

04-SM-82-PM 13.69  
201.010  
1G020K (00002011)  
September 2011

## PROJECT STUDY REPORT

To

Request for Programming in the 2012 SHOPP

On Route SM-82

Between Bellevue Avenue

And Fairfield Road

APPROVAL RECOMMENDED:



NANDINI SHRIDHAR, PROJECT MANAGER

APPROVED:

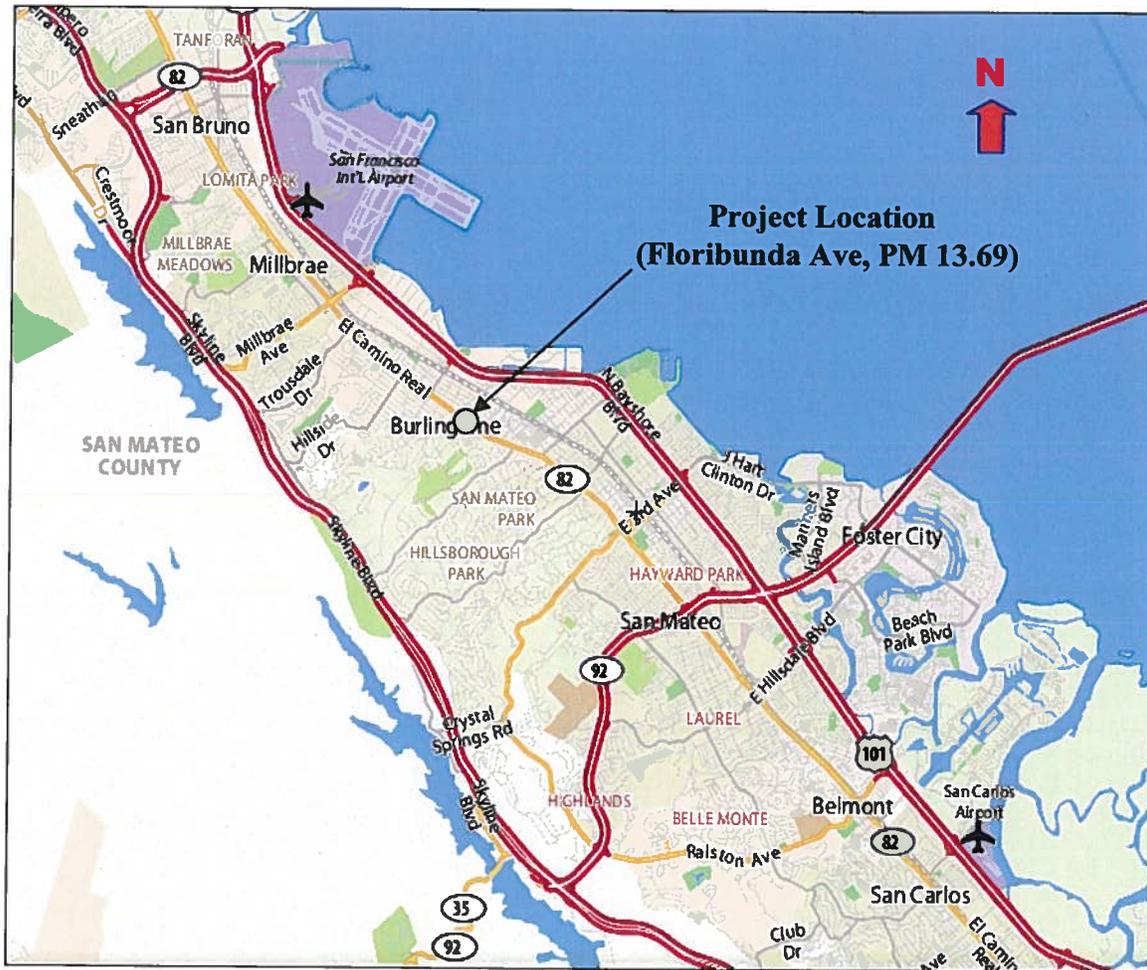


BIJAN SARTI, DISTRICT DIRECTOR

10-3-11

DATE

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On Route SM-82

Between Bellevue Avenue

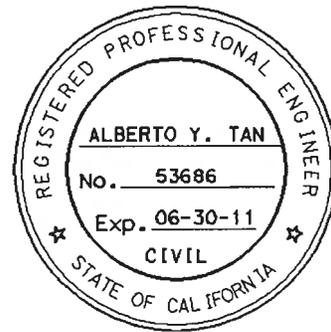
And Fairfield Road

04-SM-82-PM 13.69

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

Albert Tan  
*ALBERT Y. TAN, Registered Civil Engineer*

9/15/11  
DATE



Reviewed by:

Patrick K. Pang

**PATRICK K. PANG**  
Office Chief – Advance Planning

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## 1. INTRODUCTION

Brief Project Description:

Widen intersection to provide signalized left turn channelization in both directions along El Camino Real (Route 82) at Floribunda Avenue in the City of Burlingame and the town of Hillsborough.

See the Cost estimate for specific work items included in this project.

<b>Project Limits</b> (Dist., Co., Rte., PM)	04-SM-82-PM 13.69
<b>Number of Build Alternatives:</b>	2
<b>Alternative Recommended for Programming:</b>	Alternative II
<b>Programmed or Proposed Capital Construction Costs</b>	\$1.938M - \$2.253M
<b>Programmed or Proposal Capital Right of Way Costs:</b>	\$1.269M - \$1.352M
<b>Funding Source:</b>	SHOPP 2012
<b>Type of Facility</b> (conventional, expressway, freeway):	Conventional
<b>Number of Structures:</b>	None
<b>Anticipated Environmental Determination/Document</b>	CEQA – Environmental Clearance with EIR NEPA – Complex Environmental Assessment with Finding of No Significant Impact
<b>Legal Description</b>	Intersection Widening
<b>Project Category</b>	4B

A project report will serve as approval of the “selected” alternative.

## 2. BACKGROUND

SR 82 (El Camino Real) is a California state highway that runs from US 101 at Blossom Hill Road in San Jose to I-280 in San Francisco, forming a central artery through several San Francisco peninsula communities including Palo Alto (Stanford University), San Carlos, San Mateo, Burlingame, and Millbrae. Commonly referred to as “El Camino Real” (Spanish for The King’s Highway) it was part of the historic 600-mile Mission Trail connecting the 21 Spanish missions from San Diego to Sonoma.

SR 82 runs south to north for approximately 52 miles, with 26 miles in Santa Clara County, 25 miles in San Mateo County, and terminates a short distance into

San Francisco County at I-280. Throughout San Mateo County, SR 82 serves as a parallel arterial to I-280 and US 101.

The intersection of El Camino Real (ECR) and Floribunda Avenue lies along the limits of City of Burlingame and the town of Hillsborough in San Mateo County. At the subject intersection, at Floribunda Avenue, ECR is a four-lane undivided highway, with two 11-ft through lanes with uncontrolled left turn movements in both directions.

The town of Hillsborough requested Caltrans to study this intersection because the actual accident rate is greater than the statewide average for traffic involving vehicles with left turn movements. As a result of Caltrans investigation, it was discovered that there is sufficient number of accidents to warrant the installation of a signal and left turn channelization in both directions. A conceptual approval for the funding of this Safety Improvement Project was granted to District 4 on November 5, 2009 by the HQ Office of Traffic Safety Program.

### **3. PURPOSE AND NEED STATEMENT**

#### **Purpose:**

The purpose of this project is to reduce the potential for collisions involving left turn traffic movements and improve traffic operations at the intersection. This project study report (PSR) will investigate the various widening configurations to accommodate the left turn channelization at this intersection. The level of service will improve and the intersection would be able to accommodate an increase in the number of vehicles involving left turn movement.

#### **Need:**

The State TASAS accident-monitoring system during the period of January 1, 2006 through December 31, 2008 has identified the intersection as the location of high left-turn related accident concentration where the actual accident rate is greater than the statewide average rate. Thus, there is a need to construct safety improvements in order to significantly reduce the occurrence of left-turn related accidents. The lack of dedicated left-turn lanes contributes to the occurrence of intersection accidents.

This report will study the feasibility of installing left turn channelization on the northbound and southbound directions with protected turn signal phase along El Camino Real (Route 82, PM 13.69) at Floribunda Avenue in San Mateo County.

### **4. DEFICIENCIES**

A total of 35 accidents occurred at the intersection of Route 82 and Floribunda Avenue within the project limits during the three-year period from January 1, 2006 through December 31, 2008. The accident rate for this period shows the

total actual accident rate, 1.43 acc/mvm is higher than the average accident rate of 0.35 for similar facilities statewide.

No. Acc	Fat	Inj	Wet	Dark	*Actual	*Per Million Vehicle Miles				
						Acc. Rates	*Average Acc. Rates			
					F	F+I	Total	F	F+I	Total
35	0	17	3	6	.000	0.70	1.43	.002	.14	0.35

The 35 accidents fall into the following collision type categories:

<u>No. of Accident</u>	<u>Type of Collision</u>	<u>Percent</u>
2	Head-on	5.7
4	Sideswipe	11.4
7	Rear End	20.0
20	Broadside	57.1
0	Hit Object	0.0
0	Overturn	0.0
2	Auto-Ped	5.7
0	Other	0.0

The majority of the accidents occurred under clear weather (82.9%), daylight (82.9%) and dry roadway conditions (91.4%). No unusual roadway conditions are noted for 100% of the accidents. The highest percentage of accidents was broadside accidents and the primary collision factor of this type of accident was failure to yield.

## 5. CORRIDOR AND SYSTEM COORDINATION

### Corridor Overview

SR 82, an urban conventional facility in its entirety, is approximately 52 miles long and links San Jose and San Francisco. Given the length of this route, SR 82 provides significant to-and-through access to the San Francisco Peninsula, a major urbanized area that includes a significant percentage of the region's high-tech employment including ancillary support activity. SR 82 extends between US 101 and I-280, two of the region's critical freeway facilities that serve local, regional and interregional trips between the regions' two largest cities. The corridor also includes two of the region's three major airports and one of its major rail commuter lines extending between San Francisco and Gilroy, 30 miles south of San Jose.

SR 82 comprises a portion of the historic El Camino Real or Mission Trail linking California's 21 missions stretching approximately 500 miles from San Diego to Sonoma. Prior to its numerical designation as SR 82, the route comprised a segment of US 101. Rapid urbanization of the Peninsula after World War II rendered this portion of US 101 inadequate for traffic needs. The Bayshore

Highway to the east, originally constructed as Bypass US 101, was subsequently upgraded to freeway standards. In 1964, the Bayshore Highway was specified as US 101 and the former alignment along El Camino Real then became State Route 82.

### **System Planning Route Designations**

#### **Functional Classification**

The Functional Classification system was implemented by the Federal government in 1976. It is “the process by which streets and highways are grouped into classes according to the character of service they are intended to provide.” This system differentiates between road access and mobility and classifies all public road segments based on how they fit into a mobility/access hierarchical structure. The system includes roads that are most conducive to mobility such as Interstate facilities or major urban arterials, approximately 15% of the nation’s centerline road mileage. SR 82 in Millbrae is functionally classified as a “Principal Arterial - Urban.” Urban principal arterials primarily provide continuity from rural principal arterials for through traffic and between major centers within an urban area.

#### **Interregional Road System (IRRS)**

The IRRS is legislatively designated by the State to be critical to the region-to-region and the to-and-through movement of people and goods. As SR 82 is a conventional facility serving mainly local travel demand, it is not included in this system.

#### **Freight Designation**

State Route 82 allows use by trucks under both the federally-classified STAA (Surface Transportation Assistance Act) designation, and the California Legal Truck designation (65 ft. maximum length). These allowances enable accommodation of 5+ axle trucks.

### **Regional Planning**

The Metropolitan Transportation Commission (MTC) functions as both the regional transportation planning agency — a state designation — and, for federal purposes, as the region's metropolitan planning organization (MPO). As such, it is responsible for regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle and pedestrian facilities. The Commission also screens requests from local agencies for state and federal grants for transportation projects to determine their compatibility with the plan. MTC also plays a major role in building regional consensus among the region’s transit systems. State and federal laws have also given MTC an important role in financing Bay Area transportation improvements.

MTC's Regional Transportation Plan (T2035), adopted in 2009, lists programmed and planned projects throughout the 9 counties of the Bay Area. Currently there are no Regional Transportation Plan projects listed in the SR 82 corridor in San Mateo County.

### **Local Planning**

#### **San Mateo County**

The San Mateo County Transportation Authority (TA) was formed in 1988 with the passage of the voter-approved half-cent sales tax for countywide transportation projects and programs, known as Measure A. The Transportation Authority is governed by a Board of Directors, who are elected officials, representing the county, cities and the San Mateo County Transit District.

Together with the City/County Association of Governments of San Mateo County (C/CAG), the San Mateo County Transportation Authority adopted the *Countywide Transportation Plan 2010*. The goal of the San Mateo Countywide Transportation Plan 2010 (2001) is to increase demand for public transit and decrease demand for automobile travel, especially single-occupant vehicles. The county strategy focuses on road efficiency, improved transit service, increasing housing densities near transit, programs to reduce single-occupancy vehicles and pricing strategies that favor alternative transportation.

The federal SAFETEA-LU act, enacted in August 2005 as the reauthorization of TEA-21, provided the following expenditures on or near State Route 82:

- High Priority Project #1942: El Camino Real "Grand Boulevard" initiative in San Mateo County. \$3,000,000.

The Grand Boulevard Initiative is a regional collaboration dedicated to the revitalization of the El Camino Real corridor, as it runs through San Mateo and Santa Clara Counties. The Grand Boulevard is a collaboration of 19 cities, counties, local and regional agencies united to improve the performance, safety and aesthetics of El Camino Real. Starting at the northern Daly City limit (where it is named Mission Street) and ending near the Diridon Caltrain Station in central San Jose (where it is named The Alameda), the initiative brings together for the first time all of the agencies having responsibility for the condition, use, and performance of the street.

### **Future Construction**

A San Mateo SMART Corridor project, EA 4A9201, will soon begin construction to install equipment on various State Routes and local arterials in San Mateo County to reduce congestion and improve traffic operations. The current schedule shows that it will begin construction in early summer 2011. The project will

install a PTZ camera and optical fiber cables and conduits along El Camino Real, including its intersection with Floribunda.

## 6. ALTERNATIVES

### **Build Alternative I:**

***Widen West Side of ECR*** – This alternative proposes to install left turn channelization for both NB and SB directions with protected turn signal phase along El Camino Real at Floribunda Avenue. Widening will only be on the west side of El Camino Real.

There is predominantly low-density residential west of SR 82 which is in the town of Hillsborough, while several apartment complexes are located east of SR 82 in the City of Burlingame. The town of Hillsborough Police Department/Town Hall borders the site to the northwest and an elementary school is located to the northeast. A church is located further north beside the Police Department. Partial acquisition of Right of Way on 5 properties in the NW and SW quadrants of the intersection will be needed for the widening. Part of the existing fence along ECR on the SW quadrant of Floribunda Avenue is proposed to be removed and replaced with concrete block fence. Approximately 180 feet of earth retaining system (could be a modified Concrete Barrier, Type 60G) may also be needed at this location due to higher ground elevation at some portion contiguous to the proposed right of way. This will be evaluated during the PAED phase. There are numerous historic, mature eucalyptus and elm trees along both sides of SR 82. Approximately 18 to 20 of these trees on the NW and SW quadrants of the intersection will be removed. Overhead utility cables along the west side of SR 82 in the project area will need to be relocated.

