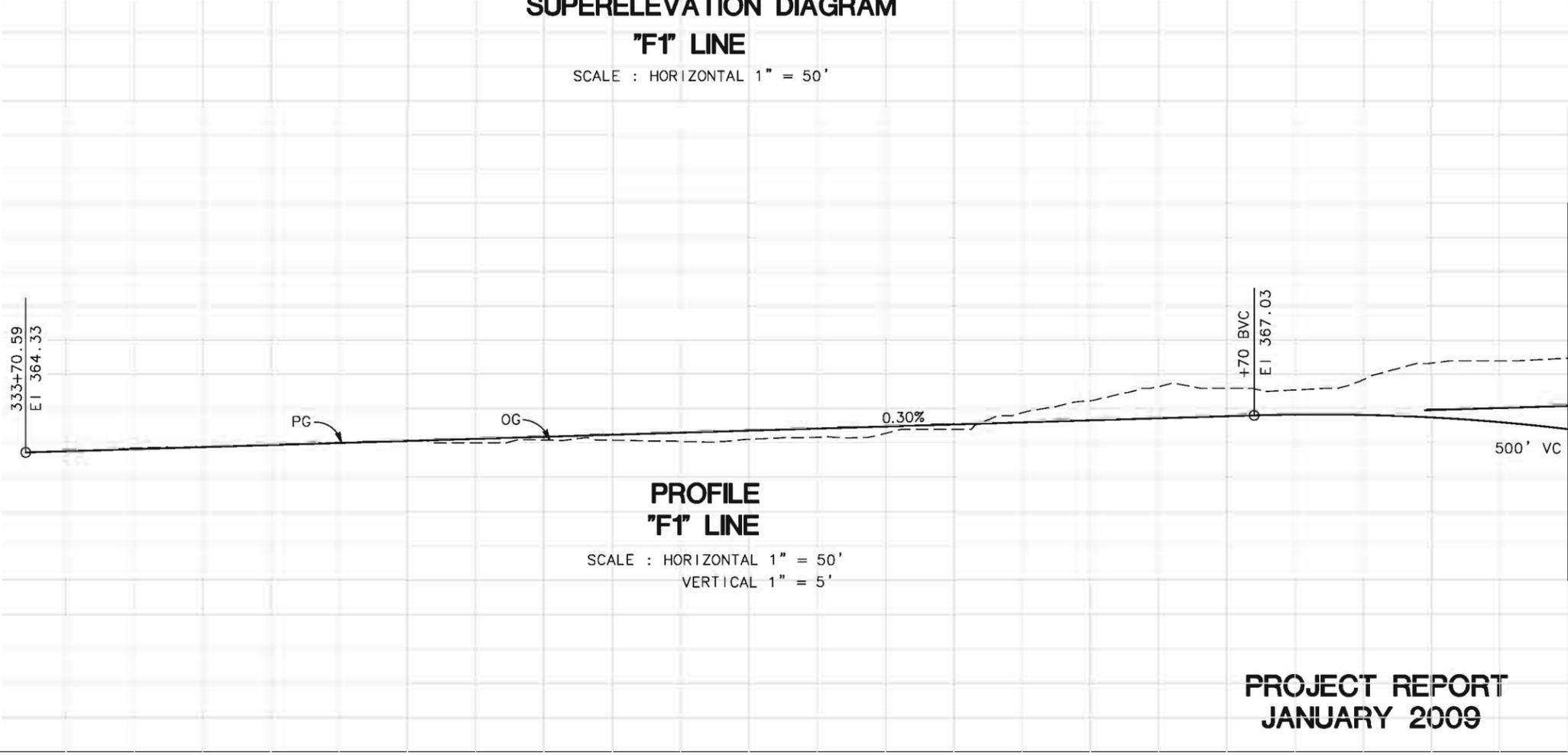


REVISION	DATE	BY	REASON
12%			
8%			
4%			
0%			
-4%			
-8%			
-12%			

DESIGN OVERSIGHT	DATE	BY
	09/08	HA
DEPARTMENT OF TRANSPORTATION	DATE	BY
	09/08	CN
CALCULATED/DESIGNED BY	DATE	BY
CHECKED BY	DATE	BY



SUPERELEVATION DIAGRAM
"F1" LINE
SCALE : HORIZONTAL 1" = 50'

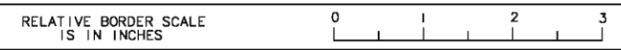


PROFILE
"F1" LINE
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

PROJECT REPORT
JANUARY 2009

PROFILE AND
SUPERELEVATION DIAGRAM
PS-1

Station	4	335	6	7	8	9	340	1	2	3	4	345
CY	Exc											
	Emb											



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

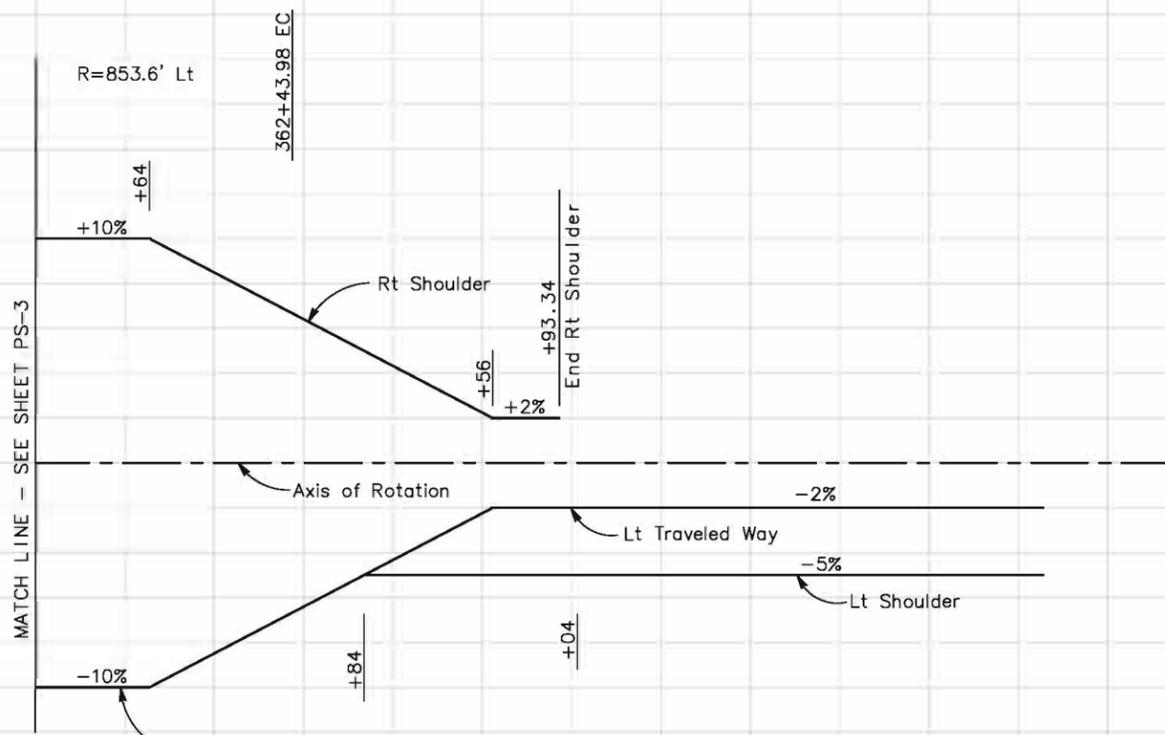
PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408



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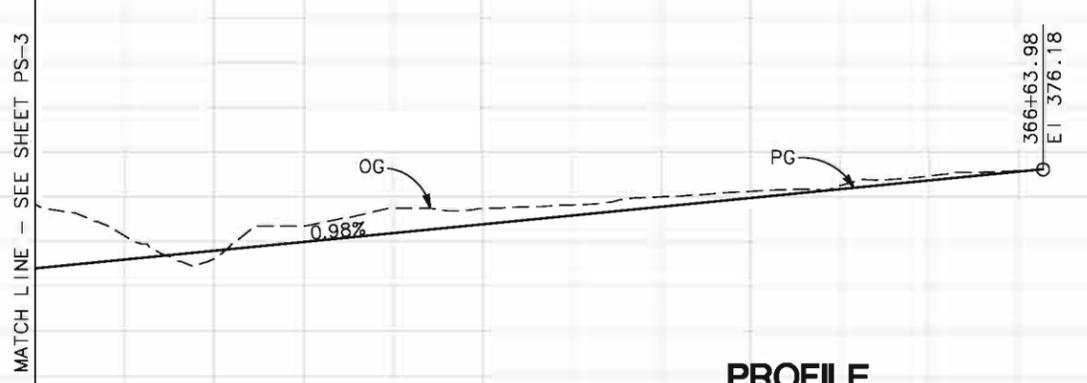
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SUPERELEVATION DIAGRAM

"F2" LINE

SCALE : HORIZONTAL 1" = 50'



PROFILE

"F2" LINE

SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

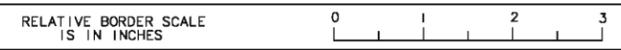
PROJECT REPORT
JANUARY 2009

PROFILE AND
SUPERELEVATION DIAGRAM
PS-4

REVISION	DATE	BY	REASON
12%			
8%			
4%			
0%			
-4%			
-8%			
-12%			

DESIGN OVERSIGHT	DATE	BY
	09/08	HA
DEPARTMENT OF TRANSPORTATION	DATE	BY
	09/08	CN
380		
370		
360		

Station	9	360	1	2	3	4	365	6	7	8	9	370	1	2
CY	Exc													
	Emb													



USERNAME => \$USER
DGN FILE => \$REQUEST

CU 047450

LAST REVISION DATE PLOTTED => \$DATE
00-00-00 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE

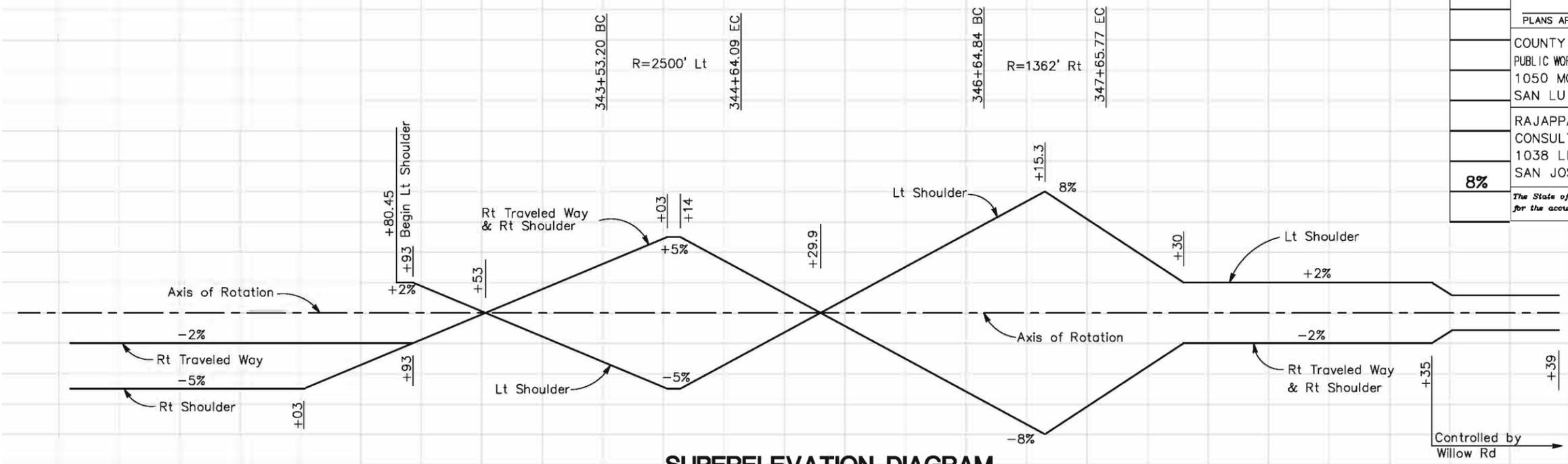


COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

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 SAN JOSE, CALIFORNIA 95126

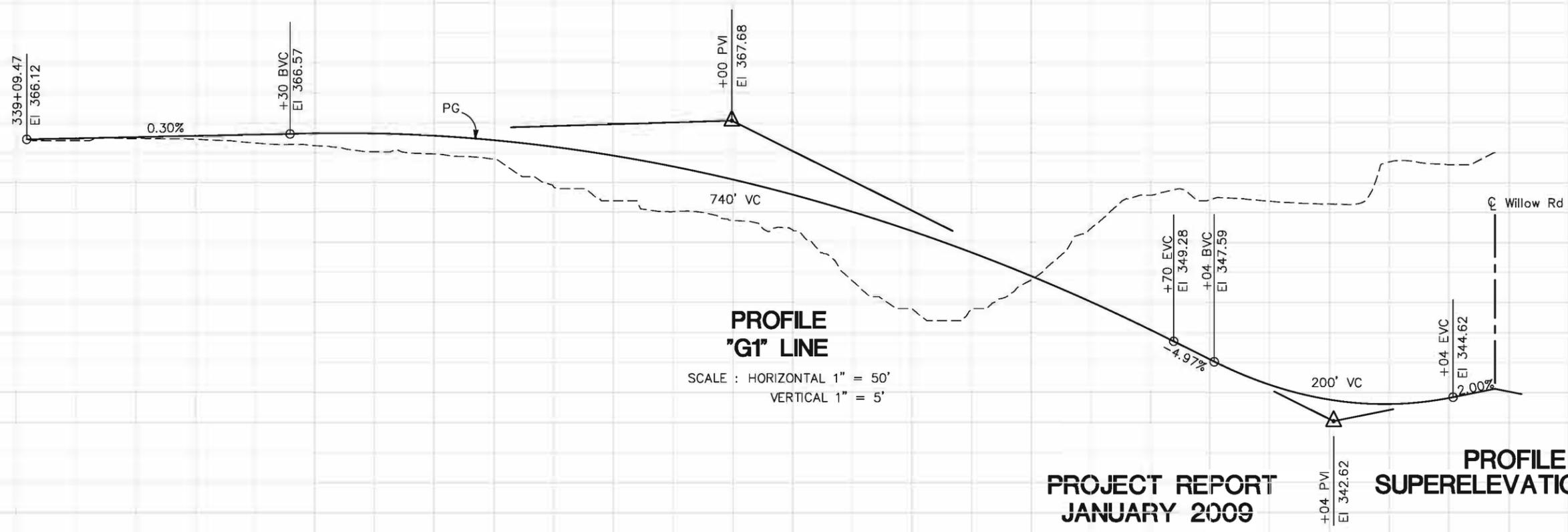
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REVISION	DATE	BY	REASON
8%			
4%			
0%			
-4%			
-8%			



**SUPERELEVATION DIAGRAM
 "G1" LINE**

SCALE : HORIZONTAL 1" = 50'



**PROFILE
 "G1" LINE**

SCALE : HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

**PROJECT REPORT
 JANUARY 2009**

**PROFILE AND
 SUPERELEVATION DIAGRAM
 PS-5**

Station	9	340	1	2	3	4	345	6	7	8	9	350	1	2	3
Exc															
Emb															



USERNAME => \$USER
 DGN FILE => \$REQUEST

CU 047450

LAST REVISION DATE PLOTTED => \$DATE
 00-00-00 TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408



12%

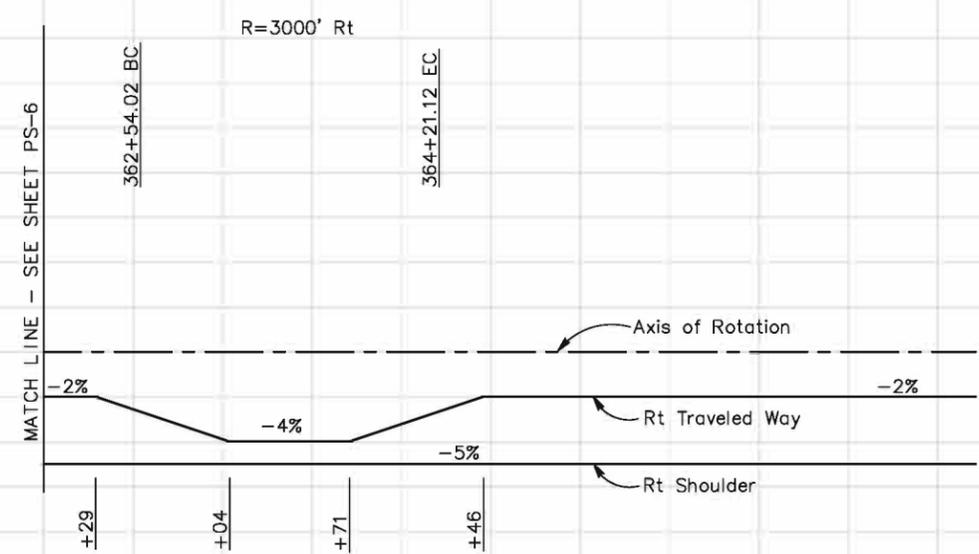
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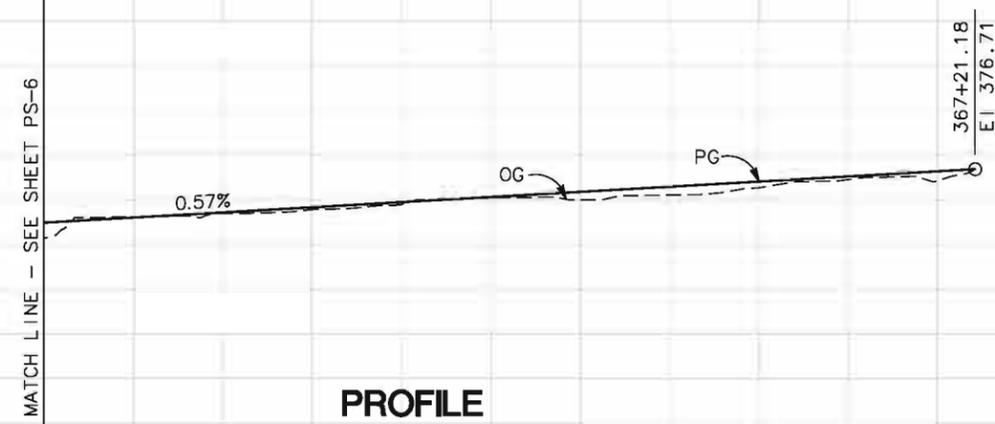
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SUPERELEVATION DIAGRAM
"G2" LINE
SCALE : HORIZONTAL 1" = 50'

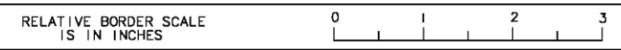


PROFILE
"G2" LINE
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

REVISION	DATE	BY	REASON
1	09/08	HA	HA
2	09/08	CN	CN
3			
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100			

DESIGN OVERSIGHT	380
DESIGN OF TRANSPORTATION	370
DEPARTMENT OF TRANSPORTATION	360
STATE OF CALIFORNIA	350

Station	9	360	1	2	3	4	365	6	7	8	9	370	1	2
CY	Exc													
	Emb													



USERNAME => \$USER
DGN FILE => \$REQUEST

CU 047450

PROJECT REPORT
JANUARY 2009

PROFILE AND
SUPERELEVATION DIAGRAM
PS-7

LAST REVISION DATE PLOTTED BY \$DATE
00-00-00 TIME PLOTTED BY \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

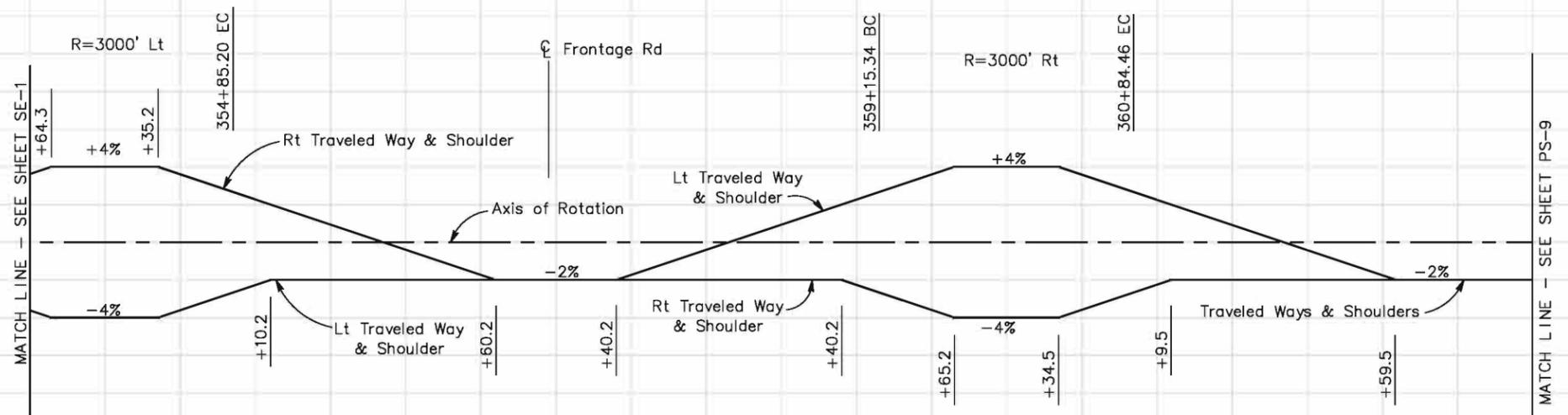
PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

