ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
US 101/SR 25 Interchange Project - Phase 1

Resolution TCEP-P-2021-07B
(will be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☐ State Highway Operation and Protection Program
- ☒ Trade Corridor Enhancement Program

2. PARTIES AND DATE

2.1 This Project Baseline Agreement (Agreement) for the *US 101/SR 25 Interchange Project - Phase 1*,

effective on, June 23, 2021 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Santa Clara Valley Transportation Authority (VTA)*, and the Implementing Agency, *Santa Clara Valley Transportation Authority (VTA)*, sometimes collectively referred to as the "Parties".

3. RECITAL

3.2 Whereas at its December 2, 2020 meeting the Commission approved the Trade Corridor Enhancement Program, and included in this program of projects the *US 101/SR 25 Interchange Project - Phase 1*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.

3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.

4.2 To adhere, as applicable, to the provisions of the Commission:

- ☐ Resolution *Insert Number* , "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number* , "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution *Insert Number* , "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☐ Resolution *Insert Number* , "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated
- ☒ Resolution G-20-77, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated December 2, 2020

4.3 All signatories agree to adhere to the Commission's Trade Corridor Enhancement Program, Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.

4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.

4.5 The Santa Clara Valley Transportation Authority (VTA) agrees to secure funds for any additional costs of the project.

4.6 The Santa Clara Valley Transportation Authority (VTA) agrees to report to Caltrans on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.

4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.

4.8 The Santa Clara Valley Transportation Authority (VTA) agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost
See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions
This application is focused on Phase 1 of the reconstruction of the US101/SR 25 interchange within the overall ultimate project defined in the approved Project Report. Link to Project Report: https://sccvta.sharepoint.com/sites/P1064C/es/caltrans/Forms/AllItems.aspx
In the event of a cost overrun the state will cover a share proportionate to the state contribution of the TCEP funding identified in the Project Programming Request (PPR) submitted with the project application. (For example, if the state/regional TCEP funding share was a 40/60 ratio, the state may fund no more than 40% of the cost overrun.)

Attachments:

Exhibit A: Project Programming Request Form
Exhibit B: Project Report

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

US 101/SR 25 Interchange Project - Phase 1

Resolution TCEP-P-2021-07B

DocuSigned by:
Evelynn Tran
B990C5823D324E4...

3/17/2021

Evelynn Tran — Date

General Counsel and Interim General Manager/CEO, VTA

Project Applicant

DocuSigned by:
Evelynn Tran
B990C5823D324E4...

3/17/2021

Evelynn Tran — Date

General Counsel and Interim General Manager/CEO, VTA

Implementing Agency

Dina El-Tawansy Digitally signed by Dina El-Tawansy
Date: 2021.03.19 12:03:05 -07'00'

Dina A. El-Tawansy — Date

District Director

California Department of Transportation

3.18.21

Toks Omishakin — Date

Director

California Department of Transportation

07/16/21

Mitchell Weiss — Date

Executive Director

California Transportation Commission

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-6264-2020-0004 v2

Amendment (Existing Project) ☒ YES ☐ NO | Date 03/23/2021 18:54:28

Programs ☐ LPP-C ☐ LPP-F ☐ SCCP ☐ TCEP ☐ STIP ☐ Other

District	EA	Project ID	PPNO	Nominating Agency	
04	3A160	0400000931	0462G	Santa Clara Valley Transportation Authority	
County	**Route**	**PM Back**	**PM Ahead**	**Co-Nominating Agency**	
Santa Clara	101	2.800	3.700	Metropolitan Transportation Commission	
				MPO	**Element**
				MTC	Capital Outlay

Project Manager/Contact	Phone	Email Address
Gene Gonzalo	408-952-4236	gene.gonzalo@vta.org

Project Title

US 101 / State Route 25 Interchange - Phase 1

Location (Project Limits), Description (Scope of Work)

In southern Santa Clara County at the interchange of US 101 and SR 25. Reconstruct the interchange at a location just north of the existing interchange. The improvements will include a new, widened bridge to convey SR 25 over US 101. It will also improve ramps for all traffic movements between US 101 and SR 25. and minor realignment of SR 25 to the north. New traffic signals will be installed at the northbound and southbound ramp termini with SR 25.

Component	Implementing Agency
PA&ED	Santa Clara Valley Transportation Authority
PS&E	Santa Clara Valley Transportation Authority
Right of Way	Santa Clara Valley Transportation Authority
Construction	Santa Clara Valley Transportation Authority

Legislative Districts

Assembly:	30	Senate:	12	Congressional:	20

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	10/01/2006	10/01/2006
Circulate Draft Environmental Document Document Type EIR		
Draft Project Report	03/27/2013	03/27/2013
End Environmental Phase (PA&ED Milestone)	09/30/2013	09/30/2013
Begin Design (PS&E) Phase	03/01/2019	03/01/2019
End Design Phase (Ready to List for Advertisement Milestone)	08/25/2021	02/28/2023
Begin Right of Way Phase	06/28/2020	06/28/2020
End Right of Way Phase (Right of Way Certification Milestone)	08/25/2021	02/28/2023
Begin Construction Phase (Contract Award Milestone)	02/08/2022	08/31/2023
End Construction Phase (Construction Contract Acceptance Milestone)	06/25/2024	12/01/2025
Begin Closeout Phase	06/25/2024	12/02/2025
End Closeout Phase (Closeout Report)	12/03/2024	12/02/2026

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-6264-2020-0004 v2

Date 03/23/2021 18:54:28

Purpose and Need

The purpose of this project is to improve reliability for the movement of vehicular traffic, including trucks moving agricultural products and other goods through the region. By improving and preserving the freight system infrastructure and the interconnected system of local and State Routes, the project supports and enhances the sustainability of southern Bay Area and San Joaquin Valley agribusiness as well as general freight movement, thereby stimulating economic activity and enhancing trade value.

In addition, the project improves operations of the interchange, increases throughput of the interchange, reduces impacts to through traffic on US 101 and reduces cut through traffic avoiding the interchange by using local roads. This Phase 1 Interchange project will also facilitate future corridor improvements for US 101, SR 25 and SR 152. SR 152 is planned to be relocated to connect to this interchange. The project will provide a safe transportation system for all users, reduce recurring congestion by increasing storage capacity of the ramps, widening the overcrossing, improving mobility and trip time reliability. This will result in an interconnected and accessible multi-modal transportation system, reducing criteria pollutants and greenhouse gas emissions, supporting economic prosperity, and improving the jobs/housing balance within the region. Additionally, the project will assist Caltrans in the effective management of these transportation assets.

The project is needed to update and improve the existing US 101/SR 25 interchange, which was constructed as a temporary improvement in 1988. It is inadequate to accommodate current and future peak weekday traffic as well as continually increasing weekend demand resulting in routine congestion, delays and backup of traffic onto the mainlines of US 101 and SR 25. It does not meet current design standards and experiences accident rates higher than those on the adjacent freeway segment of US 101 to the north. This project will provide standard ramp geometry for the critical southbound US 101 off ramp, widen the structure over US 101 from two to four lanes, correct inadequate shoulder widths, reduce the amount of uncontrolled local and private access to the highways, improve sight distances, correct insufficient merge/weave sections, and provide street lighting consistent with current criteria. Additionally, this project will include several advanced technology design measures to improve the flow of freight, to reduce GHG emissions, and potential climate change impacts such as intelligent transportation systems (ITS) - changeable message signs (CMS), pan-tilt-zoom (PTZ) cameras for traffic monitoring, detector loops for traffic counts, and new synchronized traffic signals.

NHS Improvements ☒ YES ☐ NO	Roadway Class NA	Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☐ YES ☒ NO Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Active Transportation	Bicycle lane-miles	Miles	0.34
Operational Improvement	Intersection / Signal improvements	EA	2
Bridge / Tunnel	Modified / Improved interchanges	SQFT	47,400
Pavement (lane-miles)	Roadway lane miles	Miles	3

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

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Date 03/23/2021 18:54:28

Additional Information

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-6264-2020-0004 v2

Performance Indicators and Measures						
Measure	**Required For**	**Indicator/Measure**	**Unit**	**Build**	**Future No Build**	**Change**
Congestion Reduction	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	19,032	20,401	-1,369
	TCEP	Daily Truck Trips	# of Trips	0	0	0
	TCEP	Daily Truck Miles Traveled	Miles	0	0	0
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated	# of Trucks	4,969,756	4,920,223	49,533
	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	0	0	0
	TCEP	Change in Cargo Volume That Can Be Accommodated	# of Tons	0	0	0
			# of Containers	0	0	0
System Reliability	TCEP	Truck Travel Time Reliability Index	Index	1.29	1.69	-0.4
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	19,032	20,401	-1,369
Velocity	TCEP	Travel Time or Total Cargo Transport Time	Hours	0.29	0.85	-0.56
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	28.5	28.75	-0.25
			PM 10 Tons	0	0	0
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	1,747,853	1,761,168	-13,315
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	114.04	117.69	-3.65
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	17.13	17.27	-0.14
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	3,767.44	3,801.13	-33.69
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	821.33	844.34	-23.01
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	0	0	0
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	31.5	41.7	-10.2
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.448	0.6	-0.152
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	2,497	3,311	-814
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	0.55	0.69	-0.14
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	863	0	863
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.18	0	2.18

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-6264-2020-0004 v2

District	County	Route	EA	Project ID	PPNO
04	Santa Clara	101	3A160	0400000931	0462G

Project Title

US 101 / State Route 25 Interchange - Phase 1

Existing Total Project Cost ($1,000s)								
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Implementing Agency
E&P (PA&ED)	1,000							1,000	Santa Clara Valley Transportation Au
PS&E	6,200							6,200	Santa Clara Valley Transportation Au
R/W SUP (CT)									Santa Clara Valley Transportation Au
CON SUP (CT)									Santa Clara Valley Transportation Au
R/W	15,000							15,000	Santa Clara Valley Transportation Au
CON		79,000						79,000	Santa Clara Valley Transportation Au
TOTAL	22,200	79,000						101,200	
Proposed Total Project Cost ($1,000s)									Notes
E&P (PA&ED)	1,000							1,000	
PS&E	6,200							6,200	
R/W SUP (CT)									
CON SUP (CT)									
R/W	15,000							15,000	
CON			79,000					79,000	
TOTAL	22,200		79,000					101,200	

Fund #1:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
Existing Funding ($1,000s)									20.XX.723.200
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E	4,200							4,200	$4200 PSE voted 08/15/18
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	4,200							4,200	
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									
PS&E	4,200							4,200	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	4,200							4,200	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-6264-2020-0004 v2

Fund #2:	Local Funds - Local Transportation Funds (Committed)								Program Code
	Existing Funding ($1,000s)								20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)	1,000							1,000	
PS&E	2,000							2,000	2000 Measure A and 2016 Measure B
R/W SUP (CT)									
CON SUP (CT)									
R/W	15,000							15,000	
CON		24,000						24,000	
TOTAL	18,000	24,000						42,000	
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)	1,000							1,000	
PS&E	2,000							2,000	
R/W SUP (CT)									
CON SUP (CT)									
R/W	15,000							15,000	
CON			24,000					24,000	
TOTAL	18,000		24,000					42,000	
Fund #3:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
	Existing Funding ($1,000s)								30.10.723.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									State portion TCEP
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		22,000						22,000	
TOTAL		22,000						22,000	
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			22,000					22,000	
TOTAL			22,000					22,000	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 08/2020)

PPR ID
ePPR-6264-2020-0004 v2

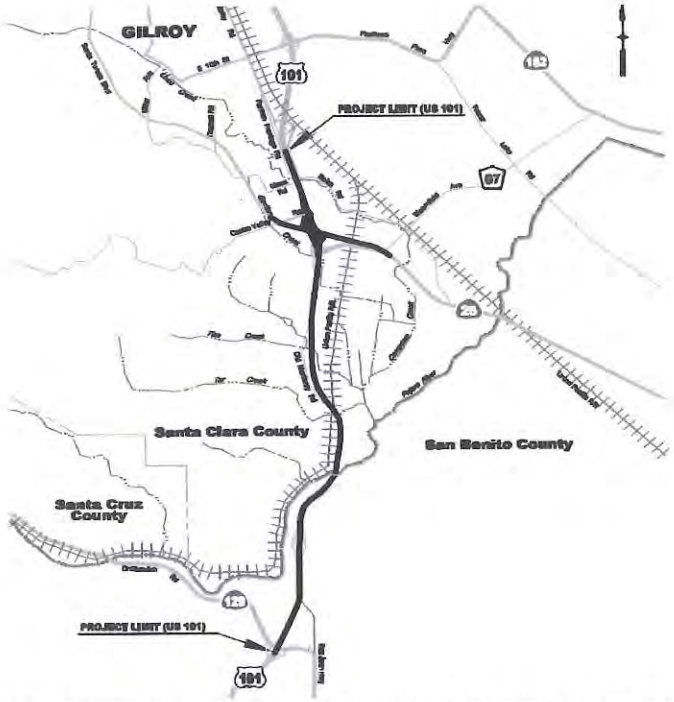
Fund #4:	State SB1 TCEP - Trade Corridors Enhancement Account (Committed)								Program Code
Existing Funding ($1,000s)									20.XX.723.200
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Regional Share TCEP
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		33,000						33,000	
TOTAL		33,000						33,000	
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			33,000					33,000	
TOTAL			33,000					33,000	

HH201401-1003 Received 1/7/14

04-SCl-101-0.0/5.0
05-SBt-101-4.9/7.5
04-SCl-25-1.6/2.5
05-SBt-129-2.4/2.6
EA 04-3A1600
RU: 04-237
Program ID: N/A

September 2013

PROJECT REPORT



WIDENING OF U.S. ROUTE 101 IN SAN BENITO AND SANTA CLARA COUNTIES FROM ROUTE 129 TO MONTEREY STREET

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

Mark L. Weaver
Deputy District Director - Right of Way and Land Surveys

APPROVAL RECOMMENDED:

Nick Saleh
Project Manager

APPROVED:

Helena "Lenka" Culik-Caro
Deputy District Director - Design

11/7/2013
Date

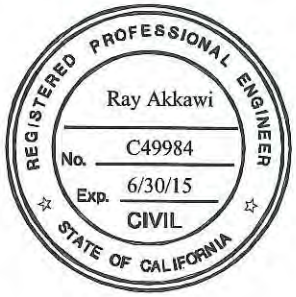
04-SCl-101-0.0/5.0
05-SBt-101-4.9/7.5
04-SCl-25-1.6/2.5
05-SBt-129-2.4/2.6
EA 04-3A1600
RU: 04-237
Program ID: N/A

September 2013

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

9/9//2013

Ray Akkawi, P.E. Date
Registered Civil Engineer
URS Corporation
100 W San Fernando St, Ste 200
San Jose, CA 95113



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LIST OF APPENDICES

LIST OF TABLES

GLOSSARY OF TERMS

AADT	Annual Average Daily Traffic
AB	Aggregate Base
ABAG	Association of Bay Area Governments
acc/mvm	accidents per million vehicle miles
ACM	Asbestos Containing Materials
ADEIR	Administrative Draft Environmental Impact Report
ADL	Aerially Deposited Lead
AMBAG	Association of Monterey Bay Area Governments
APN	Assessor's Parcel Number
AS	Aggregate Subbase
BMPs	Best Management Practices
CAHA	Controlled Access Highway Agreement
Caltrans	California Department of Transportation
CCRWQCB	Central Coast Regional Water Quality Control Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CHP	California Highway Patrol
COZEEP	Construction Zone Enhanced Enforcement Program
CRZ	Clear Recovery Zone
DED	Draft Environmental Document
DI-WET	Deionized Waste Extraction Test
EIR	Environmental Impact Report
EIS	Environmental Impact Study
FHWA	Federal Highway Administration
FTA	Federal Transportation Authority
HCS	Highway Capacity Software
HMA	Hot-Mixed Asphalt
HOT	High Occupancy Toll
HOV	High Occupancy Vehicle
IC	Interchange

IRRS	Interregional Road System
ISA	Initial Site Assessment
ITS	Intelligent Transportation System
ITSP	Interregional Transportation Strategic Plan
K-rail	Temporary Concrete Railing
LBP	Lead-Based Paint
LOS	Level of Service
MCTT	Multi-Chambered Treatment Trains
MEP	Maximum Extent Practicable
MOU	Memorandum of Understanding
MTC	Metropolitan Transportation Commission
MTP	Metropolitan Transportation Plan
NHS	National Highway System
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
PA/ED	Project Approval/Environmental Document
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PDS	Project Development Study
PG&E	Pacific Gas and Electric Company
PM	Post Mile
PS&E	Plans, Specifications, and Estimates
PSR	Project Study Report
RCB	Reinforced Concrete Box Culvert
RHMA	Rubberized Hot-Mixed Asphalt
RTP	Regional Transportation Plan
SBCOG	San Benito Council of Governments
SCCS	South County Circulation Study
SCVWD	Santa Clara Valley Water District
SHELL	State Highway Extra Legal Load

SIP	State Implementation Plan
SPRR	Southern Pacific Railroad
SR	State Route
STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Plan
STRAHNET	Strategic Highway Network
SWDR	Storm Water Data Report
SWMP	Storm Water Management Plan
SWRCB	State Water Resources Control Board
TA	Terminal Route
TAMC	Transportation Agency of Monterey County
TASAS	Traffic Accident Surveillance and Analysis System
TAZ	Traffic Analysis Zones
TCE	Temporary Construction Easements
TI	Traffic Index
TSM	Transportation Systems Management
UPRR	Union Pacific Railroad
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tanks
VA	Value Analysis
VOC	Volatile Organic Compounds
VTA	Santa Clara Valley Transportation Authority
VTP	Valley Transportation Plan
WDR	Waste Discharge Permits

SECTION 1 - INTRODUCTION

The U.S. Route 101 Improvement Project (Monterey Street to State Route [SR] 129) proposes to widen the existing expressway and freeway lanes; and upgrade U.S. 101 to freeway standards from SR 129 in San Benito County (Post Mile [PM] 4.9) to Monterey Street in Santa Clara County (PM 5.0), including construction of a new U.S. 101/SR 25 interchange that connects to SR 25 and Santa Teresa Boulevard (See Appendix A – Location Map). There were two design options proposed for the U.S. 101/SR 25 interchange under the Draft Project Report. Design Option A proposes building a Type L-9 interchange about 200 feet (ft) north of the existing interchange. Design Option B would keep the interchange in approximately the same location. This option would have diamond off- and on-ramps for the southbound direction and a diagonal on-ramp and a loop off-ramp for the northbound direction. Majority of the comments received during the public hearing process have expressed preference for Design Option B over Design Option A due to its reduced impact on agricultural and farmland. As a result, this Project Report is adopting the Build Alternative with Design Option B. The purpose of this project is to improve U.S. 101 as a regional route; improve traffic operations and safety; upgrade U.S. 101 to a freeway facility with access control; and improve bicycle and pedestrian access.

The current estimated costs of the proposed improvements is $458.5, which includes project engineering and design, right-of-way acquisition, utility relocation, construction capital, and construction support and escalation to year 2017, the mid-point of construction. This project is currently funded through PA/ED. Santa Clara County Valley Transportation Authority (VTA) continues to seek additional funding sources to complete the subsequent phases of the project: plans, specifications, and estimate (PS&E), right-of-way, construction, and construction support.

The segment of the proposed project from SR 25 to Monterey Street is included in the most recent Metropolitan Transportation Commission (MTC) Regional Transportation Plan (RTP), Transportation 2035 Plan, dated April 22, 2009. This portion of the proposed project is also included in the 2007 Transportation Improvement Plan (TIP) Amendments, where it is identified as SCL070003. The segment of the project from the Santa Clara/San Benito County line to the SR 129 is included in the Association of Monterey Bay Area Governments (AMBAG) 2010 Metropolitan Transportation Plan (MTP). The portion of the project from SR 25 in Santa Clara County to the San Benito County line is not in the 2007 TIP. Currently there are efforts being made to have the TIP amended to include this portion of the project.