The historic tree row and the residential property at 1615 Floribunda are potentially eligible for the National Registry of Historic Places. Proposed mitigation for the removal of 14 trees in the tree row could include replanting where possible and placement of interpretive signs on significance or history of the tree row or distribution of interpretive brochure. Mitigation for effects to 1615 Floribunda property might include reconstructing brick fences and or gateposts and possibly replanting trees if later determined in the PA&ED phase that these contribute to the property's historical significance.

The proposed construction and improvements may include roadwork that requires lane closures and detours. The Transportation Management Plan (TMP) for the project will be developed and refined during the PS&E phase and supported by detailed traffic studies to evaluate traffic operations. The need for necessary lane closures during off-peak hours or at night, or short-term detour routes will be identified, as required. The TMP will include press releases to notify and inform motorists, businesses, community groups, local entities, and emergency services of upcoming closures or detours. Various TMP elements such as portable Changeable Message Signs and CHP Construction Zone Enhance Enforcement Program (COZEEP) may be utilized to alleviate and minimize delay to the

traveling public. At a minimum, the TMP for this project should include press releases to increase awareness about the construction project and its schedule of lane closures and/or detours.

Due to close proximity to residential homes, construction activities that generate significant temporary noise levels will be evaluated and be considered to be performed during daytime non-peak hours.

The town of Hillsborough and the city of Burlingame reached a consensus in studying this alternative. The limits of widening will be further studied in the PA&ED phase when ground survey information becomes available and right of way alignments are established. Transverse limits of widening could change when necessary to satisfy environmental permit requirements.

**Build Alternative II:**

**Widen Both Sides of ECR** – This alternative is similar to Build Alternative I above. The only difference is that widening will be on both sides of ECR at the northeast and northwest quadrants of the intersection. Proposed widening is limited to less than 4 feet beyond the existing right of way or back of the sidewalk at some locations at the northeast quadrant of the intersection along ECR. Widening greater than 4 feet would impact the apartment complexes at the NE quadrant of the intersection, significantly increasing right of way cost and may draw more opposition from the apartment owners and tenants. Due to this restriction in widening at the east side of ECR, widening on both sides will not save the historic trees on the west side of ECR from removal. The city of Burlingame does not support the removal of additional trees on the east side of ECR as well. The mature eucalyptus and elm trees are historic and may qualify as scenic resources. Approximately 30 trees will be removed and 15 of these trees are considered historic. Mitigation for the effects in the tree row and the potential effects to the brick fence or gateposts at 1615 Floribunda would be the same as Alternative I. The degree of public concern for these trees also plays an important role in trying to minimize the number of trees to be removed especially at the NE and SE quadrants of the intersection which is within the limits of the city of Burlingame. The town of Hillsborough concurs with the need to remove the trees in the NW and SW quadrants.

**No Build Alternative** - This alternative and the following avoidance alternatives will not meet the purpose and need of this project. It will not reduce the potential for collisions involving left turn traffic movements.

**Other Alternatives Considered:**

**Widen East Side of ECR Only** – This alternative aims to widen ECR on the east side of the roadway only. It proposes to maintain the existing lane width of 11 feet, add a 10-foot lane for the proposed left-turn lane, and a 5-foot shoulder in both directions, similar to Build Alternative I and II, and will widen the roadway for another 20 feet beyond the existing travel way. The benefit of this option is it

decreases the number of historical trees to be cut to 9 as opposed to 14 when widening on the west side of the roadway only. However, this alternative will encroach onto five apartment complexes and involves not only right of way acquisitions, but also, removal of parts of the apartment buildings. Additionally, there are two other apartment complexes wherein the driveways will be needed as part of the expanded ECR. The right of way acquisition costs using this approach could cost in the tens of millions of dollars. This option may draw more controversy and opposition not only from the apartment owners but also from the tenants. City of Burlingame does not support this alternative.

### **Avoidance Alternatives**

In order to avoid impact to historic trees and eliminate the need for right of way acquisition, the Department deliberated on the following avoidance alternatives:

- 1. *Signal Timing Modification Alternative*** – This alternative will not provide left-turn channelization and solely involves signal timing adjustments of the existing traffic signals. The modification would allow left-turn and through traffic movements in one phase. However, this alternative has been determined to be ineffective as traffic in the other three legs of the intersection would be at stop creating long back-ups beyond the adjacent intersections along ECR. The LOS and delays for the AM and PM are C (33.1) and D (48.6). These are very drastic changes and are not recommended. The operation would preclude this intersection from being coordinated. It will create a void in the middle of the Burlingame system and the NB and SB progression on ECR would be negatively affected. The NB and SB 50<sup>th</sup> percentile queues are 240 feet and 310 feet in the AM peak and 447 feet and 401 feet in the PM peak respectively. Long back-ups or queues increase the potential for rear-end type of accidents.
- 2. *No Left Turn/Intersection Closure Alternative*** – Prohibiting left-turn was considered but determined to be impractical from operational and safety perspectives as the two local agencies (town of Hillsborough's Town Hall and City of Burlingame's City Hall and their fire and police stations) are situated on both sides of the intersection. Fire trucks, police, safety, maintenance, and related emergency response vehicles from both local agencies will need to make turn movements at the intersection for ingress/egress to and from their stations. Accordingly, prohibiting left-turn traffic by closing the intersection would cause delay in local agencies' ability to respond to emergency and public safety. It is anticipated that there would be enforcement challenges on closure implementation. Closure by striping would not totally prevent motorists from making left turns. Closure by use of barriers poses safety issues due to lack of horizontal clearance or left shoulder. Furthermore, if traffic turn movements are made at the next intersection either north or south of Floribunda Avenue, occurrences of left-turn related accidents would more likely shift to these intersections.

**Nonstandard Design Features:** The standard lane width for conventional highways shall be 12 feet [Highway Design Manual (HDM) Index 301.1] and the standard shoulder width shall be 8 feet (HDM 302.1).

The build alternative maintains the existing lane width of 11 feet for the traveled ways, added a lane width of 10 feet for the proposed left-turn lanes and a shoulder width of 5 feet in both directions. Currently, there are no shoulders at the intersection along El Camino Real.

HQ Office of Pavement Policy and Planning granted an exemption for Life Cycle Cost Analysis requirements on 3/3/2011.

The proposed nonstandard design features had been reviewed and concurred by the Headquarters (HQ) Design Reviewer on March 9, 2010. The Fact Sheet Exceptions to Mandatory Design Standards was approved by the HQ – Design Coordinator on June 7, 2011.

## 7. COMMUNITY INVOLVEMENT

It is anticipated that a public informational meeting will be held in the PA&ED phase. The department held PDT meetings with the City of Burlingame and the town of Hillsborough to discuss the scope, schedule and fund sources for this project. Local agencies input contributed to positive identification of viable alternative.

## 8. ENVIRONMENTAL DETERMINATION/DOCUMENT

This project appears to qualify for an Environmental Impact Report under the California Environmental Quality Act (CEQA) and a Complex Environmental Assessment/ Finding of No Significant Impact under the National Environmental Policy Act (NEPA). A Preliminary Environmental Analysis Report (PEAR) has been prepared for programming purposes and is included as Attachment F.

## 9. FUNDING

### 9A. Capital Support Estimate for the Programmable Alternative in the 2012 SHOPP

	PA&ED 0 Phase		Design 1 Phase		Right of Way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	4.7	0	4.5	0	2	0	1.2	0	12.4
Estimated PS \$'s	846000	0	810000	0	360000	0	216000	0	2232000
Estimated PYE \$'s (\$1000's)									0
Total \$'s	846000	0	810000	0	360000	0	216000	0	2232000

Funding for this project will be from the SHOPP Safety Improvement Program (Program code 201.010). Design cost related to the preparation of plans for the modifications of traffic signal is shared with local agencies. Costs of constructing electrical facility including capital cost are to be shared by the state and local agencies. The cost shall be shared on a prorated basis in the same ratio as the number of legs in the intersection under each agencies jurisdiction. State and Local Agencies participation will be documented by a cooperative agreement that will be prepared in the PA&ED phase.

The total project capital outlay cost estimate is \$3.207M for Alternative I (Widening on West Side Only) with a Safety Index of 243 and \$3.605M for Alternative II (Widening on Both Sides) with a Safety Index of 216. Preliminary project cost estimate summary for both alternatives are included as Attachment I.

## 10. SCHEDULE

<b>HQ Milestones</b>	<b>Delivery Date (Month, Day, Year)</b>
Begin Environmental	07/12
PA & ED	07/14
Regular Right of Way	10/14
Project PS&E	03/16
Right of Way Certification	06/16
Ready to List	06/16
Approve Contract	09/16
Contract Acceptance	09/17
End Project	03/18

The above schedule is based on the assumption that the project will be programmed in the 2012 SHOPP which would typically set the PA&ED Phase to begin in July 2012. Due to the long environmental study (PEAR indicates minimum of 24 months) and the timing of the 2012 SHOPP programming cycle, the Department must begin the PA&ED Phase as soon as the project is authorized to proceed.

A minimum of 24 months lead-time is required for R/W process as indicated in the Right of Way data sheet (Attachment D).

## 11. FHWA COORDINATION

Under the current FHWA/Caltrans Stewardship agreements, this project falls within the delegated authority of the State of California. This project is exempt from FHWA review for design and construction. Federal agency consultations required for environmental processing of Section 4(f) resources include the FHWA and possibly the Advisory Council of Historic Preservation.

## 12. DISTRICT CONTACTS

Project Manager	Nandini Shridhar (510) 286-4892
Branch Chief, PSR II-Advance Planning	Robert Blanco (510) 286-5676
Project Engineer, PSR II	Nelson Bustos (510) 286-5526
Assistant Project Engineer, PSR II	Albert Tan (510) 622-1665
Branch Chief, Environmental Reviewer, Local Assistance	Patricia Maurice (510) 286-5563

## 13. PROJECT REVIEWS

Field Review	<u>Nelson Bustos/Robert Blanco/Albert Tan</u>	Date	<u>04-13-10</u>
District Maintenance	<u>Kim Le</u>	Date	<u>04-07-11</u>
District Safety Review	<u>Eileen Chao</u>	Date	<u>05-20-11</u>
HQ Safety Review	<u>Alex Kennedy/Thomas Schriber (9-9-10)</u>	Date	<u>03-02-10</u>
Constructability Review	<u>Stuart Rucker</u>	Date	<u>05-03-11</u>
HQ Design Coordinator	<u>Larry Moore</u>	Date	<u>03-09-10</u>
Project Manager Review	<u>Nandini Shridhar</u>	Date	<u>05-11-11</u>
District SHOPP Program Advisor	<u>Roland Au-Yeung</u>	Date	<u>04-06-11</u>
HQ SHOPP Program Advisor	<u>Robert Peterson</u>	Date	<u>06-06-11</u>

## 14. LIST OF ATTACHMENTS:

- A) Location Map
- B) Photographs
- C) Cross Sections and Layout Sheets
- D) Right of Way Data Sheets (RWDS)
- E) Storm Water Data Report (SWDR)
- F) Preliminary Environmental Assessment Report (PEAR)
- G) Preliminary Traffic Management Plan (TMP)
- H) Risk Management Plan (RMP)
- I) Preliminary Project Cost Estimate Summary

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# **Attachment A**

## **Location Map**

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**Project Location**  
**(Floribunda Ave, PM 13.69)**

**LOCATION MAP**  
 EA # 0G020K  
 04-SM-82-13.69

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# **Attachment B**

Photographs

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**Floribunda Ave./Route 82  
Intersection  
(Looking Southwest)**



**Floribunda Ave./Route 82  
Intersection  
(Looking West)**



**Floribunda Ave.  
Intersection  
(Looking Northwest)**



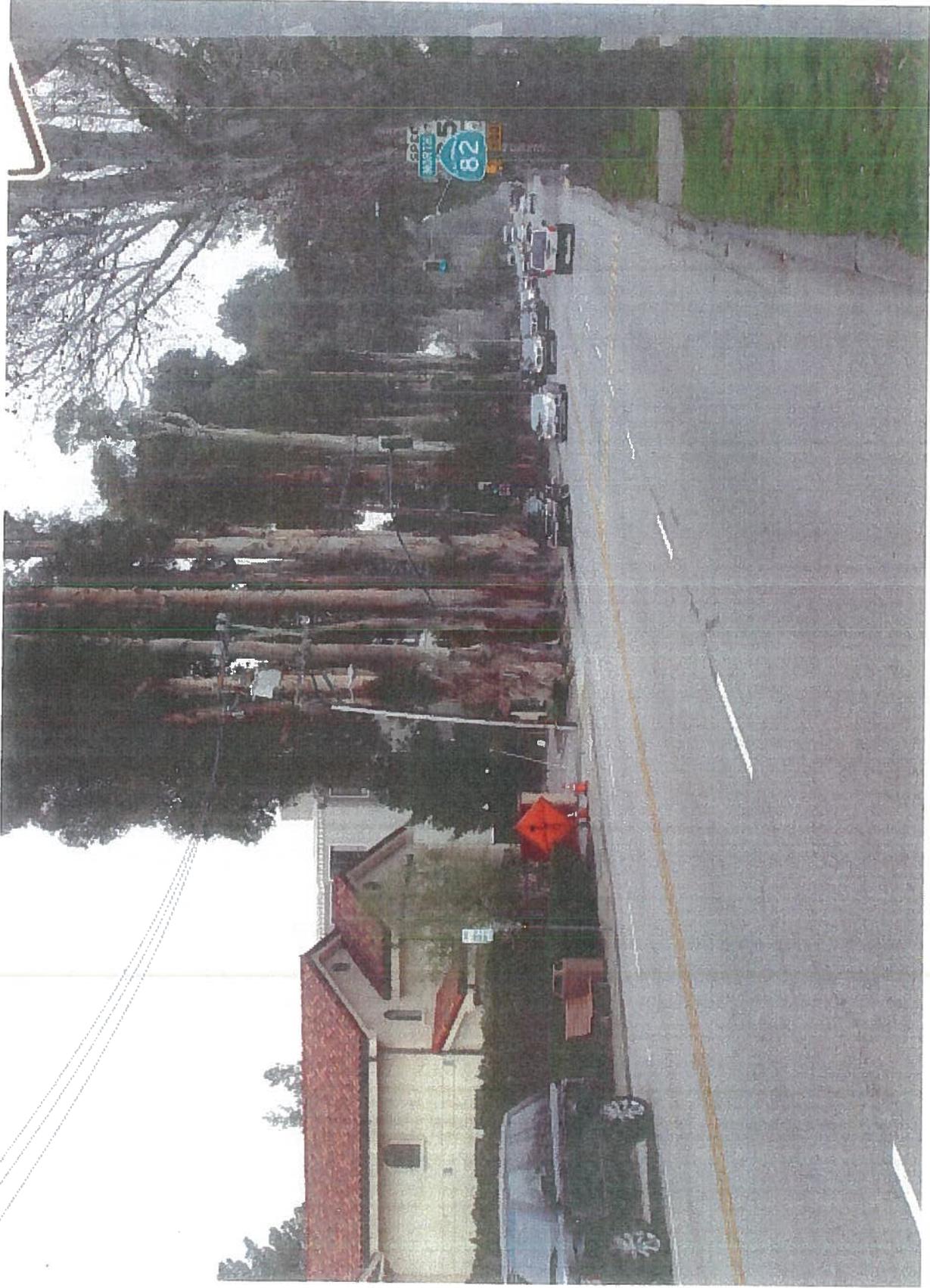
**Floribunda Ave.  
Intersection  
(Looking Southeast)**