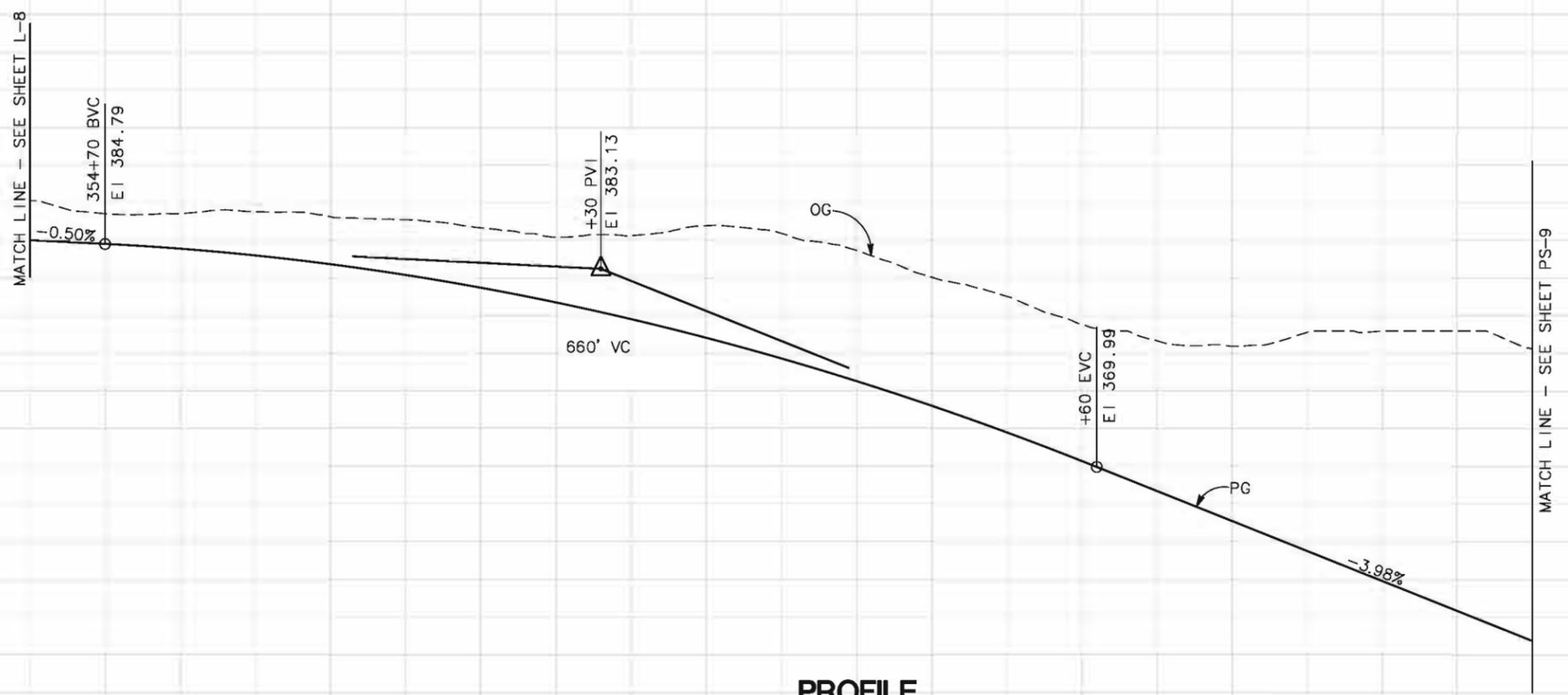


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**SUPERELEVATION DIAGRAM
"A" LINE**
SCALE : HORIZONTAL 1" = 50'

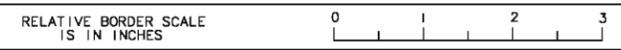


**PROFILE
"A" LINE**
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

**PROJECT REPORT
JANUARY 2009**

**PROFILE AND
SUPERELEVATION DIAGRAM
PS-8**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY	REVISOR	DATE	REVISION								
Caltrans	390	HA	BY	09/08	8%								
		CN	BY	09/08	4%								
	380				0%								
	370				-4%								
	360				-8%								
	350												
Station	3	4	355	6	7	8	9	360	1	2	3	4	365
CY													



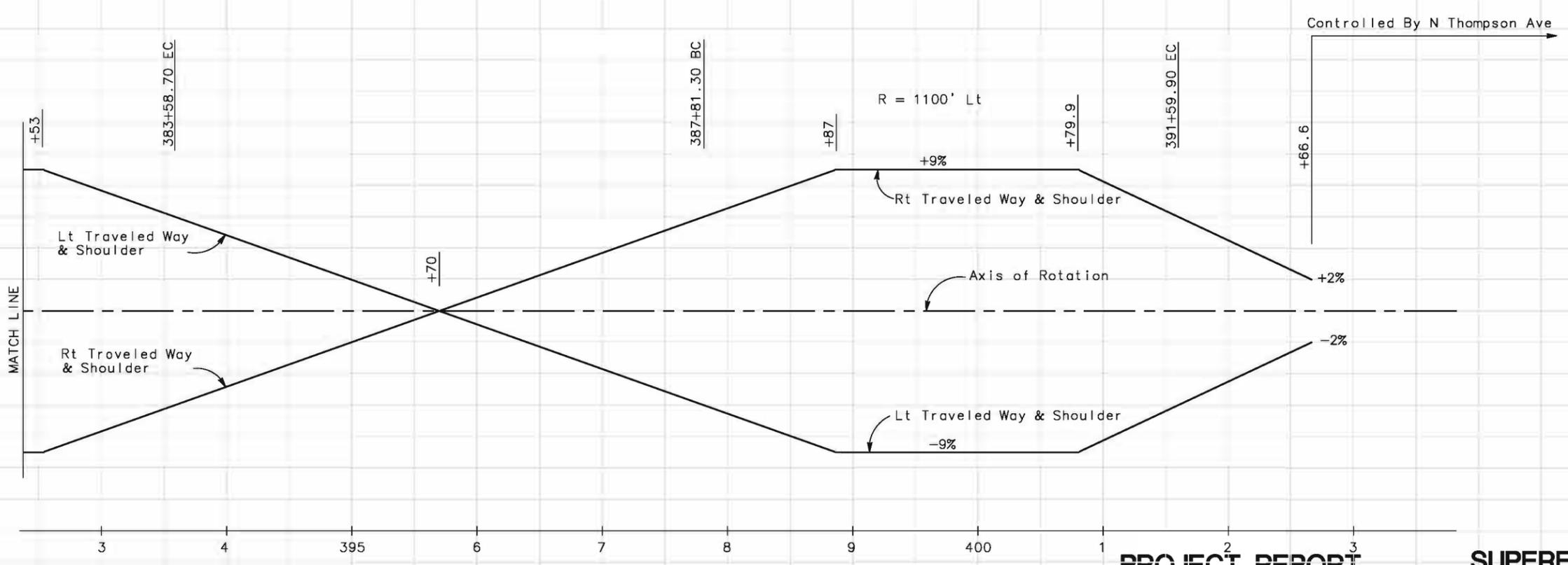
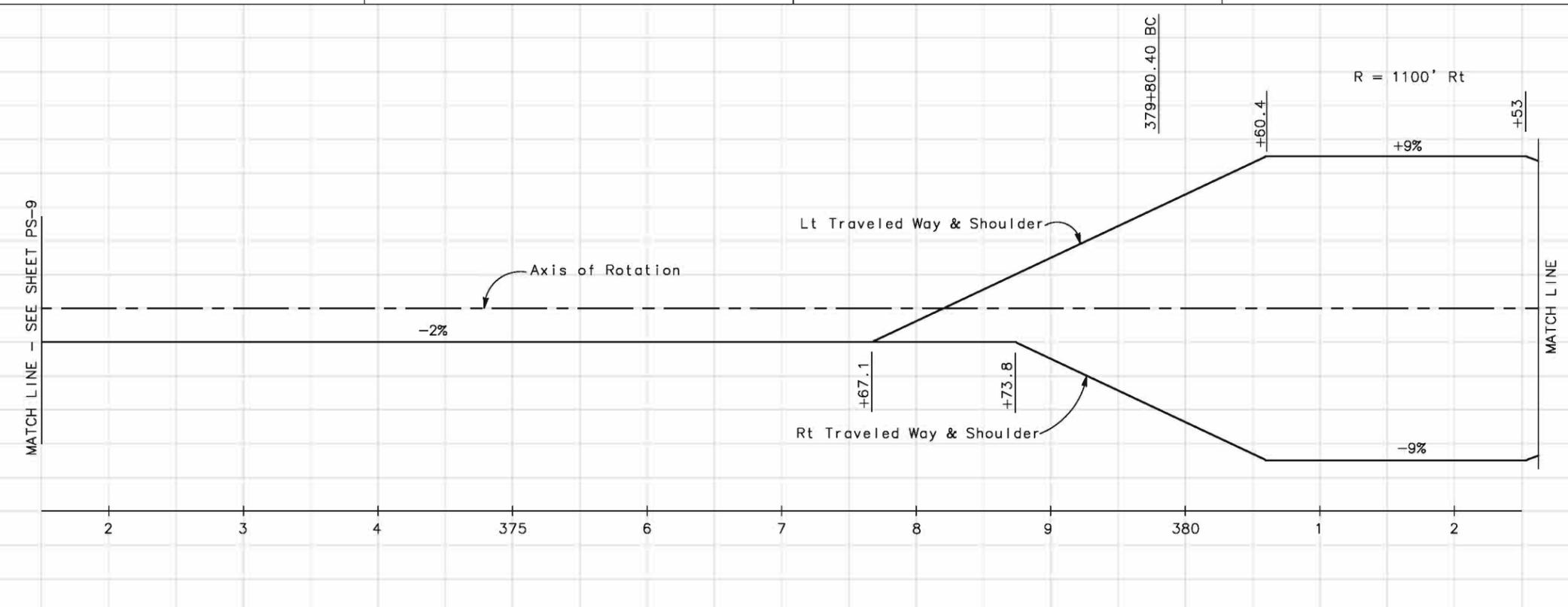
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DGN FILE => \$REQUEST

CU 047450

LAST REVISION DATE PLOTTED => \$DATE
00-00-00 TIME PLOTTED => \$TIME

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY	REVISOR	DATE	REVISION
		CHECKED BY	BY	DATE	
CALIFORNIA	DESIGN OVERSIGHT	HA	BY	DATE	REVISION
		CN	BY	DATE	
STATION	DESIGN OVERSIGHT	HA	BY	DATE	REVISION
		CN	BY	DATE	
CY	Exc				
	Emb				

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		
PROFESSIONAL CIVIL ENGINEER Chuong Nguyen 10/15/06 No. C46770 Exp. 6/30/07 REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA					
PLANS APPROVAL DATE COUNTY OF SAN LUIS OBISPO PUBLIC WORKS & TRANSPORTATION DEPARTMENT 1050 MONTEREY STREET SAN LUIS OBISPO, CA 93408					
RAJAPPAN & MEYER CONSULTING ENGINEERS, INC. 1038 LEIGH AVENUE, SUITE 100 SAN JOSE, CALIFORNIA 95126					
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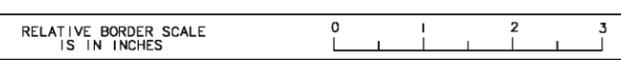
"A" LINE

PROJECT REPORT
JANUARY 2009

SUPERELEVATION DIAGRAM
SCALE : HORIZONTAL 1" = 50'

SE-2

LAST REVISION DATE PLOTTED TIME PLOTTED
 00-00-00



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

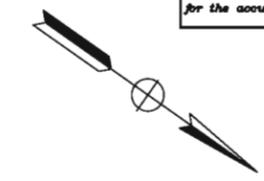
PROFESSIONAL CIVIL ENGINEER _____
 PLANS APPROVAL DATE _____



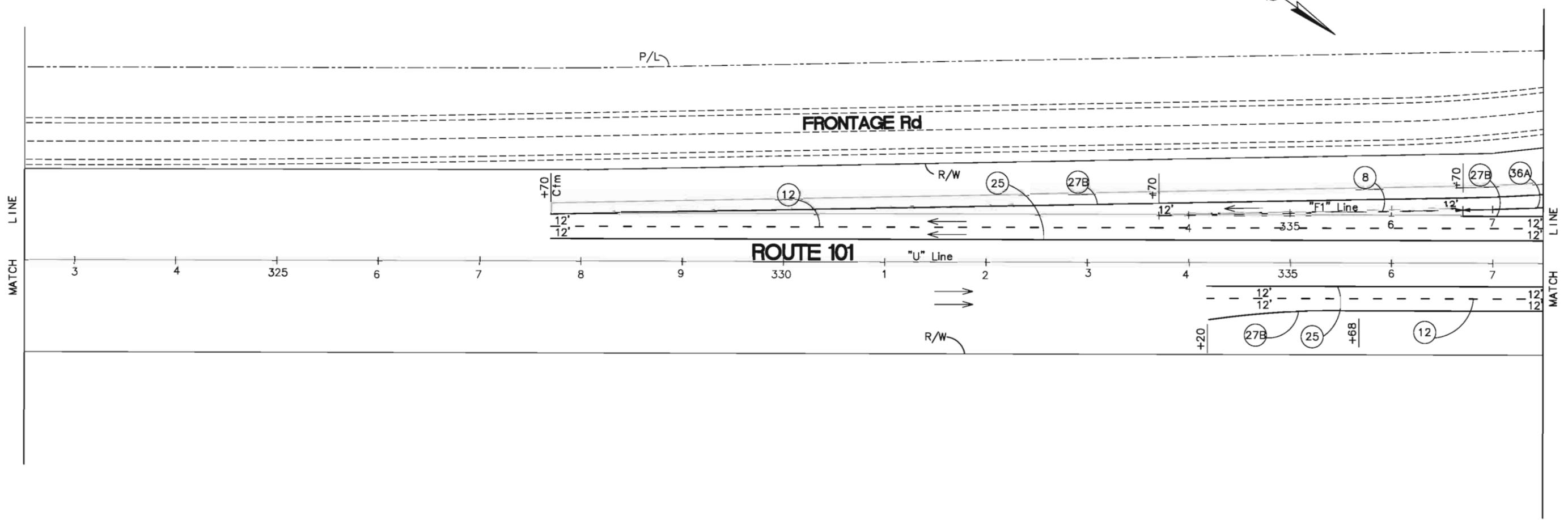
COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

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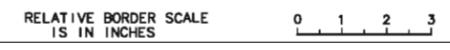


DATE	REVISOR	BY
09/08		
HA	CN	
09/08		
CALCULATED/DESIGNED BY	CHECKED BY	DATE
DESIGN OVERSIGHT		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		
Gibbs		



PROJECT REPORT
 JANUARY 2009

PAVEMENT DELINEATION PLAN
 SCALE 1" = 50'
 PD-2



USERNAME => \$USER
 DGN FILE => \$REQUEST

CU

EA 047450

LAST REVISION: DATE PLOTTED => \$DATE
 00-00-00 TIME PLOTTED => \$TIME

REQUEST	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY	HA	DATE	REVISOR	BY
			CHECKED BY	CN	09/08	DATE	REVISOR



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

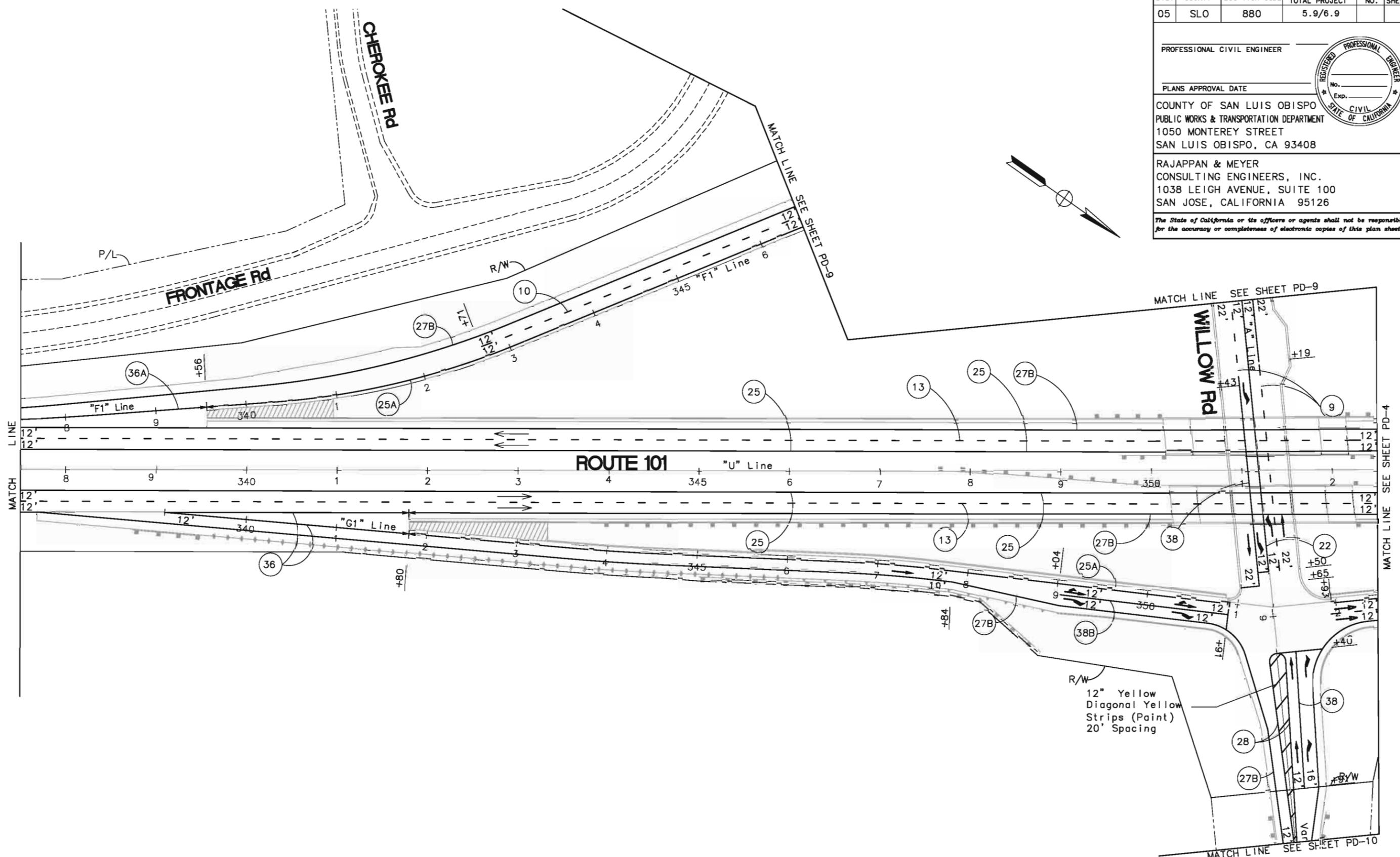
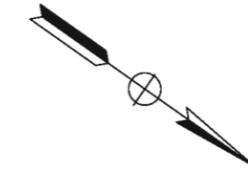
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

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PROJECT REPORT
JANUARY 2009

PAVEMENT DELINEATION PLAN
SCALE 1" = 50'
PD-3



USERNAME => \$USER
DGN FILE => \$REQUEST

CU EA 047450

LAST REVISION: 00-00-00
DATE PLOTTED: \$DATE
TIME PLOTTED: \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

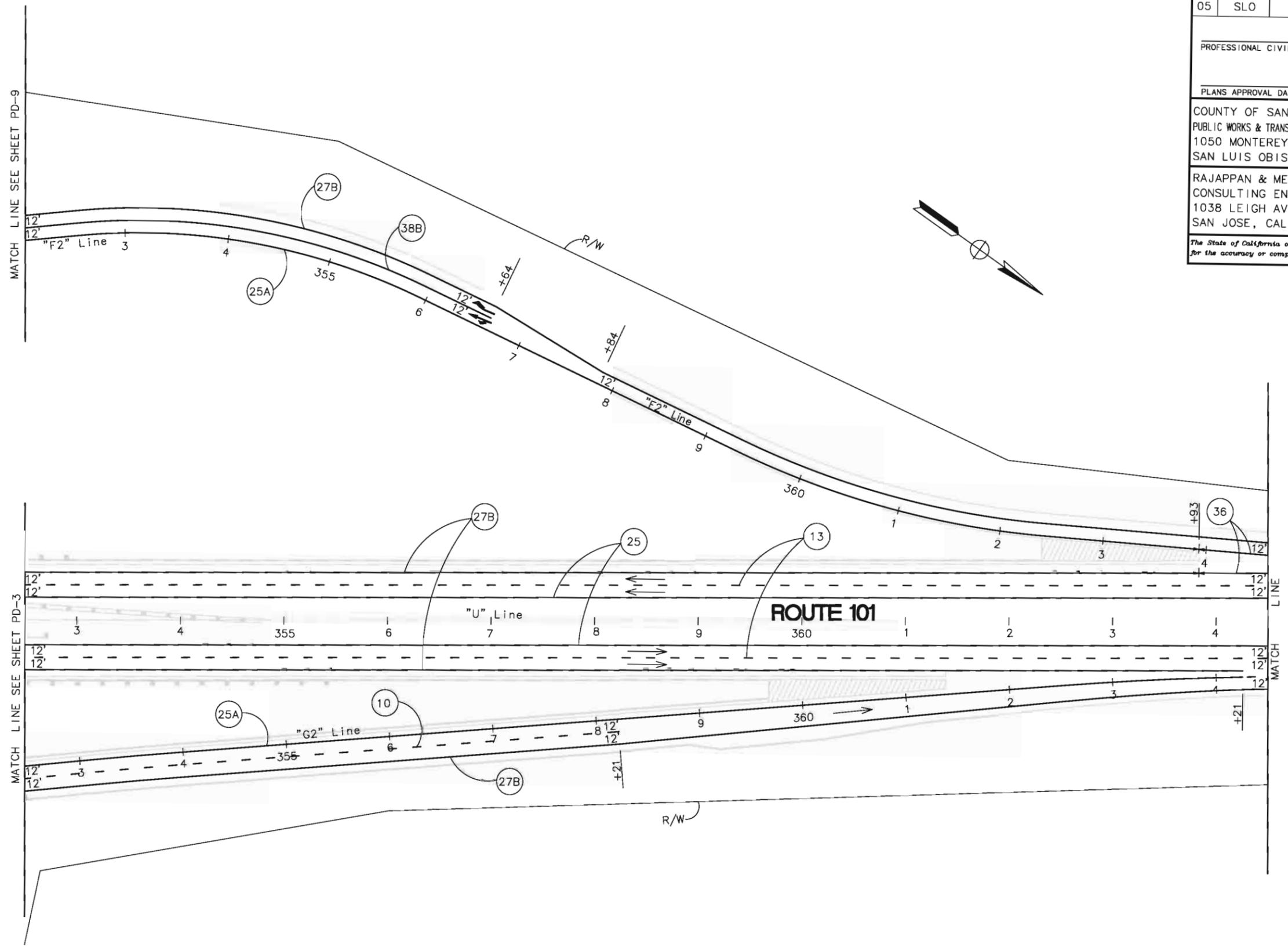
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