This project has been assigned Project Development Category 1 because it requires new right-of-way, increases traffic capacity, and requires a new route adoption because it meets the “Conversion of a conventional highway to a freeway or a controlled access highway” criteria identified in Caltrans PDPM Chapter 23, Article 1. The existing Freeway Agreement with Santa Clara County, dated July 12, 1988, describes a U.S. 101/SR 25/Santa Teresa Boulevard connection and system of frontage/county roads similar to that proposed under this project. This agreement would need to be updated to reflect the geometry of the selected

alternative. An existing freeway agreement with San Benito County, dated August 2, 1965, would also need to be updated to reflect the revised geometry and the responsibilities of each party.

Phasing of the project was considered and is documented in the value analysis section of this report.

SECTION 2 - RECOMMENDATION

Approval of this Project Report provides Caltrans acceptance of the Final Environmental Impact Report (FEIR) as approved by the VTA board of directors on June 6, 2013 and adoption of the Build Alternative with Design Option B as the preferred build alternative. The FEIR prepared for the U.S. 101 Improvement Project satisfies the requirements of the California Environmental Quality Act (CEQA).

SECTION 3 - BACKGROUND

For purposes of discussion, SR 25 is assumed to run in a north-south direction.

The *Southern Gateway Transportation and Land Use Study,* completed by VTA in 2004, identified potential gateway highway improvements to accommodate the traffic growth projected for the southern Santa Clara County area. These improvements focused on travel corridors into job-rich Santa Clara County from the neighboring counties to the east and south.

The South County Circulation Study (SCCS), conducted by VTA and published in April 2008, showed the need for several capacity improvements projects in the southern Santa Clara County area to improve mobility, reduce congestion, and accommodate future growth. The project was listed as one of the SCCS recommendations.

California Department of Transportation (Caltrans) District 5 prepared a Project Study Report/Project Development Support (PSR (PDS)) (EA# 06258-48540K) that was approved on April 25, 2001. This PSR/PDS proposed to widen the existing two-lane conventional SR 25 to a four-lane divided highway from San Felipe Road near the City of Hollister in San Benito County to the US 101/SR 25 Interchange in Santa Clara County. This proposed project included modifying/upgrading the existing SR 25/US 101 Interchange.

A supplemental PSR/PDS (EA # 05-485400) was prepared and approved by District 5 on November 28, 2005. The supplemental PSR (PDS) added the Santa Teresa Boulevard connection to the SR 25/US 101 Interchange and the widening of US 101 from a 4-lane expressway to a 6-lane freeway. The limits of the 6-lane freeway established in the supplemental PSR (PDS) were between 1.4 miles south of the existing US 101/SR 25 Interchange (PM 3.15) to Monterey Street Undercrossing (PM 5.0). Additional information regarding the original and supplemental PSR (PDS) are provided in Section 4.2.2 of this report.

Caltrans District 4 and 5 completed a PSR (PDS) (EA# 04-3A160K) on April 25, 2006 for widening the U.S. 101 from 4 to 6 lanes between PM 1.1 in Santa Clara County and SR 129 in San Benito County (PM 4.9). .

Discussions between VTA, Caltrans Districts 4 and 5, and ERSB, resulted in an agreement to exclude the U.S. 101 improvements, including reconstruction of the U.S. 101/SR 25 interchange, from the SR 25 Widening Project (EA #05-485400) and to combine them with the improvements proposed under EA# 04-3A160K) to create this U.S. 101 Improvement Project (EA# 04-3A1600) from SR 129 to Monterey St. It was agreed that Caltrans District 4 would take the lead in providing project oversight for the U.S. 101 Improvement Project and Caltrans District 5 would remain the lead agency on the SR 25 Widening Project.

The Supplemental PSR (PDS) and Caltrans's 2006 PSR (PDS) cover the entire length of the project except for a short segment between PM 1.1 and PM 1.6 in Santa Clara County. There are no existing or proposed interchanges or other future system connections within this 0.5-mile segment and the proposed geometry is consistent between the two PSR (PDS) at either end of this segment (6-lane freeway with standard shoulders). Therefore, the combination of the supplemental PSR (PDS) and Caltrans's 2006 PSR (PDS) constitute the Project Initiation Document needed for this U.S. 101 Improvement Project.

It is worth noting that various median widths have been proposed in the previous PSR (PDS) alternatives considered for this corridor. The U.S. 101 Improvement Project has discussed the median width with Caltrans Districts 4 and 5 and Caltrans Headquarters Design Coordinators and agreed on a 46-foot wide median for the U.S. 101 segment between SR 129 and SR 25, and on a 70-foot wide median for the U.S. 101 segment between SR 25 and Monterey St. Because U.S. 101 south of SR 25 is considered a rural freeway, the standard median width is 62 feet. An advisory design exception for the 46-foot median width in that segment has been prepared.

The proposed U.S. 101/SR 25 Interchange configuration is similar to what was identified in the supplemental PSR (PDS) except for the southbound U.S. 101 to Southbound SR 25 freeway-to-freeway direct connector ramp. Traffic operations analysis for the 2035 conditions indicated that a type L-9 or a tight diamond interchange will operate at an acceptable level of service and there is no need for direct connectors. The design of the interchange, however, has been developed to accommodate the future freeway-to-freeway direct connectors when the travel demand justifies them.

California Department of Transportation District 5 is the lead agency preparing the PA/ED phase for the SR 25 Widening Project, which proposes to widen 10.6 miles of Route 25 in San Benito and Santa Clara counties from the existing two-lane highway to a four-lane expressway. Originally, this project included modifying the SR 25/US 101 Interchange and widening US 101 from a 4-lane expressway to a 6-lane freeway. In late 2007, the scope of this project was modified from obtaining a project approval and environmental clearance to a route adoption for the 11.2-mile stretch of SR 25 from San Felipe Road in Hollister to US 101. A route adoption establishes and documents the alignment and location of the route in

the San Benito County and Santa Clara County General Plans, allowing the public to know where the expressway would be built.

VTA is the lead agency on the SR 152 Corridor Study intended to address the need for additional east-west capacities. This study is evaluating the needed improvements along the SR 152 corridor between SR 99 and U.S. 101, including studying re-alignment of SR 152 between SR 156 and U.S. 101 to a new corridor that connects to SR 25, which would be adopted as the new SR 152.

3.1 - Route History

3.1.1 U.S. 101

The 11.68-mile segment from Gilroy to the San Benito County line was constructed in 1914, and designated SR 2. The US 101 Sargent bridges were built in 1928, elevating both northbound and southbound lanes of the highway over the Union Pacific Railroad (UPRR) tracks, and requiring realignment of the portion of the highway between 0.5 mile north of Tick Creek and the UPRR tracks.

In 1940, the portion of U.S. 101 from about 0.25 mile north of the US 101 Sargent bridges south to the Old Y Road intersection—roughly one-third mile north of the Pajaro River—was realigned and the shoulders widened and resurfaced.

The portion of U.S. 101 south of SR 25 to 0.2 mile north of the Santa Clara/San Benito County line was widened to four lanes in 1949 by constructing two new northbound lanes, and realigning the portion just south of the US 101 Sargent bridges. This was followed in 1950 with the widening of the portion from Bloomfield Avenue (existing SR 25) north to Gilroy, and a 2.2-mile portion south of Pajaro River to 0.5 mile south of San Juan Creek. The portion between SR 129 and SR 156 was built as a freeway on a new alignment in 1969.

Median work began in 1973, when a concrete median barrier was placed over the Pajaro River span and approaches; crash cushions were added to both ends of this bridge in 1984. In 1994, a concrete median barrier was installed south of the Pajaro River to south of Anzar Road (south of SR 129). In 1990, a double-thrie beam barrier from Carnadero Creek to Monterey Highway was built; and in 2002, the center barrier was extended from Carnadero Creek to just south of the US 101 Sargent bridges.

3.1.2 SR 25

The 7.5-mile portion of SR 25 from U.S. 101 (previously SR 2) to the San Benito County line was established in 1955. It was aligned on Bloomfield Road to just before Carnadero Creek, then proceeded east to align on the existing SR 119, ending at the San Benito County line at the Pajaro River.

In 1991, the shoulders of SR 25 from the UPRR tracks to the San Benito County line were widened, the bridges at Carnadero Creek and the Pajaro River were widened, and the road resurfaced. In 2001 the entire extent of SR 25 from U.S. 101 to SR 156 was fitted with a soft "rumble strip" center barrier as part of a safety improvement project.

3.1.3 Bridges, Interchanges, and Overcrossings on U.S. 101

The following paragraphs describe the bridges, interchanges and overcrossings along the corridor in their order of occurrence on U.S. 101 from North to South.

In 1970, the Monterey Street interchange was built, realigning the freeway between Thomas Road to just north of Leavesley Road to the east.

Today's northbound Carnadero Creek Bridge was built in 1931 to replace an existing older bridge at the time. The southbound bridge was built in 1949 when U.S. 101 was widened to four lanes. The northbound bridge was then widened in 1953. Both bridges received seismic retrofits in 1996.

The interchange at SR 25 and U.S. 101 was built in 1988. This project also included the widening of the shoulders on SR 25 up to the UPRR tracks.

The US 101 Sargent Bridge over the UPRR was built in 1928 (one lane in each direction). In 1949, a second bridge for two northbound lanes was constructed concentric and east of the 1928 bridge, which was converted to two southbound lanes. In 1969, the original 1928 structure was removed and a new structure on a larger radius was constructed for the southbound lanes.

The bridge at the Pajaro River was built in 1941 on the new alignment of the highway. It received seismic retrofits in 1996.

In 1969, the Betabel Road interchange and the Lomerias Overcrossing were built, connecting Betabel Road to Y Road and to U.S. 101.

The San Benito River Bridge was built in 1931 (one lane in each direction); and in 1950, a bridge for two northbound lanes was constructed parallel and east of the 1931 bridge, which was converted to two southbound lanes. In 1957, three truss spans were replaced on the southbound structure.

San Juan Creek bridges were originally built in the early 1930's. They were reconstructed in 1967.

The interchange at SR 129 was reconstructed in 1967.

The Carnadero Creek Bridge on SR 25 was built in 1956 and widened in 1991.

3.2 - Existing Facility

3.2.1 - Existing Facility within the Project Limits

U.S. 101 is a four-lane expressway (two northbound and two southbound lanes) with 10-foot outside shoulders and 5-foot inside shoulders between Monterey Street and Santa Clara/San Benito County line. U.S. 101 within these limits has several uncontrolled access points in the northbound and southbound directions. South of SCl/SBt County line to SR 129, U.S. 101 is a four-lane freeway with similar shoulder widths. Double thrie-beam or concrete barriers separate the northbound and southbound traffic. Due to the lack of an alternative route, bicycle traffic is allowed to ride along the shoulders of U.S. 101 between Monterey Street and SR 129, and along the shoulders of SR 25.

SR 25 (PM 0.0/2.5) is a two-lane undivided conventional highway with one standard 12-foot lane for each (northbound and southbound) direction of travel. Paved shoulder width on both sides of SR 25 varies from 2 to 10 feet. Within the project limits, SR 25 primarily traverses agricultural land, and accommodates several driveways and pullout areas used by agricultural vehicles and farm workers.

The existing U.S. 101/SR 25 interchange configuration (U.S. 101 PM 3.2/ SR 25 PM 2.5) is a modified Type L-1 interchange with standard single-lane slip on- and off-ramps in the southbound direction; and single-lane hook on- and off-ramps in the northbound direction. A UPRR at-grade crossing is approximately 0.4 miles south of the U.S. 101/SR 25 interchange on SR 25.

SR 25 is the primary route between the Silicon Valley and Hollister. Traffic volumes on the local roads and SR 25 have increased dramatically in response to the booming job market in Santa Clara County, and more affordable housing is available in San Benito County. The Southern Gateway Corridor Study summary report led by VTA, in cooperation with Caltrans, AMBAG, San Benito Council of Governments (SBCOG), Transportation Agency of Monterey County (TAMC), and each of the cities and counties in the study area, was released April 2005. The results indicated the study area is expected to experience significant growth between 2000 and 2030; jobs in the study area would increase 51 percent, housing 42 percent and population 39 percent. It is projected that Santa Clara County would experience an increase of 11,000 daily commuters from San Benito County by year 2025.

Several geometric features in this segment such as horizontal radii and sight distances do not meet Caltrans standards for a 75 mile-per-hour (mph) design speed. The median varies in width from 6 to 150 feet, and contains either a double thrie-beam barrier or a concrete barrier.

The majority of the flat agricultural land along U.S. 101 is within the 100-year floodplain. A number of flood events have been recorded within the project limits between 1938 and 1997. Floodwater overtopped the travel lanes at the existing U.S. 101/SR 25 interchange and caused traffic disruption for short durations in a 1997 flood event. Additional information

about specific flood events was provided by Santa Clara Valley Water District (SCVWD) and can be found in Section 1.9 of the Location Hydraulic Study. No flooding information was provided by San Benito County Water District. However, discussions with Caltrans District 5 Maintenance Unit revealed that there has been no flooding event in recent years along the project segments within San Benito County.

A few major utilities exist within the project limits. These include the following:

- A fiber optic line owned by Charter Communications that is within the State right-of-way
- A 6,800 feet 4" gas line owned by the Pacific Gas and Electric Company (PG&E) that is within State right-of-way on the eastern side of U.S. 101 / SR 25 interchange.
- PG&E high-voltage power lines that run parallel to UPRR tracks and across SR 25 next to the at-grade crossing. These lines also encroach on the existing State right-of-way along U.S. 101 between Stations M 272+00 and M 276+00. One tower's footing also encroaches on the State right-of-way.

A Caltrans storage yard exist within the State right-of-way on the eastern side of U.S. 101 between Stations N 245+26 and N 245+38. This storage yard is currently only accessible off the existing U.S. 101 Northbound shoulder.

3.2.2 Existing Facility Adjacent to the Project Limits

U.S. 101 south of SR 129 is a four-lane freeway with fenced access control and a 36-foot unpaved median with a concrete barrier.

U.S. 101 north of the Monterey Street interchange is a six-lane freeway with fenced access control, and a 70-foot unpaved median with a double thrie-beam barrier.

3.2.3 Multi- Modal Facilities

- Bike and Pedestrian Facilities – Bike routes are designated within the project limits in both north-south and east-west directions. Because U.S. 101 is designated as an expressway between Monterey Street and the Santa Clara/San Benito County line and there is no existing alternative bicycle route between SR 25 and SR 129, the north-south bicycle traffic is allowed to ride on the outside shoulders of U.S. 101 between Monterey Street and SR 129. The west-to-east bicycle traffic uses Mesa Road, U.S. 101 southbound, the U.S. 101 to SR 25 off-ramp, and then travels along the shoulder of SR 25. East-to-west bicycle traffic travels along the shoulder of the SR 25, takes the SR 25-U.S. 101 on-ramp, U.S 101 northbound, and exits at the Monterey Street Interchange.

- Buses – San Benito County Express provides fixed-route service in the City of Hollister and intercity service in the northern portion of the county. Service operates as far north as Gilroy, in Santa Clara County. Caltrain, which runs as far

south as Gilroy, is served by Monterey-Salinas Transit between Salinas and Gilroy, including a Prunedale Park and Ride facility (U.S. 101 and SR 156).

- Rail – Commuter rail service to Santa Clara County and points north is available in Gilroy (Santa Clara County). A feasibility analysis of commuter rail in San Benito County was completed in 2000, and included cost estimates that were far outside of available and projected funding, and showed low ridership projections.

  Union Pacific Railroad (UPRR) owns the 12-mile-long Hollister Branch Line which is the rail line in San Benito County that runs adjacent to SR 25 from the City of Hollister to the City of Gilroy in Santa Clara County.

  UPRR owns the Roseville Division Coast Subdivision Line that crosses SR 25 between the U.S. 101/SR 25 interchange and Bloomfield Avenue and U.S. 101 at the US 101 Sargent bridges. The current use of the rails is by UPRR itself, as well as the Amtrak Coast Starlight (Los Angeles-Seattle). The line was constructed by Southern Pacific Railroad (SPRR) in 1871. There are two tracks until just south of the US 101 Sargent bridges, where they become one track. UPRR acquired SPRR in September of 1996.

- Park and Ride – There are no existing Park and Ride facilities within the project limits. The closest Park and Ride facility is a 20-space lot at the junction of SR 156 and U.S. 101, approximately 1.8 miles south of the project limits. The other nearby Park-and-Ride lots are at the Veterans Park at the intersection of Hillcrest Road and Memorial Road in Hollister (19 parking spaces, 12.4 miles south of project limits), and the Gilroy Caltrain Station (2.4 miles north of the project limits).

- Ramp Metering/California Highway Patrol (CHP) Enforcement – There are no existing ramp-metering facilities or CHP Enforcement Areas within the U.S. 101 Improvement Project limits.

3.3 - Community Interaction

At the beginning of the PA/ED Phase, VTA and Caltrans conducted a Public Open House/Scoping Meeting at the Hilton Hotel, 6070 Monterey Street, Gilroy, California on November 28, 2007 for the U.S. 101 Improvement Project. The meeting provided an opportunity for the public to learn more about the project, and to provide input on the scope of the improvements.

Approximately 50 people attended the meeting, including residents of Gilroy, Hollister, and San Juan Bautista, as well as several representatives of various agencies and groups, including bicycle groups, Santa Clara Valley Water District, and Pajaro River Watershed Agency.

In addition, throughout the development of this document, an emphasis has been placed on keeping the community and local stakeholders informed about the scope and potential impacts of this project. Numerous meetings, both formal and informal, have been held to gather input and assist in formalizing these studies for this report, including:

- Meeting with property owners
- Meetings with Santa Clara and San Benito County Parks, Planning, and Public Works Departments
- Meetings with City of Gilroy
- Meetings with San Benito Council of Governments
- Meetings with bicycle advocacy groups
- Meetings with trail advocacy groups, including Bay Area Ridge Trail Council and De Anza Trail Council
- Meetings with equestrian advocacy groups
- Meetings with Gavilan College
- Local Partners Team meetings
- External Project Development Team meetings
- Local Developer meetings.

During the public circulation of the environmental document, Caltrans and VTA held a public open house meeting on April 4th, 2013 at the Gilroy Public Library. About 200 comments were received from the public, local and regulatory agencies and other stakeholders. Based on the comments and input received to date, there is no known community or governmental agency opposition to the proposed project.

SECTION 4 - PURPOSE AND NEED

Purpose of the Proposed Project

The purpose of the proposed project is to accomplish the following objectives:

- Complete the upgrade of U.S. 101 to freeway standard in Santa Clara County, and improve system connectivity to SR 25 and SR 129.

- Accommodate projected traffic demand along U.S. 101, including growth anticipated under adopted land use plans, thereby reducing future congestion and delay, especially during peak travel periods.

- Improve safety along the project segment of U.S. 101, including the reduction of conflicts with agricultural traffic.

- Improve traffic operations on the project segment of U.S. 101, including those associated with connections between U.S. 101 and SR 25, SR 129, local roads, and adjacent land uses.

- Enhance the movement of goods along the U.S. 101 transportation corridor.

- Maintain and enhance bicycle access in the U.S. 101 corridor.

Need for the Proposed Project

- The project segment of U.S. 101, which is currently a 4-lane expressway in Santa Clara County and a 4-lane freeway in San Benito County, has insufficient capacity to accommodate future demand during peak travel periods. As a result, delays and congestion are projected to occur during the AM and PM peak weekday commutes. Since U.S. 101 is the primary north-south highway between the San Francisco Bay Area and the Monterey Bay Area, this congestion will result in substantial social, economic, and environmental impacts associated with delays in the movement of people and goods.