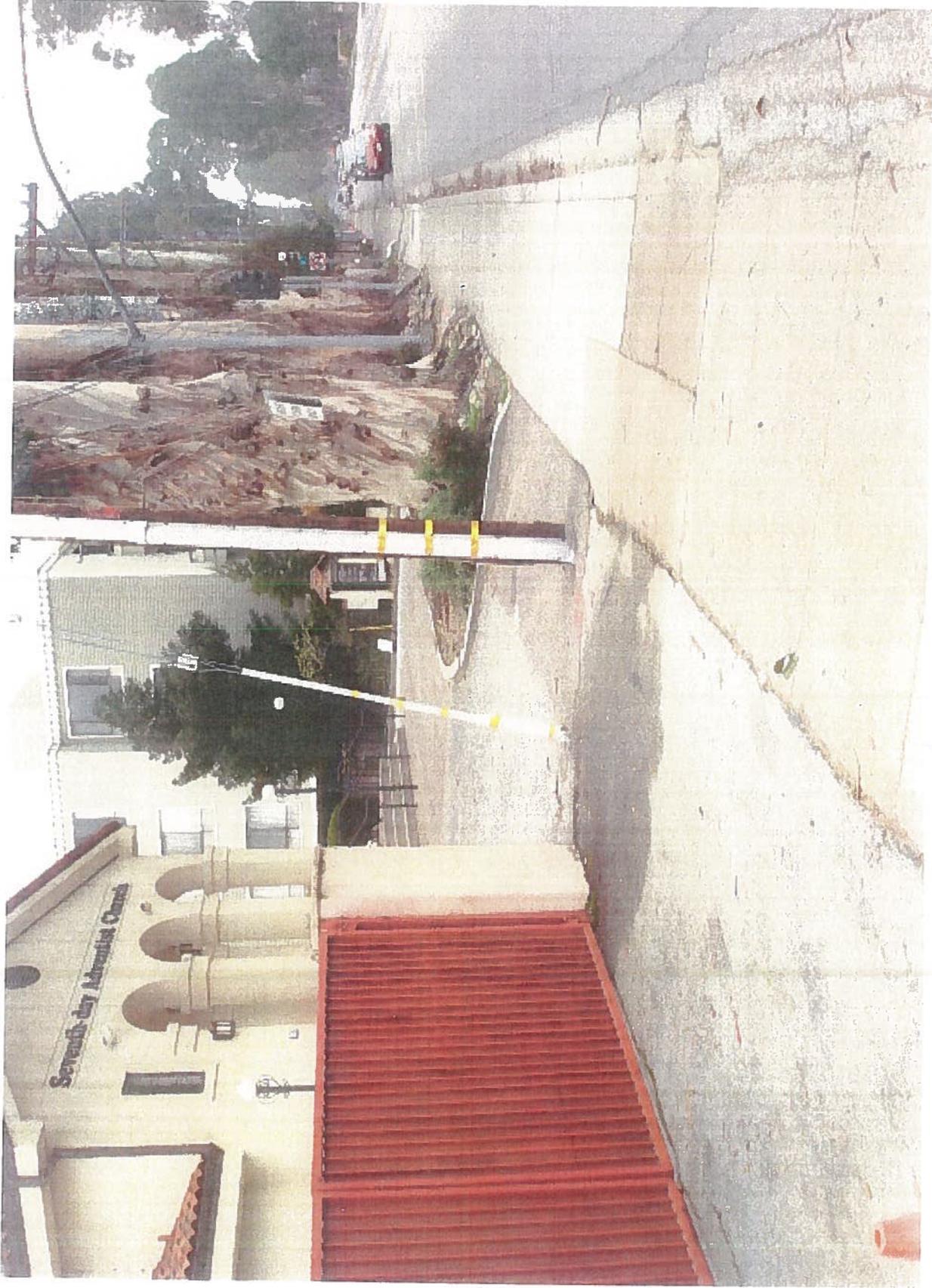
**Floribunda Ave.  
(Looking Southwest)**



**Floribunda Ave./Route 82  
Intersection  
(Looking Southeast)**



**El Camino Real/Route 82  
(Looking Northwest)**



**Church along Route 82 on  
the West side of El Camino  
Real  
(Looking Northwest)**



**Floribunda Ave.  
(Looking Northwest)**



**Floribunda Ave.  
(Looking Southeast)**



**El Camino Real/Route 82  
(Looking Southeast)**



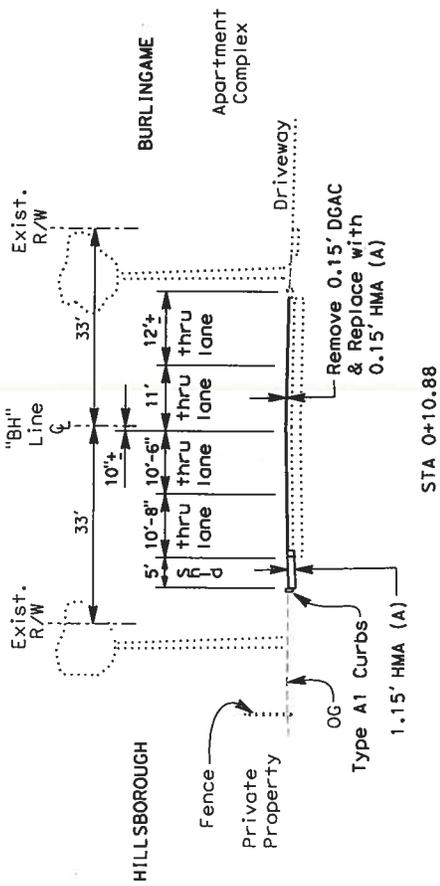
**Floribunda Ave./Route 82  
Intersection  
(Looking Southeast)**

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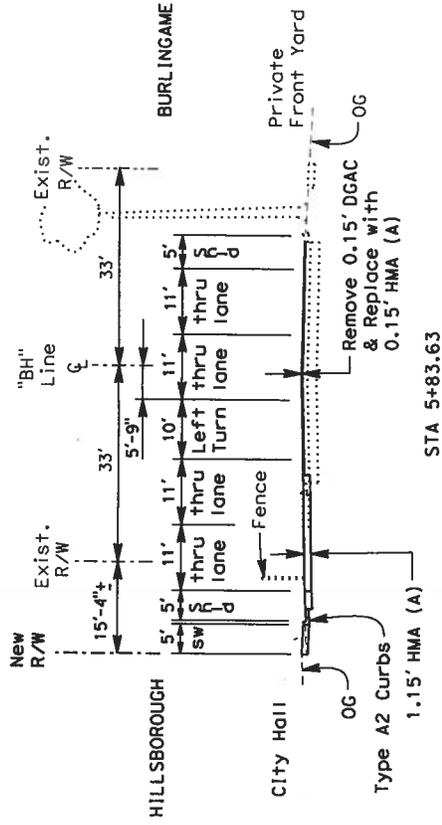
# **Attachment C**

**Cross Sections and Layout Sheets**

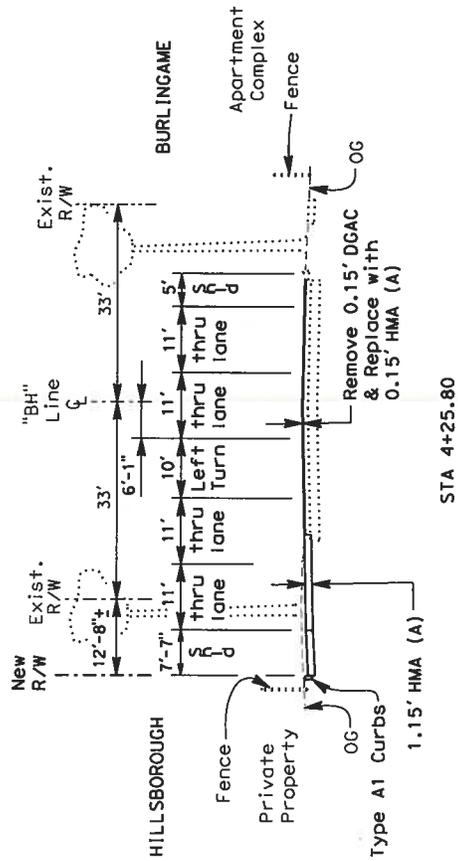
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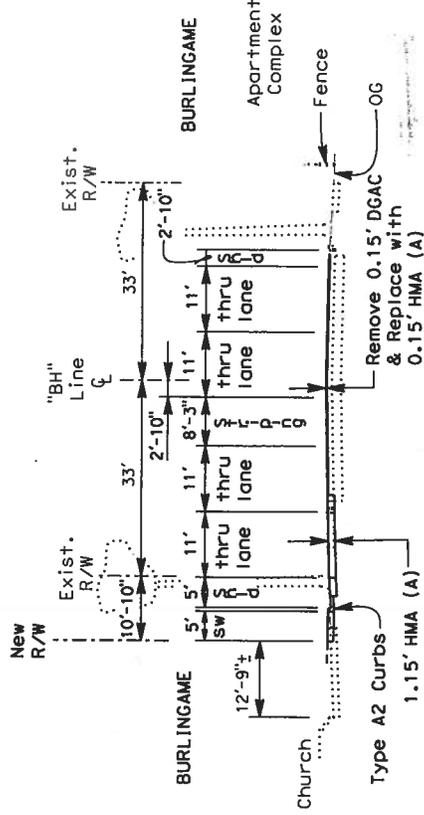
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STA 5+83.63



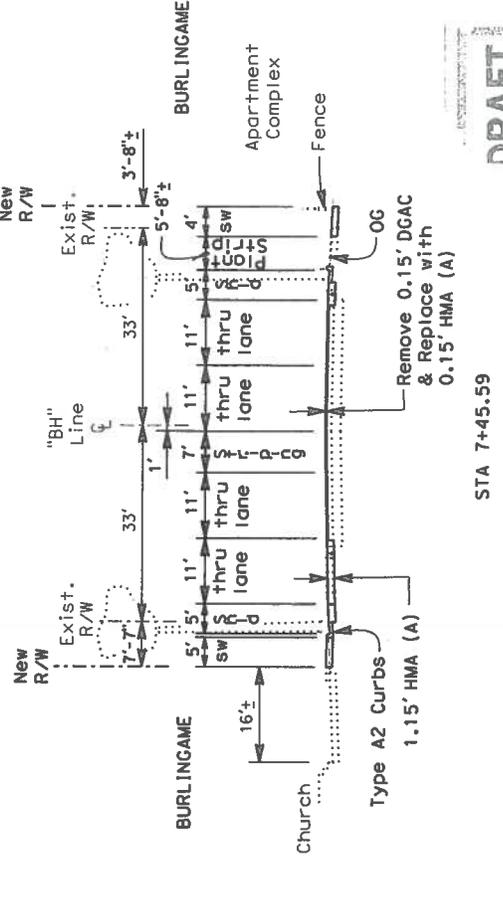
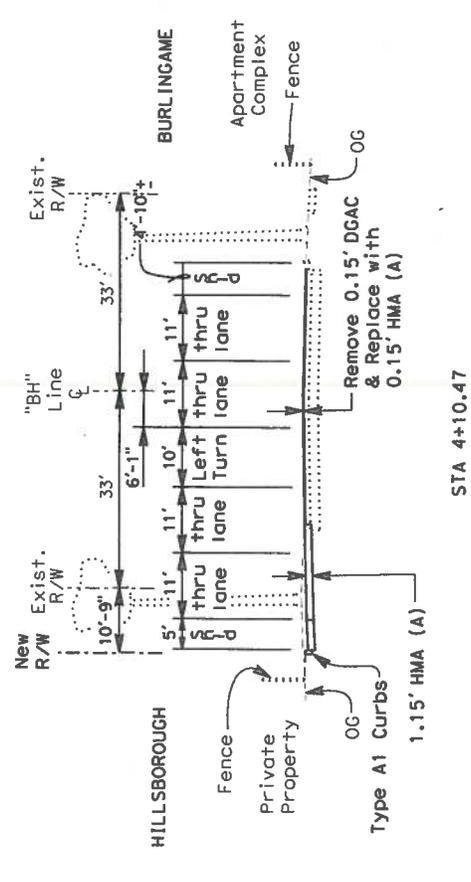
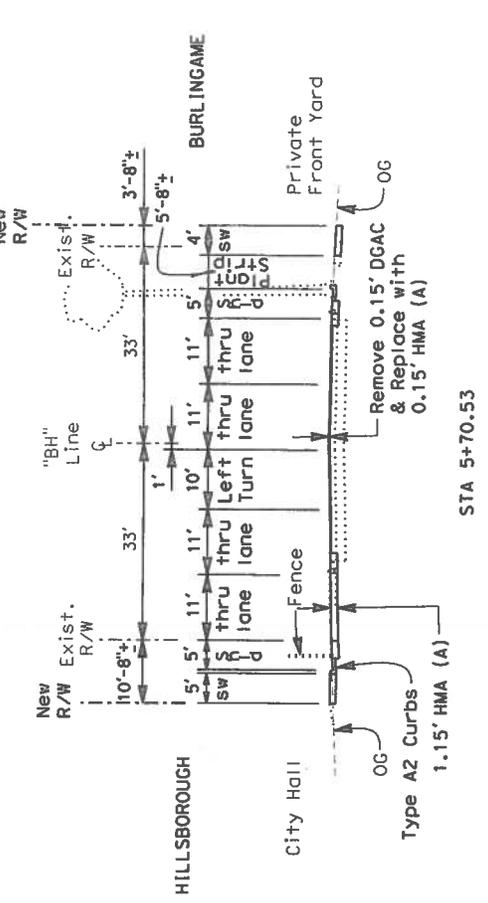
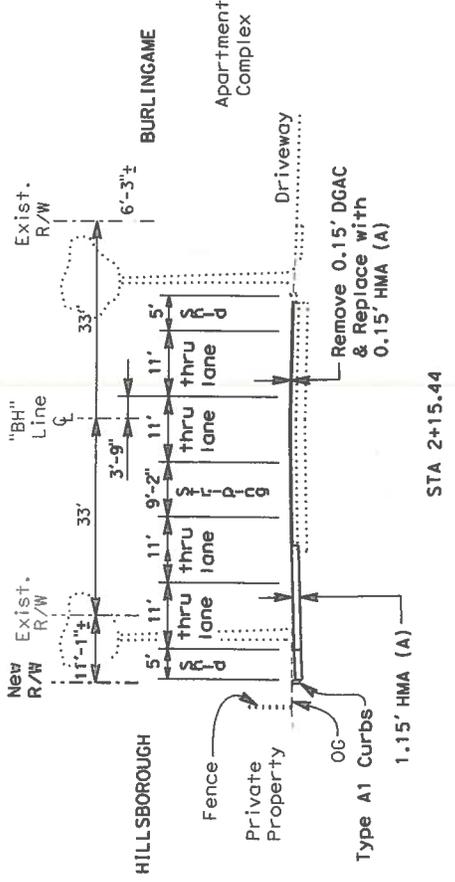
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STA 7+60.83