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REQUEST	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		DESIGN OVERSIGHT	
CALCULATED/DESIGNED BY	CN	DATE	09/08	HA
CHECKED BY	BY	DATE	09/08	REVISOR

PROJECT REPORT
JANUARY 2009

PAVEMENT DELINEATION PLAN
SCALE 1" = 50'
PD-4



USERNAME -> \$USER
DGN FILE -> \$REQUEST

CU

EA 047450

DATE PLOTTED -> \$DATE
TIME PLOTTED -> \$TIME
LAST REVISION 00-00-00

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

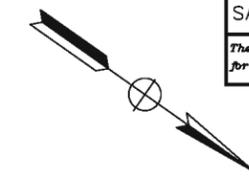
PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE



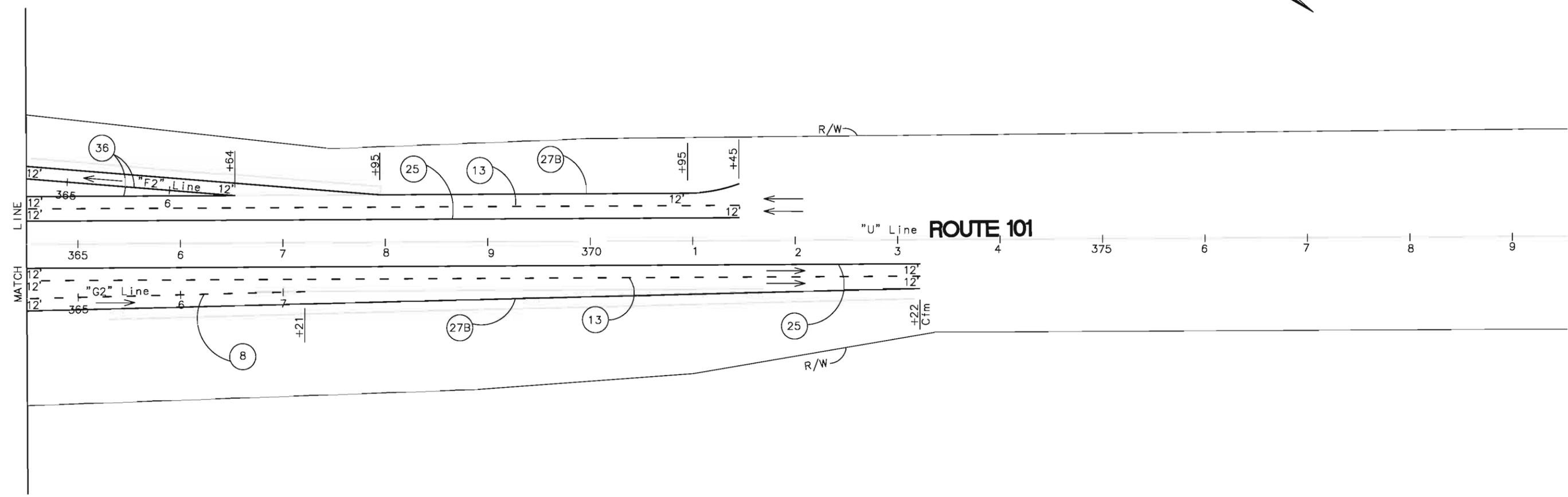
COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
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DESIGNED BY	HA	DATE	REVISOR	BY	DATE
CALCULATED/DESIGNED BY	CN	09/08	REVISOR		
CHECKED BY	CN	09/08	DATE	REVISOR	



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT REPORT
 JANUARY 2009

PAVEMENT DELINEATION PLAN
 SCALE 1" = 50'
 PD-5



USERNAME -> \$USER
 DGN FILE -> \$REQUEST

CU EA 047450

LAST REVISION DATE PLOTTED -> \$DATE
 00-00-00 TIME PLOTTED -> \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE



COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

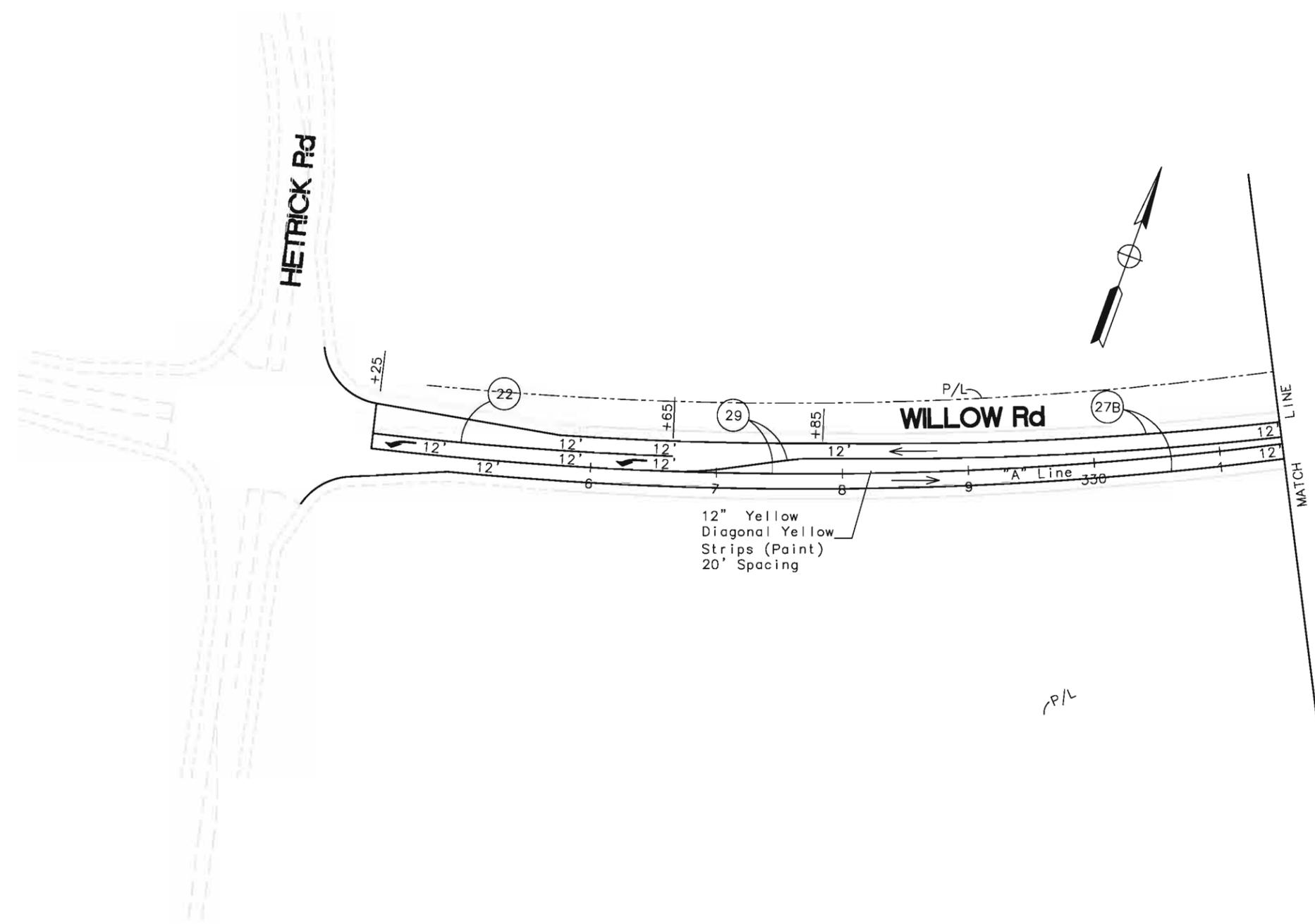
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DESIGNED BY	CHECKED BY	HA	CN	DATE	REVISOR	BY	DATE
				09/08			09/08

DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



PROJECT REPORT
 JANUARY 2009

PAVEMENT DELINEATION PLAN
 SCALE 1" = 50'
 PD-6



USERNAME -> \$USER
 DGN FILE -> \$REQUEST

CU EA 047450

LAST REVISION DATE PLOTTED -> \$DATE
 00-00-00 TIME PLOTTED -> \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE



COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

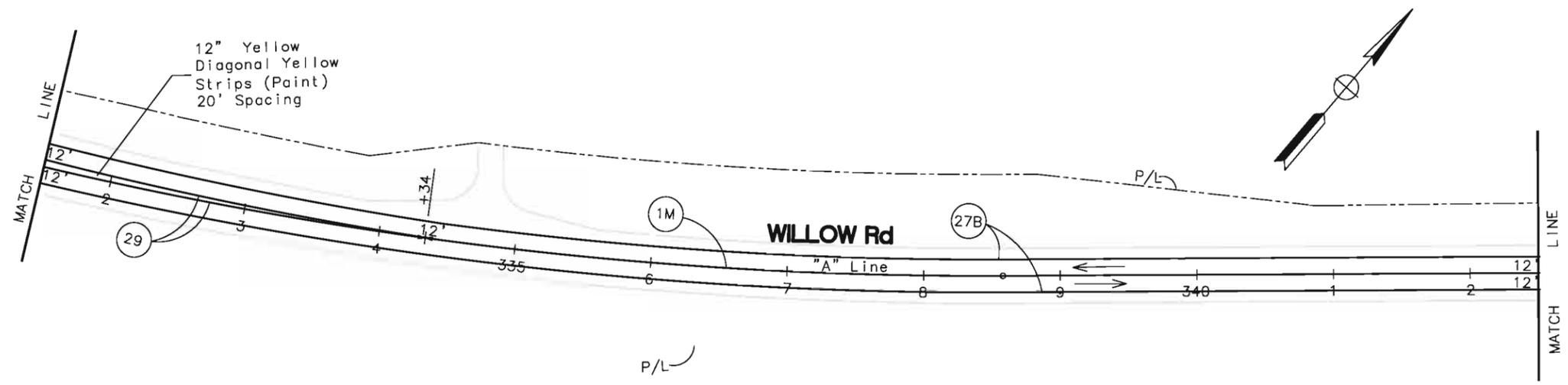
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 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

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DATE	REVISION	BY
09/08	HA	CN
09/08	CN	

DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



PROJECT REPORT
 JANUARY 2009

PAVEMENT DELINEATION PLAN
 SCALE 1" = 50'
 PD-7



USERNAME -> \$USER
 DGN FILE -> \$REQUEST

CU EA 047450

LAST REVISION DATE PLOTTED BY \$DATE
 00-00-00 TIME PLOTTED BY \$TIME

REQUEST	DESIGNED BY	HA	DATE	REVISOR	BY	DATE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CHECKED BY	CN	09/08	REVISOR	BY	DATE
Caltrans	DESIGN OVERSIGHT					

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

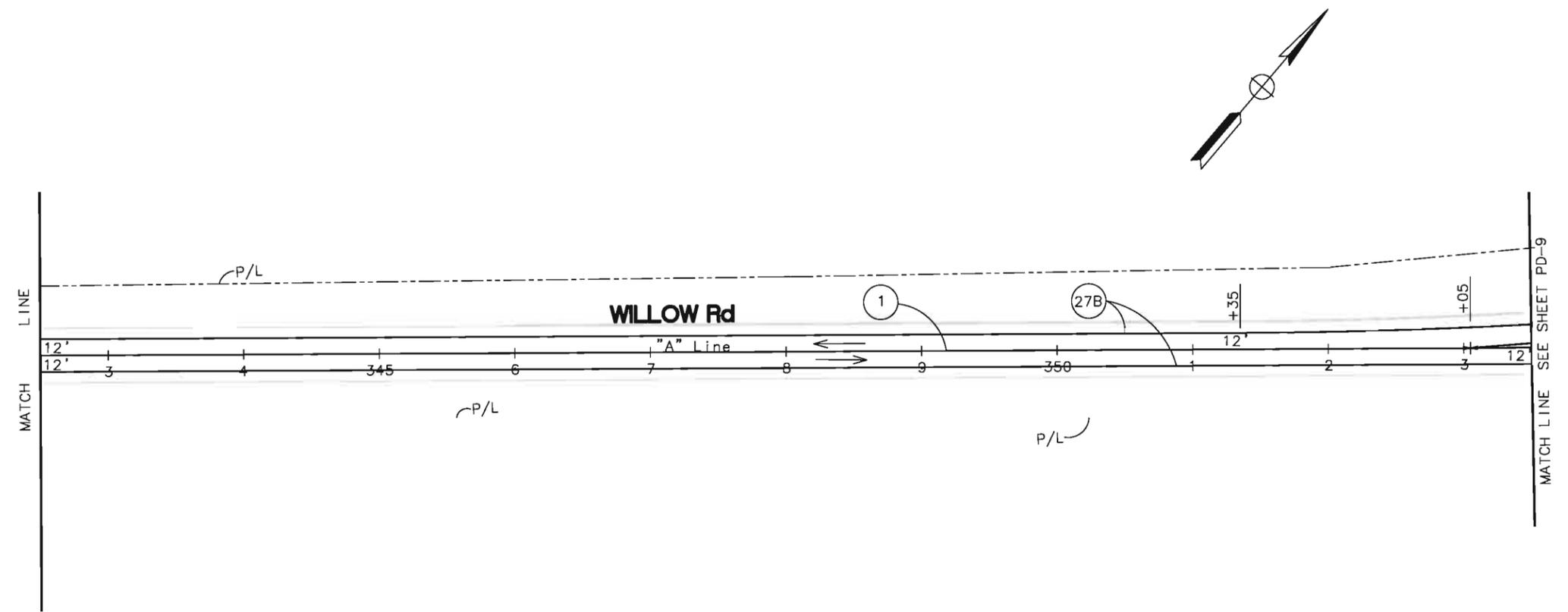
PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126



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PROJECT REPORT
JANUARY 2009

PAVEMENT DELINEATION PLAN
SCALE 1" = 50'
PD-8

RELATIVE BORDER SCALE IS IN INCHES

USERNAME -> \$USER
DGN FILE -> \$REQUEST

CU

EA 047450

LAST REVISION DATE PLOTTED -> \$DATE
00-00-00 TIME PLOTTED -> \$TIME

REQUEST	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY	HA	DATE	REVISOR	BY
			CHECKED BY	CN	09/08	DATE	REVISED

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

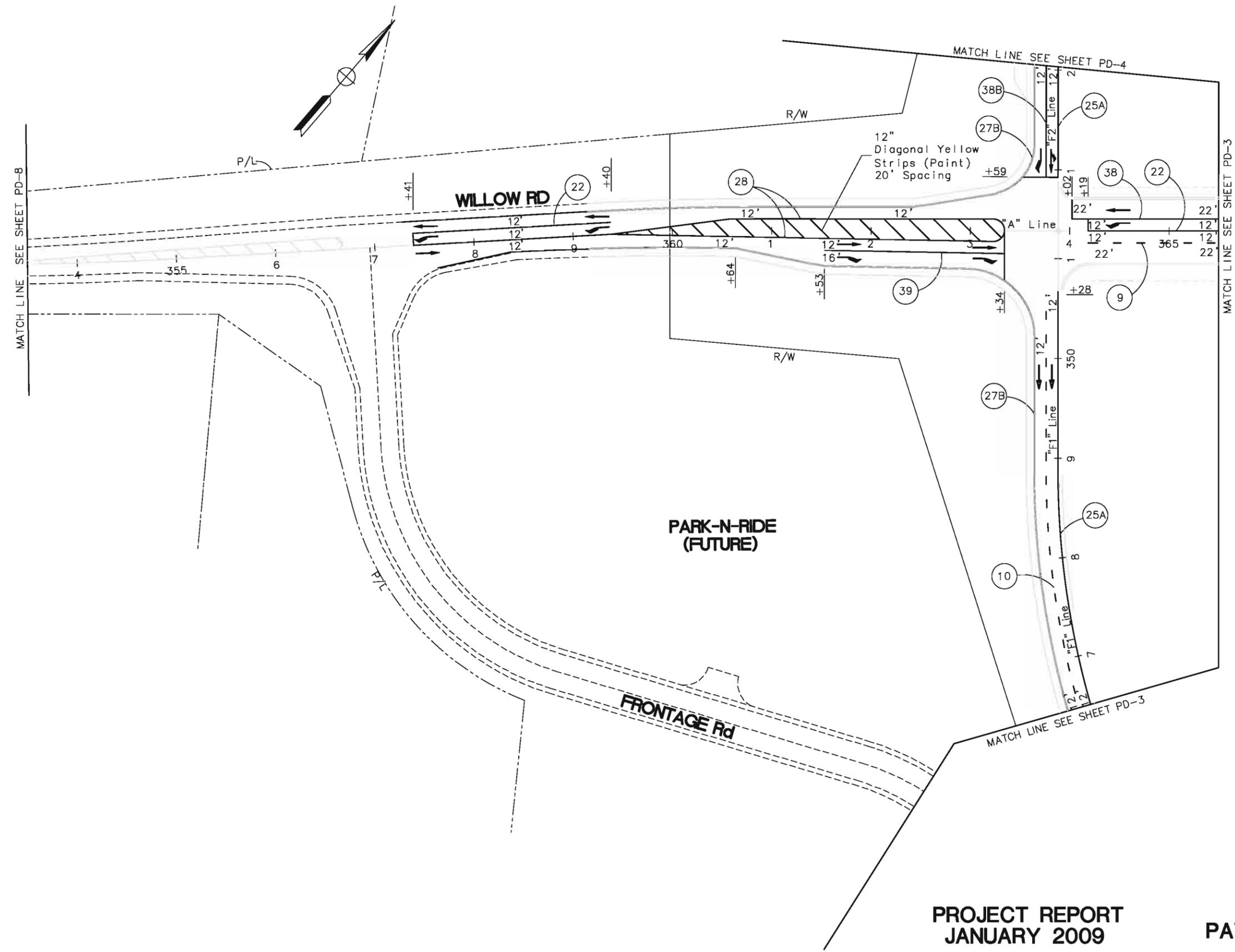
PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126



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PROJECT REPORT
JANUARY 2009

PAVEMENT DELINEATION PLAN
SCALE 1"=50'
PD-9



USERNAME -> \$USER
DGN FILE -> \$REQUEST

CU EA 047450

LAST REVISION DATE PLOTTED BY \$DATE
00-00-00 TIME PLOTTED BY \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE



COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126

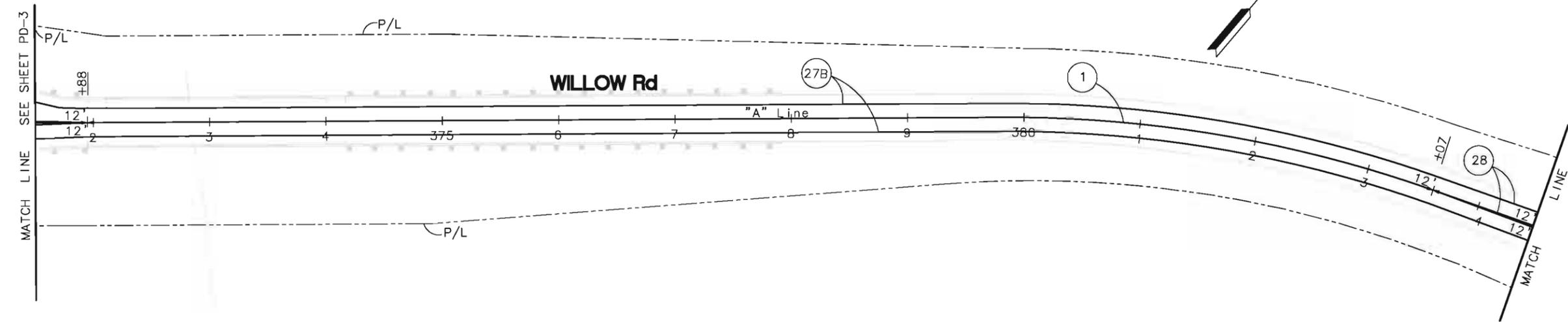
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DATE	REVISION	BY
09/08		
09/08		