- The design of the existing U.S. 101/SR 25 interchange is inadequate to accommodate demand, the result of which is the backup of traffic onto the mainlines of U.S. 101 and SR 25.

4.1 - Problems, Deficiencies, and Justification

The purpose of the project is to:

(i) Complete the upgrade of U.S. 101 to freeway standard in Santa Clara County, and improve system connectivity to SR 25 and SR 129.

Existing geometric features within the project segment of U.S. 101 that do not meet current freeway standards include shoulder widths; 20 uncontrolled local and private access driveways; 8 locations with limited visibility (sight distance); and merge/diverge sections. These conditions, coupled with factors such as weather conditions, night visibility, and impaired driver conditions, have contributed to accidents along both U.S. 101 and SR 25 corridors. Updating the geometric features of this segment of U.S. 101 to standards is critical to both passenger and freight traffic because this segment of U.S. 101 is an important "lifeline" roadway and is listed as a "focus route" in the 1998 Interregional Transportation Strategic Plan (ITSP) as discussed in Section 4.2 below.

The UPRR/SR 25 at-grade crossing presents another conflict location where the gate-operated tracks require the fast-moving traffic of SR 25 to come to a complete stop. A grade separation of the tracks would provide the needed safety improvement.

The existing U.S. 101 4-lane expressway between SR 25 and Carnadero Creek crossing falls within the Carnadero Creek floodplain, and includes low spots that lie below the 100-year floodplain water surface elevation, resulting in water overtopping the expressway. In 1997, this water overtopping caused a traffic disruption on U.S. 101 after a major flood event. Upgrading the facility to freeway standards includes raising the profile of U.S. 101 to clear the 100-year flood event.

The non-standard design features and the other constraints mentioned above negatively impact the connectivity between U.S. 101, SR 25, SR 129, and the local roads. The proposed reconstruction of the U.S. 101/SR 25 interchange, and the ramp improvements at SR 129 would eliminate the non-standard design features and improve the system connectivity.

(ii) Accommodate projected traffic demand along U.S. 101, including growth anticipated under adopted land use plans, thereby reducing future congestion and delay, especially during peak travel periods.

Because U.S. 101 is the primary north-south highway between the San Francisco Bay Area and the Central Coast, this congestion results in substantial social, economic, and environmental impacts associated with delays in the movement of people and goods. These impacts are projected to worsen as the planned growth of the region occurs over time.

Demand along mainline U.S. 101 is expected to exceed existing capacity by 2035, resulting in queuing on the southbound direction at the off-ramp to SR 25, which spills back into the segment of three-to-two lane drop south of Monterey Street, and the off-ramp to SR 129. Similarly, queues will develop on the northbound direction at the off-ramp to SR 129 and extends past the off-ramp to SR 156.

The existing at-grade crossing of the UPRR tracks on SR 25 just north of Bloomfield Road results in traffic backups during train operations.

(iii) Improve safety along the project segment of U.S. 101, including the reduction of conflicts with agricultural traffic.

Several of the ramps at the junction of U.S.101 and SR 25, as well as the intersection of Mesa Rd and U.S. 101, have an actual accident rate that is higher than the state average. This higher concentration of accidents can be contributed to a combination of non-standard geometry and congested traffic conditions. With the project improvements, Mesa Rd will be closed and the ramps at SR 25 will be reconstructed to standard geometry. Traffic operation will improve as well and therefore the project is expected to result in a reduction in accidents and an improvement in traffic safety along the project segment.

The system of frontage roads that will be built by the project will provide alternative routes for the agricultural traffic in lieu of U.S.101. In addition, this system of frontage roads will also eliminating the bicycle traffic off the shoulders of U.S. 101 and therefore eliminating conflicts between vehicular traffic and non-motorized users.

(iv) Improve traffic operations on the project segment of U.S. 101, including those associated with connections between U.S. 101 and SR 25, SR 129, local roads, and adjacent land uses.

The project improves the traffic operations along U.S. 101 segments with an improvement in travel times within the project segment in both directions.

The current configuration of the existing U.S. 101/SR 25 interchange is inadequate to accommodate demand, resulting in traffic queues on both U.S. 101 and SR 25 mainlines. Analysis of existing conditions at the intersection of SR 25 with southbound U.S. 101 on- and off-ramps shows a LOS E in the AM peak hour and LOS F in the PM peak hour. Field observation revealed that exiting traffic sometimes backs up onto mainline southbound U.S. 101. Similarly, the intersection of SR 25 with northbound U.S. 101 on- and off-ramps operates at an LOS F in the PM peak hour.

The project also widens the southbound off-ramp to SR 129 to a two-lane and provides a southbound 2300-ft deceleration lane to better accommodate the increase in travel demand at the intersection of U.S. 101 and SR 129.

The lack of controlled access to U.S. 101 and SR 25 within the project limits and the absence of frontage roads along both highways requires local traffic (associated with the adjacent land uses) to use U.S. 101. This results in conflicts between fast-moving highway traffic and slower-moving vehicles entering/exiting along the existing highway. Closing the existing access, and building a system of frontage roads that directs freeway-bound traffic to the adjacent interchanges eliminates these conflicts.

(v) Enhance the movement of goods along the U.S. 101 transportation corridor.

Because U.S. 101 is the only north-south gateway corridor into Silicon Valley and the rest of the Bay Area for freight transportation, a widened and upgraded U.S. 101 would enhance such movement, and provide the capacity needed to accommodate future growth in freight and goods movement demand between Central Coast and the Bay Area markets, airports, and seaports.

According to the 1998 California Statewide Goods Movement Strategy, over the 20-year period 1992-2012, California population and consumption is expected to grow as much as 50 percent, and the volume of goods moved on the transportation system to increase by at least 46 percent.

U.S. 101 is a primary goods movement route, especially for fresh-packed produce grown in the Central Coast region, wines bottled in this region, and fruits and produce grown for export purposes outside the U.S. These commodities are generally moved by truck to the Los Angeles or San Francisco areas, where they meet final demand or continue towards final markets through an international airport or seaport. The lack of major air cargo facilities in the Central Coast region emphasizes the need for a reliable surface transportation system to maintain this connectivity.

(vi) Maintain and enhance bicycle access within the U.S. 101 corridor

Due to lack of alternative routes, U.S. 101 is designated as a Class III bike route, where bicyclists are allowed to ride on the shoulders between Monterey Street and SR 129, creating undesirable conditions for both the bicyclists and the drivers. With the upgrade to freeway standards, a system of frontage roads and Class II bike lane will provide continuous and enhanced access for non-motorized users within the project limits.

4.2 - Regional and System Planning

4.2.1 Systems

Although U.S. 101 is not part of the Interstate System, it is a principal arterial and part of the National Highway System (NHS) and is a Strategic Highway Network (STRAHNET) route. SR 25 (U.S. 101 to the Santa Clara County line) is a rural minor arterial. Both U.S. 101 (from Route 5 near Seventh Street in Los Angeles to near Fell Street in San Francisco), and SR 25 (from Route 156 in Hollister to Route 101 near Gilroy) are designated as part of the State Freeway and Expressway System under Sections 253.5 and 253.3 of the Streets and Highways Code, respectively. U.S. 101 is also designated as part of the Scenic Highway System between San Luis Obispo and Route 35 near Daly City under Section 263.2 of the Streets and Highways Code. U.S. 101 and SR 25 (U.S. 101 to SR 156) are part of the Interregional Road System (IRRS). The 1998 ITSP designates U.S. 101 as a "Focus Route," making this route of highest priority for completion to minimum facility standards in the 20-year period. Focus routes will serve as a system of high-volume primary arteries to which other state highway routes can connect for purposes of longer interregional trips and access into statewide gateways. Within Santa Clara County, SR 25 is designated as a Terminal Access (TA) route.

U.S. 101 is also a National Truck Network route and a Surface Transportation Assistance Act (STAA) route, and functions as a principal truck route between Central Valley, Central Coast, and San Francisco Bay Area. There are no truck advisories on SR 25 or U.S. 101 within project limits.

SR 129 is a two lane undivided conventional highway that is classified as a rural minor arterial route in Caltrans Transportation Planning Fact Sheet dated January

2008. It starts at SR 1 in the Watsonville (Santa Cruz County) and continues east until it reaches the San Benito/Santa Cruz County line. It then continues in San Benito County until it ends at SR 129/U.S. 101 junction. SR 129 is a commercial and recreational route. A high percentage of trucks utilize this route as a means to get to U.S. 101 from the Watsonville area. SR 129 length in San Benito County is 2.64 miles. SR 129 is listed on the Interregional Road System, and is also designated as a Terminal Access Route to the National Truck Network

4.2.2 State Planning

The 2001 U.S. 101 Transportation Concept Report (TCR) within Caltrans District 5 counties found that U.S. 101 in San Benito County would operate at LOS F without additional capacity. It is recommended that all expressway portions of U.S. 101 be upgraded to full freeway standards, with widening and/or construction of a bypass route in order to achieve an acceptable LOS. The TCR recommended a concept peak LOS D or better in 2020.

The 2002 Preliminary Draft Transportation Corridor Concept Report (TCCR) Corridor #14, which covers U.S. 101 South (from Santa Clara SR 85 to San Benito SR 156) lists the SR 25/Santa Teresa/U.S. 101 interchange project as a planned project, and the conversion from expressway to freeway from SR 25 to the Santa Clara/San Benito County line and the widening from four to six lanes as planned concept projects. The TCCR also shows a 70 percent ADT growth forecast between 2000 and 2020 for the U.S. 101 segments within the project limits.

The SR 25 Route Concept Report recommended the construction of the Highway 25 Hollister Bypass and widening of SR 25 facility from south of Hollister to the Route 101 interchange to four lanes. It also recommended widening of the shoulders as funding becomes available; implementing Intelligent Transportation System (ITS) components from the Central Coast Deployment Plan; reducing demand by encouraging and improving alternative modes such as transit, vanpools, ridesharing, and passenger rail (extension of Caltrain service from Gilroy to Hollister); and considering various land use/transportation configurations when planning for expected population and traffic growth, and to encourage alternative travel modes.

Caltrans prepared a PSR (PDS) that was approved on April 25, 2001 (EA 06258-48540K) to improve the safety and operations of Route 25 in northwestern San Benito County and southern Santa Clara County. The project limits were on SR 25 from San Felipe Road near City of Hollister to the U.S. 101/SR 25 Separation near Gilroy, and on U.S. 101 from 1 mile south of U.S. 101/SR 25 Separation (PM 2.1) to 1 mile north of the separation (PM 4.1). In addition to the no-build alternative, this PSR (PDS) included the following two build alternatives.

The “Expressway” Alternative included the following:

- Upgrade the existing two-lane Route 25 to a standard four-lane expressway with an 62-foot wide median, a frontage road system on both sides, and grade separations at all existing railroad crossings within the project limits
- Build an interchange at the junction of SR 25 and SR 156 in San Benito County
- Modify/upgrade the existing separation at SR 25 and U.S. 101 in Santa Clara County

The "Conventional" Alternative included the following:

- Widen the existing 2-lane SR 25 to a 4-lane conventional divided highway within the project limits
- Construct grade separations at all existing railroad crossings within the project limits
- Construct a separation at the intersection of SR 25 and SR 156 in San Benito County
- Modify/Upgrade existing separation at the junction of SR 25 and U.S. 101 in Santa Clara County

The proposal to modify/upgrade the SR 25 and U.S. 101 separation in both alternatives included reconstruction of the interchange at its existing location and the addition of the following:

- Two lane ramp configuration on southbound U.S. 101 to eastbound SR 25 and on westbound SR 25 to northbound U.S. 101, both with freeway-to-freeway ramp connections
- Widened outside shoulders on U.S. 101 to accommodate merge lanes for a distance of 1 mile north and south of the U.S. 101/SR 25 separation
- A design that accommodates the future connection to Santa Teresa Boulevard

A supplemental PSR (PDS) was prepared by Caltrans on September 28, 2005 and approved on November 28, 2005. The supplemental PSR (PDS) increased the scope of work of the original PSR (PDS) to include widening U.S. 101 from a 4-lane expressway to a 6-lane freeway with an 86 feet median that provides provision for a future widening to 8 lanes. The limits of the 6-lane freeway were also extended to include the U.S. 101 segments between PM 1.65 (approximately 1.5 miles south of the existing U.S. 101/SR 25 interchange) to PM 4.94 (approximately 0.06 miles south of Monterey St Undercrossing). The supplemental PSR (PDS) also proposed relocating the U.S. 101/SR 25 interchange to the north of the existing interchange to avoid the environmental impacts associated with the parcel located in the southeastern corner of the existing interchange. This parcel is listed on the National

Register of Historic Places (NRHP) and falls under the section 4f of the Department of Transportation Act of 1966 that requires the sponsoring agency to prove that no "prudent and feasible alternative to using that land" exist and that the project includes "all possible planning to minimize harm". The supplemental PSR (PDS) identified the relocated interchange as the "prudent and feasible" alternative pending traffic operations analysis to confirm that the non-standard interchange spacing as a result of the relocation will not have a negative impact on safety and operations of the freeway.

The supplemental PSR (PDS) proposal also included shifting the U.S. 101 mainline to the west by constructing a new southbound travelway from Monterey St to south of SR 25, using the existing southbound travelway for northbound traffic, and converting the existing northbound lanes to a two-way two-lane frontage road that connects to Bolsa Road north of Carnadero Creek to serve the adjacent businesses.

Caltrans prepared a PSR (PDS) for the U.S. 101 Widening from PM 4.9 (U.S. 101/ SR 129 Interchange) in San Benito County to PM 1.1 (2.1 miles south of the U.S. 101/ SR 25 Separation) in Santa Clara County. This PSR (PDS), that was approved by Caltrans on April 25, 2006, identified the need to widen U.S. 101 to a six-lane freeway facility in this 3.7-mile segment due to projected future traffic increase on U.S. 101. This increase is predicted due to the continued imbalance between jobs and housing in the area, and the lack of suitable alternative routes. The projected future traffic was found to cause bottlenecks to develop within the project limits, resulting in projected future congestion and safety concerns. The purpose of the project therefore was to relieve congestion projected within the planning horizon. The project also stated it would provide the following benefits: 1) improvement of operational safety along the corridor by eliminating potential merge conflicts at uncontrolled access points; 2) improvement of future peak-hour commute time by providing capacity for future traffic demand; 3) installation of appropriate ITS; and 4) a safe and efficient corridor for the growing southern Santa Clara County and northern San Benito County for the movement of people, goods, and services. The PSR proposed three alternatives: 1) No Build; 2) Six-Lane Freeway With Controlled Access (widening would be constructed inside the existing median area, where permitted, with a proposed median width of 22 feet); and 3) Standard Six-Lane Freeway With Controlled Access (widening would occur on the outside of the lanes and create a standard rural median width of 62 feet). Bicycle accommodations for the two Build Alternatives were to improve the existing facility for bicyclists by widening the existing outside shoulder widths to 10 feet for the entire project limit. The intention was to continue accommodation of bicycles along this segment as a Class III bike route to be shared with motor vehicles.

The SR 25 Widening Project (currently in the environmental clearance phase) is included in the 2010 Adopted *San Benito County Regional Transportation Plan*

prepared by SBCOG; and in the 2010 *Monterey Bay Area Metropolitan Transportation Plan* prepared for the AMBAG (# SB01CT01).

Other State Highway Operation and Protection Program (SHOPP) projects planned in the area are as follows:

- Upgrade Traffic Barrier, Fall 2009 to Fall 2011, EA 0A780K
- Upgrade Railroad Crossing, Winter 2011 to Winter 2012, EA 4A700K
- Install RSP, Winter 2012 to Winter 2013, EA 4S070K.

4.2.3 Regional Planning

MTC oversees regional transportation planning efforts for nine San Francisco Bay Area counties. Transportation projects in the Bay Area are included in the RTP. The Transportation 2035 Plan lists the portion of the project from Monterey Street to SR 25 under reference #21714 for $243 million; and in the 2009 TIP under reference# SCL070003 for $128 million. MTC adopted the 2009 TIP on May 28, 2008. The Federal Highway Administration (FHWA)/Federal Transportation Authority (FTA) adopted the 2009 TIP on November 17, 2008.

The portion of the project from SR 25 to SR 129 has a reference #230403, but is not included in MTC 2035 RTP. A request was made by VTA to include the project in the next RTP update.

The San Benito County segment of the project is listed on the 2005 SBCOG RTP and the AMBAG 2010 MTP as "Highway 101: Junction 156 to San Benito/Santa Clara County line, widen to 6 lanes Freeway" under Reference Number Cal-6.

Proposed improvements along U.S. 101 and SR 25 are consistent with the regional and interregional improvements for the movement of people, goods, and services between Santa Clara and San Benito Counties.

4.2.3 Local Planning

VTA has included the project in the Valley Transportation Plan (VTP) 2035. The VTA Board of Directors approved the Plan in January 2009. The project listing in VTA's 2035 VTP is as follows: H18 – SR 25/Santa Teresa Boulevard/U.S. 101 Interchange (includes U.S. 101 widening between Monterey Street and SR 25 and connection to Santa Teresa Boulevard) for $233M and H56, U.S. 101 Widening to six-lane Freeway: SR 25 to SR 129 for $170M.

State *Route 25 Hollister to Gilroy Widening Project*: This project proposes a new route adoption for SR 25 between San Felipe Road in Hollister and U.S. 101 just

south of Gilroy. The new SR 25 four-lane expressway alignment would run parallel to the existing two-lane facility with a system of frontage roads, utilizing the existing two-lane facility and consolidating driveways to provide access to the new expressway at specific intersections. The southern 3.8-mile section of this four-lane expressway is also proposed for construction as part of this project between San Felipe Road and just west of Hudner Lane in San Benito County. This project is currently in the environmental review stage.

SR 152 Corridor Project: An SR 152 Trade Corridor Study between SR 99 in the Central Valley and U.S. 101 in South Gilroy is currently being prepared by VTA. Under this study, alignments are being evaluated for re-aligning SR 152 from its junction with SR 156 to SR 25. The project may lead to a route adoption document that would designate segments of the future SR 25 proposed under the above project as the new SR152. The current SR 152 alignment lacks capacity to serve as an effective and efficient freight corridor within the southern Bay Area/ North Central Coast and Central Valley in the area between U.S. 101 and SR 156. The ultimate project benefits would be improved truck/ freight movement, traffic operations, and safety on a key alignment between the Central Valley and the South Bay.

*Extension of high-occupancy vehicles (*HOV*)/high-occupancy toll (HOT) Lanes on U.S. 101 from Cochrane Road to SR 25:* VTA regional plan (VTP 2035) lists two HOV/HOT lane projects that will extend the existing HOV lanes from Cochrane Road to SR 25. These two projects are U.S. 101 HOV/HOT Lanes: Masten Avenue to 10th Street, and U.S. 101 HOV/HOT Lanes: 10th Street to SR 25. The existing median width between Monterey Street and Cochrane Road can accommodate two HOV/HOT lanes in each direction.

The Southern Gateway Transportation and Land Use Study completed by VTA in 2005 identified a set of near and long-term transportation improvements to improve travel between Santa Clara County and the counties of San Benito, Monterey, and Santa Cruz. That study focused on travel patterns in the corridors of Route 101, 85, 25,152, 129 over a 20-year study period and identified highway improvements for VTP 2030.

The South County Circulation Study (SCCS), conducted by VTA and published in April 2008, shows the need for several capacity improvements projects in the Southern Santa Clara County area to improve mobility, reduce congestion, and accommodate future growth. The project was listed as one of the SCCS recommendations. In addition, SCCS also recommended reversible or HOT lanes between SR 25 and Cochrane Road interchange. The Draft Environmental Document prepared for the U.S. 101 Improvement Project is therefore consistent with the local planning identified in the SCCS.