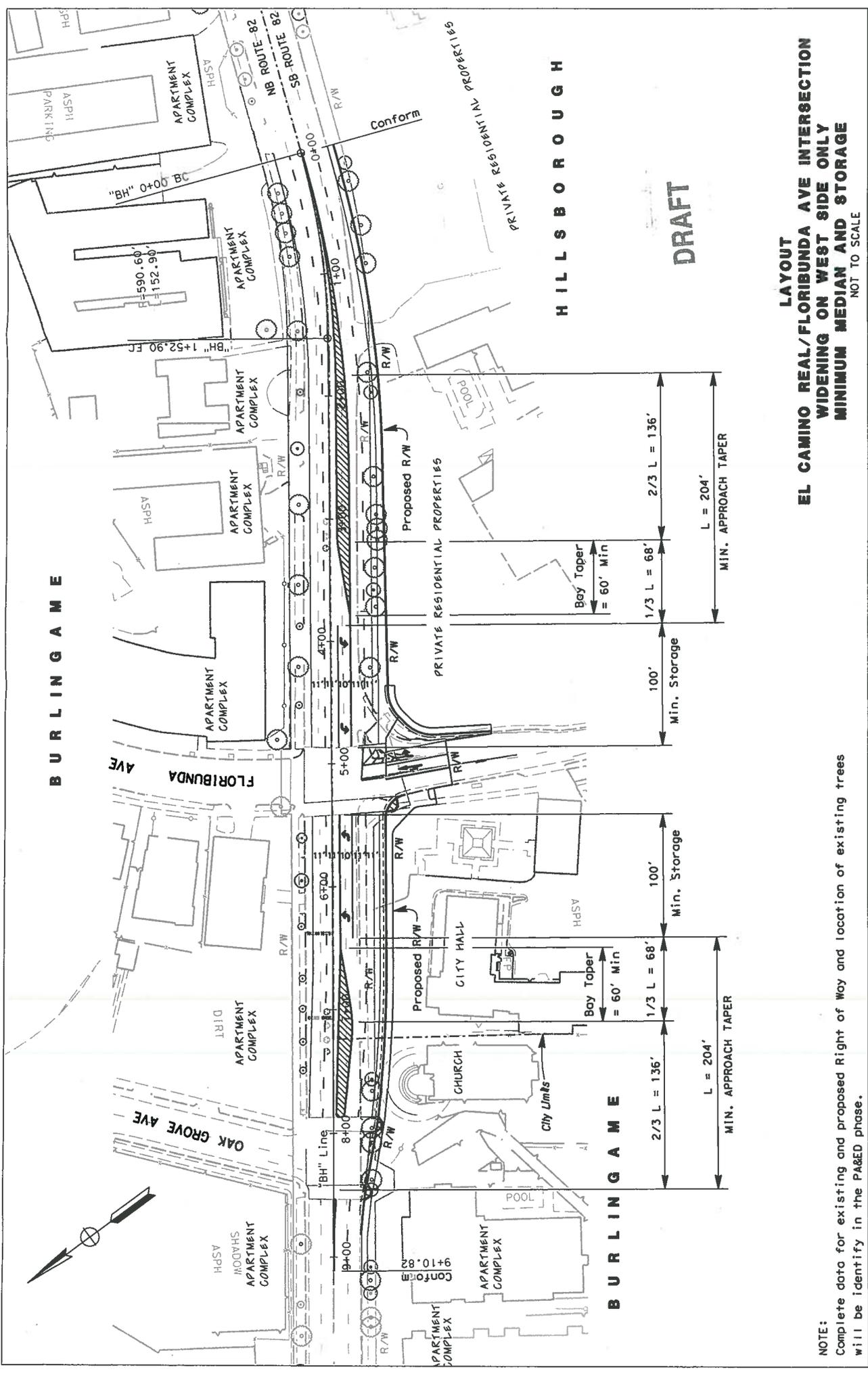
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**CROSS-SECTION**  
**EL CAMINO REAL/FLORIBUNDA AVE INTERSECTION**  
**WIDENING ON WEST SIDE ONLY**  
**MINIMUM MEDIAN AND STORAGE**  
**NOT TO SCALE**



**DRAFT**

**CROSS-SECTION**  
**EL CAMINO REAL/FLORIBUNDA AVE INTERSECTION**  
**WIDENING ON BOTH SIDES**  
**MINIMUM MEDIUM AND STORAGE**  
**NOT TO SCALE**



BURLINGAME

HILLSBOROUGH

DRAFT

LAYOUT  
 EL CAMINO REAL/FLORIBUNDA AVE INTERSECTION  
 WIDENING ON WEST SIDE ONLY  
 MINIMUM MEDIAN AND STORAGE  
 NOT TO SCALE

NOTE:  
 Complete data for existing and proposed Right of Way and location of existing trees  
 will be identify in the PA&ED phase.  
 LayoutOneSideWestFinal.dgn 5/25/2011 10:08:17 AM

FLORIBUNDA AVE

OAK GROVE AVE

APARTMENT COMPLEX

APARTMENT COMPLEX

APARTMENT COMPLEX

APARTMENT COMPLEX

APARTMENT COMPLEX

CHURCH

CITY HALL

PROPOSED R/W

PRIVATE RESIDENTIAL PROPERTIES

BURLINGAME

FLORIBUNDA AVE

OAK GROVE AVE

HILLSBOROUGH

DRAFT

LAYOUT

EL CAMINO REAL/FLORIBUNDA AVE INTERSECTION  
WIDENING ON BOTH SIDES  
MINIMUM MEDIAN AND STORAGE

NOT TO SCALE



"BH" 0+00 BC

R=590.60'  
L=137.40'

"BH" 1+37.41 EC

APARTMENT COMPLEX

Conform

Conform

9+15.64

APARTMENT COMPLEX

APARTMENT COMPLEX

PRIVATE RESIDENTIAL PROPERTIES

PRIVATE RESIDENTIAL PROPERTIES

CITY HALL

CHURCH

City Limits

Bay Taper  
= 60' Min

Bay Taper  
= 60' Min

1/3 L = 68'

1/3 L = 68'

Storage

Storage

2/3 L = 136'

2/3 L = 136'

L = 204'

L = 204'

MIN. APPROACH TAPER

MIN. APPROACH TAPER

NOTE:  
Complete data for existing and proposed Right of Way and location of existing trees will be identify in the P&ED phase.  
LayoutBothSide071111.dgn 7/13/2011 12:44:59 PM

---

# **Attachment D**

Right of Way Data Sheet

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T0: Office of Advance Planning

Date 8/29/2011  
Dist 4 Co SM Rte 82  
PM 13.69

Attention: Robert Blanco  
District Branch Chief

EA 1G020K(04-00002011-K)

From: ENID LAU  
Right of Way Resource Manager

Intersection Widening  
Alt. No. 1 – Widening West Side

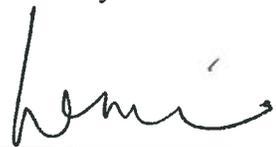
**D.S. #5965 UPDATE**

Subject: Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project based on maps we received from you on July 18, 2011 and the following assumptions and limiting conditions.

- 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.
- 2. The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.
- 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- 4. This estimate does not include \$ \_\_\_\_\_ right of way costs previously incurred on the project, which may affect the total project right of way costs for programming purposes.
- 5. We have determined there are no right of way functional involvements in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 24 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 265), we will require a minimum of 21 months prior to the date of certification of the project. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.

  
\_\_\_\_\_  
Right of Way Resource Manager

Attachments:

- Right of Way Data Sheet – Page One (always required)
- Right of Way Data Sheet – All Pages (required when interest in real property is being acquired)
- Utility Information Sheet
- Railroad Information Sheet

**RIGHT OF WAY DATA SHEET**

TO: Office of Advance Planning Date 8/11/11 D.S. # 5965

Dist 04 Co SM Rte 82 PM 13.69

ATTN: ROBERT BLANCO EA 04-1G020K (0400002011)

Project Description: Intersection Widening

SUBJECT: Right of Way Data – Alternate No. 1 – Widening on West Side Only

1. Right of Way Cost Estimate:

	Current Value (Future Use)	Escalation Rate	Escalated Value
A. Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>1,133,000.00</u>	%	\$ <u>1,133,000.00</u>
Environmental Mitigation			\$ <u>88,153.00</u>
Grantor's Appraisal Cost			\$ <u>25,000.00</u>
B. Utility Relocation (State Share)	\$ <u>10,000.00</u>	%	\$ <u>10,000.00</u>
C. Railroad (Service Contract)			\$ <u>0.00</u>
D. Relocation Assistance	\$ <u>0.00</u>	%	\$ <u>0.00</u>
E. Clearance/Demolition	\$ <u>0.00</u>	%	\$ <u>0.00</u>
F. Title and Escrow Fees	\$ <u>12,500.00</u>	%	\$ <u>12,500.00</u>
G. <u>TOTAL ESCALATED VALUE</u>			\$ <u>1,268,653.00</u>
H. Construction Contract Work	\$ <u>0.00</u>	RT	\$ <u>1,269,000.00</u>

2. Anticipated Date of Right of Way Certification \_\_\_\_\_

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements	
X _____		U4-1 _____	None	X _____
A <u>1</u>		-2 _____	C&M Agrmt	_____
B <u>4</u>	<u>1</u>	-3 _____	Svc Contract	_____
C _____		-4 _____	Design	_____
D _____		U5-7 <u>5</u>	Const.	_____
E <u>XXXX</u>		-8 _____	Lic/RE/Clauses	_____
F <u>XXXX</u>		-9 _____	Misc R/W Work	
			RAP Displ	<u>0</u>
			Clear Demo	<u>0</u>
			Const. Permits	<u>0</u>
			Condemnation	<u>1</u>
Total <u>5</u>				

Areas: Right of Way 8,710 s.f No. Excess Parcels \_\_\_\_\_ Excess \_\_\_\_\_

Enter PMCS Screens 8 / 19 / 2011 by P.T.

Enter AGRE Screen (Railroad data only) \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ by \_\_\_\_\_

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

Five parcels are required in fee for this project. All requirements are from fully developed Commercial and Single Family Residential properties. No major improvements are affected.

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 01-01-05)

8. Are railroad facilities or rights of way affected? Yes  No   
(If yes, attach Railroad Information Sheet Exhibit 01-01-06)

9. Were any previously unidentified sites with hazardous waste and/or material found?  
Yes  None evident  (If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.011)

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

No. of single family \_\_\_\_\_ No. of business/non profit \_\_\_\_\_

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)

14. Are there Environmental Mitigation costs? (If yes, explain) Yes  No

Estimated mitigation costs include replacement planting, interpretive panel and water quality. Costs from PEAR dated May 2011.

15. 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.)

PYPSCAN lead time (from Regular R/W to project certification) 24 months

16. Is it anticipated that all Right of Way work be performed by CALTRANS staff? Yes  No  (If no, discuss)

**Assumptions and Limiting Conditions**

- This data sheet was completed without a hazardous waste/materials report.
- Acquisition information on this data sheet was based on maps provided by Robert Blanco on July 18, 2011.

Evaluation Prepared By: Renata Frey

Right of Way:	Name	<u>Renata Frey</u>	Date	<u>8/11/11</u>
Railroad:	Name	<u>Dan C...</u>	Date	<u>8-17-11</u>
Utilities:	Name	<u>Elizabeth...</u>	Date	<u>8/11/11</u>

Recommended for Approval:

[Signature]  
Right of Way Capital Cost Coordinator

I have personally reviewed this Right of Way Data Sheet and all supporting information. It is my opinion 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 find this Data Sheet complete and current.

[Signature]  
Chief, RW Appraisal Services

8.26.11  
Date

cc: Program Manager  
Project Manager

**UTILITY INFORMATION SHEET**

1. Utility Owners located within project limits:

PG&E, Cable, Telephone, Sewer, Water

2. Facilities potentially impacted by project (if known, include Owner(s) and facility type(s)):

Any relocations most likely at 100% owner's expense under either S&H Code 680 or 673. However, no relocations are anticipated.

3. Anticipated Workload:

- Utility Verification required
- Positive Identification
- Utility Relocation
- Other (Specify)

4. Additional information concerning anticipated utility involvements (include limiting conditions and a narrative addressing likelihood that conflicts will occur);

Involves possible relocation of electric transmission facilities  
(If X'd, Data sheet should be forwarded to environmental)

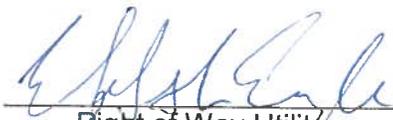
5. PMCS input information

- |      |                          |  |      |                          |   |
|------|--------------------------|--|------|--------------------------|---|
| U4-1 | <input type="checkbox"/> | Owner Expense Involvements                                       | U5-7 | <u>5</u>                 | Verifications-without involvements      |
| U4-2 | <input type="checkbox"/> | State Expense Involvements<br>(Conventional, No Fed Aid)         | U5-8 | <input type="checkbox"/> | Verifications-50% involvements          |
| U4-3 | <input type="checkbox"/> | State Expense Involvements<br>(Freeway, No Fed Aid)              | U5-9 | <input type="checkbox"/> | Verifications resulting in involvements |
| U4-4 | <input type="checkbox"/> | State Expense Involvements<br>(Conventional or Freeway, Fed Aid) |      |                          |   |

NOTE: The sum of the U-4's must equal the sum of 1/2 of the U5-8's and all of the U5-9's.

**ESTIMATED STATE SHARE OF COSTS \$10,000.00 (reserved for potholing)**

Prepared by: Elizabeth Engle

  
Right of Way Utility  
Coordinator

8/11/11  
Date

T0: Office of Advance Planning

Date 8/29/2011  
Dist 4 Co SM Rte 82  
PM 13.69

Attention: Robert Blanco  
District Branch Chief

EA 1G020K(04-00002011-K)

From: ENID LAU  
Right of Way Resource Manager

Intersection Widening  
Alt. No. 2 – Widening Both Sides

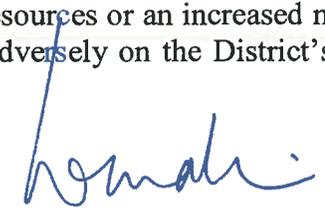
**D.S. #5965 UPDATE**

Subject: Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project based on maps we received from you on July 18, 2011 and the following assumptions and limiting conditions.

- 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.
- 2. The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.
- 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- 4. This estimate does not include \$ \_\_\_\_\_ right of way costs previously incurred on the project, which may affect the total project right of way costs for programming purposes.
- 5. We have determined there are no right of way functional involvements in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 24 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 265), we will require a minimum of 21 months prior to the date of certification of the project. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.

  
\_\_\_\_\_  
Right of Way Resource Manager

Attachments:

- Right of Way Data Sheet – Page One (always required)
- Right of Way Data Sheet – All Pages (required when interest in real property is being acquired)
- Utility Information Sheet
- Railroad Information Sheet

**RIGHT OF WAY DATA SHEET**

TO: Office of Advance Planning Date 8/11/11 D.S. # 5965

Dist 04 Co SM Rte 82 PM 13.69

ATTN: ROBERT BLANCO EA 04-1G020K (0400002011)

Project Description: Intersection Widening

SUBJECT: Right of Way Data – Alternate No. 2 – widening on both sides of Hwy 82

1. Right of Way Cost Estimate:

	Current Value (Future Use)	Escalation Rate	Escalated Value
A. Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>1,172,000.00</u>	%	\$ <u>1,172,000.00</u>
Environmental Mitigation			\$ <u>117,000.00</u>
Grantor's Appraisal Cost			\$ <u>35,000.00</u>
B. Utility Relocation (State Share)	\$ <u>10,000.00</u>	%	\$ <u>10,000.00</u>
C. Railroad (Service Contract)			\$ <u>0.00</u>
D. Relocation Assistance	\$ <u>0.00</u>	%	\$ <u>0.00</u>
E. Clearance/Demolition	\$ <u>0.00</u>	%	\$ <u>0.00</u>
F. Title and Escrow Fees	\$ <u>17,500.00</u>	%	\$ <u>17,500.00</u>
G. <u>TOTAL ESCALATED VALUE</u>			\$ <u>1,351,500.00</u>
H. Construction Contract Work	\$ <u>0.00</u>	RT	\$ <u>1,352,000.00</u>

2. Anticipated Date of Right of Way Certification \_\_\_\_\_

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements	
X _____		U4-1 <u>2</u>	None	<u>X</u>
A <u>1</u>		-2 _____	C&M Agrmt	_____
B <u>6</u>		-3 _____	Svc Contract	_____
C _____		-4 _____	Design	_____
D _____		U5-7 <u>3</u>	Const.	_____
E <u>XXXX</u>		-8 _____	Lic/RE/Clauses	_____
F <u>XXXX</u>		-9 <u>2</u>	Misc RW Work	
			RAP Displ	<u>0</u>
			Clear Demo	<u>0</u>
			Const. Permits	<u>0</u>
			Condemnation	<u>2</u>
Total <u>7</u>				

Areas: Right of Way 8,838 s.f. No. Excess Parcels \_\_\_\_\_ Excess \_\_\_\_\_

Enter PMCS Screens 8 / 19 / 2011 by P.T.