HA	CN	DATE	REVIS	BY

CALCULATED/DESIGNED BY	CHECKED BY

DESIGN OVERSIGHT



PROJECT REPORT
 JANUARY 2009

PAVEMENT DELINEATION PLAN
 SCALE 1" : 50'
 PD-10

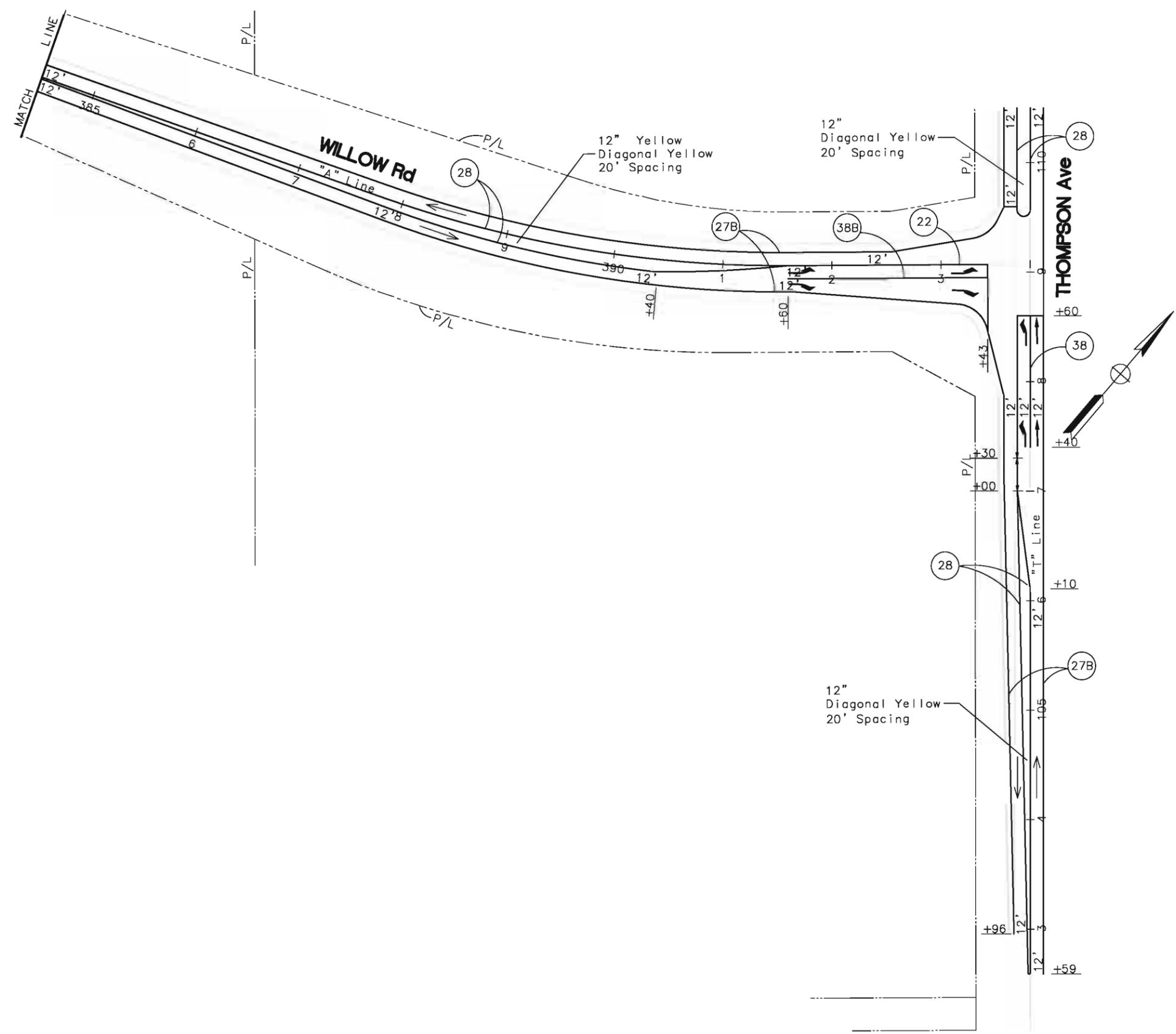


USERNAME -> \$USER
 DGN FILE -> \$REQUEST

CU EA 047450

LAST REVISION
 00-00-00
 DATE PLOTTED -> \$DATE
 TIME PLOTTED -> \$TIME

REQUEST	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY	HA	DATE	REVISOR	BY
			CHECKED BY	CN	09/08		DATE
							REVISED
							DATE
							REVISED
							DATE



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.9/6.9		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS & TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

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PROJECT REPORT
JANUARY 2009

PAVEMENT DELINEATION PLAN
SCALE 1" : 50'
PD-11



USERNAME -> \$USER
DGN FILE -> \$REQUEST

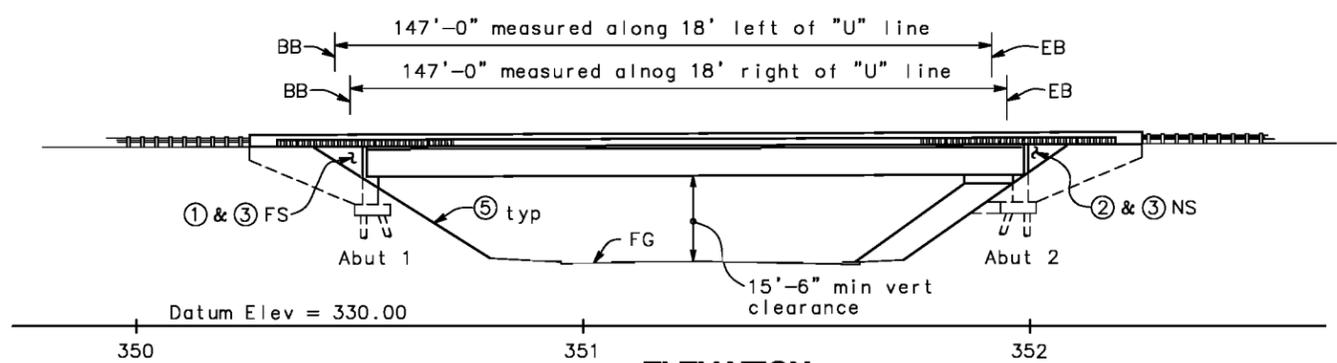
CU EA 047450

LAST REVISION DATE PLOTTED -> \$DATE
00-00-00 TIME PLOTTED -> \$TIME

Sta 350+00.00 Elev 371.05 +0.34% Sta 352+33.50 Elev 371.84

PROFILE GRADE

No Scale



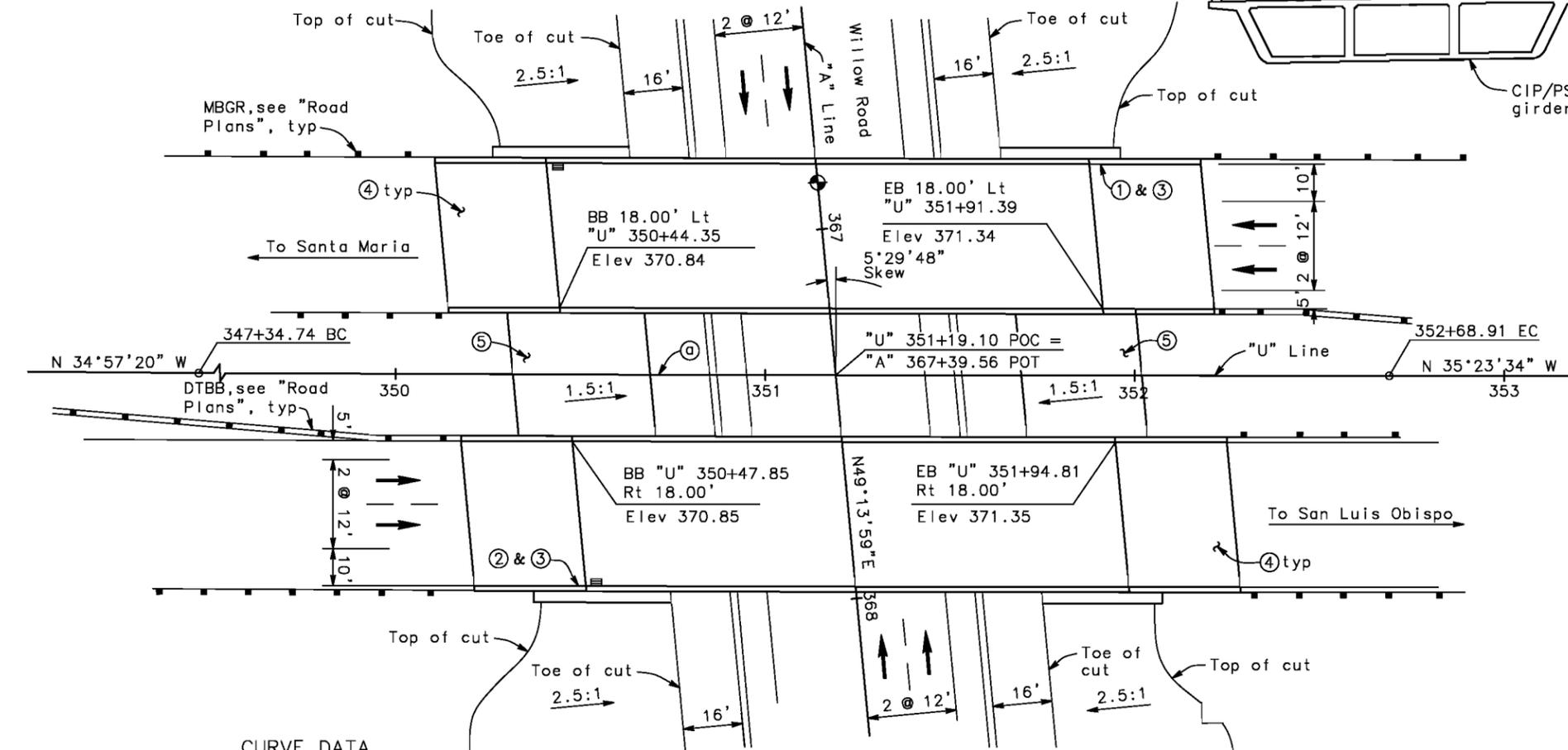
ELEVATION

1" = 20'

PILE DATA TABLE (Class 140, Alternative "V")

Location	Pile Type	Design Loading (Service, kips)	Nominal Resistance (kips)		Design Tip Elev (ft)	Specified Tip Elev (ft)
			Compression	Tension		
Abutment 1	PP14 x 0.25	140	280	140	305(1);326(2)	305
Abutment 2	PP14 x 0.25	140	280	140	305(1);326(2)	305

Design tip elevations are controlled by the following demands: (1)Compression (2)Lateral Load

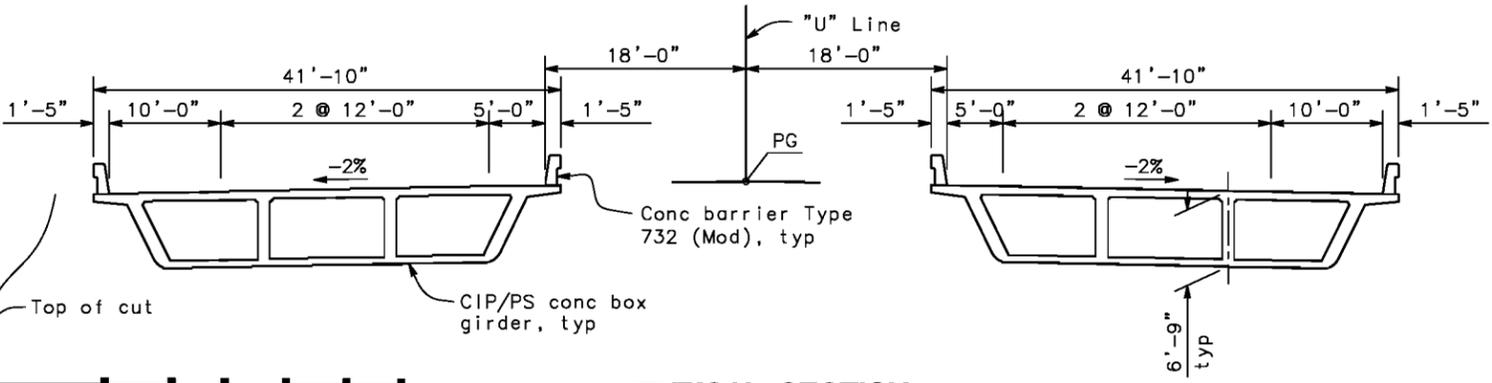


CURVE DATA

CURVE NO.	R	Δ	T	L
①	70,000.00'	0°26'14"	267.09'	534.17'

PLAN

1" = 20'



TYPICAL SECTION

1/8" = 1'-0"

NOTES:

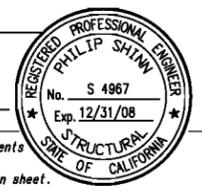
- Traffic will pass through construction site.
 - No falsework allowed over traffic.
 - Stage Construction required.
 - See "GENERAL PLAN NO. 2" sheet for Stage Construction
- ① Paint 'Bridge No. 49-0252L'
 ② Paint 'Bridge No. 49-0252R'
 ③ Paint 'Willow Road Undercrossing'
 ④ Structure Approach Type N (30S)
 ⑤ Concrete slope paving (slope 1.5:1)

LEGEND:

- ⊕ Indicates point of minimum vertical clearance
- Indicates Metal Beam Guard Railing
- Indicates Double Thrie Beam Barrier
- Indicates Deck Drain Type D-3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	5.8/6.9		

REGISTERED CIVIL ENGINEER



PLANS APPROVAL DATE

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COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS AND TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVE, SUITE 100
SAN JOSE, CA 95126

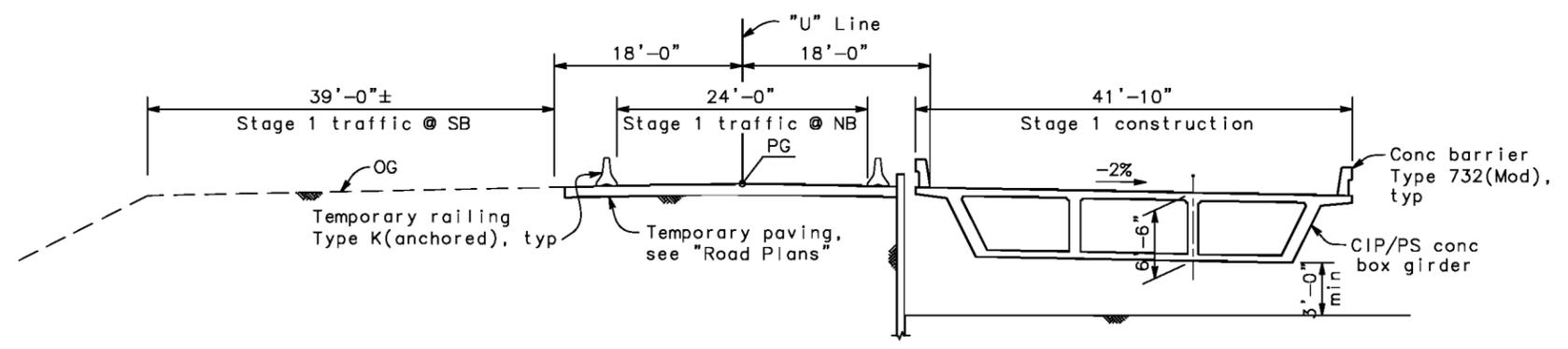
DESIGN OVERSIGHT	DESIGN BY P. SHINN	CHECKED A. WANG	LOAD FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE
SIGN OFF DATE	DETAILS BY I. LAM	CHECKED A. WANG	LAYOUT BY P. SHINN	CHECKED A. WANG
DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.2/25/05)	QUANTITIES BY P. SHINN	CHECKED A. WANG	SPECIFICATIONS BY	PLANS AND SPECS COMPARED

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	P. SHINN PROJECT ENGINEER	BRIDGE NO. 49-0252 L/R	WILLOW ROAD UNDERCROSSING
CU EA 474501	FILE => \$REQUEST	POST MILES 6.45	

REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET 1 OF 2
1/2008		

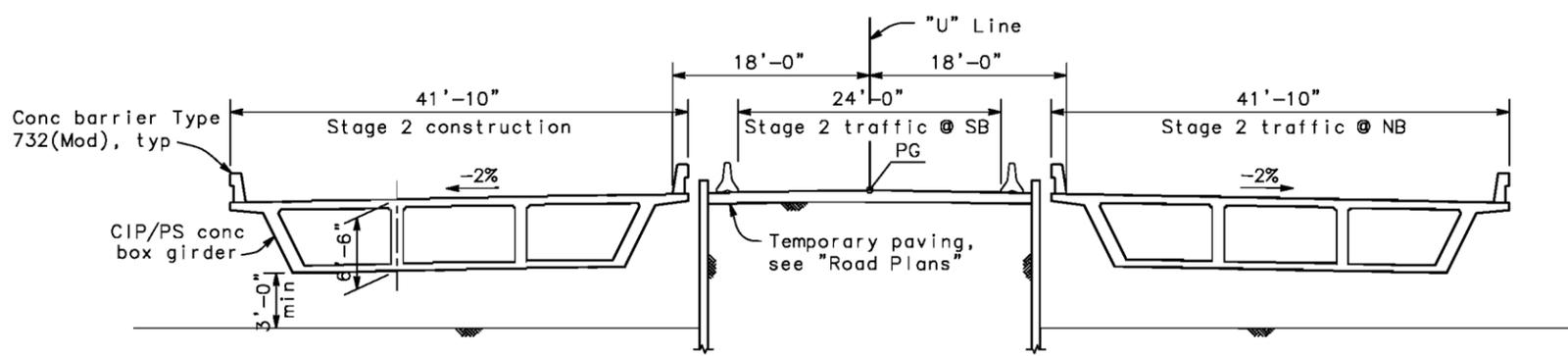
DATE PLOTTED => \$TIME USERNAME => \$USER

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	5.8/6.9		



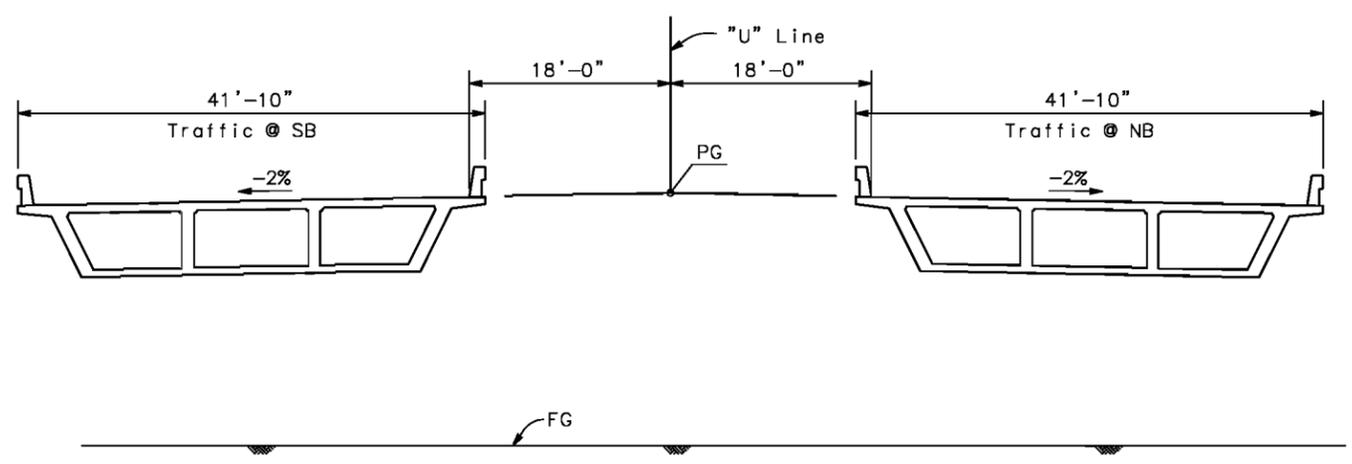
TYPICAL SECTION (STAGE 1)

1/8" = 1'-0"



TYPICAL SECTION (STAGE 2)

1/8" = 1'-0"



TYPICAL SECTION (ULTIMATE)

1/8" = 1'-0"

STAGE CONSTRUCTION

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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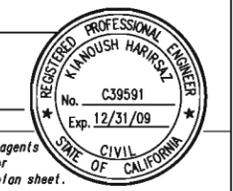
COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS AND TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVE, SUITE 100
SAN JOSE, CA 95126