SR 156 Widening Project: Caltrans District 5 prepared a Environmental Impact Report / Environmental Assessment with a Finding of No Significant Impact. Three

different alternatives were evaluated through the environmental process. All alternatives proposed to widen the existing two-lane highway to a four-lane divided highway between The Alameda and the Hollister Bypass east of Union Road. The purpose of the project is to improve route continuity, reduce congestion, and increase safety. The two-lane conventional highway creates a conflict between slow-moving trucks and farm equipment and fast-moving traffic, which results in congestion and a lower LOS. In addition to reducing congestion, a controlled access expressway or conventional highway with greater capacity would decrease the potential for traffic accidents and provide drivers a larger recovery zone.

El Rancho San Benito Specific Plan: ERSB is a development project that was proposed on an approximately 5,800-acre site located on the west side of U.S. 101, south of SR 25, in northern San Benito County. . If approved, the project would have included up to 6,800 residences, 550,000 square feet of commercial uses, and 1.1 million square feet of employment uses. The ERSB project would include the construction of a 4-lane divided parkway through the site, which would extend from the U.S. 101/ Betabel Road interchange to SR 25, east of Shore Road. In May of 2009, the application for this project was withdrawn. According to a May 7, 2009 letter from the applicant, DMB Associates, Inc., the decision to withdraw the application was that "these unprecedented economic times have caused the ERSB team to reassess the possibilities and business strategies for the property". The letter concludes with the statement "we look forward to a time when economic conditions recover to a point where we can again consider a project on the property." Thus, while the ERSB project is currently not under active consideration by San Benito County, there is the possibility that the project will be resubmitted in the future. This is relevant to the discussion of the U.S. 101 Improvement Project's growth-inducing impacts because it is widely believed that the County would not approve ERSB without the widening of U.S. 101. In fact, in an effort to facilitate the widening of U.S. 101, DMB Associates is funding a portion of the cost of both the preliminary design and the EIR for the U.S. 101 Improvement Project.

4.2.4 Transit Operator Planning

The known transit operators within the project limits are discussed below.

Caltrain has plans to extend service from Gilroy to Monterey County, with a planned terminus in Salinas. This project is being managed by Transportation Agency for Monterey County (TAMC). TAMC published the Environmental Impact Report (EIR) for this project in 2006.

VTA's VTP 2035 identifies U.S. 101 as having proposed double HOV lanes in both directions in the future between Cochrane Road and SR 25.

The South County Circulation Study published by VTA in 2008 also recommended operational improvements to VTA's local bus service, express bus service, and bus rapid transit service. It also recommended an increase in Caltrain's service between Gilroy and San Jose, and the extension of Caltrain service to Salinas.

San Benito County Transit:

County Express: Throughout the year, County Express inter-county bus service provides connections between Hollister and the Greyhound Terminal and Caltrain Station in Gilroy. County Express also provides service to Gavilan College in Gilroy during the school year. Inter-county service averages 227 rider trips daily Monday through Friday, with approximately 110 of those trips going through San Juan Bautista on Route 156, and the remaining trips traveling along Route 25.

Dial-A-Ride: Services for people not served directly by fixed-route services.

ADA Paratransit: Services for people unable to ride fixed-route services.

Jovenes de Antano: Specialized transit services related mainly to medical appointments and senior nutrition.

American Cancer Society: Specialized services related mainly to medical appointments.

4.2.5 Non-Motorized Users Planning

Several existing and future trails intersect the project footprint. These are described below.

Santa Clara County Trails Masterplan. The County masterplan shows an on-street bicycle route along Santa Teresa Blvd, SR 25, and Bloomfield Ave. It also shows trail routes that run along the Carnadero Creek banks. The project proposes a bicycle lane/trail system that that ties to the county trails on Santa Teresa and Bloomfield Ave, thus providing the connectivity across U.S. 101 that the county desires. The project also provides a north-south on-street bicycle lanes system that ties Santa Clara County trails and bicycle lanes those of San Benito County.

San Benito County Trails Masterplan: This masterplan shows on-street bicycle lanes along San Juan Highway in the town of San Juan Bautista. The project proposed bicycle lanes tie into the north end of the San Benito County bicycle lanes at this location.

City of Gilroy Trail Masterplan: The City masterplan is consistent with the county's masterplan and shows the trails running along both sides of the

Carnadero Creek banks. The project provides the connectivity to those trails and is consistent with the City of Gilroy Trail Masterplan.

De Anza Trail: Maps for this trail through San Benito and Santa Clara Counties show the trail entering the project footprint at the San Juan Highway/Y Road across the San Benito River. The trail runs along Y Rd before it merges with the U.S. 101 alignment and continues north throughout the project area. The proposed relocation of non-motorized traffic from the shoulders of U.S. 101 to a parallel system of frontage roads and local streets would apply to the De Anza Trail traffic as well and will provide continuity of the existing trail.

Bay Area Ridge Trail: The Bay Area Ridge Trail runs through the Mt Madonna County Park along the crest of the hills to the west of the U.S. 101/SR 25 Interchange. Future plans includes extending the ridge trail down to Santa Teresa Blvd, Castro Valley Road, SR 25, and Bloomfield Ave in order to complete the southern end of the trail loop. The project trail design has been coordinated with the Bay Area Ridge Trail Council, including accommodation of equestrian traffic through trail crossings underneath U.S. 101.

4.3 – Traffic

A Traffic Operation Analysis Report was prepared for the project by VTA and reviewed by Caltrans in April 2013. The study area for the traffic analysis included U.S. 101 mainline segments and ramp intersections between Monterey Street and SR 156, and SR 25 mainline between U.S. 101 and Bloomfield Avenue intersection.

4.3.1 Current and Forecast Traffic

The project's forecasted traffic volumes were prepared for the Year 2035 for the No-Build and Build scenarios. The land use inputs to the forecasts model were based on Association of Bay Area Governments (ABAG) Projections as implemented in the VTA travel forecast model. Traffic Analysis Zones (TAZ) in San Benito County were modified by VTA staff to be consistent with the model typically used in San Benito County. The Year 2035 No Build network incorporates only committed transportation improvements (consistent with approved planning documents), plus improvements that would be required if assumed land use development is implemented (such as street extensions to new subdivisions). Intersection and freeway operations were analyzed using Synchro and Highway Capacity Software (HCS). The AM and PM peak-hour operational models were calibrated and validated to the established criteria for freeway, ramp, and intersection volumes, travel times, and observed queues.

The Build network includes specific project scenarios with major features as follows:

- U.S. 101 would be a six-lane freeway, with one additional auxiliary lane in each direction between the interchanges at SR 25 and Monterey Street.
- SR 25 would remain one lane each direction.
- Southbound off-ramp to SR 129 will be widened to two lanes, and a 2300-ft deceleration lane added on southbound U.S. 101.
- Santa Teresa Boulevard would be extended (one lane each direction) from its current southernmost terminus to connect to the U.S. 101/SR 25 interchange.

Annual Average Daily Traffic

Traffic growth in recent years has heavily impacted the U.S. 101 and SR 25 corridors in the project area. Between 1997 and 2009, annual average daily traffic (AADT) has increased to 39.39 percent on U.S. 101, 52.17 percent on SR 25, and up to 27.38 percent on SR 129 (Table 1).

Table 1 Comparison of 1997 and 2009 Growth in Regional Freeway Traffic

Route	Location	1997 Volume (AADT)	2009 Volume (AADT)	Change in AADT	Percent Change (increase)
U.S. 101	SR 156 East to SR 129	41,000	50,000	9,000	21.95
U.S. 101	SR 129 to SR 25	47,000	51,000	4,000	8.51
U.S. 101	SR 25 to Monterey Street	49,500	69,000	19,500	39.39
SR 25	U.S. 101 to Santa Clara County Line	18,600	22,800	4,200	22.58
SR 25	Santa Clara County Line to Hudner Lane	16,000	21,000	5,000	31.25
SR 25	Hudner Lane to SR 156 Junction	13,800	21,000	7,200	52.17
SR 129	Santa Cruz County Line to U.S. 101	8,400	10,700	2,300	27.38

Source: Annual Average Daily Traffic (AADT) Counts from http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm

Peak-Hour Demand

Peak-hour traffic volumes within the project limits are summarized in Table 2 for the Existing (2005), No Build (2035), and Build (2035) scenarios.

Table 2 Peak-Hour Traffic Volumes

Route	Location	Peak Hour Traffic Volumes AM (PM)						Build Alternative Increase over existing		Build Alternative Increase over no-build	
		Existing (2005)		No-Build (2035)		Build (2035)		%	%	%	%
		NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
U.S. 101	SR 156 to SR 129	1543 (1953)	1239 (2273)	3154 (3199)	2541 (4178)	3533 (3715)	3037 (4423)	129 (90)	145 (95)	12 (16)	20 (6)
U.S. 101	SR 129 to Y Road	1718 (2092)	1358 (2246)	2900 (3738)	3598 (4573)	3940 (4937)	4683 (5309)	129 (125)	245 (136)	36 (32)	30 (16)
U.S. 101	Y Road to SR 25	1713 (2083)	1351 (2238)	2900 (3738)	3598 (4573)	3940 (4937)	4683 (5309)	130 (126)	247 (137)	36 (32)	30 (16)
U.S. 101	SR 25 to Castro Valley Road*	2928 (2542)	1736 (3472)	4302 (4964)	4669 (6088)	4771 (5298)	4846 (6540)	63 (108)	179 (88)	11 (7)	4 (7)
U.S. 101	Castro Valley Road to Mesa Road*	2928 (2542)	1685 (3384)	4302 (4964)	3980 (5522)	4771 (5298)	4846 (6540)	63 (108)	188 (288)	11 (7)	22 (18)
U.S. 101	Mesa Road to Monterey Street	2928 (2542)	1860 (3400)	4302 (4964)	4136 (4956)	4771 (5298)	4846 (6540)	63 (108)	161 (92)	11 (7)	17 (32)
SR 25	Bloomfield to NB U.S. 101 Ramps I/C	456 (1390)	1295 (611)	1156 (1521)	1709 (1471)	1540 (1675)	1904 (1798)	238 (21)	471 (194)	33 (10)	11 (22)
SR 25	NB U.S. 101 Ramps I/C to SB U.S. 101 Ramps I/C	420 (1613)	77 (90)	1107 (1224)	290 (106)	1448 (1554)	964 (769)	245 (-4)	1152 (754)	31 (27)	232 (625)
		EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
SR 129	San Juan Hwy to NB U.S. 101 Ramps I/C	165 (262)	134 (141)	293 (570)	526 (287)	290 (423)	520 (483)	76 (61)	288 (243)	-1 (-26)	-1 (68)

Route	Location	Peak Hour Traffic Volumes AM (PM)						Build Alternative Increase over existing		Build Alternative Increase over no-build	
		Existing (2005)		No-Build (2035)		Build (2035)		%	%	%	%
		NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
SR 129	NB U.S. 101 Ramps I/C to SB U.S. 101 Ramps I/C	324 (449)	95 (187)	615 (1417)	1102 (621)	1010 (1767)	833 (550)	212 (294)	777 (194)	64 (25)	-24 (-11)
SR 129	SB U.S. 101 Ramps I/C to Seale Road	362 (461)	231 (400)	889 (2085)	1514 (1141)	1038 (2185)	2506 (1694)	187 (374)	985 (324)	17 (5)	66 (48)

Notes: EB = Eastbound IS = Intersection NB = Northbound SB = Southbound WB = Westbound
**Mesa Road and Castro Valley Road connect to southbound U.S. 101 only under existing and No-Build options. These connections are eliminated in the build option.*

4.3.2 - Accident Rates

Accident rates were calculated for a three-year period and compared to the statewide average utilizing accident data from the Traffic Accident Surveillance and Analysis System (TASAS). These data were analyzed separately for northbound and southbound US 101 mainline, SR 25, SR 129, and also include each of the ramps and frontage roads.
The actual accident rate is higher than the statewide average at US 101 northbound off-ramp to SR 25. The project proposes to replace the existing US 101/SR 25 interchange with a brand new interchange that connects to SR 25 and Santa Teresa Boulevard, and therefore the existing northbound off-ramp to SR 25 will be removed completely.

US 101 northbound off-ramp to Monterey Street also have the actual accident rates higher than the statewide average. None of the five accidents on this ramp are rear-end collisions, which would typically be an indicator of sight distance or short deceleration length issues. The sight distance around the existing curve is measured at 215', corresponding to a 31 mph design speed (6 mph higher than the posted speed of 25 mph). Similarly, the existing deceleration length is 617' and the proposed deceleration length will be 762', well above the standard 570' as required by HDM.

The project proposes to eliminate the lane drop and to construct an auxiliary lane in the southbound direction from SR 25 to Monterey Street interchange which would provide an adequate capacity to safely accommodate merge onto the freeway and an improvement on traffic operation compared to the No Build Alternative. Moreover, the proposed closure at Mesa Road would also improve traffic operations by eliminating the need for traffic to slow

down before turning on Mesa Road. This should result in improvement in the accident rates at Mesa Road.

Table 3 Accident Data

Location	Total No. of ACC	Accident Rates (acc/mvm*) Actual Fatal+ Injury	Actual Fatal	Actual Total	Statewide Average Fatal+ Injury	Statewide Average Fatal	Statewide Average Total
Mainlines:							
101 (SCL) PM 0.028 to PM 7.600 10/1/2007 to 9/30/2010	307	0.15	0.007	0.55	0.32	0.016	0.88
SR 25 (SCL) PM 0 to PM 2.559 10/1/2007 to 9/30/2010	38	0.12	0	0.63	0.33	0.025	0.77
101 (SBT) PM 3.297 to PM 7.550 10/1/2007 to 9/30/2010	104	0.12	0	0.36	0.19	0.01	0.52
SR 129 (SBT) PM 2.100 to PM 2.644 10/1/2007 to 9/30/2010	4	0.16	0	0.63	0.59	0.031	1.28
Ramps:							
101 southbound On from SR25 PM 2.960 10/1/2007 to 9/30/2010	2	0	0.52	**1.04**	0.1	0.003	0.4
101 northbound On from SR25 PM 3.228 10/1/2007 to 9/30/2010	1	0	0	**0.9**	0.11	0.003	0.35
101 southbound Off to SR25 PM 3.272 10/1/2007 to 9/30/2010	3	0	0	0.25	0.19	0.006	0.75
101 northbound Off to SR25 PM 3.173 10/1/2007 to 9/30/2010	3	0.61	0	**1.83**	0.1	0.003	0.3
101 northbound Off to Monterey St. PM 4.737 10/1/2007 to 9/30/2010	3	0.17	0	0.34	0.18	0.002	0.6
101 southbound Off to Monterey St. PM 5.193 10/1/2007 to 9/30/2010	2	0.42	0	0.85	0.42	0.004	1.20
101 northbound On from Monterey St. PM 4.896 10/1/2007 to 9/30/2010	3	0.23	0	0.68	0.26	0.002	0.8
101 southbound On from Monterey St. PM 4.783 10/1/2007 to 9/30/2010	0	0	0	0	0.26	0.002	0.75

Location	Total No. of ACC	Accident Rates (acc/mvm*) Actual Fatal+ Injury	Actual Fatal	Actual Total	Statewide Average Fatal+ Injury	Statewide Average Fatal	Statewide Average Total
101 SB Off to SR 129 PM 5.110 12/01/2005 to 11/30/2008	2	0	0	0.45	0.19	0.006	0.75
101 SB On from Lomerias/Betabel PM 6.080 12/01/2005 to 11/30/2008	0	0	0	0	0.18	0.004	0.6
101 NB Off to Lomerias PM 6.220 12/01/2005 to 11/30/2008	0	0	0	0	0.37	0.007	1.2
101 SB Off to Lomerias/Betabel PM 6.740 12/01/2005 to 11/30/2008	0	0	0	0	0.37	0.007	1.2
101 NB On from Lomerias PM 6.910 12/01/2005 to 11/30/2008	0	0	0	0	0.18	0.004	0.6

Location	Total No. of ACC	Accident Rates (acc/mvm*) Actual Fatal+ Injury	Actual Fatal	Actual Total	Statewide Average Fatal+ Injury	Statewide Average Fatal	Statewide Average Total
Frontage Roads:							
Sargent Beet Dump Rd. PM 0.181	3	0	0	0.05	0.1	0.004	0.22
Old Monterey Rd. PM 2.441	6	0.04	0	0.11	0.1	0.004	0.22
Castro Valley Rd. PM 3.721	7	0	0	0.09	0.1	0.004	0.22
Mesa Rd. PM 4.177	20	0.09	0	**0.26**	0.1	0.004	0.22
Bloomfield Ave PM 1.699	5	0.04	0	0.21	0.1	0.004	0.22

*acc/mvm=accidents per million vehicle miles

SECTION 5 - ALTERNATIVES

The FEIR prepared for the U.S. 101 Improvement Project satisfies the requirements of the CEQA. The alternatives considered, including a No-Build Alternative, have been analyzed at an equal level of detail. During the course of the preparation of the technical studies,

alternatives have been refined to avoid, minimize, and/or mitigate environmental impacts to the greatest extent possible.

5.1 - Viable Alternatives

5.1.1 No Build

The No-Build alternative proposes no modifications to U.S. 101, SR 25, or SR 129 in the project area, other than routine maintenance and rehabilitation and the currently planned and programmed projects within the area. As evidenced by the Traffic Operations section of this report, this alternative would not meet the purpose and need for the project.

5.1.2 Build Alternative

U.S. 101 will be widened/upgraded from a four-lane expressway to a six-lane freeway between 0.1 mile south of the U.S. 101/ Monterey Street Interchange (PM 5.0 in Santa Clara County) and San Benito/Santa Clara County line. U.S. 101 from the county line to SR 129 is already a freeway, and will be widened from four to six lanes. An auxiliary lane will be added in each direction on U.S. 101 between the SR 25 and Monterey Street interchanges. To meet freeway standards, all private and local access with U.S. 101 would be closed and relocated to controlled intersections. The total project length is 7.6 miles. Within the project segment, existing bridges will be widened or replaced, as necessary, to accommodate the widened highway. Shoulders, medians, sight distances, lighting, and other geometrics and safety features will be improved, as necessary, within the project limits.

The project would reconstruct the U.S. 101/SR 25 interchange at essentially the same location as the existing interchange (See Appendix B – Build Alternatives). The interchange would include a new bridge to convey SR 25 over U.S. 101. It would also include ramps to allow all traffic movements between U.S. 101 and SR 25. The proposed work at the reconstructed U.S. 101/SR 25 interchange would include a minor realignment of SR 25 to a location just north of the UPRR crossing. The existing at-grade UPRR crossing on SR 25 would be replaced with a grade-separated crossing. The limit of work on SR 25 would be just south of Bloomfield Avenue at the northern end of the Carnadero Creek Bridge where it ties back to existing SR 25 (PM 1.6).

Traffic signals would be installed at 1) the U.S. 101 southbound ramp termini with SR 129; and 2) the northbound and southbound ramp termini with SR 25. The U.S. 101 southbound off-ramp to SR 129 would be widened to two lanes, a 2300-ft deceleration lane will be added on southbound U.S. 101 feeding into this off-ramp, and an auxiliary lane will be added westbound on SR 129 from the SB U.S. 101 off-ramp signal to just west of Searle Rd.

Proposed Typical Section

The proposed typical section for U.S. 101 consists of a 70-foot median between SR 25 and Monterey Street, and a 46-foot (minimum) median throughout the rest of the project, separated by a double thrie-beam barrier or concrete barrier.

Each travel lane is proposed to be a standard 12-foot width with inside and outside shoulders of 10 feet. Where practical, side slopes would be 4:1 or flatter to provide a 30-foot-wide clear recovery zone (CRZ) for errant vehicles, except in fill sections that exceed 10 feet in height, where a 2:1 slope is proposed with metal beam guardrails or concrete barriers at the top of the slope. Outside the CRZ, side slopes would be 2:1 or flatter.