Enter AGRE Screen (Railroad data only) \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ by \_\_\_\_\_

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

7 parcels will be needed for this project. The requirements are all fee from fully developed properties - SFRs, multi-residential and commercial. No major improvements are affected.

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 01-01-05)

8. Are railroad facilities or rights of way affected? Yes  No   
(If yes, attach Railroad Information Sheet Exhibit 01-01-06)

9. Were any previously unidentified sites with hazardous waste and/or material found?  
Yes  None evident  (If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.011)

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

No. of single family \_\_\_\_\_ No. of business/non profit \_\_\_\_\_

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)

14. Are there Environmental Mitigation costs? (If yes, explain) Yes  No

The environmental cost estimate for this project was provided by Nelson Bustos on 8/11/11. It includes Special Landscaping, Historical Resources and Water Quality.

15. 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.)

PYPSCAN lead time (from Regular R/W to project certification) 24 months

16. Is it anticipated that all Right of Way work be performed by CALTRANS staff? Yes  No  (If no, discuss)

### Assumptions and Limiting Conditions

- This data sheet was completed without a hazardous waste/materials report.
- Acquisition information on this data sheet was based on maps provided by Robert Blanco on July 18, 2011.

Evaluation Prepared By: Renata Frey

Right of Way:	Name	<u>Renata Frey</u>	Date	<u>8/11/11</u>
Railroad:	Name	<u>Patricia</u>	Date	<u>8-17-11</u>
Utilities:	Name	<u>Elizabeth</u>	Date	<u>8/11/11</u>

Recommended for Approval:

[Signature]  
Right of Way Capital Cost Coordinator

I have personally reviewed this Right of Way Data Sheet and all supporting information. It is my opinion 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 find this Data Sheet complete and current.

[Signature]  
Chief, RW Appraisal Services

8.26.11  
Date

cc: Program Manager  
Project Manager

**UTILITY INFORMATION SHEET**

1. Utility Owners located within project limits:

PG&E, Cable, Telephone, Sewer, Water

2. Facilities potentially impacted by project (if known, include Owner(s) and facility type(s)):

OH poles-electric distribution (x9)  
Att/tel box (x2)

3. Anticipated Workload:

  X   Utility Verification required  
  X   Positive Identification  
  X   Utility Relocation  
       Other (Specify)

4. Additional information concerning anticipated utility involvements (include limiting conditions and a narrative addressing likelihood that conflicts will occur);

       Involves possible relocation of electric transmission facilities  
(If X'd, Data sheet should be forwarded to environmental)

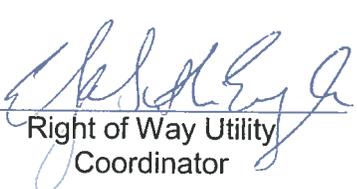
5. PMCS input information

U4-1	<u>  2  </u>	Owner Expense Involvements	U5-7	<u>  3  </u>	Verifications-without involvements
U4-2	<u>      </u>	State Expense Involvements (Conventional, No Fed Aid)	U5-8	<u>      </u>	Verifications-50% involvements
U4-3	<u>      </u>	State Expense Involvements (Freeway, No Fed Aid)	U5-9	<u>  2  </u>	Verifications resulting in involvements
U4-4	<u>      </u>	State Expense Involvements (Conventional or Freeway, Fed Aid)			

NOTE: The sum of the U-4's must equal the sum of 1/2 of the U5-8's and all of the U5-9's.

**ESTIMATED STATE SHARE OF COSTS \$10,000.00**

Prepared by: Elizabeth Engle

  
Right of Way Utility  
Coordinator

  8/11/11    
Date

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# **Attachment E**

## **Storm Water Data Report**

---



Dist-County-Route: 04 - SM - 82

Post Mile Limits: 13.69

Project Type: Intersection Widening

Project ID (or EA): 1G020K

Program Identification:

Phase:  PID

PA/ED

PS&E

Regional Water Quality Control Board(s): San Francisco Bay Region RB-2

- 1. Is the project required to consider incorporating Treatment BMPs? Yes  No
- 2. Does the project disturb 5 or more acres of soil? Yes  No
- 3. Does the project disturb more than 1 acre of soil and not qualify for the Rainfall Erosivity Waiver? Yes  No
- 4. Does the project potentially create permanent water quality impacts? Yes  No
- 5. Does the project require a notification of ADL reuse? Yes  No

If the answer to any of the preceding questions is "Yes", prepare a Long Form - Storm Water Data Report.

Estimate Construction Start Date: 07/15

Construction Completion Date: 08/16

Separate Dewatering Permit (if yes, permit number)

Yes  Permit # \_\_\_\_\_ No

Erosivity Waiver

Yes  Date: \_\_\_\_\_ No

*This Short Form - Storm Water Data 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.*

Albert Tan  
Albert Tan, Registered Project Engineer

12/21/2010  
Date

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

Norman Gonsalves  
Norman Gonsalves, District/Regional SW Coordinator or Designee

12/21/2010  
Date

[Stamp Required for PS&E only]



## 1. Project Description

- The project proposes to widen the highway and install left turn channelizations on the northbound and southbound directions with protected turn signal phases at the intersection of El Camino Real and Floribunda Avenue.
- The disturbed soil area is expected to be 0.51 acres. The project is located in the San Francisco Bay Regional Water Quality Board (RWQCB Region 2). The project site is located in an undefined hydrologic sub-area within San Mateo Bayside Hydrologic Area (HAS 204.40). The project is within the MS4 area of San Mateo County. This project is expected not to effect any change in hydraulic capacity or change in grade line.
- The project is within MS4 urban area of San Mateo County.

## 2. Construction Site BMPs

- Construction site BMPs will minimize sediment pollution of receiving waters. Construction Site BMPs will include consideration for Non-Storm Water Controls, and waste management and materials pollution controls.
- Drainage inlets within the project limits will be protected during construction to minimize sediment and debris intrusion. There are drainage inlets in the areas to be widened. Drainage inlet relocation may be required along southbound El Camino Real, approximately between west of Station "BH" 2+00 to 3+00.
- This project will require a Water Pollution Control Program (WPCP) to comply with the requirements of the National Pollution Discharge Elimination System (NPDES) permit in the PS&E stage of the project. Potential water quality impacts will be reduced to the Maximum Extent Practicable (MEP) through proper implementation of the WPCP and inclusion of Standard Special Provisions (SSPs) for Temporary Construction Site BMPs into the project.
- In the PS&E phase, the construction site water pollution control cost estimate will be segregated into separate bid items for BMPs appropriate for the project. As outlined in Appendix F of the *Project Planning and Design Guide*, the "percent of total cost method" was used for estimating the total cost of Construction Site BMPs.
- Construction site BMPs for this project will be designated as separate bid items to include, but not limited to:
  - Construction Site Management
  - Temporary Sediment Control BMP SC-7 Street Sweeping and Vacuuming
  - Non-Storm Water Management BMP NS-3 Paving and Grinding Operations
  - Waste Management and Materials Pollution Control BMP WM-7 Contaminated Soil Management

Construction Site Management includes consideration for operations relating to construction activities including: material delivery and storage, material use, stockpile management, spill prevention and control, and waste management. Construction Site Management will be employed throughout the project area.

- For details of BMPs, please consult the *Construction Site Best Management Practices (BMPs) Manual*



### 3. Required Attachments<sup>1</sup>

- Vicinity Map
- Evaluation Documentation Form
- Water Pollution Control Cost Estimate
- Construction Site BMP Consideration Form (required at PS&E only)
- Risk Level Determination Documentation, if applicable.
- Rainfall Erosivity Waiver, if applicable (required at PS&E)

---

<sup>1</sup> Additional attachments may be required as applicable or directed by the District/Regional Design Storm Water Coordinator (e.g. BMP line item estimate, DPP, CS checklists, etc).



Storm Water Cost Estimate  
Project ID/EA – 1G020K

**PID/PAED Phase estimate based on adjustment factor= \$ 43,800.00**

Item #	Description	Unit	Unit Price	Quantity	Total
074017	Prepare Water Pollution Control Program	LS	Lump Sum	Lump Sum	3000.00
074016	Construction Site Management	LS	Lump Sum	Lump Sum	37800.00
SUPPLEMENTAL FUNDS					
066596	Additional Water Pollution Control	LS	Lump Sum	Lump Sum	300.00

# **Attachment F**

## **Preliminary Environmental Assessment Report**

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# PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

## 1. Project Information

District 4	County San Mateo	Route 82	PM 13.69	EA 1G020K
Project Title: Left-turn channelization at State Route 82 (El Camino Real)/Floribunda Avenue				
Project Manager Nandini Shridhar			Phone # 510.286.4892	
Project Engineer Nelson Bustos			Phone # 510.286.5526	
Environmental Branch Chief Patricia Maurice			Phone # 510.286.5530	
PEAR Preparer Patricia Maurice			Phone # 510.286.5530	

## 2. Project Description

### Purpose and Need

The purpose of the project is to reduce the potential for collisions involving left-turn traffic movements at the State Route (SR) 82 (El Camino Real)/Floribunda Avenue intersection, and to improve operations and increase public confidence in the safety of the intersection. New left-turn lanes will facilitate safe vehicle storage at the intersection. The project is needed due to lack of storage for vehicles making left-turns. The Town of Hillsborough's General Plan Circulation Element identifies improvements which were included in a study of the intersection, and the Town has indicated a desire to work with the Department to implement the study's recommendations. The project is funded under the State Highway Operations and Protection Program, code 201.010, safety.

### Description of work - Build Alternative 1

#### Widen West Side of SR 82 Only

The signalized intersection of SR 82 (El Camino Real)/Floribunda Avenue will be widened along the west side only to construct left-turn channelization along both northbound and southbound SR 82. A center left-turn lane, including approach tapers will be added, as will five-foot shoulders in both directions of SR 82 for the majority of the project limits. There is currently no existing roadway shoulder at the SR 82/Floribunda intersection. The proposed roadway cross-section will maintain both existing travel lanes in each direction as well as existing sidewalk on the east side, which is within the city limits of the City of Burlingame.

Part of the existing fence along SR 82 along the southwest (SW) quadrant of the intersection is proposed to be removed and replaced with concrete block fence. Approximately 180 feet of earth retaining system (could be a modified Concrete Barrier, Type 60G) may also be needed due to higher ground elevation along some portions contiguous to the proposed right of way (R/W).

A total of 0.20 acres of Right of Way (R/W) would be acquired from the Town of Hillsborough as partial takes of five properties in the North- and Southwest (SW) intersection quadrants. This includes a small landscaped portion of Hillsborough's municipal site known as Centennial Park. Up to 21 trees along SR 82 would be removed, 14 of them are mature, historic Eucalyptus and Elm trees comprising the Historic Tree Row. Total Disturbed Soil Area (DSA) for Alternative 1 would be 0.41 acres.

### **Build Alternative 2**

#### **Widen Both Sides of SR 82**

Widening on both sides of SR 82 in order to construct left-turn channelization would require approximately 0.20 acres of R/W from both Hillsborough and the City of Burlingame combined, including a small portion of Centennial Park. Up to 30 trees would be removed, and similar to Alternative 1, 14 of them are historic mature trees in the Historic Tree Row. Utilities and some drainage facilities would be relocated, as with Alternative 1 as well. Total DSA would be 0.51 acres. Widening for this alternative would impact the apartment complexes at the northeast intersection quadrant and would significantly increase R/W costs.

The need for lane closures and detours for either build alternative will be identified in a Transportation Management Plan (TMP), which will be prepared during the Plans, Specifications and Estimates (PS&E) phase. Potential impacts will be evaluated, and mitigation such as press releases to inform motorists of upcoming closures and detours, and TMP elements such as Changeable Message Signs and California Highway Patrol Construction Zone Enhanced Enforcement Program will be identified.

#### **No-build Alternative**

The no build alternative would leave the current intersection configuration intact, with no left-turn storage to accommodate conflicting movements. Potential safety benefits would not be realized.

### 3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

CEQA		NEPA																			
<b>Environmental Determination</b>																					
Statutory Exemption	<input type="checkbox"/>																				
Categorical Exemption	<input type="checkbox"/>	Categorical Exclusion	<input type="checkbox"/>																		
<b>Environmental Document</b>																					
Initial Study or Focused Initial Study with Negative Declaration or Mitigated ND	<input type="checkbox"/>	Complex Environmental Assessment with Finding of No Significant Impact	x																		
Environmental Impact Report	x	Environmental Impact Statement	<input type="checkbox"/>																		
CEQA Lead Agency (if determined):	The Department is the CEQA Lead Agency, and will also be the NEPA Lead Agency if there is federal participation in the project.																				
Estimated length of time (months) to obtain environmental approval:	24 to 36 months																				
Estimated person hours to complete identified tasks:	<table border="0"> <tr> <td>Env Analysis</td> <td>1,500</td> </tr> <tr> <td>Biology/Permits</td> <td>65</td> </tr> <tr> <td>Cultural Resources</td> <td>2,050</td> </tr> <tr> <td>Hazardous Waste</td> <td></td> </tr> <tr> <td>Air and Noise</td> <td></td> </tr> <tr> <td>Water Quality</td> <td>40</td> </tr> <tr> <td>Visual Resources</td> <td>520</td> </tr> <tr> <td><b>Total</b></td> <td><b>4,175</b></td> </tr> <tr> <td></td> <td><b>(2.4 PYs)</b></td> </tr> </table>			Env Analysis	1,500	Biology/Permits	65	Cultural Resources	2,050	Hazardous Waste		Air and Noise		Water Quality	40	Visual Resources	520	<b>Total</b>	<b>4,175</b>		<b>(2.4 PYs)</b>
Env Analysis	1,500																				
Biology/Permits	65																				
Cultural Resources	2,050																				
Hazardous Waste																					
Air and Noise																					
Water Quality	40																				
Visual Resources	520																				
<b>Total</b>	<b>4,175</b>																				
	<b>(2.4 PYs)</b>																				

### 4. Special Environmental Considerations

Based on past experience with similar actions and information provided to date, environmental clearance would be obtained with an Environmental Impact Report under CEQA, and if NEPA applies, a Complex Environmental Assessment- Finding of No Significant Impact (Class III). Estimated time for PA/ED phase is 24 to 36 months. Potential visual impacts as well as 4(f) impacts and an adverse affect on historic resources are anticipated due to removal of mature, historic Eucalyptus and Elm trees, R/W take from a property that is potentially eligible for the NRHP, and a sliver take of Centennial Park. The project schedule should include 30 months for negotiating an agreement with the SHPO and local interested parties such as the Burlingame Historical Society for tree replacement. Compliance with Section 106 of the National Historic Preservation Act and the CSS process to resolve community concerns are likely to be lengthy processes and could impact the project schedule. For Alternative 1, roadway widening would require 0.20 acres new R/W, a total disturbed soil area (DSA) of 0.41 acres and removal of up to 14 historic trees. For Alternative 2, widening would require 0.20 acres new R.W, total DSA of 0.51 acres and removal of up to 14 historic trees.