DESIGN OVERSIGHT	DESIGN BY P. SHINN	CHECKED A. WANG	LOAD FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 49-0252 L/R	WILLOW ROAD UNDERCROSSING	
SIGN OFF DATE	DETAILS BY I. LAM	CHECKED A. WANG	LAYOUT BY P. SHINN	CHECKED A. WANG	P. SHINN PROJECT ENGINEER	POST MILES 6.45		GENERAL PLAN NO. 2
DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 2/25/05)	QUANTITIES BY P. SHINN	CHECKED A. WANG	SPECIFICATIONS BY	PLANS AND SPECS COMPARED	CU EA 474501	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET 2 OF 2	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	1/2008	
					FILE => \$REQUEST			

DATE PLOTTED => \$TIME USERNAME => \$USER

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	5.8/6.9		



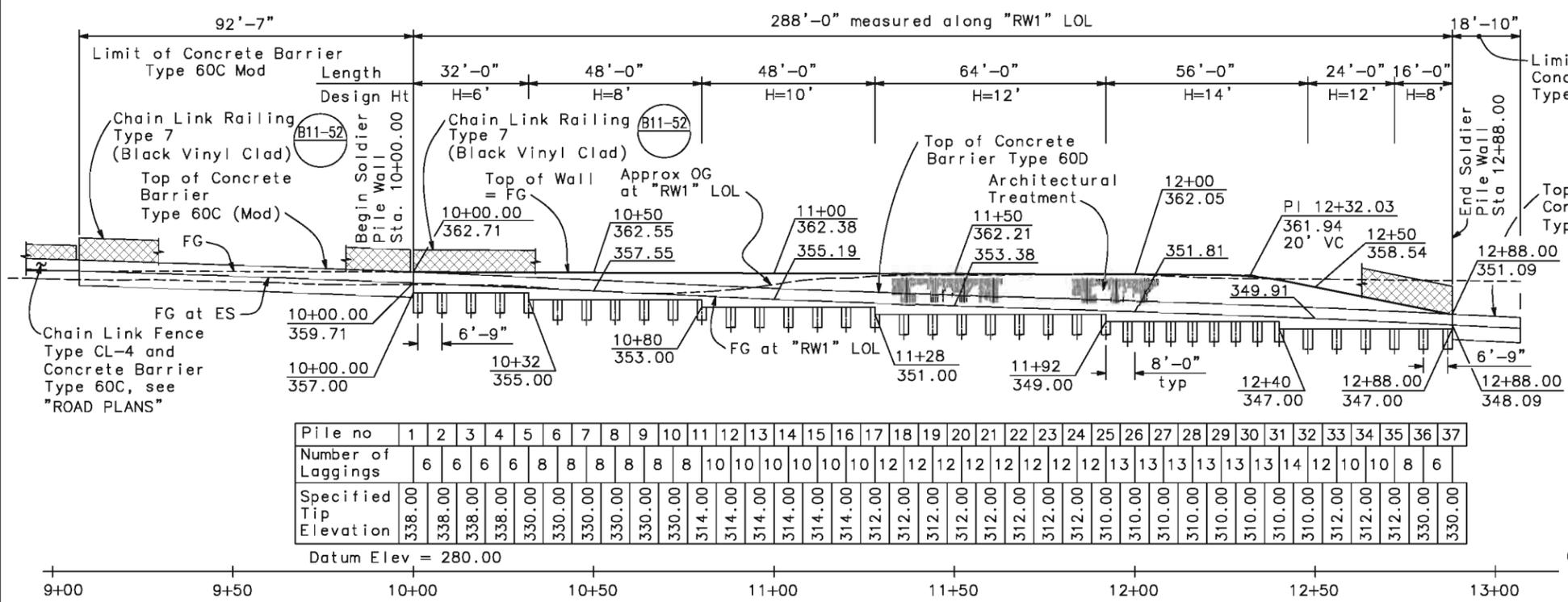
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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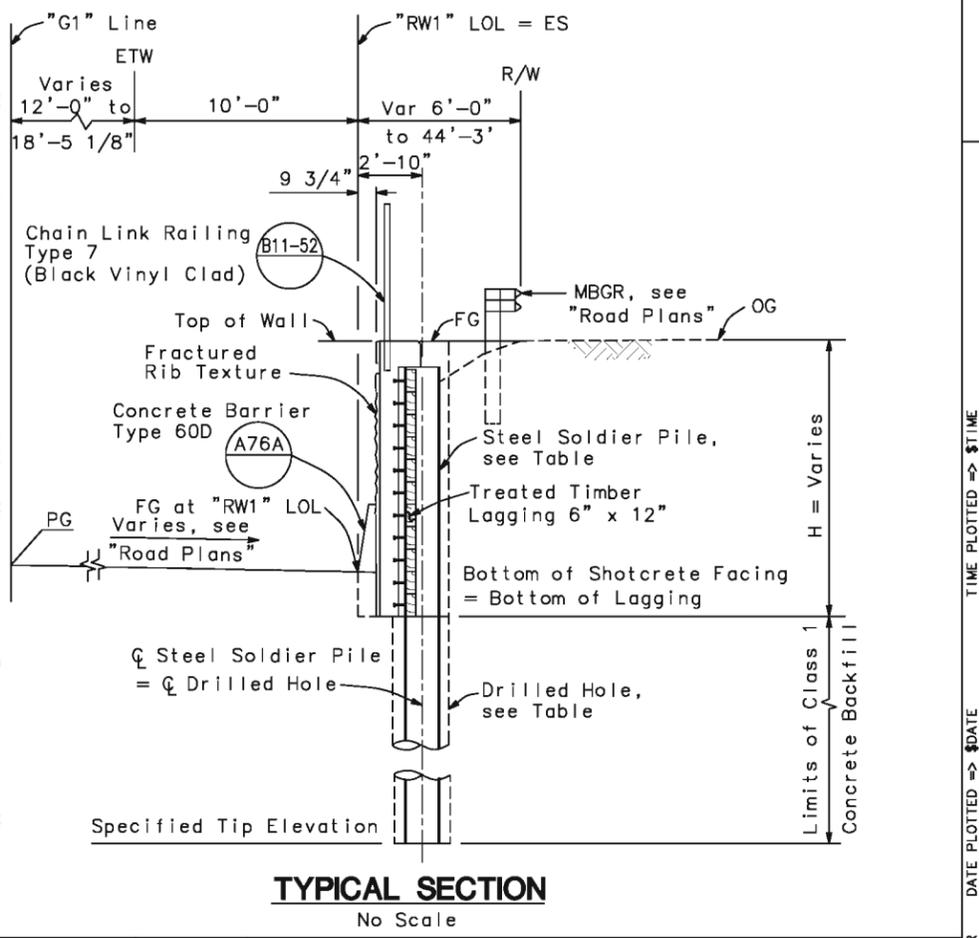
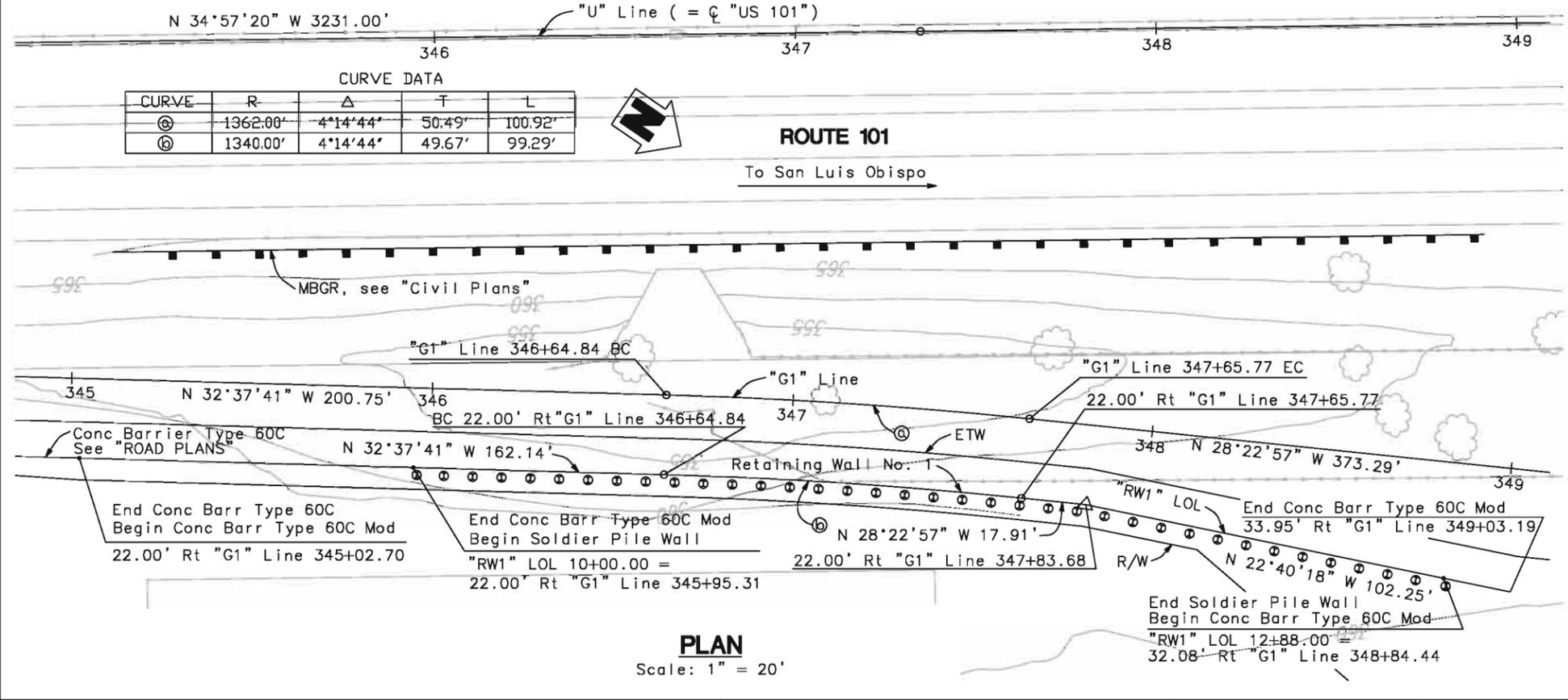
COUNTY OF SAN LUIS OBISPO
PUBLIC WORKS AND TRANSPORTATION DEPARTMENT
1050 MONTEREY STREET
SAN LUIS OBISPO, CA 93408

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVE., SUITE 100
SAN JOSE, CA 95128

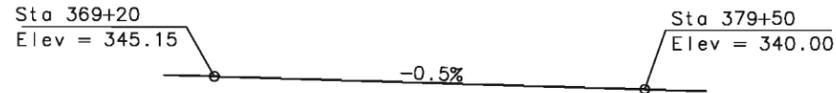


TYPICAL SECTION
No Scale

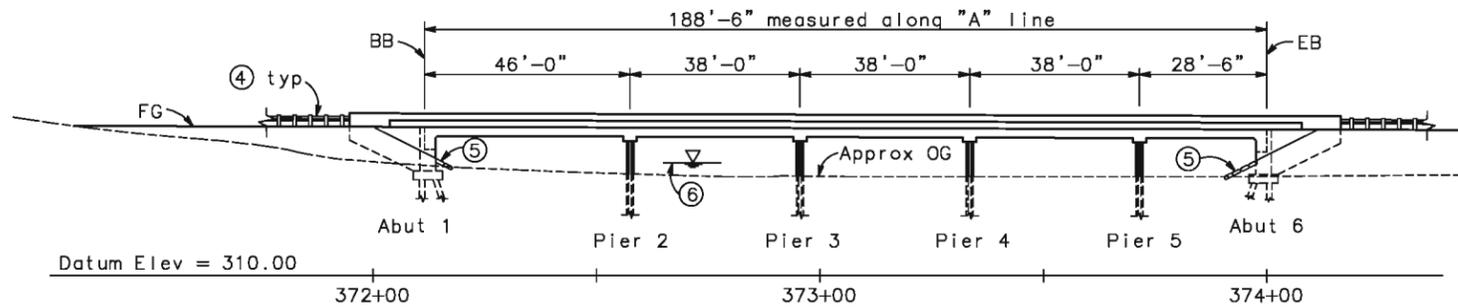
Pile No.	1-24	25-32	33-37
Steel Soldier Pile Size	W18X106	W18X130	W18X106
Drilled Hole Diameter	30"	30"	30"



DESIGN OVERSIGHT	DESIGN BY A. WANG	CHECKED K. HARIRSAZ	LOAD FACTOR DESIGN	LIVE LOADING:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 49E0016	RETAINING WALL NO. 1 (SOLDIER PILE) GENERAL PLAN
SIGN OFF DATE	DETAILS BY I. LAM	CHECKED K. HARIRSAZ	LAYOUT BY I. LAM	CHECKED K. HARIRSAZ	K. HARIRSAZ PROJECT ENGINEER	POST MILES 6.45	
DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 2/25/05)	QUANTITIES BY S. DESALEGN	CHECKED K. HARIRSAZ	SPECIFICATIONS BY	PLANS AND SPECS COMPARED	CU EA 474501	REVISION DATES (PRELIMINARY STAGE ONLY)	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	1/2008
FILE => \$REQUEST							SHEET 1 OF 1



PROFILE GRADE
No Scale

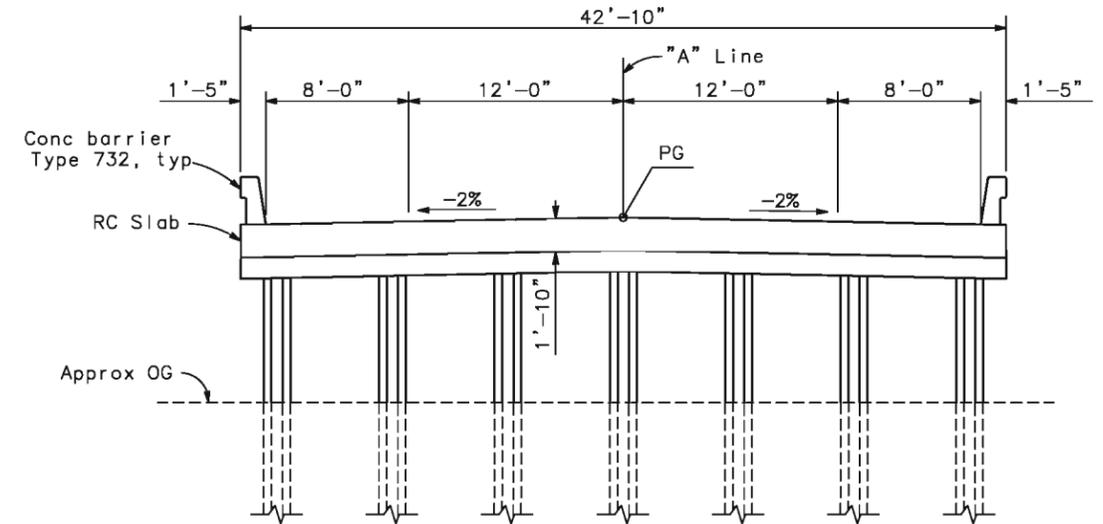


ELEVATION
1" = 20'-0"

PILE DATA TABLE

Location	Pile Type	Design Loading (Service, kips)	Nominal Resistance (kips)		Design Tip Elev. (ft)	Specified Tip Elevations (ft)
			Compression	Tension		
Abutment 1	14" Square (200, Alt "X")	100	200	0		
Pier 2	18" Octagonal	160	320	0		
Pier 3	18" Octagonal	130	260	0		
Pier 4	18" Octagonal	135	270	0		
Pier 5	18" Octagonal	125	250	0		
Abutment 6	14" Square (200, Alt "X")	90	180	0		

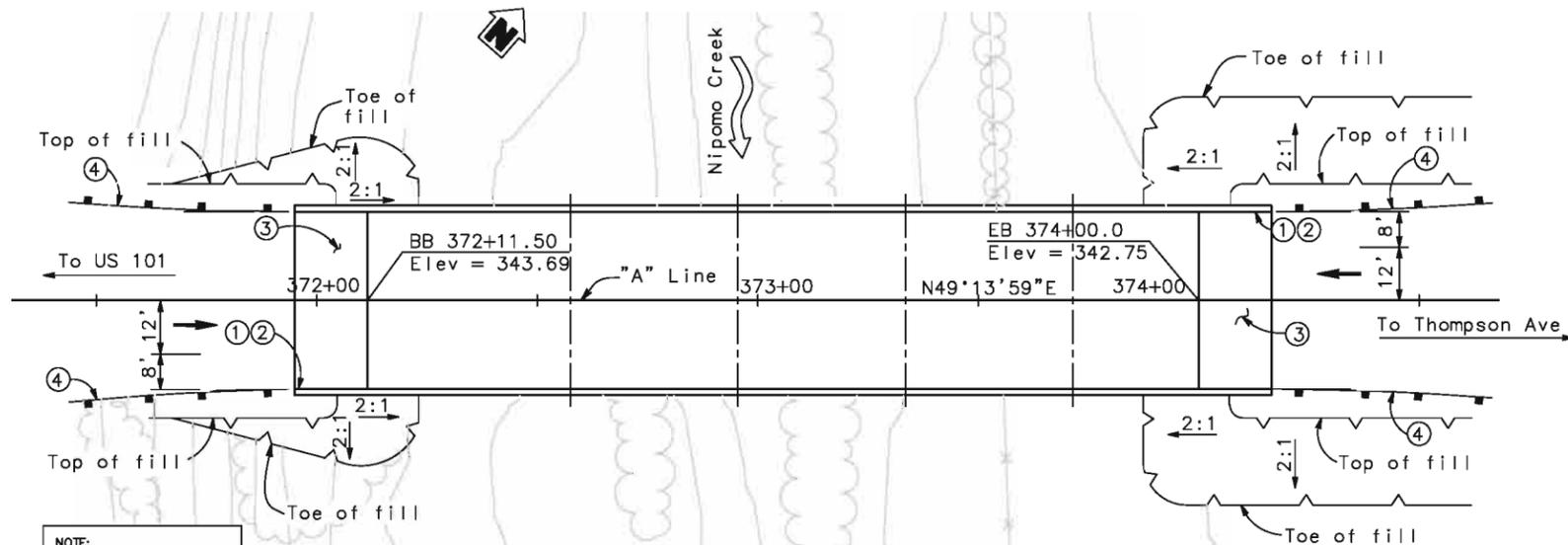
Design tip elevations are controlled by the following demands: (1)Compression; (2)Lateral Load



TYPICAL SECTION
1" = 5'-0"

NOTES:

- ① Paint bridge name "Nipomo Creek Bridge"
- ② Paint bridge number and year completed
- ③ Structure Approach Type N(9S)
- ④ Metal Beam Guard Railing (MBGR), see 'Road Plans'
- ⑤ Rock protection (2:1 slope)
- ⑥ 50 year water elevation: 335.01'
100 year water elevation: 335.18'



PLAN
1" = 20'-0"

NOTE:
CONTRACTOR TO VERIFY
EXISTING UTILITY LOCATIONS
PRIOR TO ANY EXCAVATIONS
CALL USA AT:
(800) 642-2444

**NIPOMO CREEK BRIDGE
GENERAL PLAN**

COUNTY OF SAN LUIS OBISPO, CALIFORNIA

Submittal %	Date



Rajappan & Meyer
CONSULTING ENGINEERS INC
1038 Leigh Avenue, Suite 100 San Jose, CA 95126
PHONE: (408) 280-2772 FAX: (408) 280-6803

Revision No.	Description	Date	By	Appr. By

Scale	AS SHOWN
DESIGNED BY:	P. Shinn
DRAWN BY:	P. Shinn
CHECKED BY:	
RECORD DWG:	

APPROVED BY:	DATE:	SHEET NO.
		1
		OF SHEETS
		PROJECT NO.

ATTACHMENT 6
Project Construction Cost Estimate

ROUTE 101/WILLOW ROAD INTERCHANGE IMPROVEMENTS PROJECT REPORT COST ESTIMATE

DIST - CO - RTE 05-SLO-101

Type of Estimate: Final PR
 Program Code: 20.10.400
 PM: 5.9/6.9
 EA: 05-47450
 PP No. :

Project Description:

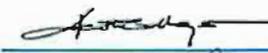
Limits: In San Luis Obispo County, At Nipomo
From 0.9 Miles North of Tefft Street UC
To 1.8 Miles South of Los Berros Road UC

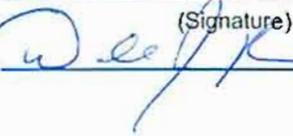
Proposed Improvement: Construct a new compact diamond interchange, at US 101 and Willow Rd Extension.
 (Scope) Route 101 to remain at grade, while Willow Road will go underneath the freeway and connect to Willow Rd Extension.

Alternative: ALTERNATIVE 1 - COMPACT DIAMOND.
Construct Willow Rd UC with two single-span cast-in-place (CIP)/pre-stressed (PS) concrete box girder structures.