The typical section of SR 25 consists of two 12-foot lanes and two 10-foot shoulders, and a 4-foot soft median. The typical section of Santa Teresa Boulevard consists of two 12-foot lanes and two 8-foot shoulders and a 4-foot soft median (rumble strip).

The typical section of SR 129 consists of two 12-foot lanes and two 8-foot shoulders, and a 0- to 12-foot soft median.

Proposed frontage roads will meet Santa Clara and San Benito County roadway design guidelines. When these frontage roads are used as Class II bike lanes, they will consist of two 12-foot lanes and two 8-foot shoulders in Santa Clara County, and 5-foot shoulders in San Benito County. Otherwise, a 4-foot shoulder on each side is proposed. Some existing non-standard sight distance and curve radii features will be perpetuated in order to minimize the impact to the adjacent properties and agricultural lands.

For the purpose of determining the construction impacts of joint use access roads (driveways), which will be owned and maintained by private property owners, these access roads are also proposed to have two 12-foot lanes and 4-foot shoulders. Actual width of these access roads would be determined and agreed to by the various property owners during the right-of-way acquisition phase.

For each structural section alternative proposed for US 101 mainline, a TI value of 15.5 was used for 40-year designs and a TI value of 13.5 was used for 20-year designs. For each structural section alternative proposed for SR 25 mainline, a TI value of 13.0 was used for 40-year designs and a TI value of 11.5 was used for 20-year designs. Preliminary roadway structural section calculations for U.S. 101 mainline are based on an assumed soil R-Value of 5.

As a result, the life cycle cost analysis show that the proposed U.S. 101 pavement where the existing pavement is rigid would have a structural section that consists of 0.90 ft of continuously reinforced concrete pavement (CRCP), 0.25 ft of HMA (Type A), 1.70 ft of class 3 permeable, and 1.00’ ft of lime stabilized subgrade. Where the existing pavement is flexible, the proposed U.S. 101 pavement would have a structural section that consists of 0.20 ft of rubberized hot mix asphalt – gap graded (RHMA-G), 0.45 ft of HMA (Type A), 0.70 ft of LCB, 1.75 ft of class 4 AS, and subgrade enhancement geotextile (SEG) class B1.

SR 25 structural section would consist of 0.85 ft JPCP, 0.35 ft LCB, 0.70 ft of class 4 aggregate subbase (AS), and 1.00' ft of lime stabilized subgrade.

Ramp structural sections consist of 0.20 ft of RHMA-G, 0.40 of HMA (Type A), 0.95 ft of class 3 AB, and 1.45 ft of class 4 AS.

The frontage roads and bicycle paths would have a structural section of 0.20 ft of RHMA-G, 0.15 ft of HMA (Type A), 0.45 ft of class 3 AB, and 0.75 ft of class 4 AS.

To account for the expected unsuitable material conditions in agricultural areas around the SR 25 interchange where new pavement or fill is proposed, the project estimate includes hauling off the top 6 inches of soil, and treating the next 18 inches on site by mixing with suitable import material, and re-compacting in place.

Horizontal and Vertical Alignment

The alignment of the widened facility would generally conform to the horizontal and vertical control established for the existing roadway, except as noted below.

The new southbound U.S. 101 travel-way between Monterey Street and SR 25 would be on a new profile that meets current design standards and clears the 100-year water surface elevations. The existing non-standard horizontal curve at the existing interchange would be replaced with a 5,000-foot-radius curve that meets the 70 mph design speed.

The Pajaro River Bridge will be raised by approximately 2.7 feet and reconstructed along the same horizontal alignment.

The existing northbound US 101 Sargent Bridge would be demolished, and the existing southbound US 101 Sargent Bridge would be widened to accommodate the northbound lanes. As a result, the alignment of the new northbound lanes would feature a larger horizontal curve radius and up to 9 feet higher profile than the existing northbound bridge.

Non-Standard Design Features

The proposed project meets all of the Caltrans mandatory and advisory design standards for freeway facilities on U.S. 101 and expressway facilities on SR25, with the exceptions listed below:

Mandatory Design Exceptions

- Standard stopping sight distance on vertical curves is not provided at ¼-mile north of the San Benito River Bridges, the US 101 Sargent bridges, and the Monterey Street interchange. Proposed stopping sight distances on vertical curves range from 669 to

729 feet providing speeds ranging from 65 to 69 mph (compared to the standard 840-foot sight distance at 75mph design speed).

- Standard stopping sight distance on horizontal curves is not provided at four locations. Proposed stopping sight distances range from 596 to 800 feet, providing design speeds no lower than 61 mph.
- Standard superelevation is not provided at two locations. The proposed superelevation rate is 5% on Y Road at and just north of the Betbel Road/Y Road interchange, providing design speeds no lower than 43 mph.
- Standard horizontal curve radius is not provided at three locations. The proposed radii are 2,750 feet and 2,823 feet (compared to the standard 3,000-foot curve) on U.S. 101, and provide design speeds no lower than 73 mph.
- Proposed vertical clearance at the Lomerias Overcrossing is 4 inches shy of the standard 16 feet, 6 inches. The project perpetuates the existing non-standard interchange spacing between the SR 129 and Betabel Road and SR 25 and Monterey Street interchanges.
- The project also perpetuates the existing non-standard spacing between ramp termini and adjacent intersections at the SR 129 and Betabel Road interchanges.

Advisory Design Exceptions

- The project proposes to perpetuate the existing non-standard minimum grade at four locations along U.S. 101. Existing non-standard grades range from 0.00 to 0.18 percent.
- The project perpetuates the non-standard sag vertical curve lengths north and south of the US 101 Sargent Bridge on Southbound U.S. 101. There are three locations where the curve length is 400 feet. Out of these three non-standard curve lengths, two perpetuates the existing sag vertical curve lengths and does not meet the required 750 feet.
- 2:1 embankment slopes, instead of the standard 4:1 slopes, are proposed at several locations along SR 25 and along northbound and southbound off-ramps to SR 25, as well as at the US 101 Sargent Bridge, in order to avoid extensive floodplain impacts and impacts to the UPRR tracks.
- The standard median width on rural freeways is 62 feet. The proposed median width for U.S. 101 is 46 feet between SR 25 and SR 129.
- Although the US 101 Sargent Bridges as-builts from 1970 show a 23-foot, 4-inch vertical clearance, it is suspected that UPRR's re-ballasting over the years has raised the rail elevation, and thus reduced the clearance to 22.9 feet. The project proposes to perpetuate this non-standard vertical clearance (Standard vertical clearance requirement is 23 ft).

- At the U.S. 101 southbound off-ramp to SR 129, and along the western side of U.S. 101 between Pajaro River and the US 101 Sargent bridges, the project does not meet the 40-foot minimum outer separation required between mainline and frontage roads' edge of travel-ways. The proposed outer separation is 23 feet and 22.5 feet, respectively.
- The existing Betabel Road Overcrossing is 5.3 percent, and exceeds the maximum standard grade of 4.0 percent at a ramp terminus.
- A non-standard 490-foot-long lane drop taper on southbound SR 25 at Bloomfield is proposed, and does not meet the required 720 feet.
- A non-standard super-elevation runoff is proposed on Y Road and at the northbound off- and on- ramps to SR 25.

The project design features and the above design exceptions were presented and discussed with Caltrans Geometric Reviewers. Fact Sheet for Mandatory Design Exceptions was approved by Michael W. Thomas, Caltrans Headquarters Design Coordinator, on October 31st, 2012 and Fact Sheet for Advisory Design Exceptions was approved by David Salladay, Caltrans District office Chief, on November 19th, 2012.

Access Control Requirements

All private access to U.S. 101 would be closed within the project limits. The project also proposes access control on SR 25 from Bloomfield Avenue intersection to the point where the proposed connection of Santa Teresa Boulevard ties back into existing Santa Teresa alignment. Access control on both U.S. 101 and SR 25 would be consistent with the Caltrans policies. To provide alternate and improved local circulation, frontage roads would be constructed/realigned along U.S. 101, as needed.

Nine local roads (Mesa Road, Castro Valley Road, Old Monterey Street, Narcisso Road, Access Roads connection to Old Monterey Street at U.S. 101 northbound "M" 299+60, access road in the median south of the US 101 Sargent Bridge at U.S. 101 southbound "M" 278+50, connection to an access road at U.S. 101 southbound "M" 265+00, and connection to Betabel Road at U.S. 101 southbound "N" 246+00), and 24 private driveways would be closed from direct access to U.S. 101 and SR 25. These changes would be addressed as part of the revised freeway agreements.

The project proposes to consolidate several of the private driveways into a system of access roads. It is anticipated that ownership and maintenance of the joint-use driveways will be responsibility of the property owners and will be coordinated as part of the right-of-way negotiations process.

Approximately half of an existing Caltrans storage yard would be impacted by the widening of U.S. 101 north of the Pajaro River. The remaining half would remain within Caltrans right-of-way and would be used for construction staging. Caltrans indicated that the yard would not be

used by Caltrans maintenance or other Caltrans functions after completion of construction, and therefore does not need to have separate access from outside the right-of-way to replace the existing access off the right shoulder of U.S. 101.

Santa Teresa Boulevard

During the public scoping and the various stakeholders' coordination meetings and throughout the public comments period, the local community has expressed its desire to have Santa Teresa Boulevard connected to the SR 25/U.S. 101 interchange. Before the median barrier project was constructed in 2003 between the US 101 Sargent bridges and Mesa Road, drivers heading to Gavilan College and surrounding areas from northbound SR 25 onto U.S. 101 would use the existing left-turn pockets at Castro Valley and Mesa roads. In 2002, Caltrans closed these left-turn pockets by constructing a concrete barrier in the median and detoured drivers to the Monterey Street interchange to the north in order to continue their trip heading west. Similarly, traffic from Mesa and Castro Valley roads heading north on U.S. 101 have to detour to the existing SR 25 to the south and use the northbound 101 on-ramp to get back on northbound U.S. 101. Providing a Santa Teresa Boulevard connection as part of the proposed interchange re-establishes the north-south and east-west connection between Santa Teresa Boulevard, U.S. 101, and SR 25.

Tick Greek Overcrossing

The current freeway agreement with Santa Clara County and several title reports for properties adjacent to Tick Creek discuss a future Tick Creek Overcrossing across U.S. 101 that would replace the existing access rights when these access points are eliminated by the conversion of U.S. 101 to a freeway. This Tick Creek crossing allows the property owners on the eastern side of U.S. 101 to cross and connect to Old Monterey Street on the western side of U.S. 101, which in turn connects to the freeway via the SR 25/U.S. 101 interchange. The title reports identify the "Tick Creek Overcrossing or other public road access as may be designated by public authority" as a requirement to allow for elimination of the current temporary access rights. Chapter 24 – Freeway Agreements – of the Caltrans Project Development and Preparation Manual states that "the Freeway Agreement documents the understanding between Caltrans and the local agency relating to the planned traffic circulation features of the proposed facility. It does not bind the State to construct on a particular schedule or staging." Although the project does not propose to build the Tick Creek overcrossing, it replaces the existing temporary access points for the properties on the eastern side of U.S. 101 with a system of joint-use driveways and public frontage roads that would allow the property owners to connect to the SR 25/U.S.101 interchange as is intended in the freeway agreement. The project geometrics do not preclude the construction of the Tick Creek crossing at a future date, when development of adjacent land on the eastern side of U.S. 101 justifies it.

Structures

The structural work needed to accommodate the proposed improvement on 24 existing and new structures is shown in Table 4 below. Draft Advance Planning Studies have been prepared for each of the structures. Note that reinforced Concrete Box (RCB) Culverts with a span greater than 20 feet are treated as bridges.

Table 4 List of Structures

Bridge No.	Bridge Name	Type of Work
43-0032	Route 129/101 Separation	No Work
43-0010	San Juan Creek/101	Widen Bridge
43-0010F	S101-W 129 Connector	No Work
43-0004L	San Benito River/101	Widen bridge, possible rail upgrades
43-0004R	San Benito River/101	Widen bridge, possible rail and deck upgrades
TBD	San Benito River Bike and Pedestrians Bridge	New Bridge
43-0019	Lomerias Overcrossing (Betabel Road)	No work
37-0007	Pajaro River/101	Replace bridge
37-C0825	Pajaro River Access Road	New Bridge
36-0006L	Sargent Bridge & Overhead	Widen bridge, possible rail and deck upgrades
37-0006R	Sargent Bridge & Overhead	Remove bridge
37-0006Z	Sargent Trestle UPRR	UPRR owned, no work
TBD	Tar Creek	New Bridge
37-0468	25/101 Separation	Remove bridge
37-0475F	S101-E25 Connector	Remove bridge
TBD	UPRR Overhead	SR 25 New bridge over railroad
TBD	Route 25/101 Separation	New bridge
TBD	U.S. 101 Mainline	New RCB (600’ long, 9-12’x6’)
TBD	SR 25 Mainline	New Flood Bridge
TBD	SR 25 off-ramp from U.S. 101 southbound	New Flood Bridge
TBD	U.S. 101 northbound on-ramp from SR 25	New Flood Bridge
TBD	U.S. 101 southbound off-ramp	New Bridge
TBD	Santa Teresa Blvd west of Santa Teresa Pond	New Bridge
37-0008L	Carnadero Creek	Widen bridge for northbound 101, possible rail and deck upgrades
TBD	Carnadero Creek	New bridge for southbound 101

Bridge No.	Bridge Name	Type of Work
37-000R	Carnadero Creek	Convert to frontage road, possible rail and deck upgrades.
TBD	Tick Creek	New Construction

The structure work needed for smaller culverts is shown in Table 5 below.

Table 5 List of Structures Work on Smaller Culverts

Culvert Size	Location			Type of Work
	County	Location	Sta	
90" CMP	San Benito	US 101	"M" 230+53 to 231+37	Extend
10-12'x6' RCB	San Benito	Y Rd	"Y" 20+25 to 21+54	New Construction
48" Storm Drain	Santa Clara	US 101 north of Tar Creek	69+00	Extend
11'x 6'	Santa Clara	US 101 at Gavilan Creek	153+00	Extend or Replace at Gavilan Creek
7.2'x5.6' RCB	Santa Clara	Old Monterey Street at Tick Creek	"F7" 275+20	Replace
2-5'x3' RCB	Santa Clara	Old Monterey Street at Tick Creek	"F7" 268+00	Replace
TBD	Santa Clara	Old Monterey Street at Tick Creek	"F7" 255+00	Replace

Culvert Size	Location			Type of Work
	County	Location	Sta	
TBD	Santa Clara	Old Monterey Street at Tick Creek	"F7" 242+00	Replace
2-8'x4' RCB	Santa Clara	Joint Use Driveway at Tick Creek	"AC1" 184+50	New Construction
2-8'x4' RCB	Santa Clara	US 101 at Tick Creek	"A" 85+50	Extend
18" Dia or equivalent	Santa Clara	SR 25 (400' west of Bloomfield)	"B" 175+00 (A) "B" 183+00 (B)	Replace
18" Dia or equivalent	Santa Clara	Frontage Road F2	"F2" 64+20 (A) "F2" 724+00 (B)	New Construction
TBD	Santa Clara	Frontage Road F7	"F7" 332+50 (A) "F7" 330+00 (B)	New Construction
48" arch pipe	Santa Clara	Santa Teresa Blvd	"B" 119+70	New Construction
48" arch pipe	Santa Clara	Santa Teresa Blvd	"B" 121+30	New Construction

Retaining Walls

The northbound U.S. 101 travel-way lanes would be approximately 8 feet higher than their existing profile when the northbound US 101 Sargent Bridge is demolished, and the existing southbound structure is widened to accommodate the new northbound lanes. As a result, retaining walls would be needed along the eastern edge of U.S. 101 at the northern approach to the new structure. Another wall is proposed along the Monterey Street southbound on-ramp. Other smaller walls would also be needed. Table 6 below shows the size and location of the proposed retaining walls within the corridor.

Table 6 Proposed Retaining Walls

Wall No.	Location	From Station	To Station	Length (feet)	Max. Height (feet)
102	Left	"RS1" 10+70	"RS1" 14+60	390	10
110	Left	"Y" 11+05	"Y" 17+05	600	17
118	Left	"Y" 20+05	"Y" 26+05	550	17
248	Left	"M" 248+30	"N" 259+60	1,130	11
286	Right	"N" 286+36	"A" 45+02	900	9
226	Left	“A” 225+20	“R4” 43+58	1865	12
130	Right	“B” 129+96	“B” 134+00	400	35
448	Left	“R6” 448+75	“R6” 451+32	257	23

All the walls listed above are standard retaining walls, and no specially designed retaining walls are proposed.

Traffic Operations

Consistent with field observations and review of the existing traffic volumes prior to conducting the level of service analyses, the freeway components of the roadway system in the study area generally operate well, with the project achieving a travel time saving within the project segment in both directions of travel.

The freeway and intersection operational analyses for the project, detailed in the U.S. 101 *Widening Traffic Operational Analysis Report*, are based on VTA’s 2035 ABAG’s traffic projections model. This analysis used the “Newman Method” to perform the freeway operational analysis. Signalized intersections of interest were analyzed using *Highway Capacity Manual* (HCM) methodology and the Synchro software tool.

Accommodation of Future Widening Projects

All of the above-described improvements would be designed not to preclude other planned and potential future highway improvement projects, such as those discussed below.

State Route 25 Hollister to Gilroy Widening Project: This project proposes a new route adoption for SR 25 between San Felipe Road in Hollister and U.S. 101 just south of Gilroy. The new SR 25 four-lane expressway alignment would run parallel to the existing one, and a system of frontage roads and consolidated driveways would provide access to the new expressway at specific intersections. The southern 3.8-mile section of this four-lane expressway is also proposed for construction as part of this project between San Felipe Road

and just west of Hudner Lane in San Benito County. This project is currently in the environmental review stage.

The traffic impact of this future project on the U.S. 101 Improvement Project was analyzed using the following assumptions:

- SR 25 would be widened to four lanes up to the U.S. 101/SR 25 Interchange
- The connection from southbound U.S. 101 to southbound SR 25 was assumed to be a flyover/direct connection
- The SR 25/Bloomfield intersection would be eliminated.

The geometrics of the U.S. 101/SR 25 interchange were developed to accommodate the southbound U.S. 101 to southbound SR 25 direct connector (see Appendix C), and the traffic analysis showed that the six-lane freeway facility on U.S. 101 will be adequate to accommodate the projected traffic of the four-lane expressway project.

Realignment of SR 152: An SR 152 corridor study between SR 99 in the Central Valley and U.S. 101 in South Gilroy is currently being prepared by VTA. Under this study, alignments are being evaluated for re-aligning SR 152 from its junction with SR 156 to SR 25. The project may lead to a route adoption document that would designate segments of the future SR 25 proposed under the above project as the new SR152. The current SR 152 alignment lacks capacity to serve as an effective and efficient freight corridor within the southern Bay Area/ North Central Coast and Central Valley in the area between U.S. 101 and SR 156. The ultimate project benefits would be improved truck/ freight movement, traffic operations, and safety on a key alignment between the Central Valley and the South Bay. The U.S. 101 Improvement Project geometrics were developed in order not to preclude the four-lane alignment of SR 25; and therefore to accommodate the SR 152 realignment, including future construction of direct connectors to both northbound and southbound U.S. 101, as shown in Appendix C.

Accommodation of Future Potential Growth in San Benito and Other Southern Counties: To accommodate future job and residential growth in San Benito and surrounding counties, the project design team selected a number of anticipated developments that do not have a permit application on file yet and are not included in the current AMBAG and San Benito County model, and conducted a traffic analysis with the additional demand to determine the ultimate size of the facility needed. Results showed that up to 8 lanes on U.S. 101 could potentially be needed south of SR 25 if all anticipated projects in the county were to submit a permit application and get approved. The proposed 46-foot median would allow median widening to accommodate one additional lane in each direction without the need for additional right-of-way acquisition.