Substantial changes to the project description will require review by the Environmental Manager to ensure the appropriate level of environmental review.

Preliminary mitigation estimates total approximately \$117,000; this includes \$25,000 for landscaping, \$48,000 for cultural resources and \$44,000 for water quality impacts.

**5. *Anticipated Environmental Commitments***

See the summary statement under No. 4. Special Environmental Considerations, above.

**6. *Permits and Approvals***

See the summary statement under No. 4. Special Environmental Considerations, above.

**7. *Level of Effort: Risks and Assumptions***

See the summary statement under No. 4. Special Environmental Considerations, above.

## **8. PEAR Technical Summaries**

### **8.1 Land Use:**

Land uses in the vicinity of the SR 82 (El Camino Real)/Floribunda Avenue intersection are primarily residential; low-density residential uses are located west of SR 82, which is in the Town of Hillsborough, while several apartment complexes are located east of SR 82 in the City of Burlingame. The Hillsborough Police Department borders the site to the northwest; Town Hall and a church are located further north and west of the intersection and an elementary school is located to the northeast. Existing sidewalk is continuous on the east side of SR 82 and intermittent on the west side.

Numerous historic, mature Eucalyptus and Elm trees comprise a Historic Tree Row along both sides of SR 82; dense landscaping shrubbery also exists along the east side. Owing to the large size and stature of the trees, some of which have a diameter breast height (DBH) approaching 200 inches, considerable shading is provided. The trees are considered both historic and scenic resources. Moreover, SR 82 is identified as the hiking/equestrian Juan Bautista de Anza National Historic Trail in the Town's General Plan Circulation Element. Overhead utility cables are present along the west side of SR 82 in the project study area and on the north side of Floribunda. A large channelized creek is located NW of the intersection.

San Mateo County Transit District (SamTrans) bus stops are located along SR 82 in both directions in the project vicinity. Floribunda Avenue is a signed bike route. See the *Grand Boulevard Initiative* for more information on existing corridor conditions.

Section 4(f): Due to a sliver R/W take of Centennial Park, which occupies the NW intersection quadrant, and removal of up to 30 historic trees under Alternative 2, potential impacts to these Section 4(f) resources will need to be assessed; most likely through a programmatic evaluation during PA/ED. In the unlikely event that an individual 4(f) evaluation is required, time for review by Headquarters legal staff must be incorporated into the project schedule.

### **8.2 Growth:**

While land use development is governed by local plans and policies, the proposed improvements could accommodate increased vehicular demand. Therefore, the potential for growth inducement and indirect effects will be evaluated and mitigation recommended where appropriate during the Project Approval and Environmental Document (PA/ED) phase.

### **8.3 Farmlands/Timberlands:**

There are no farmlands or timberlands in the project vicinity.

#### 8.4 Community Impacts:

Removal of up to 14 mature Historic trees under both Alternatives, R/W acquisition from municipal and residential properties, possible lane closures and utility relocation could result in community impacts.

These potential impacts to community character- and if warranted, Title VI populations- as well as utility relocation impacts, will be evaluated and appropriate mitigation recommended during PA/ED. Potholing may be employed to determined utility locations.

As mentioned above, the Town of Hillsborough's Circulation Element states that the Town plans to work with the Department to implement studied improvements at the project intersection.

#### 8.5 Visual/Aesthetics:

Removal of the Eucalyptus and Elm trees described above could represent the loss of positive visual elements along the roadside. It could also create views of existing land uses from the highway that are now screened. Similarly, the highway itself may become more visible from these land uses. More importantly, the Eucalyptus trees that would be affected may qualify as Scenic Resources depending on their age, condition, arrangement, whether they are unique within the area, and the degree of local public concern for the trees. Also, any potential visual effect of adjusting the centerline of the highway must also be considered; these changes could potentially have a negative visual effect. Mitigation for the loss of trees may be necessary; however, planning replacement trees in the same location where existing trees were removed is constrained by limited R/W and replacing the trees in another area nearby may not fully mitigate the visual impacts. Nonetheless, typical Caltrans mitigation, which could be based on the pending Tree Row Management Plan, will likely suffice. SR 82 is neither a designated Scenic Highway, nor eligible for such status.

The Office of Landscape Architecture will confirm needed studies during PA/ED; staff will conduct a site visit and will likely prepare Visual Impact Assessment (VIA) to determine if the project would have substantial visual impacts. Photo simulations depicting the proposed action from various viewpoints may also be necessary.

#### 8.6 Cultural Resources:

Proposed R/W acquisition on SR 82 resulting in the removal of historic Eucalyptus and Elm trees and potential impacts to a property considered potentially eligible for the National Register of Historic Places (NRHP) is anticipated to result in an adverse effect. Departmental compliance practices will be consistent with *The Programmatic Agreement Among the FHWA, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer and the California Department of Transportation Regarding Compliance with Section 106 of the*

*National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA).*

Environmental Commitments could include an informal agreement to replace the historic trees with the appropriate type of disease-resistant species; replacement trees will be placed in an appropriate location, consistent with Departmental standards. This may include the pending Tree Row Management Plan, as well as those of the Town of Hillsborough and City of Burlingame. Measures for property impacts could include moving and or reconstructing brick gateposts/piers along SR 82 and/or an interpretive brochure or other product. Consultation with the State Historic Preservation Officer is anticipated. This is likely to be a lengthy process which could impact the project schedule.

8.7 Hydrology and Floodplain:

The project site is located between the limits of the 100-year flood and 500-year flood zone according to the Flood Insurance Rate Maps for the City of Burlingame. While the project is not expected to change the flood elevation, potential impacts will be evaluated and mitigation recommended during PA/ED.

8.8 Water Quality and Storm Water Runoff:

Total DSA is estimated at 0.41 acres under Alternative 1, and 0.51 acres under Alternative 2. The project would comply with the Department's statewide National Pollutant Discharge Elimination System (NPDES) permit from the Department of Water Quality and the Construction General Permit. Best Management Practices (BMPs) will be incorporated into the project to reduce the discharge of pollutants during construction as well as permanently after project completion. These BMPs fall into four categories, i.e., (I) Permanent Design Pollution Prevention BMPs, (II) Temporary Construction Site BMPs, (III) Permanent Treatment BMPs and (IV) if needed maintenance BMPs. Design Pollution Prevention BMPs are permanent measures to improve storm water quality by reducing erosion, stabilizing disturbed soil areas, and maximizing vegetated surfaces. Erosion control measures will be applied to all disturbed areas. Permanent impacts to any creeks will be mitigated both onsite and in locations still to be determined. Temporary Construction Site BMPs are applied during construction to control sedimentation, erosion and the discharge of other pollutants throughout construction. Should the project require a Storm Water Pollution Prevention Plan, a risk level evaluation will be performed at the Plans, Specification and Estimates (PS&E) phase to determine additional monitoring requirements per the Construction General Permit.

Based on the proposed project scope and the resulting potential water quality impacts, the project may not be exempt from incorporating Treatment BMPs. Treatment BMPs are permanent devices and facilities treating storm water runoff. The Department's approved Treatment BMPs are Biofiltration Strips/Swales, Infiltration Basins, Detention Basins, Traction Sand Traps, Dry Weather Flow Diversions, Media Filters, Gross Solids Removal Devices (GSRDs), Multi-Chamber Treatment Trains (MCTT), and Wet Basins. Those most feasible in the

Bay Area are Biofiltration Strips/Swales, Infiltration Basins, Detention Basins, Media Filters and MCTT.

8.9 Geology, Soils, Seismic and Topography:

Potential impacts will be evaluated and mitigation recommended if appropriate, during PA/ED.

8.10 Paleontology:

Potential impacts will be evaluated and mitigation recommended if appropriate, during PA/ED.

8.11 Hazardous Waste/Materials:

Both alternatives require a Preliminary Site Investigation, including soil testing, during the PS&E phase for aurally deposited lead (ADL) and other potential contaminants. Potential impacts due to storage and disposal of pavement grindings will be evaluated, and appropriate mitigation recommended, during PA/ED.

8.12 Air Quality:

Although channelization projects are typically exempt from regional level conformity requirements per Table 3 of 40 CFR 93.127, this will be verified during PA/ED. While the proposed project could increase traffic capacity, since only a small portion of the roadway is likely to be moved closer to potentially sensitive receptors, there is scant potential for increased air quality issues.

Construction activities will generate dust, but impacts are not expected to be significant; measures to minimize impacts will be included in the Construction Contract Specifications and Standard Special Provisions.

8.13 Noise and Vibration:

The project will be evaluated per FHWA and Departmental protocol to determine whether it is a Type 1 project during PA/ED. If it is a Type 1 project, feasible and reasonable abatement measures must be considered, while no such requirements apply if it is not. Regardless, although the roadway will be moved incrementally closer to sensitive receptors such as private residences, it is unlikely that an increase in noise would be noticeable over existing roadway noise levels. According to the Town Circulation Element, SR 82 is the Town's only major arterial, and is a high-volume roadway primarily serving through-traffic. Existing walls west of SR 82 on the Town side may reduce noise levels for nearby receptors.

Construction activities will generate noise on a temporary basis, but impacts are not expected to be significant; measures to minimize impacts will be included in the Construction Contract Specifications and Standard Special Provisions.

8.14 Energy and Climate Change:

Since the proposed project could increase capacity which may result in an expanded carbon footprint, the need to identify increased Greenhouse Gases (GHG) emissions

will be evaluated, and mitigation recommended where appropriate during PA/ED. Per the Office of Planning and Research, the Technical Advisory dated June 19, 2008 provides guidance to CEQA lead agencies by suggesting they identify potential GHG emissions and recommending mitigation where appropriate.

#### 8.15 Biological Environment:

The California Natural Diversity Database (CNDDDB) provided a preliminary evaluation of the project site for potential affects to listed species and habitats. One listed plant species and one animal species have been documented within the project vicinity. Myrtle's silverspot (*Speyeria zerene myrtleae*) is federally listed as an endangered plant species. This plant is considered possibly extirpated from the vicinity. Surveys for the species should be conducted during the PA/ED phase. California clapper rail (*Rallus longirostris obsoletus*) is a bird species that is both state and federally listed as endangered. The species is considered possibly extirpated from the vicinity and habitat for this shorebird is not within proximity to the project site. Two bat species are documented within close proximity to this proposed project. Pallid bat (*Antrozous pallidus*) and hoary bat (*Lasiurus cinereus*) are both considered extant from this area but should be further evaluated due to proposed tree removal activities. According to the US Fish and Wildlife Service (USFWS) online portal, this project falls within three miles of critical habitat for Marbled murrelet (*Brachyramphus marmoratus*), California red-legged frog (*Rana draytonii*) and Bay checkerspotted butterfly (*Euphydryas editha bayensis*). Due to the urban setting of this project, habitat and occurrences of these species are not anticipated. Further evaluation of these species and habitats will be conducted during PA/ED. Removal of mature Eucalyptus trees could result in impacts to nesting birds, as discussed below.

#### Waters and Wetlands

The proposed project recommends minor work to a concrete box culvert that runs underneath SR 82, such as possible drainage inlet relocations. Preliminary hydraulic modification as proposed, is not likely to require US Army Corps of Engineer permits. Due to the landscaped urban environment and roadway, wetlands are not anticipated on this site. Terrace Creek, which runs underneath SR 82 in a concrete box culvert, is created from the watershed starting in the Hillside residential neighborhood and is confined to mostly culverts and canals before draining into the Bay. The city of Burlingame's 2004 Storm Drain Improvement Report indicates that a pump station has been built or is in the process of being built at the drainage outlet to the San Francisco Bay due to flooding in the low lying neighborhoods.

#### Fish Passage

The Calfish database does not list Terrace Creek as currently or historically supporting fish migration. The pump station creates a blockage at the outlet to the bay and the creek lacks connectivity to other streams, lakes, ponds or water bodies. Fish passage is therefore not a concern to the proposed project and existing culvert facilities are not anticipated to require modifications for fish passage. Per Senate Bill No. 857, a Fish Passage Assessment will be completed during PA/ED phase.

### Migratory Bird Treaty Act

Bird nest surveys should be conducted for nesting birds in trees, shrubs and on the ground within the project action area, to avoid adversely affecting birds as required by the Migratory Bird Treaty Act (MBTA). The Federal MBTA (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations part 10, and CDFG Code Sections 3503, 3513 and 3800 protect migratory birds, their occupied nests and their eggs.

Trees and shrubs in the project area may provide nesting sites for birds. If staging or access occurs here and if construction work is scheduled during the bird nesting season, which is from approximately February 1<sup>st</sup> to August 15<sup>th</sup>, then a pre-construction survey for nesting birds will be required. If nests are found, avoidance and minimization measures will be taken.

### Permits

While there are no required permits or mitigation anticipated for this project, this will be confirmed during PA/ED.

#### 8.16 Cumulative Impacts:

The potential for cumulative impacts to cultural, Section 4(f) and visual resources as well as to the community will be evaluated, and mitigation will be recommended where appropriate during PA/ED.

#### 8.17 Context Sensitive Solutions:

A CSS approach will involve careful, imaginative and early planning, as well as continuous community involvement; this will be undertaken during PA/ED. Early planning activities will emphasize engaging community stakeholders in a collaborative process to arrive at the best solution to mitigate potential impacts resulting from tree removal and R/W acquisitions.

### **9. Summary Statement for PSR or PSR-PDS**

See the summary statement under No. 4. Special Environmental Considerations, above.