ROADWAY ITEMS	\$19,740,000
STRUCTURE ITEMS	\$3,879,000
SUBTOTAL CONSTRUCTION	\$23,619,000
RIGHT OF WAY	\$2,573,580
TOTAL ALTERNATIVE COST	\$26,192,580

Reviewed by John Nguyen (408)280-2772

Approved by  (408)280-2772 1/29/2009

Project Manager  (Signature) (Phone) Dale Ramey (Date) 1/29/09
 San Luis Obispo County

PROJECT REPORT COST ESTIMATE

DIST - CO - RTE
05-SLO-101
 PM: 5.9/6.9
 EA: 05-47450
 PP No. :

I. ROADWAY ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	283,900	CY	\$28.00	\$7,949,200	
Imported Borrow					
Clearing & Grubbing	Lump Sum	LS	\$120,000.00	\$120,000	
Develop Water Supply	Lump Sum	LS	\$20,000.00	\$20,000	
Project Schedule	Lump Sum	LS	\$20,000.00	\$20,000	
				<u>Total Earthwork</u>	<u>\$8,109,200.00</u>
<u>Section 2 - Structural Section *</u>					
PCC Pavement (___ Depth)					
PCC Pavement (___ Depth)					
Asphalt Concrete	12,800	TON	\$110.00	\$1,408,000	
Lean Concrete Base					
Cement-Treated Base					
Aggregate Base	10,730	CY	\$58.00	\$622,340	
Treated Permeable Base					
Aggregate Subbase					
Pavement Reinforcing Fabric					
Edge Drains					
Minor Concrete (Curb, Gore,...)	285	CY	\$1,300.00	\$370,500	
				<u>Total Structural Section</u>	<u>\$2,400,840.00</u>
<u>Section 3 - Drainage</u>					
<u>Large Drainage Facilities</u>					
Storm Drains	Lump Sum	LS	\$900,000	\$900,000	
Pumping Plants					
Modify Existing Drainage	Lump Sum	LS	\$60,000.00	\$60,000	
Construction Site BMP's	Lump Sum	LS	\$270,000.00	\$270,000	
				<u>Total Drainage</u>	<u>\$1,230,000.00</u>

PROJECT REPORT COST ESTIMATE

DIST - CO - RTE

05-SLO-101

PM: 5.9/6.9

EA: 05-47450

PP No. :

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Guardrails	1,445	LF	\$48.00	\$69,360	
Concrete Barriers	555	LF	\$78.00	\$43,290	
Alternative Terminal System	6	EA	\$3,800.00	\$22,800	
Fence (Type BW)	4,350	LF	\$9.00	\$39,150	
Chain Link Fence	3,090	LF	\$25.00	\$77,250	
Highway Planting	Lump Sum	LS	\$800,000.00	\$800,000	
Replacement Planting	Lump Sum	LS	\$230,000.00	\$230,000	
Irrigation Modification					
Double Thrie Beam Barrier	522	LF	\$68.00	\$35,496	
Erosion Control	78,000	SY	\$1.50	\$117,000	
Water Pollution Control	Lump Sum	LS	\$90,000.00	\$90,000	
Environmental Mitigation	Lump Sum	LS	\$80,000.00	\$80,000	
Resident Engineer Office	Lump Sum	LS	\$30,000.00	\$30,000	
				<u>Total Specialty Items</u>	<u>\$1,634,346.00</u>
 <u>Section 5 - Traffic Items</u>					
Lighting	Lump Sum	LS	\$120,000.00	\$120,000	
Traffic Delineation Items	Lump Sum	LS	\$30,000.00	\$30,000	
Traffic Signals					
Modify Signal					
Sign Structures	2	EA	\$10,000.00	\$20,000	
Roadside Signs	Lump Sum	LS	\$20,000.00	\$20,000	
Traffic Control Systems	Lump Sum	LS	\$200,000.00	\$200,000	
Transportation Mgmt Plan	Lump Sum	LS	\$40,000.00	\$40,000	
Park and Ride					
				<u>Total Traffic Items</u>	<u>\$430,000.00</u>
SUBTOTAL SECTIONS 1 - 5:					<u>\$13,804,386.00</u>
Sheet: 3					<u>of 6</u>

PROJECT REPORT COST ESTIMATE

DIST - CO - RTE
05-SLO-101
 PM: 5.9/6.9
 EA: 05-47450
 PP No. :

			<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$13,804,386</u>	X (10%)	<u>\$1,380,439</u>	
			TOTAL MINOR ITEMS:	<u>\$1,380,439</u>

<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$13,804,386</u>			
Minor Items	<u>\$1,380,439</u>			
Sum	<u>\$15,184,825</u>	X (10%)	<u>\$1,518,482</u>	
			TOTAL ROADWAY MOBILIZATION	<u>\$1,518,480</u>

<u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$13,804,386</u>			
Minor Items	<u>\$1,380,439</u>			
Sum	<u>\$15,184,825</u>	X	5%	<u>\$759,241</u>

Contingencies				
Subtotal Sections 1 - 5	<u>\$13,804,386</u>			
Minor Items	<u>\$1,380,439</u>			
Sum	<u>\$15,184,825</u>	X	15%	<u>\$2,277,724</u>

TOTAL ROADWAY ADDITIONS \$3,036,960

TOTAL ROADWAY ITEMS \$19,740,000
(Total of Sections 1 - 8)

Estimate			
Prepared By:	<u>H. Aburabi</u>	<u>(408) 280-2772</u>	<u>8-Dec-08</u>
	(Print Name)	(Phone)	(Date)

PROJECT REPORT COST ESTIMATE

DIST - CO - RTE
05-SLO-101
 PM: 5.9/6.9
 EA: 05-47450
 PP No. :

II. STRUCTURES ITEMS

Bridge Name	<u>Willow Rd UC</u>	<u>Retaining Wall No. 1</u>	<u> </u>
Structure Type	<u>Double Box Girder</u>	<u>Soldier Pile</u>	<u> </u>
Width (FT) - out to out	<u>83.67</u>	<u> </u>	<u> </u>
Span Lengths (FT)	<u>142.0</u>	<u> </u>	<u> </u>
Total Area (SF)	<u>11,881</u>	<u> </u>	<u> </u>
Footing Type (pile/spread)	<u>Pile</u>	<u>Soldier Pile</u>	<u> </u>
Cost per Sq. FT	<u>\$231.03</u>	<u> </u>	<u> </u>
Including:			
Mobilization: 10%			
Contingency: 25%			
Bridge Removal	<u>\$0.00</u>	<u>\$0.00</u>	<u> </u>
Total Cost For Structure	<u>\$2,745,000</u>	<u>\$1,134,000</u>	<u> </u>

SUBTOTAL STRUCTURES ITEMS \$3,879,000

Railroad Related Costs

TOTAL STRUCTURES ITEMS: \$3,879,000

COMMENTS:

Estimate Prepared By: A. Wang (408)280-2772 8-Dec-08
(Print Name) (Phone) (Date)
Sheet: 5 of 6

PROJECT REPORT COST ESTIMATE

DIST - CO - RTE
05-SLO-101
 PM: 5.9/6.9
 EA: 05-47450
 PP No. :

III. RIGHT OF WAY

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements 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 1, Caltrans Right of Way Procedural Handbook.

	<u>Current Values (Future Use)</u>	<u>Escalation Rate (%/yr)</u>	<u>Escalated Value *</u>
Acquisition, including excess lands	<u>\$1,097,580</u>	<u>0.00%</u>	<u>\$1,097,580</u>
Utility Relocation (State Share)	<u>\$1,463,000</u>	<u>0.00%</u>	<u>\$1,463,000</u>
Clearance / Demolition	<u>None</u>	<u> </u>	<u> </u>
RAP	<u>None</u>	<u> </u>	<u> </u>
Title and Escrow Fees	<u>\$13,000</u>	<u>5.00%</u>	<u>\$13,650</u>
CONSTRUCTION CONTRACT WORK	<u> </u>	<u> </u>	<u> </u>
TOTAL RIGHT OF WAY ** (CURRENT VALUE)	<u>\$2,573,580</u>	<u> </u>	<u>\$2,574,230</u>

* - Escalated to assumed year 2010: \$2,574,230

** - Current total value for use on sheet 1 of 6

Estimate prepared by: N.Mummaneni (408)-280-2772 8-Dec-08
(Print Name) (Phone) (Date)

**WILLOW ROAD EXTENSION PROJECT
PRELIMINARY PROJECT COST ESTIMATE SUMMARY**

DIST - CO - RTE: SLO County

Type of Estimate: Final PR

Program Code: _____

KP: _____

EA: _____

PP No. : _____

Project Description:

Limits: In San Luis Obispo County

Proposed Improvement: WILLOW ROAD EXTENSION FROM US 101 TO THOMPSON ROAD
(Scope) For Construction on Willow Rd
From Nipomo Creek to Thompson Avenue

Alternative: _____

ROADWAY ITEMS	\$3,226,000
STRUCTURE ITEMS	\$1,725,000
SUBTOTAL CONSTRUCTION	\$4,951,000
RIGHT OF WAY	\$562,440
TOTAL ALTERNATIVE COST	\$5,513,440

Reviewed by John Nguyen 408-280-2772

Approved by  (408)280-2772 29-Jan-09
Project Manager (Phone) (Date)

San Luis Obispo County  Dale Ramey 1/29/09

Prepared by; RAJAPPAN & MEYER CONSULTING ENGINEERS

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
SLO County
 KP: 0
 EA: 0
 PP No. :

I. ROADWAY ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	4,900	CY	\$28.00	\$137,200	
Imported Borrow	28,400	CY	*	\$0	
Clearing & Grubbing	Lump Sum	LS	\$60,000.00	\$60,000	
Develop Water Supply	Lump Sum	LS	\$10,000.00	\$10,000	
Project Schedule	Lump Sum	LS	\$8,000.00	\$8,000	
				<u>Total Earthwork</u>	<u>\$215,200.00</u>
 <u>Section 2 - Structural Section *</u>					
PCC Pavement (___ Depth)					
PCC Pavement (___ Depth)					
Asphalt Concrete	5,820	TON	\$110.00	\$640,200	
Lean Concrete Base					
Cement-Treated Base					
Aggregate Base	6,780	CY	\$58.00	\$393,240	
Treated Permeable Base					
Aggregate Subbase					
Pavement Reinforcing Fabric					
Edge Drains					
Minor Concrete (Curb, Gore,....)					
				<u>Total Structural Section</u>	<u>\$1,033,440.00</u>
 <u>Section 3 - Drainage</u>					
<u>Large Drainage Facilities</u>					
Storm Drains	Lump Sum	LS	\$120,000.00	\$120,000	
Slope Protection	Lump Sum	LS	\$290,000.00	\$290,000	
Project Drainage					
Construction Site BMP's	Lump Sum	LS	\$100,000.00	\$100,000	
				<u>Total Drainage</u>	<u>\$510,000.00</u>

* Cost of imported borrow shall be included in the roadway excavation of the interchange.

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
SLO County
 KP: _____
 EA: _____
 PP No. : _____

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Sound Wall					
Guardrails	700	LF	\$62.00	\$43,400	
Concrete Barriers					
Alternative Terminal System	4	EA	\$3,800.00	\$15,200	
Fence					
Highway Planting					
Replacement Planting	Lump Sum	LS	\$100,000.00	\$100,000	
Irrigation Modification					
Thrie Beam Barrier					
Erosion Control	39,300	SY	\$1.50	\$58,950	
Water Pollution Control	Lump Sum	LS	\$50,000.00	\$50,000	
Environmental Mitigation	Lump Sum	LS	\$60,000.00	\$60,000	
Resident Engineer Office	Lump Sum	LS	\$25,000.00	\$25,000	
				<u>Total Specialty Items</u>	<u>\$352,550.00</u>
 <u>Section 5 - Traffic Items</u>					
Lighting	Lump Sum	LS	\$30,000.00	\$30,000	
Traffic Delineation Items	Lump Sum	LS	\$20,000.00	\$20,000	
Traffic Signals					
Modify Signal					
Sign Structures					
Roadside Signs	Lump Sum	LS	\$20,000.00	\$20,000	
Traffic Control Systems	Lump Sum	LS	\$50,000.00	\$50,000	
Transportation Mgmt Plan	Lump Sum	LS	\$25,000.00	\$25,000	
Park and Ride					
				<u>Total Traffic Items</u>	<u>\$145,000.00</u>
				 <u>SUBTOTAL SECTIONS 1 - 5:</u>	 <u>\$2,256,190.00</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
SLO County
 KP: 0
 EA: 0
 PP No. :

			<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$2,256,190</u>	X (10%)	<u>\$225,619</u>	
			TOTAL MINOR ITEMS:	<u><u>\$225,619</u></u>
 <u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$2,256,190</u>			
Minor Items	<u>\$225,619</u>			
Sum	<u>\$2,481,809</u>	X (10%)	<u>\$248,181</u>	
			TOTAL ROADWAY MOBILIZATION	<u><u>\$248,180</u></u>
 <u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$2,256,190</u>			
Minor Items	<u>\$225,619</u>			
Sum	<u>\$2,481,809</u>	X (5%)	<u>\$124,090</u>	
 Contingencies				
Subtotal Sections 1 - 5	<u>\$2,256,190</u>			
Minor Items	<u>\$225,619</u>			
Sum	<u>\$2,481,809</u>	X <u>15%</u>	<u>\$372,271</u>	
			TOTAL ROADWAY ADDITIONS	<u><u>\$496,360</u></u>
			TOTAL ROADWAY ITEMS	<u><u>\$3,226,000</u></u>
(Total of Sections 1 - 8)				

Estimate			
Prepared By:	N.Mummaneni	(408) 280-2772	29-Jan-09
	(Print Name)	(Phone)	(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

SLO County

KP: 0

EA: 0

PP No. :

II. STRUCTURES ITEMS

Bridge Name	<u>Nipomo Creek</u>	<u> </u>	<u> </u>
Structure Type	<u>Cast-In-Place</u>	<u> </u>	<u> </u>
Width (FT) - out to out	<u>42.83</u>	<u> </u>	<u> </u>
Span Lengths (FT)	<u>188.5</u>	<u> </u>	<u> </u>
Total Area (SF)	<u>8,073</u>	<u> </u>	<u> </u>
Footing Type (pile/spread)	<u>Pile</u>	<u> </u>	<u> </u>
Cost per SF	<u>\$213.72</u>	<u> </u>	<u> </u>
Including:			
Mobilization: 10%			
Contingency: 20%			
Bridge Removal	<u> </u>	<u> </u>	<u> </u>
Total Cost For Structure	<u>\$1,725,000</u>	<u> </u>	<u> </u>

SUBTOTAL STRUCTURES ITEMS \$1,725,000

Railroad Related Costs

TOTAL STRUCTURES ITEMS: \$1,725,000

COMMENTS:

Estimate Prepared By: N.Mummaneni (408)280-2772 29-Jan-09
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
SLO County
 KP: 0
 EA: 0
 PP No. :

III. Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements 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 1, Caltrans Right of Way Procedural Handbook.

	<u>Current Values (Future Use)</u>	<u>Escalation Rate (%/yr)</u>	<u>Escalated Value *</u>
Acquisition, including excess lands	<u>\$383,000</u>	<u>0.00%</u>	<u>\$383,000</u>
Utility Relocation (County Share)	<u>\$173,440</u>	<u>0.00%</u>	<u>\$173,440</u>
Clearance / Demolition	<u>None</u>	<u> </u>	<u> </u>
RAP	<u>None</u>	<u> </u>	<u> </u>
Title and Escrow Fees	<u>\$6,000</u>	<u>5.00%</u>	<u>\$6,300</u>
CONSTRUCTION CONTRACT WORK	<u> </u>	<u> </u>	<u> </u>
TOTAL RIGHT OF WAY ** (CURRENT VALUE)	<u>\$562,440</u>	TOTAL ESCALATED RIGHT OF WAY	<u>\$562,740</u>

* - Escalated to assumed year 2010: \$562,740

** - Current total value for use on sheet 1 of 6

Estimate prepared by: N.Mummaneni (408)-280-2772 29-Jan-09
(Print Name) (Phone) (Date)

ATTACHMENT 7
Right of Way Data Sheet

RIGHT OF WAY DATA SHEET

(Form #)

To: District Office Chief
R/W Local Public Agency Services

Date 01/22/2009

Dist 5 Co SLO Rte 101 P/M (K/P) PM 5.9/6.9

Attention: District Branch Chief
Local Public Agency Services

EA 05-47450

Project Description Willow Road / US 101 Interchange

Subject: Right of Way Data

Alternate No. (Preferred Alternative)

This Alternate meets the criteria for a Design/Build project: Yes No

1. Right of Way Cost Estimate: To be entered into PMCS COST RW1-5 Screens.

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost			
Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>1,097,580</u>	<u>0%</u>	\$ <u>1,097,580</u>
Project Permit Fees.			\$ _____
B. Utility Relocation (State Share)	\$ <u>1,463,000</u>	<u>0%</u>	\$ <u>1,463,000</u>
C. Relocation Assitance	\$ <u>None</u>		\$ _____
D. Clearance/Demolition	\$ <u>None</u>		\$ _____
E. Title and Escrow	\$ <u>13,000</u>	<u>5%</u>	\$ <u>13,650</u>
F. Total Estimated Cost	\$ <u>2,573,580</u>		\$ <u>2,574,230</u>
G. Construction Contract Work	\$ _____		

2. Current Date of Right of Way Certification Jan, 2010

3. Parcel Data: To be entered into PMCS EVNT RW Screen.

Type	Dual/Appr	Utilities	RR Involvements
X _____		U4-1 _____	None <u>x</u>
A _____		-2 _____	C&M Agrmt _____
B <u>7</u> _____		-3 <u>3</u> _____	Svc Contract _____
C _____		-4 _____	Design _____
D _____		U5-7 _____	Const. _____
E XXXX _____		-8 _____	Lic/RE/Clauses _____
F XXXX _____		-9 <u>3</u> _____	
Total <u>7</u> _____			<u>Misc. R/W Work</u>
			RAP Displ _____
			Clear/Demo _____
			Const Permits _____
			Condemnation _____
			Excess _____

Areas: R/W 21.29 Acres No. Excess Parcels _____
 Entered PMCS Screens ___/___/___ by _____
 Entered AGRE Screen (Railroad data only) ___/___/___ by _____

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 2 of 6

4. Are there any major items of construction contract work? Yes No (If "Yes," explain.)

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). No right of way required.

The right of way consist of 7 partial acquisitions. The right of way consists of rural residential, agricultural and agricultural business.

6. Is there an effect on assessed valuation? Yes Not Significant No (If "Yes," explain.)

7. Are utility facilities or rights of way affected?

Yes No (If "Yes," attach Utility Information Sheet, Exhibit 4-EX-5.)

The following checked items may seriously impact lead time for utility relocation:

Longitudinal policy conflict(s)

Environmental concerns impacting acquisition of potential easements

Power lines operating in excess of 50 KV and substations

(See attached Exhibit 4-EX-5 for explanation.)

8. Are Railroad facilities or rights of way affected?

Yes No (If "Yes," attach Railroad Information Sheet, Exhibit 4-EX-6.)

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 3 of 6

9. Were any previously unidentified sites with hazardous waste and/or material found?
Yes None Evident (If "Yes," attach memorandum per R/W Manual, Chapter 4, Section 4.01.10.00.)

10. Are RAP displacements required? Yes No (If "Yes," provide the following information.)

No. of single family _____ No. of business/nonprofit _____

No. of multi-family _____ No. of farms _____

Based on Draft/Final Relocation Impact Statement/Study dated _____, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

11. Are there Material Borrow and/or Disposal Sites required? Yes No (If "Yes," explain.)

12. Are there potential relinquishments and/or abandonments? Yes No (If "Yes," explain.)

13. Are there any existing and/or potential airspace sites? Yes No (If "Yes," explain.)

RIGHT OF WAY DATA SHEET (Cont.)
(Form #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 4 of 6

14. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if district proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

Based on the R/W requirements on Page 1 of this Data Sheet, R/W will require a lead time of 12 months from the date regular appraisals can begin to project certification.

In any event, RW Maps will require 12 months from Final Maps to project certification.

County of San Luis Obispo to accelerate right of way acquisition.

15. Is it anticipated that Caltrans staff will perform all Right of Way work? Yes No (If "No," discuss.)

County of San Luis Obispo to acquire right of way with oversight by Caltrans.

Evaluation Prepared By:

Right of Way:	Name <u>William Jewell</u> Hammer, Jewell & Associates	Date <u>02/02/2009</u>
Engineering:	<u>John Nguyen - Rajappan & Meyer</u>	Date <u>01/21/2009</u>
Utilities:	Name <u>John Beebe - (408) 978-3921</u>	Date <u>12/04/2008</u>

Recommended for Approval:

Keith Meyer, Project Manager
Rajappan & Meyer Consulting Engineers, Inc.

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and I find this Data Sheet complete and current.

John W. Maddux
District Division Chief/Regional Manager
Right of Way
JOHN W. MADDUX, Chief
San Luis Obispo Field Office
2-23-09
Date

Instructions for Completing the Right of Way Data Sheet

To provide complete and consistent data for input into Right of Way's portion of PMCS, the Right of Way Data Sheet and Right of Way Estimate Worksheet will be used.

The Right of Way Data Sheet has been designed to accomplish dual purposes: 1) function as an estimating form that is incorporated into the Project Report/Environmental Document as appropriate, and 2) provide essential data for PMCS by entry of Right of Way workload and cost estimates on the EVNT RW, COST RW1, and other PMCS screens for which Right of Way is responsible.

Data required to complete Item 1 on the Right of Way Data Sheet is obtained from the totals of various columns on the Right of Way Estimate Worksheet.

All sections of the Right of Way Data Sheet must be completed. If a section is not applicable, it should be so indicated.

The following instructions relate to completion of Right of Way Data Sheet Items 1, 2, and 3. The balance of the Right of Way Data Sheet is self-explanatory.