Floodplain

Significant portions of existing U.S. 101 between Monterey Street and SR 25 fall within the floodplain, and have been flooded in the past.

Historically, flooding occurred within the Santa Clara segment in 1955, 1962, 1982, 1983, 1986, and 1997. The 1997 flood caused U.S. 101 to be closed when Carnadero Creek overflowed at the southern end of Gilroy. Flooding overtops U.S. 101 to the north of Carnadero Creek bridges, and at the Gavilan Creek crossing. In San Benito County, flooding occurred in 1938, 1958, and 1983.

The flooding problem through the corridor is complicated in nature and would require major upstream flood control measures that fall well outside the limits of this project. In meetings with Caltrans Hydraulics, it was agreed to use the FEMA-approved peak flow of 14,200 cubic feet per second (cfs) in the model. Meetings with Caltrans Hydraulics and Caltrans Structures Hydraulics also resulted in an understanding that, while it would be desirable to raise all the bridges to meet standard free board requirement, it is more important to maintain adequate free board that would not result in modifications to downstream conditions that would put properties/facilities/residences at risk of flooding.

The proposed project maintains floodplain characteristics downstream and channels flood water under the U.S. 101 travel-ways through a system of box culverts and conveyance channels in order to keep the freeway dry during a major storm event. The Location Hydraulic Study discusses the floodplain issues within the project limits in detail, and explains the proposed mitigation.

Moreover, the project proposes two basins (one in San Benito County and another in Santa Clara County) to mitigate the additional fill that would be placed in the floodplain as a result of the widening of the freeway at the San Benito and Pajaro river watersheds and the construction of the new southbound lanes and reconstruction of the interchange in the northern half of the project.

The basin in San Benito County is proposed on the eastern side of the U.S. 101 just north of the San Benito River (Assessor's Parcel Number [APN]013-150-010). This basin is approximately 260 feet wide by 1,200 feet long, and would be excavated to form a basin with minimum depth of 3.5 feet. It would receive overflow water in a 50-year flood event during which the San Benito River overtops its banks. The USGS Regional Flood-Frequency Equation was used for the project site to estimate overflow water in a 50-year event as referenced in the Location Hydraulic Study Report. The flood water stored in the basin would drain back to San Benito River through various drainage facilities after flood peaks. The basin will remain dry for the majority of the year, except during those flood events when San Benito River overtops its banks.

The basin in Santa Clara County would be built on the property in the northeastern corner of the existing SR 25/U.S. 101 interchange (APNs) 841-32-011 and 841-32-013). This basin is

approximately 1,000 feet wide by 2,000 feet long, and would be excavated to form a basin with minimum depth of 6 feet. It is expected that Carnadero Creek overtops its southern banks in a 50-year flood event. The USGS Regional Flood-Frequency Equation was used for the project site to estimate overflow water in a 50-year event as referenced in the Location Hydraulic Study Report. Water sheet-flows across the agricultural land on the western side of U.S. 101 until it reaches the proposed overflow culverts under U.S. 101, where it crosses the freeway to reach the basin. The flood water stored in the basin would drain back to Carnadero Creek through various drainage facilities after the flood peak has passed through a ditch that runs northward and parallel to the UPRR tracks. The basin would remain dry for the majority of the year, except during those flood events when Carnadero Creek overtops its banks. Two bridges (one along SR 25 mainline, and another along the ramp alignment) will be constructed to maintain the flow of water from north side to the south side.

It also should be noted that both basins are proposed as mitigation measures for placement of fill in the floodplain, and are not intended nor would have the capacity to function as detention/retention basins of the flood water.

The project does not preclude future floodplain mitigation and flood control projects. More detailed discussions of floodplain evaluations and mitigations are included in the Location Hydraulic Study.

High Occupancy Vehicle Lanes

No bus and carpool lanes are proposed as part of this project; however, the project is proposing a 70-foot-wide median between SR 25 and Monterey Street to accommodate the extension of the double HOV lanes in both directions from SR 85 in South San Jose to SR 25 in South Gilroy. Project does not preclude converting the future HOV lanes from Cochrane Rd to SR 25 into express lanes. There are no current plans to extend the HOV lanes south of SR 25 at this time. However, if such plans are proposed in the future, the project 46-foot-wide median between SR 25 and SR 129 would not preclude construction of such lanes.

Ramp Metering

The proposed project includes ramp metering geometry at the new SR 25 to U.S. 101 on-ramps.

California Highway Patrol Enforcement Areas

CHP enforcement areas are included in the project geometrics at each of the proposed SR 25 on-ramps.

Park and Ride Facilities

There are no new park and ride facilities proposed under this project. The South County Circulation Study recommended the addition of a number of new Park and Ride facilities in

the South Santa Clara County and Hollister areas to promote increased transit use and carpooling, including a suggested Park and Ride facility in the northwestern quadrant of the proposed U.S. 101/SR 25 interchange. With the proposed system of frontage roads, the project geometrics do not preclude the construction of such a facility that could be connected to the interchange via Santa Teresa Boulevard.

Highway Planting

Highway planting for this project will be completed under a separate contract(s) and will include 3 years of plant establishment as provided in Chapter 29 – Landscape Architecture, Section 2 – Highway Planting, Article 1 – General Policy of the Project Development Procedures Manual (PDPM). The total cost for highway planting and revegetation is $2.5 million. The highway planting costs and related design for safety items are included in the total project cost estimate that can be found in Appendix D, Cost Estimates.

Highway planting will be completed to current Caltrans Design Standards up to the maximum allowable cost per acre. Revegetation will be provided to mitigate visual impacts of new roadway improvements and enhance habitat values within the highway corridor. Mitigation measures and strategies for new/replacement and revegetation planting will conform to the measures identified in the "U.S. 101 Improvements (Monterey Street to SR 129) Visual Impact Report (July 2010). Cost escalation for highway planting shall increase by 3 percent per fiscal year for inflation.

The project will include standard replacement highway planting and restoration, with 3 years of plant establishment. Replacement highway planting and restoration will include a central control irrigation system capable of operating remotely from a base station located within the regional maintenance area. The replacement planting design will be developed with local community input to ensure context sensitivity and enhancement of the surrounding areas along U.S. 101.

No landscaping is proposed within the limits of San Juan Creek, San Benito River, Pajaro River, Tar Creek, Tick Creek, Gavilan Creek, and Carnadero Creek to minimize disruption to the native riparian habitat.

Resource agency biological requirements will be coordinated with highway planting and revegetation contracts for onsite accommodation within the project corridor.

Erosion Control

Permanent erosion control measures will be applied to the disturbed areas.

In addition to permanent erosion control, the following Construction Site Management Best Management Practices are proposed, but not limited to, during the construction phase:

- Temporary silt fences

- Temporary drainage inlet protection
- Temporary covers on slopes and stockpiles
- Temporary concrete washout facilities
- Temporary construction site entrances and street sweeping
- Temporary fiber rolls.

The project includes work on bridges over waterways that are perennial; therefore, temporary creek diversions may be necessary to protect water quality during construction.

Deep excavations necessary for pilings or retaining wall footings might require dewatering; therefore, a temporary dewatering permit may be needed from the Central Coast Regional Water Quality Control Board (CCRWQCB)-3 near these perennial waterways.

Further discussion of temporary and permanent erosion control measures proposed for use with other Best Management Practices (BMPs) that avoid/minimize impacts to water quality can be found in the Storm Water Data Report prepared for this project.

Water Pollution Control

In addition to permanent water pollution control, the following Construction Site Management Best Management Practices are proposed, but not limited to, during the construction phase:

- Preservation of existing vegetation
- Hydraulic Mulch
- Outlet protection/velocity dissipation devices
- Street sweeping and vacuuming
- Wind erosion control
- Illicit connection/illegal discharge detection and reporting
- Vehicle and equipment cleaning
- Vehicle and equipment fueling
- Vehicle and equipment maintenance
- Material delivery and storage
- Stockpile management
- Spill prevention and control
- Solid waste management
- Hazardous waste management

- Contaminated soil management
- Concrete waste management
- Sanitary/septic waste management.

The Project will require a Storm Water Pollution Prevention Plan (SWPPP).

Noise Barriers

There are no existing State soundwalls within the project limits. The Noise Study Report evaluated several soundwalls, and found them feasible but not reasonable. As a result, no soundwalls are proposed for this project.

Non-Motorized and Pedestrian Features

The build alternative proposes to convert a U.S. 101 segment in Santa Clara County from expressway to freeway, thus eliminating the non-motorized users' access route. This alternative proposes a replacement route that comprises of a series of Class I and II bikeways that will place the non-motorized users outside the ultimate State right-of-way (except for a 4,000-foot long Class II bike lanes on Y Road south of Betabel Road Interchange), while still allowing a continuous route through the corridor. See the Bike and Trail Plan (Appendix B, Build Alternatives) for specific details. The various options have been discussed with Caltrans Right-of-way, Santa Clara and San Benito County Parks, City of Gilroy, and bicycle advocacy groups. An initial consensus on the route alternatives for non-motorized users has been reached and a conceptual agreement by both counties and City of Gilroy to own and maintain these frontage roads and trails has been obtained. Appendix J includes the recommendations letters received from Santa Clara County and Bay Area Ridge Trail Council in response to the proposed trail improvements. The project alternatives have also been discussed with equestrian groups and equestrian use has been implemented in the design of the project.

Because the conditions of the slopes adjacent to Y Road east of U.S. 101 are considered an integral part of the State Highway System at this location, Caltrans preferred to maintain ownership of the slopes and Y Road in 1965, and executed a maintenance agreement for Y Road with San Benito County upon completion of the freeway widening project. Caltrans re-confirmed the same decision during the right-of-way coordination meeting held at the District 4 offices on April 20, 2009. As a result, the portion of the bike path along Y Road will remain within Caltrans right-of-way, and the maintenance agreement will be updated during the PS&E phase of the project to include the proposed bicycle facilities.

Complete Streets and Context Sensitive Solutions

The project build alternative includes context sensitive complete streets improvements that meet the objectives of Deputy Directive (DD) 64-R1. The objectives of this directive include

providing for the needs of all ages, abilities, and modes of travelers during the planning, design, and construction phases of the State Highway System. The list of complete street features that are included in the project design include the following:

- A system of Class I/II bikeways and trails that eliminate the non-motorized use of the existing shoulders on US 101 and SR 25 within the project footprint. These bike paths meet the local counties design criteria, with grades that meet HDM standards, and will have a paved smooth surface either through construction of new pavement or overlay of existing pavement. Bike paths will have the appropriate signage for bicyclists, directional, and facility classification and will accommodate all levels of users (commuters, students, and recreational).
- When signalizing existing unsignalized intersections, countdown pedestrian signals and ADA compliant pedestrian signals will be installed. Crosswalks will also be added at the following intersections:
    - F7" Frontage Road / "F1" Frontage Road,
    - Santa Teresa Blvd / "F7" Frontage Road,
    - "F2" Frontage Road / "F3" Frontage Road,
    - Bloomfield Ave / SR 25.
- A concrete barrier and fence separating pedestrians/bike lane and traffic lanes on southbound Sargent Overhead Bridge.
- Connectivity between the proposed trail system and the nearby school (Gavilan College).
- Replacing the barrier railing on the existing US 101/Carandero Creek bridge when this bridge is relinquished to Santa Clara County and the northbound lanes are converted to Frontage Road "F3".
- There are no bus stops or other transit facilities impacted by the project. The project however improves the operation and safety of the transit operators that utilize this corridor.

Needed Roadway Rehabilitation and Upgrading

The portion of U.S. 101 to be widened will have a rubberized HMA overlay constructed on top of the existing and proposed pavement section. Existing pavement sections that require rehabilitation will be repaired prior to receiving the final rubberized HMA overlay. The exact thickness and limits of pavement overlay and pavement reconstruction areas will be determined during the design phase once pavement deflection studies are complete.

A 2005 Pavement Conditions Survey revealed that the majority of U.S. 101 travel lanes were in good condition, and that no distress was observed, except at Carnadero Creek, where cracking slab was noted. The pavement of the SR 25 portion that falls within the project

limit indicated fine gravel and miscellaneous unsealed cracks. In consultation with Caltrans, a life cycle cost analysis has been deferred to the Project Report phase.

Needed Structure Rehabilitation and Upgrading

The existing bridges along U.S. 101 will be widened as part of the improvements, with the exception of the Pajaro River Bridges and the US 101 northbound Sargent Bridge, which will be replaced, and the existing SR 25 Overcrossing and the southbound U.S. 101 off-ramp to SR 25, which will be removed. An Advance Planning Study has been prepared for every structure on the project.

Cost Estimate

The attached cost estimates (Appendix D) include all known costs for this project.

The total project cost estimate of the Build Alternative is provided in Table 7.

Table 7 Cost Estimate

	Cost
Roadway Items	$206.5 M
Structure Items	$132.0 M
Escalation to Construction mid-point (2017) @ 3%/year	$21.0 M
Right-of-way & Utility Relocation	$44.0 M
Capital Total	**$403.5 M**
Project Report/Environmental Report Phase	$0.0 M
PS&E Phase	$27.5 M
Construction Administration	$27.5 M
Support Total	**$55.0 M**
PROJECT TOTAL	**$458.5 M**

Right-of-Way Data

Right-of-way cost estimates (including utilities relocation costs) are reported on the Right-of-Way Data Sheet provided in Appendix E.

5.2 - Rejected Alternatives

The following alternatives were developed during the course of study or identified through community interaction. The alternatives were evaluated during the design studies that accompanied the environmental studies; and, with the concurrence of the Project Development Team, have been set aside from further study. A brief description of each and the reason it was rejected is provided below.

5.2.1 Outside Widening of U.S. 101 - SR 25 to Monterey Street

This alternative proposes outside widening on both sides of existing U.S. 101 in lieu of the westerly shift of U.S. 101 between SR 25 and Monterey Street interchanges to add one more through lane and one auxiliary lane in each direction. This alternative was studied as a way to minimize the construction footprint of the build alternative. Although this alternative would achieve the same objectives as the selected alternative in enhancing traffic operations, reducing congestion, and improving safety, it impacts a large number of businesses, and requires a relocation of major utilities located east of U.S. 101, thus increasing the project costs significantly. The no-shift design option involves widening of U.S. 101 which will adversely affect local residents and businesses and would require major right-of-way acquisition in order to construct a frontage road to the east of U.S. 101. The no-shift alternative that was evaluated provides a 46-foot median which precludes future plans to build a double carpool or HOT lanes in the existing median of U.S. 101. Providing a 70-foot wide median would require further right-of-way acquisition, businesses and residences relocations, and increase the project cost significantly.

5.2.2 Easterly Widening South of SR 25

This alternative proposes outside widening on both sides of existing U.S. 101 between SR 25 and the US 101 Sargent bridges to add one more through lane in each direction. Similar to the option discussed above, this alternative was studied as a way to minimize the construction footprint of the build alternative. Although this alternative would achieve the same objectives as the build alternative in enhancing traffic operations, reducing congestion, and improving safety, it was determined that it will not be feasible due to the 4F property that abuts the eastern side of U.S. 101 in that segment, and the Archaeology Site that was found during the cultural resources investigation phase, thus increasing the project environmental impacts significantly. This alternative also precludes future plans to build additional capacity in the median without significant design exceptions due to width limitations.

5.2.3 Widen U.S. 101 Northbound into the Existing Median

This alternative proposes to widen existing U.S. 101 northbound into the median between the US 101 Sargent bridges and the proposed U.S. 101/SR 25 interchange, which leaves an existing median width of approximately 31 feet. This alternative has less environmental impacts than the build alternative and has been discussed with various stakeholders.

Discussions with Caltrans regarding the median width between the US 101 Sargent bridges and SR 25 revealed that a 31-foot median width would be unacceptable because it would require design exceptions to median shoulder widths standards when/if the freeway is widened to 8 lanes south of SR 25, and it would not be consistent with the median width south of the US 101 Sargent bridges (46 feet). The standard width for freeways in rural areas is 62 feet, and the discussions with Caltrans resulted in a minimum acceptable median width of 46 feet that is documented in the project Fact Sheets.

A cost comparison for the segment between the US 101 Sargent bridges and SR 129 of a 36-foot paved median versus a 46-foot unpaved median with outside widening showed that the cost of building either alternative would be comparable, resulting in insignificant cost savings for the overall project.

A 46-foot median was selected to accommodate future widening of U.S. 101 into the median; a 36-foot median would have required design exceptions for non-standard shoulder widths when median widening becomes necessary (adding one more lane in each direction) due to increased traffic demand.

5.2.4 Providing a 22-Foot-, 36-Foot-, or 62-Foot Wide Median

This alternative proposes:

- Inside widening of U.S. 101 between SR 129 to just north of the US 101 Sargent bridges to provide a 22-foot-widewide median
- Outside widening of U.S. 101 between SR 129 to just north of the US 101 Sargent bridges to provide a 62-foot-wide median

The 22-foot and 62-foot alternatives were presented in the U.S. 101 Widening from PM 4.9 (U.S. 101/ SR 129 Interchange) in San Benito County to PM 1.1 in Santa Clara County (2.1 miles south of U.S. 101/ SR 25 Separation) PSR (approved April 25, 2006). The 22-foot-wide median alternative was not acceptable to Caltrans reviewers because it did not meet the median width requirement in rural areas, and it did not accommodate future widening (additional lanes in the median).

The 62-foot-wide median alternative meets the HDM standards for freeway median width in rural areas. However, it would require extensive right-of-way acquisition; result in significant archaeological, habitat, floodplain, and visual impacts; and significantly increase the project capital construction cost.

The 36-foot-wide median was evaluated as a result of the above-mentioned two alternative median widths, and rejected because it would require a mandatory design exception for non-standard shoulder widths when future median widening (adding one more lane in each direction) is needed.

Furthermore, consultation with Caltrans maintenance division revealed that the 36-foot-wide median would be required to be paved. A 46-foot-wide median can be kept unpaved. A cost comparison of a 36-foot paved median versus a 46-foot unpaved median with outside widening for the segment between the US 101 Sargent bridges and SR 129 showed that building either alternative would result in comparable costs for the overall project. Therefore, the 46-foot unpaved median alternative is more desirable because it is less expensive to construct and it would accommodate the future widening of the freeway. In

addition, Caltrans HQ geometrics coordinators expressed that a 36-foot wide median is not acceptable and a minimum of 46-foot wide median will be required.

Of the various advisory design exceptions considered for median width less than 62 feet, the 46-foot median width was determined to be the preferred design option.

5.2.5 Build a Separate U.S. 101/Santa Teresa Boulevard Interchange

In order to separate local traffic from the freeway-to-freeway traffic, this alternative extends Santa Teresa Boulevard south from its current southern end through a new frontage road that runs behind Miller Reservoir and ties into Old Monterey Street, where a proposed second interchange would be built approximately 1.3 miles south of the proposed SR 25/U.S. 101 interchange. This alternative was rejected because it:

- Would require significant right-of-way acquisition.
- Has a large environmental footprint that would require a significant amount of mitigation.
- Does not meet the minimum interchange spacing requirement, which would potentially impact traffic operations.
- Would be less desirable by the local communities due to the extended length of travel distance needed to get from Santa Teresa Boulevard to SR 25.

5.2.6 "Trumpet" Interchange without Santa Teresa Connection

The project initially proposed a "trumpet" configuration for the U.S. 101/SR 25 interchange, which did not include the Santa Teresa Boulevard connection. This proposal was faced with significant opposition from the local communities, City of Gilroy, and Santa Clara County. This alternative was rejected in response to the comments received during the public scoping meeting held in November 2007.