### **10. Disclaimer**

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

**11. List of Preparers**

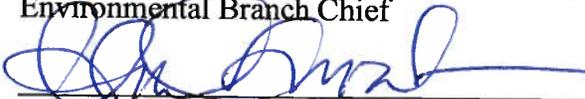
Cultural Resources specialist Beth Krase-Greene	Date: 12/15/10
Biologist Laura Ivey	Date: 5/4/2011
Community Impacts specialist Patricia Maurice	Date: 9/1/11
Noise and Vibration specialist Glenn Kinoshita	Date: 12/16/10
Air Quality specialist Glenn Kinoshita	Date: 12/16/10
Paleontology specialist/liaison	Date:
Water Quality specialist	Date:
Hydrology and Floodplain specialist	Date:
Hazardous Waste/Materials specialist	Date:
Visual/Aesthetics specialist Lori Richardson	Date: 5/9/11
Energy and Climate Change specialist Patricia Maurice	Date: 12/14/10
Other:	Date:
PEAR Preparer (Name and Title) Patricia Maurice, Senior Environmental Planner	Date: 9/13/11

**12. Review and Approval**

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as an EA or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

  
 \_\_\_\_\_  
 Environmental Branch Chief

Date: 9/14/11

  
 \_\_\_\_\_  
 Project Manager

Date: 9/16/11

For

**REQUIRED ATTACHMENTS:**

**Attachment A: PEAR Environmental Studies Checklist**

**Attachment D: PEAR Environmental Commitments Cost Estimate (Standard PSR)**

## Attachment A: PEAR Environmental Studies Checklist

Rev. 11/08

<b>Environmental Studies for PA&amp;ED Checklist</b>					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Land Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Growth	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Farmlands/Timberlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Community Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Community Character and Cohesion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Relocations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Environmental Justice	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Utilities/Emergency Services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Visual/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Cultural Resources:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H	
Archaeological Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Historic Resources Evaluation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Historic Property Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Historic Resource Compliance Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Section 106 / PRC 5024 & 5024.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Finding of Effect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Data Recovery Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Memorandum of Agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Other: Tree Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Hydrology and Floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Water Quality and Stormwater Runoff	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Geology, Soils, Seismic and Topography	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Paleontology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
PER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
PMP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Hazardous Waste/Materials:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
ISA (Additional)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
PSI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Air Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Noise and Vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Energy and Climate Change	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Biological Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Natural Environment Study	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Section 7:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Formal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Informal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
No effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
USFWS Consultation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
NMFS Consultation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Wetlands & Other Waters/Delineation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
404(b)(1) Alternatives Analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Invasive Species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Wild & Scenic River Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Coastal Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
HMMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
DFG Consistency Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
2081	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Cumulative Impacts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Context Sensitive Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Section 4(f) Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>M</u>	
<b>Permits:</b>					
401 Certification Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
404 Permit Coordination, IP, NWP, or LOP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
1602 Agreement Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Local Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
State Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
NPDES Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
TRPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
BCDC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	

## Attachment D: PEAR Environmental Commitments Cost Estimate

Standard PSR Only

(Prepare a separate form for each viable alternative described in the Project Study Report)

### PART 1 PROJECT INFORMATION

*rev. 11/08*

District-County-Route-Post Mile 04 - SM - 82 - 13.69	EA: 0G020K
Project Description: Floribunda left-turn channelization	
Form completed by (Name/District Office): Patricia Maurice/D4 Office of Advance Planning	
Project Manager: Nandini Shridhar	Phone Number: 510.286.4892
Date: September 2011	

### PART 2 PERMITS AND AGREEMENTS

	Permits and Agreements (\$\$)
<input type="checkbox"/> Fish and Game 1602 Agreement	
<input type="checkbox"/> Coastal Development Permit	
<input type="checkbox"/> State Lands Agreement	
<input type="checkbox"/> Section 401 Water Quality Certification	
<input type="checkbox"/> Section 404 Permit – Nationwide (U.S. Army Corps)	
<input type="checkbox"/> Section 404 Permit – Individual (U.S. Army Corps)	
<input type="checkbox"/> Section 10 Navigable Waters Permit (U.S. Army Corps)	
<input type="checkbox"/> Section 9 Permit (U.S. Coast Guard)	
<input type="checkbox"/> Other:	
<b>Total (enter zeros if no cost)</b>	<b>0</b>

**PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS**

To complete the following information:

- Report costs in \$1,000s.
- Include all costs to complete the commitment:
  - Capital outlay and staff support. Refer to Estimated Resources by WBS Code. For example, if you estimated 80 hours for biological monitoring (WBS 235.35 Long Term Mitigation Monitoring), convert those hours to a dollar amount for this entry. For current conversion rates from PY to dollars, see the Project Manager.
  - Cost of right of way or easements.
  - If compensatory mitigation is anticipated (for wetlands, for example), insert a range for purchasing credits in a mitigation bank.
  - Long-term monitoring and reporting
  - Any follow-up maintenance
  - Use current costs; the Project Manager will add an appropriate escalation factor.
  - This is an estimating tool, so a range is not only acceptable, but advisable.

<b>Environmental Commitments Alternative</b>		
	Estimated Cost in \$1,000's	Notes
Noise abatement or mitigation		
Special landscaping	25	Replac planting
Archaeological resources		
Biological resources		
Historical resources	48	
Scenic resources		
Wetland/riparian resources		
Res./bus. relocations		
Other: WQ	44	
Total (enter zeros if no cost)	117	

# **Attachment G**

Request for TMP Data Sheet

And

Preliminary TMP Elements Cost

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# TRANSPORTATION MANAGEMENT PLAN DATA SHEET (Preliminary TMP Elements and Costs)

Co/Rte/PM SM-82-PM13.69 EA 04-1G020K Project Engineer Nelson Bustos  
 Project Limit El Camino Real / Route 82 and Floribunda Ave Intersection Widening  
 Project Description Intersection Widening

## 1) Public Information

- |                                     |  |         |  |
|-------------------------------------|--|---------|--|
| <input type="checkbox"/>            | a. Brochures and Mailers   | \$      |  |
| <input type="checkbox"/>            | b. Press Release   |         |  |
| <input type="checkbox"/>            | c. Paid Advertising  | \$      |  |
| <input type="checkbox"/>            | d. Public Information Center/Kiosk   | \$      |  |
| <input type="checkbox"/>            | e. Public Meeting/Speakers Bureau  |         |  |
| <input type="checkbox"/>            | f. Telephone Hotline   |         |  |
| <input type="checkbox"/>            | g. Internet, E-mail  |         |  |
| <input checked="" type="checkbox"/> | h. Notification to impacted groups<br>(I.e. bicycle users, pedestrians with disabilities, others...) |         |  |
| <input checked="" type="checkbox"/> | i. Others  | \$3,000 |  |

## 2) Traveler Information Strategies

- |                                     |  |         |  |
|-------------------------------------|--|---------|--|
| <input type="checkbox"/>            | a. Changeable Message Signs (Fixed)                      | \$      |  |
| <input checked="" type="checkbox"/> | b. Changeable Message Signs (Portable)                   | \$6,000 |  |
| <input type="checkbox"/>            | c. Ground Mounted Signs                                  | \$      |  |
| <input type="checkbox"/>            | d. Highway Advisory Radio                                | \$      |  |
| <input type="checkbox"/>            | e. Caltrans Highway Information Network (CHIN)           |         |  |
| <input type="checkbox"/>            | f. Detour maps (i.e. bicycle, vehicle, pedestrian...etc) |         |  |
| <input type="checkbox"/>            | g. Revised Transit Schedules/maps                        |         |  |
| <input checked="" type="checkbox"/> | h. Bicycle community information                         |         |  |
| <input type="checkbox"/>            | i. Others  |         |  |
|                                     |  | \$      |  |

## 3) Incident Management

- |                                     |  |          |  |
|-------------------------------------|--|----------|--|
| <input checked="" type="checkbox"/> | a. Construction Zone Enhanced Enforcement Program (COZEEP)   | \$22,000 |  |
| <input type="checkbox"/>            | b. Freeway Service Patrol                                    | \$       |  |
| <input type="checkbox"/>            | c. Traffic Management Team                                   |          |  |
| <input type="checkbox"/>            | d. Helicopter Surveillance                                   | \$       |  |
| <input type="checkbox"/>            | e. Traffic Surveillance Stations<br>(Loop Detector and CCTV) | \$       |  |
| <input type="checkbox"/>            | f. Others  | \$       |  |

# TMP Data Sheet (cont.)

## 4) Construction Strategies

<input type="checkbox"/>	a. Lane Closure Chart		
<input type="checkbox"/>	b. Reversible Lanes		
<input type="checkbox"/>	c. Total Facility Closure		
<input type="checkbox"/>	d. Contra Flow		
<input type="checkbox"/>	e. Truck Traffic Restrictions	\$	
<input type="checkbox"/>	f. Reduced Speed Zone	\$	
<input type="checkbox"/>	g. Connector and Ramp Closures		
<input type="checkbox"/>	h. Incentive and Disincentive	\$	
<input type="checkbox"/>	i. Moveable Barrier	\$	
<input type="checkbox"/>			
<input type="checkbox"/>	k. Others _____	\$	

## 5) Demand Management

<input type="checkbox"/>	a. HOV Lanes/Ramps (New or Convert)		
<input type="checkbox"/>	b. Park and Ride Lots		
<input type="checkbox"/>	c. Rideshare Incentives	\$	
<input type="checkbox"/>	d. Variable Work Hours		
<input type="checkbox"/>	e. Telecommute		
<input type="checkbox"/>	f. Ramp Metering (Temporary Installation)	\$	
<input type="checkbox"/>	g. Ramp Metering (Modify Existing)	\$	
<input type="checkbox"/>	h. Others _____	\$	

## 6) Alternate Route Strategies

<input type="checkbox"/>	a. Add Capacity to Freeway Connector		
<input type="checkbox"/>	b. Street Improvement (widening, traffic signal... etc)		
<input type="checkbox"/>	c. Traffic Control Officers	\$	
<input type="checkbox"/>	d. Parking Restrictions		
<input type="checkbox"/>	e. Others _____	\$	

## 7) Other Strategies

<input type="checkbox"/>	a. Application of New Technology		
<input type="checkbox"/>	e. Others _____	\$	

**TOTAL ESTIMATED COST OF TMP ELEMENTS =** **\$31,000.00**

PREPARED BY Marisa M-Kleiber DATE 9/12/2011

APPROVAL RECOMMENDED BY Shein Lin DATE 9/12/2011

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# **Attachment H**

## **Risk Management Plan**

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Identification										Quantitative Analysis										Response Strategy				Monitoring and Control			
Priority	Risk ID	Sigma	Category	Phase	Identified Risk (non-avoidable)	Risk Trigger	Probability	Type	Estimated Impact	Evaluated Impact	LINEAR Risk Matrix	NONLINEAR Risk Matrix	Quantitative (Optional)	Strategy	Response Actions including advantages and disadvantages	WBS Tasks Affected	Risk Owner/Function	Risk Owner/Function	Changes and Comments (List date for all changes and entries made in this log)								
1			Env	PAEED	Biological Mitigation Area	The Identification of Biological Mitigation Area.	M (50%)	Cost (\$)	DOLLAR AMT	VL	VL	VL	18	Mitigation	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner	24								
2			Env	PAEED	Delay due to need for construction window restriction.	Construction window restriction results in project delay.	L (20%)	Time (Y)	NO. OF DAYS	VL	VL	VL	18	Mitigation	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									
3			Env	PAEED	Removal of historic trees	Loss public concerns and resistance may develop the project.	H (70%)	Quality (Q)	NO. OF DAYS	VL	VL	VL	18	Mitigation	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									
4			Env	PAEED	Construction activities for the proposed project would generate noise and dust	Project is within residential areas. Possible allowable construction window will be at night	M (50%)	Quality (Q)	DOLLAR AMT	VL	VL	VL	18	Mitigation	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									
5			R/W	PAEED	Utility Relocation	Project delay impacts resulting from unforeseen utility relocations or effects of complex utility relocation.	L (20%)	Quality (Q)	NO. OF DAYS	VL	VL	VL	18	Acceptance	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									
6			R/W	PAEED	Additional Right of way needed for widening and environmental mitigation	Changes to project plans that call for the addition of RW data or additional need for temporary easements	L (20%)	Quality (Q)	DOLLAR AMT	VL	VL	VL	18	Acceptance	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									
7			External	PAEED	Legal action	The project may be challenged in court.	H (70%)	Quality (Q)	NO. OF DAYS	VL	VL	VL	18	Acceptance	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									
8			Regulatory	PAEED	Site will not meet Agreement deadline.	Work volume and standard operating procedure	L (20%)	Quality (Q)	DOLLAR AMT	VL	VL	VL	18	Acceptance	This risk can also affect risk #.	WBS 105 Perform Environmental Studies and Prepare Draft Environmental Document (DED)	Risk Owner	Risk Owner									

---

# **Attachment I**

## **Preliminary Project Cost Estimate Summary**

---

**PRELIMINARY PROJECT COST ESTIMATE**

04-SM-82

PM: 13.69

EA: 1G020K

Program Code: SHOPP 201.010

**Project Description:** Widening and Safety Improvement Project

**Limits:** On State Route 82 between Bellevue Avenue and Fairfield Road

**Proposed Improvement (Scope):** To install left turn channelization on the NB and SB directions with protected turn signal phase at the intersection of Floribunda Avenue and El Camino Real.

**SUMMARY OF PROJECT COST ESTIMATE**

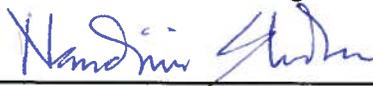
TOTAL ROADWAY ITEMS	<u>\$ 1,938,000</u>
TOTAL STRUCTURE ITEMS	<u>\$ 0</u>
SUBTOTAL CONSTRUCTION COSTS	<u>\$ 1,938,000</u>
TOTAL RIGHT OF WAY ITEMS	<u>\$ 1,269,000</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS	<u>\$ 3,207,000</u>

Reviewed by District Program Manager

  
\_\_\_\_\_  
Roland Au-Yeung

Date: 9/21/11

Approved by Project Manager:

  
\_\_\_\_\_  
Nandini Shridhar

Date: 9/21/11

04-SM-82

PM: 13.69

EA: 1G020K

Program Code: SHOPP 201.010

**I. ROADWAY ITEMS**

**Section 1 - Earthwork**

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	<u>1200</u>	<u>yd3</u>	<u>\$ 40</u>	<u>\$ 48,000</u>	<u>\$ -</u>
Contaminated Soil Disposal (assume 2' deep)	<u>90</u>	<u>yd3</u>	<u>\$ 200</u>	<u>\$ 18,000</u>	<u>\$ -</u>
Clearing & Grubbing	<u>1</u>	<u>LS</u>	<u>\$ 50,000</u>	<u>\$ 50,000</u>	<u>\$ -</u>
Fill Contingencies (10% of Fill)	<u>0</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Develop Water Supply	<u>1</u>	<u>LS</u>	<u>\$ 5,000</u>	<u>\$ 5,000</u>	<u>\$ -</u>
				<b><i>Subtotal Earthwork</i></b>	<b><i>\$ 121,000</i></b>

**Section 2 - Pavement Structural**

<u>Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Hot Mix Asphalt (HMA, A)	<u>1780</u>	<u>ton</u>	<u>\$ 115</u>	<u>\$ 204,700</u>	<u>\$ -</u>
Aggregate Sub-Base, AS (Class 4)	<u>85</u>	<u>yd3</u>	<u>\$ 65</u>	<u>\$ 5,525</u>	<u>\$ -</u>
Pavement Reif. Fabrics (PRF)	<u>0</u>	<u>yd2</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Minor Concrete (Curb, Sidewalk, etc)	<u>190</u>	<u>yd3</u>	<u>\$ 600</u>	<u>\$ 114,000</u>	<u>\$ -</u>
				<b><i>Subtotal Pavement Structural Items</i></b>	<b><i>\$ 324,225</i></b>

**Section 3 - Drainage**

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Drainage Cost	<u>1</u>	<u>LS</u>	<u>\$ 18,000</u>	<u>\$ 18,000</u>	
				<b><i>Subtotal Drainage</i></b>	<b><i>\$ 18,000</i></b>

**Section 4- Specialty Items**

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Esc. Item Cost</u>
Remove Existing Structural Section	<u>43240</u>	<u>Sq. Ft.</u>	<u>\$ 3</u>	<u>\$ 129,720</u>	
Remove Concrete (Curb, Gutter & Sidewalk)	<u>95</u>	<u>yd3</u>	<u>\$ 110</u>	<u>\$ 10,450</u>	
Temporary Railing (Type K)	<u>1000</u>	<u>ft</u>	<u>\$ 13</u>	<u>\$ 13,000</u>	
Wood Fence Removal	<u>350</u>	<u>ft</u>	<u>\$ 10</u>	<u>\$ 3,500</u>	
Block Fence Removal	<u>1</u>	<u>LS</u>	<u>\$ 15,000</u>	<u>\$ 15,000</u>	
Wood Fence (new)	<u>232</u>	<u>ft</u>	<u>\$ 80</u>	<u>\$ 18,560</u>	
Concrete Barrier Type 60G	<u>180</u>	<u>Ft3</u>	<u>\$ 150</u>	<u>\$ 27,000</u>	
Soundwall	<u>2080</u>	<u>FT2</u>	<u>\$ 28</u>	<u>\$ 58,240</u>	
Electrical/Safety/Support Work	<u>1</u>	<u>LS</u>	<u>\$ 10,000</u>	<u>\$ 10,000</u>	
Erosion Control	<u>1</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	
Prepare Storm Water Pollution Prevention Plan (SWPPP)	<u>1</u>	<u>LS</u>		<u>\$ -</u>	
Water Pollution Control	<u>1</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	
Construction Site Management	<u>1</u>	<u>LS</u>		<u>\$ -</u>	
Storm Water Treatment Control Measures	<u>0</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	