- Entry 1.A.1. -** is the total Acquisition cost for the project alternative. It includes acquisition, including excess lands, damages, goodwill, and project permit fees. It is the total of entries 1.A.4. and 1.A.5.
- Entry 1.A.2., 3., and 4. -** 1.A.2. is the grand total of Column 4 on the Right of Way Estimate Worksheet plus contingency costs.
1.A.3. is the escalation rate for Acquisition activities.
1.A.4. is 1.A.2. escalated to the year of Right of Way Certification using escalation rate 1.A.3.
- Entry 1.A.5. -** is the grand total of Column 15 on the Right of Way Estimate Worksheet.
- Entry 1.B.1., 2., and 3. -** 1.B.1. is obtained from the Utility Information Sheet provided by the Utility Estimator plus contingency costs.
1.B.2. is the escalation rate provided by the Utility Estimator.
1.B.3. is 1.B.1. escalated to the year of Right of Way Certification using escalation rate 1.B.2.
- Entry 1.C.1., 2., and 3. -** 1.C.1. is the total of Column 5 on the Right of Way Estimate Worksheet plus contingency costs.
1.C.2. is the Relocation Assistance escalation rate.
1.C.3. is 1.C.1. escalated to the year of Right of Way Certification using escalation rate 1.C.2.
- Entry 1.D.1., 2., and 3. -** 1.D.1. is the total of Column 6 on the Right of Way Estimate Worksheet plus contingency costs.
1.D.2. is the Clearance/Demolition escalation rate.
1.D.3. is 1.D.1. escalated to the year of Right of Way Certification using escalation rate 1.D.2.
- Entry 1.E.1., 2., and 3. -** 1.E.1. is the total of Column 11 on the Right of Way Estimate Worksheet.
1.E.2. is the Title and Escrow escalation rate.
1.E.3. is 1.E.2. escalated to the year of Right of Way Certification using escalation rate 1.E.2.
-

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 6 of 6

- Entry 1.F.1. and 2. -** 1.F.1. is the total of the Current Value column of the Right of Way Data Sheet.
1.F.2. is the total of the Escalated Value column of the Right of Way Data Sheet, excluding items 1A4 and 1A5.
- Entry 1.G. -** is the total of Column 10 on the Right of Way Estimate Worksheet. The total estimate for Construction Contract Work is to be reported to Project Development and the Project Manager to ensure inclusion in the projects PS&E.
- Entry 2 -** is the anticipated Right of Way Certification date.
- Entry 3.A. -** Each parcel is “typed” in Column 1 of the Right of Way Estimate Worksheet (see Exhibit 4-EX-3 for definitions of each type). The total of each type is inserted on the appropriate line.
- Entry 3.B. -** Total of all parcels in the estimate. Total should equal the sum of Items X through D in the “Type” Column. Do not include a double count for dual appraisal parcels.
- Entry 3.C. -** Indicates the number of parcels per type that will require a dual appraisal. Refer to Right of Way Manual, Chapter 7, Section 7.01.07.00, for a definition of parcels requiring a dual appraisal.
- Entry 3.D. -** Utilities workload involvement obtained from the Utility Information Sheet is provided by the Utility Estimator. Refer to Right of Way Manual, Chapter 13, Exhibit 13-EX-6, for definitions of the various utility workload involvements.
- Entry 3.E. -** Railroad workload involvements obtained from the Railroad Information Sheet provided by the Railroad Coordinator. Enter railroad data in both EVNT RW and AGRE Screens. Note: Service Contracts are entered into for both Design and Construction services. Enter the number of each in the appropriate location; the total of both is entered on the “Svc Contract” line on the Data Sheet.
- Entry 3.F. -** Total RAP displacements. Amount is total of Column 7 on the Right of Way Estimate Worksheet.
- Entry 3.G. -** Clearance/Demolition units. Amount is the total of Column 8 on the Right of Way Estimate Worksheet.
- Entry 3.H. -** Construction Permits include material and disposal sites. Number is the total of Column 9 on the Right of Way Estimate Worksheet.
- Entry 3.I. -** Condemnation Suits. Total number of condemnation suits anticipated in conjunction with the project based on district experience.
-

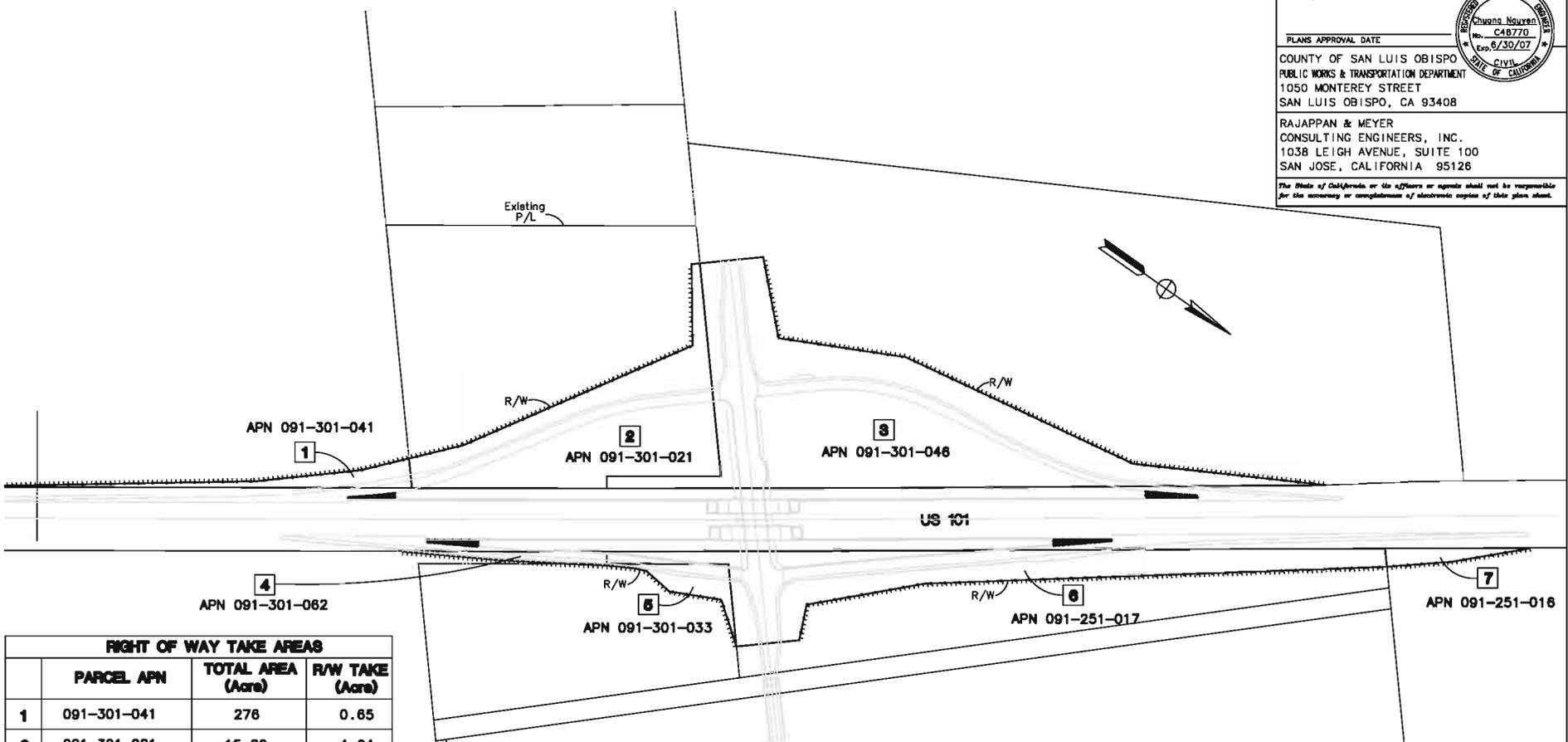
PROJECT: STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY: []
 CHECKED BY: []
 DATE: []
 REVISED BY: []
 DATE: []

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	101	5.9/6.9		72

PROFESSIONAL CIVIL ENGINEER
 [Signature]
 PLANS APPROVAL DATE: []
 COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408
 RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126



The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



RIGHT OF WAY TAKE AREAS			
	PARCEL APN	TOTAL AREA (Acres)	R/W TAKE (Acres)
1	091-301-041	276	0.65
2	091-301-021	15.20	4.64
3	091-301-046	41.88	9.99
4	091-301-062	160.78	0.31
5	091-301-033	8.50	0.52
6	091-251-017	102.24	4.68
7	091-251-016	115.80	0.30

TOTAL RIGHT OF WAY TAKE = 2129 ACRES

WILLOW ROAD INTERCHANGE

RIGHT OF WAY TAKE
 NOT TO SCALE
RW-1

RELATIVE BORDER SCALE
 1/8" = 1' IN INCHES
 0 1 2 3

USERNAME => USER
 DGN FILE => BREQ001

CU EA 047450

LAST EVALUATION: 00-00-00
 DATE PLUMED: 04/16/07
 TIME PLUMED: 07:16

UTILITY INFORMATION SHEET

(Form #) For Willow Road/US 101 Interchange

1. Name of utility companies involved in project:

Southern California Gas Transmission
 PG&E Electric Transmission

2. Types of facilities and agreements required:

Southern California Gas has a 16" high pressure pipeline (SL 39-9-06) in an easement. The relocated pipeline will require an easement. PG&E has an aerial 115KV electrical transmission line and a 12KV distribution line that will require an easement. This work is to be done prior to construction of the interchange with the Willow Extension from Hetrick Road to the West Frontage Road.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Explain.

Yes, 1263' of the 16" gas pipeline will be in longitudinal conflict with the proposed access control. This pipe will be relocated prior to interchange construction to a location outside of the State Right of Way.

Disposition of longitudinal encroachment(s):

- Relocation required.
- Exception to policy needed.
- Other. Explain.

Relocation will be done with prior Willow Road extension project.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

Yes, both facilities will have seasonal restrictions and long lead time material.

5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:

\$ 1,463,000

Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

<u>Utility Involvements</u>	
U4-1	U5-7
-2	-8
-3 3	-9 3
-4	

Prepared By:

John Beebe - AEC Engineers - (408) 978-3921

12/17/2008

Right of Way Utility Estimator

Date

RIGHT OF WAY DATA SHEET

(Form #)

To: District Office Chief - Right of Way Date 01/22/2009
 Dist 5 Co SLO Rte 101 P/M (K/P) PM 5.9/6.9
 Attention: District Branch Chief EA 05-47450
 Local Public Agency Services
 Project Description Willow Road
 (Segment Connecting US 101 & Thompson Ave.)
 Subject: Right of Way Data Alternate No. Preferred Alternative

This Alternate meets the criteria for a Design/Build project: Yes No

1. Right of Way Cost Estimate: To be entered into PMCS COST RW1-5 Screens.

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost			
Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>383,000</u>	<u>0%</u>	\$ <u>383,000</u>
Project Permit Fees.			\$ _____
B. Utility Relocation (County Share)	\$ <u>173,440</u>		\$ <u>173,440</u>
C. Relocation Assitance	\$ _____		\$ _____
D. Clearance/Demolition	\$ _____		\$ _____
E. Title and Escrow	\$ <u>6,000</u>	<u>5%</u>	\$ <u>6,300</u>
F. Total Estimated Cost	\$ <u>562,440</u>		\$ <u>562,740</u>
G. Construction Contract Work	\$ _____		

2. Current Date of Right of Way Certification Jan, 2010

3. Parcel Data: To be entered into PMCS EVNT RW Screen.

Type	Dual/Appr	Utilities	RR Involvements
X _____		U4-1 _____	None <u>X</u>
A <u>1</u> _____		-2 _____	C&M Agrmt _____
B <u>2</u> _____		-3 _____	Svc Contract _____
C _____		-4 _____	Design _____
D _____		U5-7 _____	Const. _____
E XXXX _____		-8 _____	Lic/RE/Clauses _____
F XXXX _____		-9 _____	
Total <u>3</u> _____			<u>Misc. R/W Work</u>
			RAP Displ _____
			Clear/Demo _____
			Const Permits _____
			Condemnation _____
			Excess _____

Areas: R/W 7.09 Acres No. Excess Parcels _____
 Entered PMCS Screens ___/___/___ by _____
 Entered AGRE Screen (Railroad data only) ___/___/___ by _____

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 2 of 6

4. Are there any major items of construction contract work? Yes No (If "Yes," explain.)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). No right of way required.
The right of way consist of 3 partial acquisitions.
Two are private property and one is one is a perpendicular crossing of an abandoned railroad r/w which the County of SLO claims rights to.
No structures are
6. Is there an effect on assessed valuation? Yes Not Significant No (If "Yes," explain.)
7. Are utility facilities or rights of way affected?
Yes No (If "Yes," attach Utility Information Sheet, Exhibit 4-EX-5.)
The following checked items may seriously impact lead time for utility relocation:
 Longitudinal policy conflict(s)
 Environmental concerns impacting acquisition of potential easements
 Power lines operating in excess of 50 KV and substations
(See attached Exhibit 4-EX-5 for explanation.)
8. Are Railroad facilities or rights of way affected?
Yes No (If "Yes," attach Railroad Information Sheet, Exhibit 4-EX-6.)
-

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 3 of 6

9. Were any previously unidentified sites with hazardous waste and/or material found?
Yes None Evident (If "Yes," attach memorandum per R/W Manual, Chapter 4, Section 4.01.10.00.)

10. Are RAP displacements required? Yes No (If "Yes," provide the following information.)

No. of single family _____ No. of business/nonprofit _____

No. of multi-family _____ No. of farms _____

Based on Draft/Final Relocation Impact Statement/Study dated _____, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

11. Are there Material Borrow and/or Disposal Sites required? Yes No (If "Yes," explain.)

3,000 CY of excavation will be disposed during construction of the project.
Imported embankment will come from other portions of Willow Road.

12. Are there potential relinquishments and/or abandonments? Yes No (If "Yes," explain.)

13. Are there any existing and/or potential airspace sites? Yes No (If "Yes," explain.)

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 4 of 6

- 14. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if district proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

Based on the R/W requirements on Page 1 of this Data Sheet, R/W will require a lead time of 12 months from the date regular appraisals can begin to project certification.

In any event, RW Maps will require 12 months from Final Maps to project certification.

- 15. Is it anticipated that Caltrans staff will perform all Right of Way work? Yes No (If "No," discuss.)

County of San Luis Obispo to acquire right of way.

Evaluation Prepared By:

Right of Way Estimate:

Name Lillian D Jewell
Hamner, Jewell & Associates

Date 02/02/2009

Railroad/Engineering

John Nguyen, Rajappan & Meyer

Date 01/21/2009

Utilities:

Name John Beebe - AEC Engineers

Date 12/04/2008

Recommended for Approval:

Keith Meyer, Project Manager

Rajappan & Meyer Consulting Engineers, Inc.

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and I find this Data Sheet complete and current.

John W. Maddux
 District Division Chief/Regional Manager
 Right of Way
 JOHN W. MADDUX, Chief
 San Luis Obispo Field Office
2-23-09
 Date

Instructions for Completing the Right of Way Data Sheet

To provide complete and consistent data for input into Right of Way's portion of PMCS, the Right of Way Data Sheet and Right of Way Estimate Worksheet will be used.

The Right of Way Data Sheet has been designed to accomplish dual purposes: 1) function as an estimating form that is incorporated into the Project Report/Environmental Document as appropriate, and 2) provide essential data for PMCS by entry of Right of Way workload and cost estimates on the EVNT RW, COST RW1, and other PMCS screens for which Right of Way is responsible.

Data required to complete Item 1 on the Right of Way Data Sheet is obtained from the totals of various columns on the Right of Way Estimate Worksheet.

All sections of the Right of Way Data Sheet must be completed. If a section is not applicable, it should be so indicated.

The following instructions relate to completion of Right of Way Data Sheet Items 1, 2, and 3. The balance of the Right of Way Data Sheet is self-explanatory.

- Entry 1.A.1. -** is the total Acquisition cost for the project alternative. It includes acquisition, including excess lands, damages, goodwill, and project permit fees. It is the total of entries 1.A.4. and 1.A.5.
- Entry 1.A.2., 3., and 4. -** 1.A.2. is the grand total of Column 4 on the Right of Way Estimate Worksheet plus contingency costs.
1.A.3. is the escalation rate for Acquisition activities.
1.A.4. is 1.A.2. escalated to the year of Right of Way Certification using escalation rate 1.A.3.
- Entry 1.A.5. -** is the grand total of Column 15 on the Right of Way Estimate Worksheet.
- Entry 1.B.1., 2., and 3. -** 1.B.1. is obtained from the Utility Information Sheet provided by the Utility Estimator plus contingency costs.
1.B.2. is the escalation rate provided by the Utility Estimator.
1.B.3. is 1.B.1. escalated to the year of Right of Way Certification using escalation rate 1.B.2.
- Entry 1.C.1., 2., and 3. -** 1.C.1. is the total of Column 5 on the Right of Way Estimate Worksheet plus contingency costs.
1.C.2. is the Relocation Assistance escalation rate.
1.C.3. is 1.C.1. escalated to the year of Right of Way Certification using escalation rate 1.C.2.
- Entry 1.D.1., 2., and 3. -** 1.D.1. is the total of Column 6 on the Right of Way Estimate Worksheet plus contingency costs.
1.D.2. is the Clearance/Demolition escalation rate.
1.D.3. is 1.D.1. escalated to the year of Right of Way Certification using escalation rate 1.D.2.
- Entry 1.E.1., 2., and 3. -** 1.E.1. is the total of Column 11 on the Right of Way Estimate Worksheet.
1.E.2. is the Title and Escrow escalation rate.
1.E.3. is 1.E.2. escalated to the year of Right of Way Certification using escalation rate 1.E.2.
-

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 6 of 6

- Entry 1.F.1. and 2. -** 1.F.1. is the total of the Current Value column of the Right of Way Data Sheet.
1.F.2. is the total of the Escalated Value column of the Right of Way Data Sheet, excluding items 1A4 and 1A5.
- Entry 1.G. -** is the total of Column 10 on the Right of Way Estimate Worksheet. The total estimate for Construction Contract Work is to be reported to Project Development and the Project Manager to ensure inclusion in the projects PS&E.
- Entry 2 -** is the anticipated Right of Way Certification date.
- Entry 3.A. -** Each parcel is “typed” in Column 1 of the Right of Way Estimate Worksheet (see Exhibit 4-EX-3 for definitions of each type). The total of each type is inserted on the appropriate line.
- Entry 3.B. -** Total of all parcels in the estimate. Total should equal the sum of Items X through D in the “Type” Column. Do not include a double count for dual appraisal parcels.
- Entry 3.C. -** Indicates the number of parcels per type that will require a dual appraisal. Refer to Right of Way Manual, Chapter 7, Section 7.01.07.00, for a definition of parcels requiring a dual appraisal.
- Entry 3.D. -** Utilities workload involvement obtained from the Utility Information Sheet is provided by the Utility Estimator. Refer to Right of Way Manual, Chapter 13, Exhibit 13-EX-6, for definitions of the various utility workload involvements.
- Entry 3.E. -** Railroad workload involvements obtained from the Railroad Information Sheet provided by the Railroad Coordinator. Enter railroad data in both EVNT RW and AGRE Screens. Note: Service Contracts are entered into for both Design and Construction services. Enter the number of each in the appropriate location; the total of both is entered on the “Svc Contract” line on the Data Sheet.
- Entry 3.F. -** Total RAP displacements. Amount is total of Column 7 on the Right of Way Estimate Worksheet.
- Entry 3.G. -** Clearance/Demolition units. Amount is the total of Column 8 on the Right of Way Estimate Worksheet.
- Entry 3.H. -** Construction Permits include material and disposal sites. Number is the total of Column 9 on the Right of Way Estimate Worksheet.
- Entry 3.I. -** Condemnation Suits. Total number of condemnation suits anticipated in conjunction with the project based on district experience.
-