SECTION 6 - CONSIDERATIONS REQUIRING DISCUSSION

6.1 - Hazardous Waste

An Initial Site Assessment (ISA) study has revealed no evidence of potential adverse environmental conditions associated with the study area with the exception of the following:

1. A Chevron Service Station located within the study area adjacent to the northern end of the site (5887 Monterey Street) that has groundwater flowing toward the southeast, away from the project site. No construction is expected to be within 50 feet of the station.
2. Existing and historical underground storage tanks (USTs) are/have been located in several areas adjacent to the site; however, no indication that the USTs were

leaking (with the exception of the Chevron Service Station) was discovered during the due diligence evaluation.

3. Utility trenches may be located along and adjacent to the site and may act as migratory pathways for underground features containing hazardous materials.
4. Railroads use lubricants containing petroleum hydrocarbons for train maintenance and herbicides and pesticides to control weeds and insects along their tracks. Railroad ties are also coated with creosote in many cases. Therefore, the three railroads intersecting the site (plus one former railroad) may have used chemicals associated with maintaining the tracks and trains that may have impacted shallow soils on and adjacent to the site.
5. The study area is presently and has historically been used for agricultural purposes. Soil, surface water, and groundwater in agricultural areas within the study area may be impacted with herbicides and pesticides.
6. All bridges on the site were constructed prior to 1980, with the exception of the U.S. 101/SR 25 interchange overpass. Based on the construction dates of these older bridges, asbestos containing materials (ACMs) are suspected to be present in caulking separating bridge sections and on attachments for bridge guard-rails. Naturally occurring asbestos may also be contained in the aggregate used in bridge construction materials.
7. Based on the date of construction of U.S. 101 and SR 25 (pre-1947) and heavy vehicular use of the highway, Aerially Deposited Lead (ADL) may have been deposited on the exposed soil of the median and shoulders of the site roadways. Therefore, ADL may be encountered during road construction and utility trenching activities in these locations. An ADL study of the soil in the median and shoulder of the southern 3.7 miles of the alignment of the U.S. 101 between SR 129 and just north of the US 101 Sargent bridges was conducted, and reported the soil to be non-hazardous for all layers with the exception of two hot-spots that were found to exceed the threshold. However, based on the ADL sampling, the soil can be reused or disposed of as non-hazardous soil. Soil from the two hot-spots could also be mixed with other clean soil and be reused on site or disposed of as non-hazardous soil.
8. Based on the estimated date of construction of U.S. 101 and SR 25 (pre-1947) there is a potential for lead-based paint (LBP) to be present in lane striping and other traffic markings on the site roadways.
9. Based on the estimated date of construction of most buildings located within the study area (pre-1978), and specifically 15 buildings located adjacent to U.S. 101 between Mesa Road and Old Monterey Street, there is a potential for LBP and asbestos to be present in paint and building materials. Lead may also be contained in the soil adjacent to these and other buildings.
10. Based on the estimated date of construction (pre-1990) of Willis Construction Company, a concrete product manufacturing facility situated on the northwest

corner of the San Juan Highway/Y Road intersection, there is a potential for asbestos to have been added to concrete products at this facility. Asbestos-containing dust emanating from this facility may have impacted surface soils near the property.

11. An abandoned truck scale that may have used hydraulic oil is located at Sargent Bridge. While staining was not observed around the scale, there is a potential for oil to impact unseen areas of adjacent soil in the immediate vicinity of the scale.

12. During the site reconnaissance, a debris pile was observed approximately 0.125 miles north of PM 1.1, adjacent to and east of where the SPRR crosses an access road. The pile contained concrete, metal, wood debris, plus approximately 40-linear feet of 8-inch transite piping.

Based upon the findings and conclusions of the ISA, it is recommended that:

1. If contaminated soil is encountered (based on physical observation) during trenching activities along the alignment, the soil should be stockpiled and analyzed for potential contaminants, including Volatile Organic Compounds (VOCs), polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), Title 22 metals, herbicides, pesticides, and total petroleum hydrocarbons. If the soil cannot be reused on site, the analyses should be sent to a permitted landfill for profiling and waste characterization prior to transport to the landfill. If contaminated groundwater is encountered, similar steps should be taken to characterize and dispose of the groundwater as was discussed in the paragraph above.

2. Herbicides and pesticides should be analyzed for in the shallow soil located on the site adjacent to or on agricultural land. Shallow soil samples should be collected and analyzed for metals, total petroleum hydrocarbons, VOCs, PAHs, herbicides, and pesticides from site areas adjacent to railroad tracks or within railroad crossings. If soil is impacted with any of the compounds discussed above, it should be stockpiled and sampled for reuse or disposal options.

3. If proposed construction activities involve demolition or reconfiguration of bridges and buildings built prior to 1980, samples of suspected ACMs and lead containing materials should be collected by certified personnel and analyzed to evaluate the likelihood of asbestos or lead being encountered during bridge and building demolition or reconfiguration.

4. An ADL survey should be conducted in exposed soil areas within the alignment where an ADL Study has not yet been conducted. These areas include the shoulders and median of U.S. 101 between PM 1.1 and PM 5.0 (with the exception of the southbound median between PM 1.1 and PM 4.2, the section of Santa Teresa Boulevard located on the site, and the section of Y Road located on the site.

5. If documentation cannot be found indicating that pH analyses were performed on samples collected during the ADL Study conducted by Caltrans for SR 25

(between PM 1.6 and PM 2.5), additional sampling should be performed so that the soil can be analyzed and approved for reuse per the Department of Toxic Substances Control (DTSC) variance.

6. If documentation cannot be found indicating that Deionized Waste Extraction Test (DI-WETs) were performed during the ADL study conducted by Caltrans for SR 25 (between PM 1.6 and PM 2.5), additional ADL sampling should be performed so that the soil can be analyzed and approved for reuse or offsite disposal. Data from the statistical analysis conducted for the proposed project for the area between PM 1.6 and PM 2.5 in SCl should be reviewed and compared to the Caltrans District 4 lead in soil variance to evaluate soil reuse and/or disposal options.
7. An evaluation of the data from the ADL study conducted by the IT Corporation along U.S. 101 between PM 0.4 and PM 4.2 in SCl should be conducted to evaluate whether a DTSC variance enabling reuse of the soil applies to all or any of the soil involved in the study.
8. If proposed construction activities involve destabilization of paintwork on roadways on the site and/or buildings adjacent to the site built prior to 1978, paint samples should be collected and analyzed for lead content. If these materials/coatings are reported to have lead concentrations of greater than 5,000 parts per million, these materials/coatings should be stabilized/removed from the affected areas prior to renovation/redevelopment. Soil samples around buildings painted with suspected LBP should also be collected and analyzed for lead content. If the soil is found to be contaminated with lead, then soil reuse and/or disposal options should be evaluated.
9. If the transite pipe is within the footprint of construction activities on the site, it should be removed from the area by certified asbestos abatement contractors and disposed of at an appropriate waste acceptance facility.

6.2 - Value Analysis

A Value Analysis (VA) Study was conducted in July 2008. The VA identified early phases of construction that are smaller and easier to fund. These phases focus on constructing the U.S. 101/SR 25 interchange, traffic operations improvements and access control. The remaining improvements, including the floodplain mitigation near the U.S. 101/SR 25 interchange and the overflow culverts were deferred to future construction phases as funding becomes available. This Project Report and its associated Environmental Document provide environmental clearance and project approval for the full build-out of the project with all phases.

The intent of this phasing strategy is to develop a more realistic and fundable first. The footprint of these phases has been cleared environmentally as part of the overall project footprint.

Build Alternative was developed in response to the VA study findings. The VA study focused on developing phasing alternatives to allow greater flexibility in funding.

The estimated cost for the first phase of Build Alternative is $90.4M. This phase will:

- Construct SR 25/US 101 OC
- Construct SB US 101 diamond off- and on- ramps
- Connect Santa Teresa Blvd (along the hill) to new SR 25 OC.
- Construct NB off- and on- ramps
- Westerly Shift US 101

The estimated cost for future phases is $388.6M. These phases will:

- Build UPRR crossing
- Construct the floodplain mitigation elements including the new flood bridges
- Construct the rest of the improvements south of US 101/SR 25 Interchange

6.3 - Resource Conservation

The scope of the U.S. 101 Improvement Project is to reduce recurring congestion and improve traffic safety and vehicular access with the freeway upgrade of the Santa Clara County segment of U.S. 101 and the construction of a new U.S. 101/SR 25 interchange. These improvements in operational efficiency would allow the most effective use of limited resources.

The freeway upgrade of U.S. 101 in Santa Clara County would require a significant amount of new alignment and structural section to be built. However, wherever possible, the existing highway will be used as part of the new freeway, frontage road, and bikeway system. In addition, ADL-laden soil excavated from along the shoulders or median of existing U.S. 101 has been identified for encapsulation within the proposed roadway embankments.

AC grindings would be made available, at the option of the contractor, to be recycled as aggregate and shoulder backing and rubberized asphalt would be used in the proposed structural section.

6.4 - Right-of-Way

6.4.1 General

The existing right-of-way widths vary considerably along U.S. 101, ranging from 170 feet at the Carnadero Creek to 1,100 feet at Betabel Interchange. The existing right-of-way along U.S. 101 between SR 129 and the US 101 Sargent bridges generally accommodates the proposed widening, except at the U.S. 101 southbound off-ramp to SR 129, Y-Road along U.S. 101

northbound, Betabel Road at Pajaro River, and U.S. 101 northbound just south of the US 101 Sargent bridges. North of the US 101 Sargent bridges, additional right-of-way is needed on the western side of U.S. 101 to accommodate the westerly shift and the widening of the median. Additional right-of-way is needed for the new interchange and the realigning of SR 25, and the Santa Teresa Boulevard connection. Agreement between Santa Clara County and Caltrans will be executed during the next project phase to determine CT and the County's ownership limits of the Santa Teresa Blvd extension.

The right-of-way requirements for utility relocation will be accommodated by the project. Impacts to a longitudinal utility require relocation of the utility to outside the state-owned access control. Permanent utility easements are anticipated for the project outside the state-owned right-of-way. Some transverse and longitudinal encroachment will be perpetuated, and documented in the Utility Policy Variance Report (UPVR) that was prepared for the project. A final version of the UPVR will be signed once a preferred alternative is selected.

The Right-of-Way Data Sheet was prepared for the Build Alternative to describe the right-of-way requirements and the associated costs (Appendix E, Right-of-Way). The Right-of-Way Data Sheet shows the costs to purchase all currently identified needs, including temporary rights, permanent rights, and utility relocations.

The proposed project would require acquisition from 49 parcels to accommodate freeway and frontage road widening, and construction of the new interchange. The project would acquire access control rights throughout the corridor. Access control would be also acquired along the Santa Teresa alignment between Caltrans right-of-way limit and the entrance driveway to Gavilan College.

A total of 19 private driveways would be closed to limit access to U.S. 101. A system of frontage roads would be constructed to connect to U.S. 101 at the SR 25 and Betabel Road interchanges.

A number of privately owned water wells located to the west of existing southbound U.S. 101 would be impacted by the westerly shift of the freeway, and would need to be relocated. Groundwater pumping rates were obtained from SCVWD, and possible locations of replacement wells were identified to connect to the same aquifer source and provide pump rates similar to the existing wells. Review of the title reports did not reveal any existing water rights. No existing parcels are provided with water by springs with deeded rights within the State right-of-way, or by wells that are partially fed by highway drainage that would be eliminated by the project.

Temporary Construction Easements (TCE) are required to construct the proposed improvements.

6.4.2 Airspace Lease Areas

For the Build Alternatives, there is insufficient area, either open or under the proposed structure areas that would allow for an airspace lease.

6.4.3 Relocation Impact Studies

The Right-of-Way Data Sheet prepared for this project identified four residences and four businesses that would qualify for relocation assistance benefits or entitlements under the Uniform Relocation Assistance and Real Property Act of 1970.

6.4.4 Railroad Involvement

Several UPRR crossings exist within the project limits. The at-grade SR 25/UPRR crossing will be replaced with a grade separated crossing that will meet Caltrans and UPRR standards. The proposed SR 25/UPRR crossing meets Caltrans minimum vertical clearance for UPRR with no electrification. If electrification of the rail lines is proposed in the future, SR 25 profile meets the 26-foot vertical clearance.

There is a UPRR underpass located east of U.S. 101, connecting private roads off of Old Monterey Highway at the US 101 Sargent bridges, and at-grade at SR 25. No modifications to the existing railroad structure, or work in railroad right-of-way, are proposed.

UPRR crosses under U.S. 101 at the Sargent bridges. The existing crossing at the US 101 Sargent Bridges will remain at the 22.9-foot vertical clearance. The existing US 101 Sargent bridges does not meet vertical clearance for electrification and would need to be replaced in the future if a decision to electrify the rail lines is made. To accommodate the freeway widening, a retaining wall would be constructed to retain the abutment slopes for the Sargent bridge crossing and prevent them from encroaching on adjacent properties. It is proposed UPRR be given the opportunity to review, comment, and approve the proposed retaining wall design during the final design with respect to railroad.

UPRR has been made aware of the project and the overall concept. A package introducing the project and a copy of the structures' general plans for the two crossings was sent to UPRR for their comment and review in June 2008.

The new and modified structures will need CPUC approval either by way of a GO 88-B or a formal application. CPUC has indicated that the permits and paperwork for the change from at-grade rail to grade-separated is not a time-consuming process.

It is proposed that UPRR be given the opportunity to review, comment, and approve the preliminary plans for the new grade separation at SR 25 and the modified grade separation at Sargent Bridge during the final design phase of the project. Typically UPRR review of the plans is handled at CT by way of a Service contract. Once the plans are approved, right of way coordination efforts with UPRR can begin. This includes preparing maps and legal descriptions

for any permanent or temporary rights needed, preparing an appraisal, and presenting UPRR with an offer. After right of way is completed, a construction and maintenance agreement (C&M) between UPRR and Caltrans will be executed prior to completion of the right of way certification.

6.4.5 Utilities and Other Owner Involvement

To meet freeway standards, the project proposes significant utility relocation work to eliminate longitudinal encroachments within the State right-of-way. Utility location mapping has been completed and preliminary conflicts have been identified and included in the Right-of-Way Data Sheet, provided in Appendix E. Utility verification will be performed at the initial stages of the final design of this project.

With a few exceptions, all longitudinal utilities would be relocated outside the State right-of-way within the limits of environmental clearance proposed by the Draft Environmental Document. These facilities would be located along the frontage roads, outside the ultimate State ROW.

An existing fiber optic line owned by Charter Communications is proposed to remain within the State right-of-way and is included in the UPVR that was prepared for this project.

An existing 6,800 feet of 4-inch distribution gas line owned by the Pacific Gas and Electric Company (PG&E) runs within State right-of-way on the eastern side of U.S. 101 would be relocated to adjacent frontage roads or to a 15-foot easement on adjacent private properties that abut State right-of-way.

The existing PG&E 115 KV transmission electric line runs parallel to UPRR tracks and across SR 25 next to the at-grade crossing. Because the project proposes raising the profile of SR 25 to establish a UPRR grade separation, the closest PG&E towers (up to four towers) to the south and the north of SR 25 would need to be replaced with higher towers to achieve the minimum vertical clearance required for the power cables over SR 25. This vertical relocation has been coordinated with PG&E, and the cost associated with it has been included in the overall project cost estimate under Utility Relocation.

The existing PG&E 115 KV transmission electric line that runs parallel to U.S. 101 between Stations M 272+00 and M 276+00 encroaches on the existing State right-of-way. One tower's footing also encroaches on the state right-of-way. The proposed project perpetuates the existing conditions because these lines and the tower's footing are outside the clear recovery zone and do not present a safety hazard. The UPVR documents this encroachment.

Some existing utilities would maintain their transverse encroachment, such as the 10-inch distribution gas line at M 133+70, in the San Benito County portion of the project.

The final "Determination of Liability" would occur on a case-by-case basis as the relocation plans are finalized. Verification of utilities will be required. Positive location (potholing) as

prescribed by the State's Policy on High and Low Risk Underground Facilities within Highway Rights of Way (January, 1997) will be performed.

To facilitate construction scheduling, some utility relocation work may be required prior to the main construction contract. For additional data on the existing utilities impacted by the new construction and proposed utility relocations, please refer to the UPVR.

Based upon the preliminary information dated October 25, 2012, the proposed utility facility occupations are viable encroachments in the State right of way. Final design information and detailed plans will be necessary to evaluate the potential impacts of the proposed occupation. Tentative approval of these occupations is contingent upon the introduction of design conditions that are complimentary to both operational safety and maintenance access.

6.5 - Environmental Issues

The FEIR has been prepared in accordance with Caltrans' environmental procedures, as well as requirements of the CEQA, and is the appropriate document for the proposal.

6.5.1 - Water Quality

During the construction phase, the project would involve excavation and grading activities that have the potential to degrade water quality in the form of sedimentation, erosion, and fuels/lubricants from equipment. Because of the project's close proximity to existing creeks and rivers, and because the storm drain system discharges into these watercourses, the project will implement BMPs to avoid/minimize impacts to water quality during and after construction.

The project under consideration is located on the State Highway System, and covered by a National Pollutant Discharge Elimination System (NPDES) statewide permit issued to Caltrans by the State Water Resources Control Board (SWRCB). This permit covers all Caltrans properties, facilities, and activities for both the construction and operational phases of projects. This NPDES permit also requires that both structural and non-structural BMPs be incorporated into projects to minimize the potential for both short- and long-term degradation of water quality.

Following the Caltrans Storm Water Management Plan (SWMP), these new BMPs will be designed and implemented to reduce the discharge of pollutants from the Caltrans storm drainage systems (to the maximum extent practicable [MEP]). The project investigated the use of the following treatment BMPs:

- Infiltration devices
- Austin Sand Filter, Delaware Filter, wet basin
- Detention devices
- biofiltration swales/strip

- Multi-Chambered Treatment Trains (MCTT)

Due to the lack of right-of-way, shallow groundwater, lack of water, and supply sources available for wet basins, it was determined that the only feasible treatment BMP for this project is the biofiltration swales/strips. The locations of the proposed biofiltration swales/strips are shown in the Storm Water Data Report.

In addition, an extensive system of slope rounding and ditches, berms, dikes, and swales is proposed to intercept and direct surface runoff to the stormwater drainage system. Flared end-sections will be used at inlets and outlets of culverts with rock slope protection (Facing, Method B) to prevent scour. Extensive planting of unpaved surfaces is proposed to prevent erosion and remove pollutants in stormwater and non-stormwater runoff. Permanent paving will be used in areas where it is difficult to maintain planting.

The following temporary construction site BMPs are proposed:

Erosion Control Items

- Temporary erosion control (applying materials to slopes and other inactive areas
- Temporary silt fences
- Temporary drainage inlet protection
- Temporary covers on slopes and stockpiles
- Temporary concrete washout facilities
- Temporary construction site entrances
- Temporary fiber rolls.

Water Pollution Control Items

- Preservation of existing vegetation
- Hydraulic Mulch
- Outlet protection/velocity dissipation devices
- Street sweeping and vacuuming
- Wind erosion control
- Illicit connection/illegal discharge detection and reporting
- Vehicle and equipment cleaning
- Vehicle and equipment fueling
- Vehicle and equipment maintenance

- Material delivery and storage
- Stockpile management
- Spill prevention and control
- Solid waste management
- Hazardous waste management
- Contaminated soil management
- Concrete waste management
- Sanitary/septic waste management.

A Storm Water Data Report (SWDR) is provided in Appendix I.

6.6 - Air Quality Conformity

A portion of the proposed project is included in the 2007 TIP Amendments, where it is identified as SCL070003. The design concept and scope of the proposed project have changed, and the project is not consistent with the project description in the TIP. The portion of the project from SR 25 in Santa Clara County to the San Benito County line is not in the 2007 TIP; Currently, there are efforts being made to have the TIP amended to include this portion of the project. Therefore, the Santa Clara portion of the project is not consistent with the RTIP and the State Implementation Plan (SIP); and as such, is not in conformity with the existing SIP.