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Program Code: SHOPP 201.010

Water Pollution Control Program	<u>1</u>	<u>LS</u>		\$ -
Additional Water Pollution Control	<u>1</u>	<u>LS</u>		\$ -
Cultural Resources - Addtl Mitigation Cost	<u>1</u>	<u>LS</u>		\$ -
Replacement Planting	<u>1</u>	<u>LS</u>		\$ 0
Resident Engineer Office Space	<u>1</u>	<u>LS</u>	\$ 15,000	\$ 15,000
Plant Establishment	<u>1</u>	<u>LS</u>	\$ 10,000	\$ 10,000

***Subtotal Specialty Items*** \$ 310,470

**Section 5 - Traffic Items**

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Esc. Item Cost</u>
Transportation Management Plan (TMP)	<u>1</u>	<u>LS</u>	\$ 25,000	\$ 25,000	
Roadside signs & sign structures (removal & installation)	<u>1</u>	<u>LS</u>	\$ 25,000	\$ 25,000	
Traffic Control Systems	<u>1</u>	<u>LS</u>	\$ 40,000	\$ 40,000	
Traffic Signals	<u>1</u>	<u>LS</u>	\$ 200,000	\$ 200,000	
Fiber Optic Relocation (from HQ Project)	<u>1</u>	<u>LS</u>	\$ 100,000	\$ 100,000	
Lighting (including Temp Lighting)	<u>1</u>	<u>LS</u>	\$ 30,000	\$ 30,000	
Pavement Striping, Markings, & Markers	<u>1</u>	<u>LS</u>	\$ 15,000	\$ 15,000	
Changeable Message Signs (Potable)	<u>1</u>	<u>LS</u>	\$ 6,000	\$ 6,000	

***Subtotal Traffic Items*** \$ 441,000

**Section 6 - Planting and Irrigation**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
			\$ -	

***Subtotal Planting & Irrigation*** \$ -

**Section 7 - Roadside Management  
and Safety**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
			\$ -	

***Subtotal Roadside Management & Safety*** \$ -

**TOTAL SECTIONS: 1 thru 7** \$ 1,214,695

**Use** \$ 1,215,000

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Program Code: SHOPP 201.010

**Section 8 - Minor Items**

\$ 1,215,000 x 10% = \$ 121,500  
(Subtotal Section 1-7)

**Total Minor Items \$ 121,500**

**Section 9 - Roadway Mobilization**

Subtotal Section (1-7) \$ 1,215,000  
Minor Items (8) \$ 121,500  
Sum (1-8) \$ 1,336,500 x 10% = \$ 133,650

**Total Roadway Mobilization \$ 133,650**

**Section 10 - Roadway Additions**

***Supplemental Work***

Subtotal Section (1-7) \$ 1,215,000  
Minor Items (8) \$ 121,500  
Sum (1-8) \$ 1,336,500 x 10% = \$ 133,650

***Contingencies***

Subtotal Section 1-7 \$ 1,215,000  
Minor Items (8) \$ 121,500  
Sum \$ 1,336,500 x 25% = \$ 334,125

**Total Roadway Additions \$ 468,000**

**TOTAL ROADWAY ITEMS (Total of Sections 1-8) \$ 1,938,000**

Estimate Prepared By: Nelson Bustos

Date: 6/28/2011  
Phone #: 510-286-5526

Estimate Checked By: Albert Tan

Date: 6/28/2011  
Phone #: 510-622-1665

04-SM-82  
 PM: 13.69  
 EA: 1G020K  
 Program Code: SHOPP 201.010

**II. STRUCTURES ITEMS**

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (out to out) - (ft)	_____	_____	_____
Span Lengths - (ft)	_____	_____	_____
Total Area - (ft)	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost per ft2	_____	_____	_____
Total Cost for Structure	\$0	\$0	\$0

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Bridge Rail Replacement (Total)	<u>1</u>	<u>LS</u>	<u>\$0</u>	<u>\$ -</u>	

**Subtotal Structures Items** \$ -  
*(Sum of Total Cost for Structures)*

Railroad Related Costs: \_\_\_\_\_

**Subtotal Railroad Items** \$ -

*(Structures 30% Contingency and 10% Mobilization)* Included

**TOTAL STRUCTURES ITEMS** \$ -  
*(Sum of Structures Items & railroad Items)*

COMMENTS: *Unit price for the Concrete Anchor Block was provided by Majid Madani, DES Technical Liaison Engineer on August 16, 2011.*

Estimate Prepared By: N/A Date: \_\_\_\_\_  
 Phone #: \_\_\_\_\_

04-SM-82  
 PM: 13.69  
 EA: 1G020K  
 Program Code: SHOPP 201.010

**III. RIGHT OF WAY ITEMS**

	Escalated Value
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$ <u>1,133,000</u>
B. Utility Relocation (State Share)	\$ <u>10,000</u>
C. Environmental Mitigation	\$ <u>88,153</u>
D. Grantor's Appraisal Cost	\$ <u>25,000</u>
E. Title and Escrow Fees	\$ <u>12,500</u>
<b>TOTAL RIGHT OF WAY ITEMS</b>	<b>\$ <u>1,268,653</u></b>
	<i>(Escalated Value)</i>

Anticipated Date of R/W Cert \$ \_\_\_\_\_  
*(Date to which Values are Escalated)*

F. Construction Contract Work

Brief Description of Work:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Right of Way Branch Cost Estimate for Work \*                      \$ \_\_\_\_\_

*\* This dollar amount is to be included in the Roadway and/or Structures Items of Work, as appropriate. Do not include in Right of Way Items.*

COMMENTS:                      **\*\* R/W Cost assumed as 1% of the total Construction Capital Cost for this project only**

Estimate Prepared By: \_\_\_\_\_ N/A \_\_\_\_\_

Date: \_\_\_\_\_  
 Phone #: \_\_\_\_\_

**PRELIMINARY PROJECT COST ESTIMATE**

04-SM-82

PM: 13.69

EA: 1G020K

Program Code: SHOPP 201.010

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**SUMMARY OF PROJECT COST ESTIMATE**

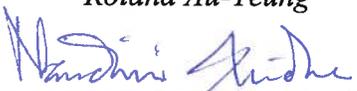
TOTAL ROADWAY ITEMS	<u>\$ 2,253,000</u>
TOTAL STRUCTURE ITEMS	<u>\$ 0</u>
SUBTOTAL CONSTRUCTION COSTS	<u>\$ 2,253,000</u>
TOTAL RIGHT OF WAY ITEMS	<u>\$ 1,352,000</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS	<u>\$ 3,605,000</u>

Reviewed by District Program Manager

  
\_\_\_\_\_  
Roland Au-Yeung

Date: 9/21/11

Approved by Project Manager:

  
\_\_\_\_\_  
Nandini Shridhar

Date: 9/21/11

04-SM-82

PM: 13.69

EA: 1G020K

Program Code: SHOPP 201.010

## I. ROADWAY ITEMS

### Section 1 - Earthwork

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	<u>1390</u>	<u>yd3</u>	<u>\$ 40</u>	<u>\$ 55,600</u>	<u>\$ -</u>
Contaminated Soil Disposal (assume 2' deep)	<u>90</u>	<u>yd3</u>	<u>\$ 200</u>	<u>\$ 18,000</u>	<u>\$ -</u>
Clearing & Grubbing	<u>1</u>	<u>LS</u>	<u>\$ 50,000</u>	<u>\$ 50,000</u>	<u>\$ -</u>
Fill Contingencies (10% of Fill)	<u>0</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Develop Water Supply	<u>1</u>	<u>LS</u>	<u>\$ 5,000</u>	<u>\$ 5,000</u>	<u>\$ -</u>
				<b><i>Subtotal Earthwork</i></b>	<b><i>\$ 128,600</i></b>

### Section 2 - Pavement Structural Section

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Hot Mix Asphalt (HMA, A)	<u>1805</u>	<u>ton</u>	<u>\$ 115</u>	<u>\$ 207,575</u>	<u>\$ -</u>
Aggregate Sub-Base, AS (Class 4)	<u>80</u>	<u>yd3</u>	<u>\$ 65</u>	<u>\$ 5,200</u>	<u>\$ -</u>
Pavement Reif. Fabrics (PRF)	<u>0</u>	<u>yd2</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Minor Concrete (Curb, Sidewalk, etc)	<u>505</u>	<u>yd3</u>	<u>\$ 600</u>	<u>\$ 303,000</u>	<u>\$ -</u>
				<b><i>Subtotal Pavement Structural Items</i></b>	<b><i>\$ 515,775</i></b>

### Section 3 - Drainage

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Drainage Cost	<u>1</u>	<u>LS</u>	<u>\$ 18,000</u>	<u>\$ 18,000</u>	
				<b><i>Subtotal Drainage</i></b>	<b><i>\$ 18,000</i></b>

### Section 4- Specialty Items

	Quantity	Unit	Unit Price	Item Cost	Esc. Item Cost
Remove Existing Structural Section	<u>42638</u>	<u>Sq. Ft.</u>	<u>\$ 3</u>	<u>\$ 127,914</u>	
Remove Concrete (Curb, Gutter & Sidewalk)	<u>150</u>	<u>yd3</u>	<u>\$ 110</u>	<u>\$ 16,500</u>	
Temporary Railing (Type K)	<u>1295</u>	<u>ft</u>	<u>\$ 13</u>	<u>\$ 16,835</u>	
Wood Fence Removal	<u>350</u>	<u>ft</u>	<u>\$ 10</u>	<u>\$ 3,500</u>	
Block Fence Removal	<u>1</u>	<u>LS</u>	<u>\$ 15,000</u>	<u>\$ 15,000</u>	
Wood Fence (new)	<u>232</u>	<u>ft</u>	<u>\$ 80</u>	<u>\$ 18,560</u>	
Concrete Barrier Type 60G	<u>180</u>	<u>Ft3</u>	<u>\$ 150</u>	<u>\$ 27,000</u>	
Soundwall	<u>2080</u>	<u>FT2</u>	<u>\$ 28</u>	<u>\$ 58,240</u>	
Electrical/Safety/Support Work	<u>1</u>	<u>LS</u>	<u>\$ 10,000</u>	<u>\$ 10,000</u>	
Erosion Control	<u>1</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	
Prepare Storm Water Pollution Prevention Plan (SWPPP)	<u>1</u>	<u>LS</u>		<u>\$ -</u>	
Water Pollution Control	<u>1</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	
Construction Site Management	<u>1</u>	<u>LS</u>		<u>\$ -</u>	
Storm Water Treatment Control Measures	<u>0</u>	<u>LS</u>	<u>\$ -</u>	<u>\$ -</u>	

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PM: 13.69

EA: 1G020K

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Water Pollution Control Program	1	LS		\$ -
Additional Water Pollution Control	1	LS		\$ -
Cultural Resources - Addtl Mitigation Cost	1	LS		\$ -
Replacement Planting	1	LS		\$ 0
Resident Engineer Office Space	1	LS	\$ 15,000	\$ 15,000
Plant Establishment	1	LS	\$ -	\$ -

**Subtotal Specialty Items \$ 308,549**

**Section 5 - Traffic Items**

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Esc. Item Cost</u>
Transportation Management Plan (TMP)	1	LS	\$ 25,000	\$ 25,000	
Roadside signs & sign structures (removal & installation)	1	LS	\$ 25,000	\$ 25,000	
Traffic Control Systems	1	LS	\$ 40,000	\$ 40,000	
Traffic Signals	1	LS	\$ 200,000	\$ 200,000	
Fiber Optic Relocation (from HQ Project)	1	LS	\$ 100,000	\$ 100,000	
Lighting (including Temp Lighting)	1	LS	\$ 30,000	\$ 30,000	
Pavement Striping, Markings, & Markers	1	LS	\$ 15,000	\$ 15,000	
Changeable Message Signs (Potable)	1	LS	\$ 6,000	\$ 6,000	

**Subtotal Traffic Items \$ 441,000**

**Section 6 - Planting and Irrigation**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
			\$ -	

**Subtotal Planting & Irrigation \$ -**

**Section 7 - Roadside Management  
and Safety**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
			\$ -	

**Subtotal Roadside Management & Safety \$ -**

**TOTAL SECTIONS: 1 thru 7 \$ 1,411,924**

**Use \$ 1,412,000**

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**Section 8 - Minor Items**

\$ 1,412,000 x 10% = \$ 141,200  
(Subtotal Section 1-7)

**Total Minor Items \$ 141,200**

**Section 9 - Roadway Mobilization**

Subtotal Section (1-7) \$ 1,412,000  
Minor Items (8) \$ 141,200  
Sum (1-8) \$ 1,553,200 x 10% = \$ 155,320

**Total Roadway Mobilization \$ 155,320**

**Section 10 - Roadway Additions**

***Supplemental Work***

Subtotal Section (1-7) \$ 1,412,000  
Minor Items (8) \$ 141,200  
Sum (1-8) \$ 1,553,200 x 10% = \$ 155,320

***Contingencies***

Subtotal Section 1-7 \$ 1,412,000  
Minor Items (8) \$ 141,200  
Sum \$ 1,553,200 x 25% = \$ 388,300

**Total Roadway Additions \$ 544,000**

**TOTAL ROADWAY ITEMS (Total of Sections 1-8) \$ 2,253,000**

Estimate Prepared By: Nelson Bustos

Date: 8/30/2011  
Phone #: 510-286-5526

Estimate Checked By: Albert Tan

Date: 8/30/2011  
Phone #: 510-622-1665

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**II. STRUCTURES ITEMS**

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (out to out) - (ft)	_____	_____	_____
Span Lengths - (ft)	_____	_____	_____
Total Area - (ft)	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost per ft2	_____	_____	_____
Total Cost for Structure	\$0	\$0	\$0

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Bridge Rail Replacement (Total)	1	LS	\$0	\$ -	

**Subtotal Structures Items** \$ -  
*(Sum of Total Cost for Structures)*

Railroad Related Costs: \_\_\_\_\_

**Subtotal Railroad Items** \$ -

*(Structures 30% Contingency and 10% Mobilization)* Included

**TOTAL STRUCTURES ITEMS** \$ -  
*(Sum of Structures Items & railroad Items)*

COMMENTS: *Unit price for the Concrete Anchor Block was provided by Majid Madani, DES Technical Liaison Engineer on August 16, 2011.*

Estimate Prepared By: N/A Date: \_\_\_\_\_  
 Phone #: \_\_\_\_\_

04-SM-82  
 PM: 13.69  
 EA: 1G020K  
 Program Code: SHOPP 201.010

**III. RIGHT OF WAY ITEMS**

	Escalated Value
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$ <u>1,172,000</u>
B. Utility Relocation (State Share)	\$ <u>10,000</u>
C. Environmental Mitigation	\$ <u>117,000</u>
D. Grantor's Appraisal Cost	\$ <u>35,000</u>
E. Title and Escrow Fees	\$ <u>17,500</u>
<b>TOTAL RIGHT OF WAY ITEMS</b>	<b>\$ <u>1,351,500</u></b>
	<i>(Escalated Value)</i>

Anticipated Date of R/W Cert \$ \_\_\_\_\_  
*(Date to which Values are Escalated)*

F. Construction Contract Work

Brief Description of Work:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Right of Way Branch Cost Estimate for Work \* \$ \_\_\_\_\_

*\* This dollar amount is to be included in the Roadway and/or Structures Items of Work, as appropriate. Do not include in Right of Way Items.*

COMMENTS: *\*\* R/W Cost assumed as 1% of the total Construction Capital Cost for this project only*

Estimate Prepared By: \_\_\_\_\_ N/A

Date: \_\_\_\_\_  
 Phone #: \_\_\_\_\_