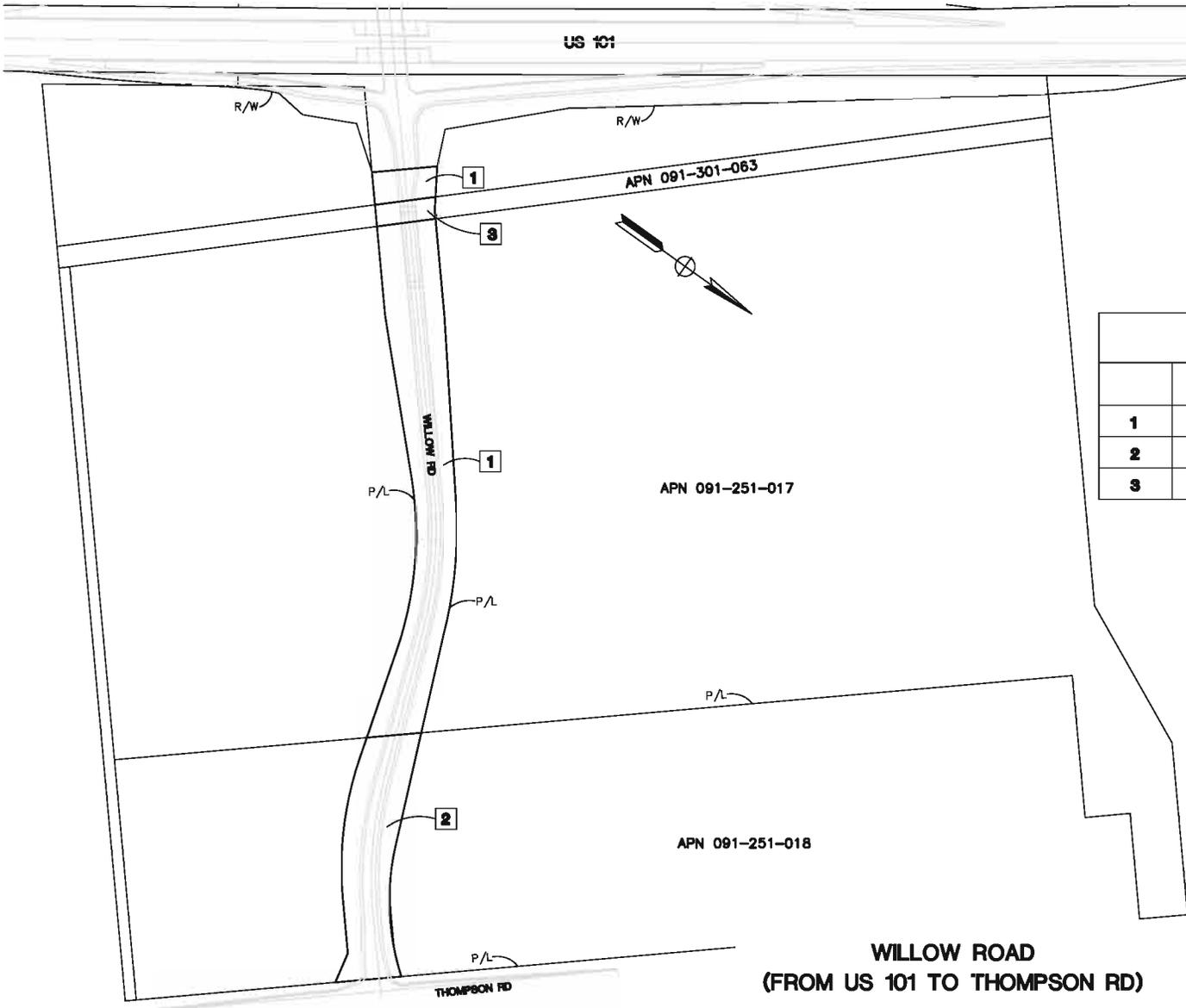
SHEET: STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 GILBERTSON
 CALCULATED/DESIGNED BY: _____
 CHECKED BY: _____
 DATE: _____
 HA: _____
 CN: _____
 REVISED BY: _____
 DATE: _____
 REVISED: _____

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SLO	880	5.6/8.9		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE: _____
 COUNTY OF SAN LUIS OBISPO
 PUBLIC WORKS & TRANSPORTATION DEPARTMENT
 1050 MONTEREY STREET
 SAN LUIS OBISPO, CA 93408



RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95128
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



RIGHT OF WAY TAKE AREAS			
	PARCEL APN	TOTAL AREA (Acres)	R/W TAKE (Acres)
1	091-251-017	102.24	4.66
2	091-251-018	41.00	2.21
3	091-301-063	6.88	0.22

TOTAL RIGHT OF WAY TAKE = 7.09 ACRES

**WILLOW ROAD
(FROM US 101 TO THOMPSON RD)**

**RIGHT OF WAY TAKE
NOT TO SCALE
RW-2**

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME -> BUSER
DGN FILE -> BREQDET

CU EA 047450

LAST EVALUATION: 00-00-00
 SHEET NUMBER: 047450

1. Name of utility companies involved in project:

Conoco Phillip and AT&T
 Central Coast Water Authority

2. Types of facilities and agreements required:

Conoco Phillips has two pipes in an easement crossing the proposed alignment in Nipomo Creek, including an 8" steel Orcutt Line and a 12" steel Santa Maria Line. The extension of Willow Road over the existing pipelines will require a Joint Use Agreement. The AT&T aerial pole line is in franchise on Thompson Road and will not require an agreement. The Pacific Coast Railway (abandoned) will require a no cost easement. No railroad facilities are involved.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Explain.

NO

Disposition of longitudinal encroachment(s):

- Relocation required.
- Exception to policy needed.
- Other. Explain.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

Conoco Phillips will require that steel casing be constructed over their pipelines. This will be a project cost.

5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:

\$ 173,440

Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

<u>Utility Involvements</u>					
U4-1	1		U5-7	1	
	-2			-8	
	-3			-9	1
	-4	1			

Prepared By:

John Beebe - AEC Engineers - (408) 978-3921

12/17/2008

Right of Way Utility Estimator

Date

ATTACHMENT 8
Storm Water Data Report Cover Sheet

Storm Water Data Report



Dist-County-Route: 05-SLO-101

Post Mile (Kilometer Post) Limits: PM 5.8/6.9

Project Type: Interchange

EA: 05-47450

RU:

Program Identification: Specially Funded

Phase: PID PA/ED PS&E

Regional Water Quality Control Board(s): CENTRAL COAST REGION (3)

Is the project required to consider incorporating Treatment BMPs? Yes No

If yes, can Treatment BMPs be incorporated into the project? Yes No

If No, a Technical Data Report must be submitted to the RWQCB

at least 60 days prior to PS&E Submittal. List submittal date: _____

Total Disturbed Soil Area: 18.02 Acres

Estimated Construction Start Date: March 2009 Construction Completion Date: March 2011

Notification of Construction (NOC) Date to be submitted: February 2009

Notification of ADL reuse (if Yes, provide date) Yes Date: _____ No

Separate Dewatering Permit (if Yes, permit number) Yes Permit #: _____ No

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Martha M. Dadala October 17, 2007
 Martha M Dadala Registered Project Engineer Date

I have reviewed the storm water quality design issues and find this report to be complete, current, and accurate:

Douglas Heumann 11/01/2007
 Doug Heumann, Project Manager Date

Jon Wood 11/09/07
 Jon Wood, Designated Maintenance Representative Date

Dennis Reeves 11/2/07
 Dennis Reeves, Designated Landscape Architect Representative Date

Marissa Nishikawa 11/13/07
 Marissa Nishikawa, Regional SW Coordinator or Designee Date



ATTACHMENT 9
Traffic Management Plan (TMP) Checklist

D-05 TRAFFIC MANAGEMENT PLAN CHECKLIST

District / EA: 05-47450
 Date Prepared: 12-Jan-09
 Prepared By: Chuong Nguyen - 408-280-2772
 Requested By: Doug Heumann
 Stage of Project (X box): PID PSR PR PS&E

Co.-Rte-PM 05-SLO-101-PM 5.9/6.9
 Location: In San Luis Obispo County, In and near Nipomo Area

Description: US 101/Willow Road Interchange

REQUIRED	RECOMMENDED	NOT APPLICABLE	COMMENTS	ITEM COST	REQUIRED IN SPECS
----------	-------------	----------------	----------	-----------	-------------------

1.0 Public Information

- 1.1 Brochures and Mailers
- 1.2 Media Releases (& minority media sources)
- 1.3 Paid Advertising
- 1.4 Public Information Center
- 1.5 Public Meetings/Speakers Bureau
- 1.6 Project Telephone Hotline
- 1.7 Internet, E-mail
- 1.8 Local cable TV and News
- 1.9 Notification to impacted groups
(i.e. bicycle users, pedestrians with disabilities, others)
- 1.10 Project Web Page
- 1.11 Caltrans Public Information Office
- 1.12 Consultant Public Information Office
- 1.13 Other items

X					
X					
X					
		X			
		X			
		X			
X					
X					
		X			
X					
X				\$25K	
X					
		X			

2.0 Motorist Information Strategies

- 2.1 Changeable Message Signs (permanent)
- 2.2 Changeable Message Signs (portable)
- 2.3 Special Construction Signs
- 2.4 Traveler Information System
- 2.5 Highway Advisory Radio (fixed and mobile)
- 2.6 Radar Speed Message Sign
- 2.7 Traffic management team
- 2.8 Revised Transit Schedules/Maps
- 2.9 Bicycle Community information
- 2.10 Other items

		X			
X				\$95K	X
X				\$10K	
		X			
		X			
		X			
		X			

3.0 Incident Management

- 3.1 COZEOP
- 3.2 Freeway Service Patrol
- 3.3 Traffic Surveillance Stations (loops or CCTV)
- 3.4 Transportation Management Center
- 3.5 Traffic Control Inspector
- 3.6 Traffic Management Teams
- 3.7 On-site Traffic Advisor (contractor)
- 3.8 Other items

	X			\$200K	
	X				
		X			
X					
		X			
X					
X					
		X			

4.0 Construction Strategies

- 4.1 Delay damage clause
- 4.2 Night work
- 4.3 Weekend Work
- 4.4 Extended Weekend Closures
- 4.5 Planned Lane Closures
- 4.6 Planned Ramp/Connector Closures
- 4.7 Total Facility Closure
- 4.8 Project Phasing

X					X
X			Lane Closure Charts TBD		X
		X			
		X			
X			Lane Closure Charts TBD		X
		X			
		X			
X					X

D-05 TRAFFIC MANAGEMENT PLAN CHECKLIST

District / EA: **05-47450**
 Date Prepared: **12-Jan-09**
 Prepared By: **Chuong Nguyen - 408-280-2772**
 Requested By: **Doug Heumann**
 Stage of Project (X box): PID PSR PR PS&E

Co.-Rte-PM **05-SLO-101-PM 5.9/6.9**
 Location: **In San Luis Obispo County, In and near Nipomo Area**

Description: **US 101/Willow Road Interchange**

4.0 Construction Strategies (Continued)

- 4.9 Truck Traffic Restrictions
- 4.10 Reduced lane Widths
- 4.11 Temporary K-rail
- 4.12 Temporary Traffic Screens
- 4.13 Reduced Speed Zones
- 4.14 Traffic Control Improvements
- 4.15 Contingency Plans
 - 4.15.1 Material Plant on standby
 - 4.15.2 Extra Critical Equipment on site
 - 4.15.3 Material Testing Plan
 - 4.15.4 Alternate Material on site
(In case of failure or major delays)
 - 4.15.5 Emergency Detour Plan
 - 4.15.6 Emergency Notification Plan
 - 4.15.7 Weather Conditions Plan
 - 4.15.8 Delay Timing and Documentation Plan
 - 4.15.9 Late Closure Reopening Notification
- 4.16 Signal timing modification
- 4.17 Coordination with adjacent construction
- 4.18 Double fine Zone
- 4.19 Right of way delay
- 4.20 Other items

REQUIRED	RECOMMENDED	NOT APPLICABLE	COMMENTS	ITEM COST	REQUIRED IN SPECS
		X			
X					
X				\$60K	X
X				\$12K	X
X					
		X			
X					X
		X			
		X			
		X			
		X			
X			Construction/Contractor to provide		
X			Construction/Contractor to provide		
		X			
		X			
X					
		X			
X					X
X					
		X			
		X			
		X			

5.0 Demand Management

- 5.1 HOV Lanes/Ramps
- 5.2 Ramp metering
- 5.3 Park-and-Ride Lots
- 5.4 Parking Management/Pricing
- 5.5 Rideshare Incentives
- 5.6 Rideshare Marketing
- 5.7 Transit, Train, or Light-Rail Incentives
- 5.8 Transit Service Improvements
- 5.9 Variable Work Hours
- 5.10 Telecommute
- 5.11 Other items

		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			

6.0 Alternate Route Strategies

- 6.1 Ramp Closures
- 6.2 Street Improvements
- 6.3 Reversible Lanes
- 6.4 Temporary Lanes or Shoulders Use
- 6.5 Freeway to freeway connector closures

		X			
		X			
		X			
		X			
		X			

7.0 Other Strategies

- 7.1 Application of new technology
- 7.2 Other items

		X			
		X			

Comments:

Prepared by:

John Nguyen
Rajappan & Meyer Consulting Engineers
408-280-2772

ATTACHMENT 10
Supporting Funding Letters

San Luis Obispo Council of Governments



Ronald L. DeCarli - Executive Director

Regional Transportation Planning Agency
Metropolitan Planning Organization
Census Data Affiliate
Service Authority for Freeways and Expressways

Arroyo Grande
Atascadero
Grover Beach
Morro Bay
Paso Robles
Pismo Beach
San Luis Obispo
San Luis Obispo County

March 13, 2009

Cindy Utter
Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401-5415

Subject: Willow Road Interchange:

Dear Cindy:

Doug Heumann has requested that SLOCOG provide District 5 correspondence addressing the relationship between the Willow Road I/C project in SLO County and the Regional Transportation Plan as the District continues review of the Administrative Draft Project Reports.

The current RTP was adopted in April of 2005 and efforts for its next update have begun this fiscal year. Currently this project is recognized as a priority in the midterm cycle (2010-2014).

Inherent in the update of the RTP is a revision of the financial constraints to include any changes in scope or other related cost increases for projects. This is expected to occur on the Rte 101/Willow Road Interchange project. Currently, this project is listed in the constrained section of SLOCOG's 2005 RTP for \$17,357,000. SLOCOG's 2009 RTP will be updated to include the full cost of the project.

Please contact me if you have any other questions regarding this issue.

Sincerely,

Jessica Berry
Transportation Planner
(805) 781-5764
jberry@SLOCOG.org

cc: Doug Heumann
cc: Richard Murphy



SAN LUIS OBISPO COUNTY
DEPARTMENT OF PUBLIC WORKS

Paavo Ogren, Director

County Government Center, Room 207 • San Luis Obispo, CA 93408 • (805) 781-5252

Fax (805) 781-1229

email address: pwd@co.slo.ca.us

December 19, 2008

Mr. Rich Krumholtz, Director
Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401

Subject: Willow Road Interchange Project Report Approval

Dear Mr. Krumholtz:

Our staff has been seeking final approval of the Willow Road Interchange Project Report. The last element to be resolved was the project funding section of the report to be consistent with Chapter 27 of the Project Development Procedures Manual for New Public Road Connections. Your staff has been agreeable to process the Final Project Report as written, if we attest to the following conditions.

1. That Willow Road is the top priority transportation project for the County.
2. Acknowledge that no design plan review work of the interchange can commence until the Cooperative Agreement is signed by the State and County.
3. Provide a statement in the County's Resolution for approving the Freeway Agreement for a new connection which includes a commitment that the County will fund the interchange within five years.

As the Director of Public Works and Transportation for the County of San Luis Obispo, I would state that the Willow Road interchange is our top priority transportation project. While we have several projects being processed within Caltrans, we have not and will not advance other projects above Willow Road.

While we are in the process of completing the 30% design plans for the interchange to submit to Caltrans, we understand that Caltrans is under no obligation to begin the review until the Cooperative Agreement is executed. We would, however, request that Caltrans still conduct the 30% design plan review in spite of the lack of the agreement since the agreement has been in the works for well over six months and there is no expected deadline for its completion. It is expected that there will be no additional design plan review beyond the 30% design until the agreement is executed. Moreover, our staff has agreed with your project manager that the County is responsible for Quality Assurance and has therefore hired Mark Thomas Company to perform a peer review of the 30% design plans. This factor is expected to streamline the review process. Therefore, we would look

at the continuation of the work through the 30% design, as a measure of good faith effort by Caltrans.

The County will include the necessary statement needed for funding the improvement with the Freeway Agreement Resolution to be adopted by our Board. In addition to the \$30 million already identified from local Road Improvement Fees and State Transportation Improvement Program (STIP) funds, the Board has set aside reserves of \$6 million for financing the construction, and we are seeking additional local funding in 2009, to complete the work. We must follow through with our Board's direction prior to a final identification of that funding source. We await the Freeway Agreement from your staff in order to initiate the public hearing and adoption of the Resolution with the funding stipulation.

In connection to funding, the pending actions at the Federal level may provide significant funding into transportation. Some of these funds may find their way down to the local level and to projects which are ready to go; we would certainly like to avail ourselves of that opportunity. Toward that end, it is essential that we attain our National Environmental Policy Act (NEPA) clearance at the earliest opportunity, which getting the Final Project Report approved will accomplish. The County, using its own funds, will be obtaining the necessary right of way for the interchange construction. We need to work cooperatively on processing the final interchange plans in order to develop the project "ready to go" to take advantage of what may be an opportune moment.

We appreciate your efforts towards advancing this important project. My staff and I are available to work out any additional issues. We have sought for some time to attain the Project Report approval, and move forward with the Freeway Agreement. Attached is the project schedule for approvals we have tracked over the past 18 months. I am also seeking to set up a meeting with you at the beginning of January so we may discuss this project and other transportation issues. Ideally, the Project Report will be completed by that time, and we can look forward to the next steps toward a successful project.

Sincerely,



PAAVO OGREN
Director of Public Works

Attachment: Project Approval Schedule

c: Katcho Achadjian, Supervisor District 4 (with Attachment to all c:)
Ron DeCarli, SLOCOG Executive Director
Dale Ramey, Project Manager
Tim Gubbins, Caltrans District 5 Deputy Director Project Management
Doug Heumann, Caltrans Project Manager
Frank Honeycutt, Transportation Division Manager

ATTACHMENT 11
Risk Register

PROJECT RISK MANAGEMENT PLAN

Dist - E.A 05-474500 Project Name Willow Road Interchange
 Co-Rte-PM SLO-101-PM 5.9/6.9
 Date 2/3/2009
 Project Mngr Doug Heumann Telephone Number 805-549-3788

PROJECT RISK MANAGEMENT PLAN																		
Priority	Identification					Qualitative Analysis			OPTIONAL Quantitative Analysis			Response Strategy		Monitoring and Control				
	Status	ID #	Date Identified Project Phase	Functional Assignment	Threat/Opportunity Event	Risk Trigger	Type	Probability	Impact	Risk Matrix	Probability (%)	Impact (\$ or days)	Effect (\$ or days)	Strategy	Response Actions including advantages and disadvantages	Responsibility (Task Manager)	Status Interval or Milestone Check	Last date changes made to risk and Comments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) =(12)x(13)	(15)	(16)	(17)	(20)	(18)
	Retired	1	9/1/2007 PA&ED	Design/Environmental	Possibility of phasing project	If & when County decides to phase work within State R/W	Schedule	High	Very High		70%			Avoidance	Both the DPR and DED would need to address phasing. Each phase would need to show independent utility (NEPA). Design exceptions and CTC approval of only a portion of an interchange would be necessary and difficult to acquire.	County		(10-24-07) E-mail from Dale Ramey (County PW)--County decided not to phase the interchange portion of the project.
	Retired	2	9/1/2007 PA&ED	All	Coordination between DPR & DED	Both documents not stating same project definition and Purpose and Need	Schedule	Low	High		10%			Acceptance	Continue to monitor.	County		(11/09/07) Bryan Apper (CR Envir QAQC) met with Y.Hoffman re: DED verbiage (1/02/08) LSA (Env consultant) requested D05 return master DED for coordination with R&M (Design consultant). (2/08/08) DPR began 10-day CR electronic review 12/31/08 - Final PR comments sent from District to Consultant 11/1/08 - Final EA reviewed and approved through QCQA (2/4/09) FPR began 10-day CR electronic review
	Retired	3	8/6/2007 PA&ED	County	CT (PM & CR VA Coordinator) discussed the Value Analysis requirement. County did not schedule until the first week of March 2008.	VA Team reveals major problem or design change at late date	Schedule	Moderate	Very High		50%			Acceptance	Wait for VA results	County		(8/06/07) PM & Habib discussed VA requirement with County PW staff (1/2008) County contracted with Martin Hsu (1/18/08) Pre-VA Study Teleconference 3/03/08-03/07/08 VA Study scheduled 8/1/08 - VA results incorporated
	Retired	4	11/1/2007 PA&ED	Environmental	QA and Management Review of ED-PR requiring additional changes	Upon review at each resubmittal phase	Schedule	High	Very High		90%			Acceptance	Do not make changes that are not necessary for the validity of the document.	Caltrans		(9/11/07) DED and DPR Alternatives Section Resubmitted (11/28/07) DED and DPR Alternatives Section Resubmitted (12/6/07) DED and DPR Alternatives Section Resubmitted (2/6/08) DED and DPR Alternatives Section Resubmitted 11/1/08 - Final EA reviewed and approved through QA (2/4/09) FPR began 10-day CR electronic review
	Retired	5	1/1/2008 PA&ED	County/ Consultant	Late responses by Consultant to revisions	Each resubmittal and comment	Schedule	High	Very High		90%			Mitigation	Address comments within 2 days of receipt	Consultant		(9/11/07) DED and DPR Alternatives Section Resubmitted (11/28/07) DED and DPR Alternatives Section Resubmitted (12/6/07) DED and DPR Alternatives Section Resubmitted (2/6/08) DED and DPR Alternatives Section Resubmitted 11/1/08 - Final EA reviewed and approved through QA 12/31/08 - Final PR comments sent from District to Consultant (2/4/09) FPR began 10-day CR electronic review
	Active	6	3/15/2009 PA&ED	County	County Board of Supervisors does not pass the resolution	If County Board of Supervisors does not pass the resolution discussed in the DPR, page 35, Section 7B. Route Matters whereby "San Luis Obispo County will submit a local resolution requesting the new connection with a funding commitment", then the new Road connection will not be approved by the CTC	Schedule	Low	Very High		30%			Mitigation	County Board of Supervisors passes the resolution	County		3/18/09 - Risk added to FPR