6.7 - Title VI Considerations

The provisions for low-mobility and minority groups will be incorporated into the project. These features will include:

- A series of Class I and II bikeways will replace the current non-motorized route along the shoulder of the existing expressway between Monterey Street and SR 129. See Bike and Trail Plans (Appendix B) for specific details.
- Curb ramps will be provided at intersections within the State right-of-way where they currently do not exist, and where new sidewalk is being added.
- A minimum 4-foot clearance will be provided to obstacles such as electroliers, signal standards, fire hydrants, etc. if they are located within the proposed or existing sidewalks.

6.8 - Noise Abatement Decision Report

A technical noise study was conducted to assess noise impacts at sensitive receivers in the vicinity of the proposed U.S. 101 Improvement Project between Monterey Street and SR 129

and to identify preliminary noise abatement measures necessary for the project to comply with state and federal noise abatement/mitigation requirements.

A noise monitoring survey that included sixteen short-term (10-minute) noise measurements and three long-term (24 hour) noise measurements was conducted in February 2008. Existing loudest-hour noise levels at noise monitoring locations were calculated to range from 46 to 72 dBA Leq(h) depending on the distance to U.S. 101, the relative highway and local elevation and terrain, as well as the intervening structures and barriers between receivers and the highway. The Federal Highway Administration's Traffic Noise Model, TNM 2.5, was used to predict future noise levels, analyze noise impacts, and assess potential abatement options for the project. The model was calibrated and adjusted based on measured noise and traffic conditions. Potential noise level impacts were assessed in TNM 2.5 using the traffic volumes provided in the Traffic Operations Report U.S. 101 Widening Project (Monterey Street to SR 129). The traffic noise model was used to calculate traffic noise levels in 2035 under the No Build and Build Alternative scenarios. Typical noise increases associated with the Build conditions ranged from 0 to 9 dBA. Noise level increases of less than 12 dBA Leq(h) are not considered substantial. However, noise levels at many Category B and C receivers would continue to approach or exceed the Noise Abatement Criteria (NAC) of 67 dBA.

Noise abatement, in the form of new sound walls, was assessed for sensitive receivers where noise levels approach or exceed the NAC. Replacement of existing sound walls was assessed for noise barriers that could be increased in height to achieve an additional 5-decibel reduction in noise levels. A total of nine (9) feasible barriers were identified for receivers exposed to noise levels approaching or exceeding the NAC. The total reasonable allowance for each feasible barrier ranged from $45,000 to $235,000 depending on the number of benefited receivers.

Based on the studies, Caltrans has determined that the construction of nine new soundwalls, as shown in Table 8, would be feasible (i.e., they would meet the minimum 5-dBA noise reduction criterion).

Table 8 Evaluation of Noise Abatement Soundwalls

Soundwall Number and Location	Approximate Soundwall Height	Amount of Reduction in Noise (dBA)	# of Residences Benefitting by ∃5 dBA	Reason-able Allowance	Preliminary Cost Estimate
#1: SW quadrant of 101/Monterey St. Interchange	16 feet	5	2	$90,000	$1,209,600

Soundwall Number and Location	Approximate Soundwall Height	Amount of Reduction in Noise (dBA)	# of Residences Benefitting by ∃5 dBA	Reason-able Allowance	Preliminary Cost Estimate
#2: Westside of 101, S of Monterey Street	8 feet	5 to 6	3	$157,000	$562,000
	10 feet	7 to 8	3	$159,000	$702,000
	12 feet	8 to 10	3	$163,000	$842,000
	14 feet	9 to 10	3	$165,000	$983,000
	16 feet	9 to 11	3	$165,000	$1,123,000
#3: Eastside of 101, N of Carnadero Creek	10 feet	5	2	$94,000	$1,026,000
	12 feet	6 to 7	3	$194,000	$1,231,000
	14 feet	7 to 8	3	$194,000	$1,436,000
	16 feet	7 to 8	3	$194,000	$1,642,000
#4: Westside of 101, N of Carnadero Creek	8 feet	6	1	$53,000	$605,000
	10 feet	7	1	$53,000	$756,000
	12 feet	5 to 10	2	$100,000	$907,000
	14 feet	5 to 11	2	$100,000	$1,058,000
	16 feet	6 to 12	2	$104,000	$1,210,000
#5B: Eastside of 101, vicinity of Garlic World	10 feet	5	2	$88,000	$1,404,000
	12 feet	5 to 8	3	$139,000	$1,685,000
	14 feet	6 to 9	3	$143,000	$1,966,000
	16 feet	6 to 9	3	$143,000	$2,246,000
#7: Westside of 101, N of driveway to quarry	10 feet	5	2	$94,000	$540,000
	12 feet	6	2	$98,000	$648,000
	14 feet	9	2	$102,000	$756,000
	16 feet	10	2	$102,000	$864,000
#8: Westside of 101, at Tar Creek	8 feet	7	1	$51,000	$346,000
	10 feet	8	1	$51,000	$432,000
	12 feet	8	1	$51,000	$518,000
	14 feet	9	1	$53,000	$605,000
	16 feet	9	1	$53,000	$691,000
#9: Eastside of 101, S of Pajaro River	12 feet	6	5	$235,000	$778,000
	14 feet	6	5	$235,000	$907,000
	16 feet	7	5	$235,000	$1,037,000

Soundwall Number and Location	Approximate Soundwall Height	Amount of Reduction in Noise (dBA)	# of Residences Benefitting by ∃5 dBA	Reason-able Allowance	Preliminary Cost Estimate
• All of the above soundwalls are feasible, meaning they provide a minimum of five decibels of noise reduction at one or more receptors. • $40 per square foot is the current unit cost being used for conceptual estimates for soundwalls. Cost estimates include 25% contingency + 10% mobilization allowances.					

Although the project would not result in a substantial increase in traffic-related noise, projected noise levels will, however, exceed FHWA's noise abatement criteria at many locations, as some locations do under existing conditions. As a result, the feasibility and reasonableness allowances of noise abatement measures were considered. This process involved an evaluation of the feasibility and reasonableness allowance for constructing a new soundwall at each location where the noise abatement criteria will be approached or exceeded.

While all nine soundwalls are feasible (i.e., they would meet the minimum 5-dB noise reduction criterion), the costs of each of the soundwalls substantially exceed the calculated reasonableness allowance. Based on this information, a preliminary decision has been made to not construct any of these soundwalls as a part of the project. A final decision on which, if any, of the nine soundwalls will be constructed will be made upon completion of the public involvement process.

SECTION 7 - OTHER CONSIDERATIONS

7.1 - Public Hearing Process

A public meeting, in the "open house" format, was held on April 4th, 2013 where the preferred viable alternative was presented for public review and comment. Majority of the comments received during the public hearing process have expressed preference for Design Option B over Design Option A due to its reduced impact on agricultural and farmland.

7.2 - Route Matters

The majority of work identified between SR 25 and SR 129 along the existing freeway portions of U.S. 101, would only require widening of the existing facilities that would not change the existing freeway agreements. However, the freeway upgrade of the existing expressway between SR 25 and Monterey Street would require new agreements.

7.2.1 Freeway Agreements and New Connections

The selected alternative meets most of the requirements of the existing freeway agreement between Caltrans and Santa Clara County, including the interchange configuration, the Santa Teresa Boulevard connection, and most of the proposed frontage road system. However, this agreement would still need to be updated to reflect the selected alternative geometry; primarily the westerly shift of U.S. 101 and the relinquishing of the existing northbound lanes between SR 25 and Monterey Street. A new freeway agreement would be needed with San Benito County as part of the expressway-to-freeway upgrade. These agreements would provide for the relinquishment of the local roads and bicycle facilities that are constructed as part of the project.

A new SR 25 expressway agreement would be required during the design phase of the SR 25 four-lane project, which is currently in the environmental clearance phase.

Approval from the California Transportation Commission would be required for the "Connection as Part of the Initial Construction of Freeway" for reconstructing the U.S. 101/SR 25 interchange to the north of existing interchange and connecting Santa Teresa Blvd to SR 25.

7.2.2 Other Agreements

Conceptual agreement to own and maintain the relinquished or the newly constructed frontage roads and trails have been documented in the minutes from meetings with Departments of Planning, Public Works, and Parks and Recreations at both Santa Clara and San Benito Counties.

Agreements with SCVWD would also be needed during the PS&E phase for the trails along Carnadero Creek.

7.2.3 Route Adoptions

A Route Adoption is not required for this project because the right-of-way required for the new alignment is substantially contiguous to the existing expressway/freeway.

7.2.4 Relinquishments

The freeway agreement required would identify, for relinquishments, those local roads constructed as part of the expressway-to-freeway upgrade once a preferred access alternative has been selected.

7.3 - Permits

Environmental Permits

Table 9 summarizes the regulatory permits and approvals needed for project construction

Table 9 List of Permits

Agency	Permit or Approval	Status of Planned Action
U.S. Army Corps of Engineers, San Francisco District	Section 404 Permit	• Wetland delineation performed • Corps approval of wetland delineation would be requested during PS&E phase • Corps Permit Application would be submitted during final design phase
California Department of Fish and Game (CDFG)	Streambed Alteration Agreement	Permit Application will be submitted during PS&E Phase
CDFG	2081 Take Permit	Permit Application will be submitted during PS&E Phase
CCRWQCB	Section 401 Water Quality Certification	Permit Application will be submitted during PS&E Phase
CCRWQCB	National Pollutant Discharge Elimination System (NPDES) approval for work greater than one acre	Permit Application will be submitted during PS&E Phase
US Fish and Wildlife Services (USFWS)	Biological Opinion	BA to be submitted prior to or concurrent with Section 404 application during PS&E Phase
NOAA Fisheries (National Marine and Fisheries Services)	Biological Opinion	BA to be submitted prior to or concurrent with Section 404 application during PS&E Phase

Waste Discharge Permit

Construction activities involving foundation work for retaining walls and drainage system installation have the potential to encounter groundwater, seepage (i.e., dry weather flows) or that may involve non-stormwater discharges. A project-specific Waste Discharge Permit (WDRs) may be required from the Regional Water Quality Control Board, if substantial dewatering is to be done. The need for WDRs would be finalized once groundwater elevations have been determined and preliminary foundation recommendations are finalized. Also, the groundwater will be tested for potential contamination as a part of the Site Investigation. An appropriate dewatering Special Provision will then be prepared dependent on the levels of contaminants reported in the Site Investigation Report to ensure the proper handling and disposal of the groundwater.

7.4 - Cooperative Agreements

A Cooperative Agreement (No. 4-2171) for project approval and environmental document (PA&ED), final design (PS&E), and Right-of-Way engineering phase has been executed between VTA and Caltrans on June 19, 2008. Due to the expansive scope of the U.S. 101 Improvement Project, it is anticipated that design and construction of this project to occur in phases as funding becomes available. As these phases are identified, individual cooperative agreements for funding and staff responsibilities will be negotiated for those phases. A copy of the cooperative agreement is provided in Appendix K, Cooperative Agreement.

7.5 - Other Agreements

Maintenance agreements – are anticipated with Santa Clara County, San Benito County, Santa Clara Valley Water District, and City of Gilroy to outline their roles/responsibilities with respect to the structures, frontage roads, bike paths, side slopes, and flood control structures required for the freeway upgrade of the U.S. 101. Preliminary meetings have been held with each of these entities, and conceptual agreement has been reached. Formal agreements will be pursued during PS&E phase.

Signal Maintenance Agreement – An agreement between Caltrans and Santa Clara County, City of Gilroy, and City of San Juan Bautista to define the maintenance responsibilities for each organization is expected.

Controlled Access Highway Agreement (CAHA) – A CAHA agreement will be needed to restrict access along the new SR 25 /Santa Teresa alignment.

7.6 - Involvement with Navigable Waterways

Consultations with the U.S. Coast Guard and the California State Lands Commission have shown that there are no Navigable Waterways within the project limits.

7.7 - Transportation Management Plan

The Transportation Management Plan (TMP) Data Sheet (Appendix F) was prepared to identify the significant TMP elements and ensure all anticipated costs are included in this report. Construction traffic impacts were evaluated and preliminary work windows were defined for use in determining production rates and unit costs. Specific items of mitigation that were identified for inclusion in the project are: restricted work windows for lane closures (8 hours at night), Construction Zone Enhanced Enforcement Program (COZEEP), changeable message signs, speed zone reductions, truck-mounted attenuators, freeway service patrols/tow trucks, detours, and a public information campaign with local mailings and a telephone hot-line.

A Transportation Management Plan will be prepared during the design phase to finalize the elements that have been identified at this phase.

7.8 - Stage Construction

Due to the high traffic volumes and existing delays, any construction activity on U.S. 101 requires that stage construction be considered to minimize impacts to the traveling public. Preliminary Stage Construction designs have been completed for all major elements of the proposed U.S. 101 Improvement Project. Through a multi-staged approach, the existing number of lanes will be maintained, except for occasional night-time and weekend lane or ramp closures. Shoulder widths will be maximized where possible and vary from a minimum of 0 to 10 feet. Temporary concrete railing (K-rail) and a temporary traffic screen will be used for traffic and worker safety.

Conceptual stage construction plans have been developed to verify that the project is constructible; that traffic impacts are minimized; and public safety is not compromised. New roadways and structures have been laid out geometrically (horizontally and vertically) and coordinated with existing facilities to assess whether detours or temporary roadway widening would be needed to construct new facilities. Impacts to pedestrian and cyclist movements, as well as access to local developments, were considered in the staging plans. Four stages of construction are anticipated to complete the project. A construction 'stage' is generally associated with a major shift in traffic. Several construction 'phases' may be associated with each construction stage. Individual phases of construction would be developed as detailed design progresses.

7.9 - Accommodation of Oversize Loads

Existing vertical clearances have been checked with ground survey and as-builts throughout the project limits, and all of the existing structures meet these minimum clearances, with the exception of the widened Lomerias Overcrossing (connection between Betabel Rd and Y Rd), where the proposed clearance is 16 feet, 2 inches. The diamond interchange type at Betabel Road allows oversize loads to bypass the structure by taking the off- and on- ramps, while remaining within State right-of-way. A design exception has been requested for the non-standard vertical clearance. During the design phase, Caltrans standard signs will be used to mark the widened structure and alert drivers of the revised vertical clearance.

7.10 - Graffiti Control

Generally, this project is not located in graffiti-prone area. However, in segments located close to urban areas, graffiti control features will be incorporated into the design, and these features could include rough texturing of concrete surfaces (fractured fin), staining or coloring surfaces of concrete and retaining wall with earth-tone colors, future planting of vines adjacent to retaining walls, and anti-graffiti coatings on bridge railings that allow easier clean-up and maintenance.

7.11 - Storm Drainage

The proposed project includes extensive relocation, modification, and upgrades to existing highway drainage systems due to highway widening, new interchange construction / existing interchange modification, and etc. New cross culvert systems will be installed to ensure that the flood waters will properly pass across the highway.

The project scope includes construction of floodplain mitigation basins as discussed in Section 5. More detailed discussion of the floodplain and related drainage facilities can be found in the Location Hydraulic Study Report.

Bridges, including new flood bridges across SR 25, and a number of major cross culvert systems at various locations across US 101 are listed in Tables 4 & 5.

The new drainage systems will improve not only the capacity for the additional stormwater runoff due to increased impervious areas of the project, but also the quality of the stormwater by the implementation of the permanent treatment BMPs.

The proposed drainage improvements will maintain the existing drainage pattern. Storm runoffs will continue to drain to the major receiving creeks/rivers: Carnadero Creek, Gavilan Creek, Tick Creek, Tar Creek, Pajaro River, San Benito River, and San Juan Creek.

The project will comply with Caltrans Statewide NPDES permit. Storm Water Data Report will also be prepared for the project.

7.12 - Risk Management Plan

A Draft Risk Management Plan has been developed for the Project and is provided in Appendix G, Risk Management Plan. The FEIR prepared for the U.S. 101 Improvement Project satisfies the requirements of the CEQA.

SECTION 8 - PROGRAMMING

8.1 - Programming

- Project is currently funded through PA&ED. This current funding has been provided through VTA local program reserve. Future programming is required for PS&E, R/W Support, Construction Support, R/W Capital and Construction Capital Components of the project. The following is a hypothetical funding breakdown by fiscal year and project phase for Build Alternative assuming funding becomes available starting in FY 2013-FY2014 and through completion of the construction of the full project.

Table 10 Funding by Fiscal Year and Project Phase

Fiscal Year	PS&E	Construction Capital Cost	Construction Support	Total
FY13–FY14	$13,750,000			**$13,750,000**
FY14–FY15	$13,750,000	$100,875,000	$6,875,000	**$121,500,000**
FY15–FY16		$100,875,000	$6,875,000	**$107,750,000**
FY16-FY17		$100,875,000	$6,875,000	**$107,750,000**
FY17-FY18		$100,875,000	$6,875,000	**$107,750,000**
Total	**$27,500,000**	**$403,500,000**	**$27,500,000**	**$458,500,000**

8.2 - Funding

Caltrans and VTA continue to seek additional funding sources for this project. The FEIR prepared for the U.S. 101 Improvement Project satisfies the requirements of the CEQA.

8.3 – Schedule

The following is the current major milestone schedule for the project:

Table 11 Project Schedule - Major Milestones

Project Milestones	Delivery Date (Month/ Year)
PA & ED	08/2013
Project PS&E	05/2015
Right of Way Certification	08/2015
Ready to List	09/2015
Contract Completion Acceptance	09/2018

SECTION 9 – FHWA COORDINATION

US 101 is part of the National Highway System and this project is considered to be delegated under the current FHWA/Caltrans Stewardship Agreements executed on September 4, 2007.

SECTION 10 - REVIEWS

Field Review	_____	Date	_____
District Maintenance	_____	Date	_____
District Safety Engineer	_____	Date	_____
Constructability Review	_____	Date	_____
HQ Design Coordinator	_____	Date	_____
District Safety Review	_____	Date	_____

SECTION 11 - PROJECT PERSONNEL

Project Manager	Nick Saleh	Calnet or (510) 715-9046
HQ Project Development Coordinator	Mike Thomas	Calnet or (510) 653-5220
HQ Geometric Review Coordinator	Larry Moore	Calnet or (916) 653-2647
Design Project Engineers	Tuan D Nguyen	Calnet or (510) 622-0770
Design Branch Chief	Hassan Nikzad	Calnet or (510) 622-0767
Design Office Chief (Acting)	Hassan Nikzad	Calnet or (510) 622-0767
Environmental Branch Chief	Cristin Hallissy	Calnet or (510) 622-8717
Environmental Office Chief	Melanie Brent	Calnet or (510) 286-5231
Right-of-way Reviewer	Kristin Schober	Calnet or (510) 286-5327
Designated Maintenance Reviewer	Kim Le	Calnet or (510) 286-4506
Designated Landscape Architect	Bryan Walker	Calnet or (510) 286-4833
District/Regional Storm Water Coordinator	Norman Gonsalvez	Calnet or (510) 286-5930
VTA Project Manager	Darrell Vice	(408) 952-4214
VTA Environmental Manager	Tom Fitzwater	(408) 321-5705
VTA Environmental Reviewer	Ann Calnan	(408) 321-5976
Santa Clara County Roads and Airports	Mike Griffis	(408) 574-2447
San Benito County Public Works	Arman Nazemi	(831) 636-4170
URS Project Manager	Ray Akkawi	(408) 961-8419
URS Project Engineer	Minyoung Kim	(408) 961-8460

SECTION 12 - APPENDICES

Appendix A Project Location Map

Appendix B Build Alternatives

Title Sheet
Typical Cross Sections
Key Index and Layout Sheets
Profiles and Super-elevation Sheets
Bike and Trail Plans

Appendix C Future Direct Connector Study (Not to Preclude)

Appendix D Cost Estimates

Appendix E Right-of-Way Data Sheet

Appendix F TMP Data Sheet

Appendix G Risk Management Plan

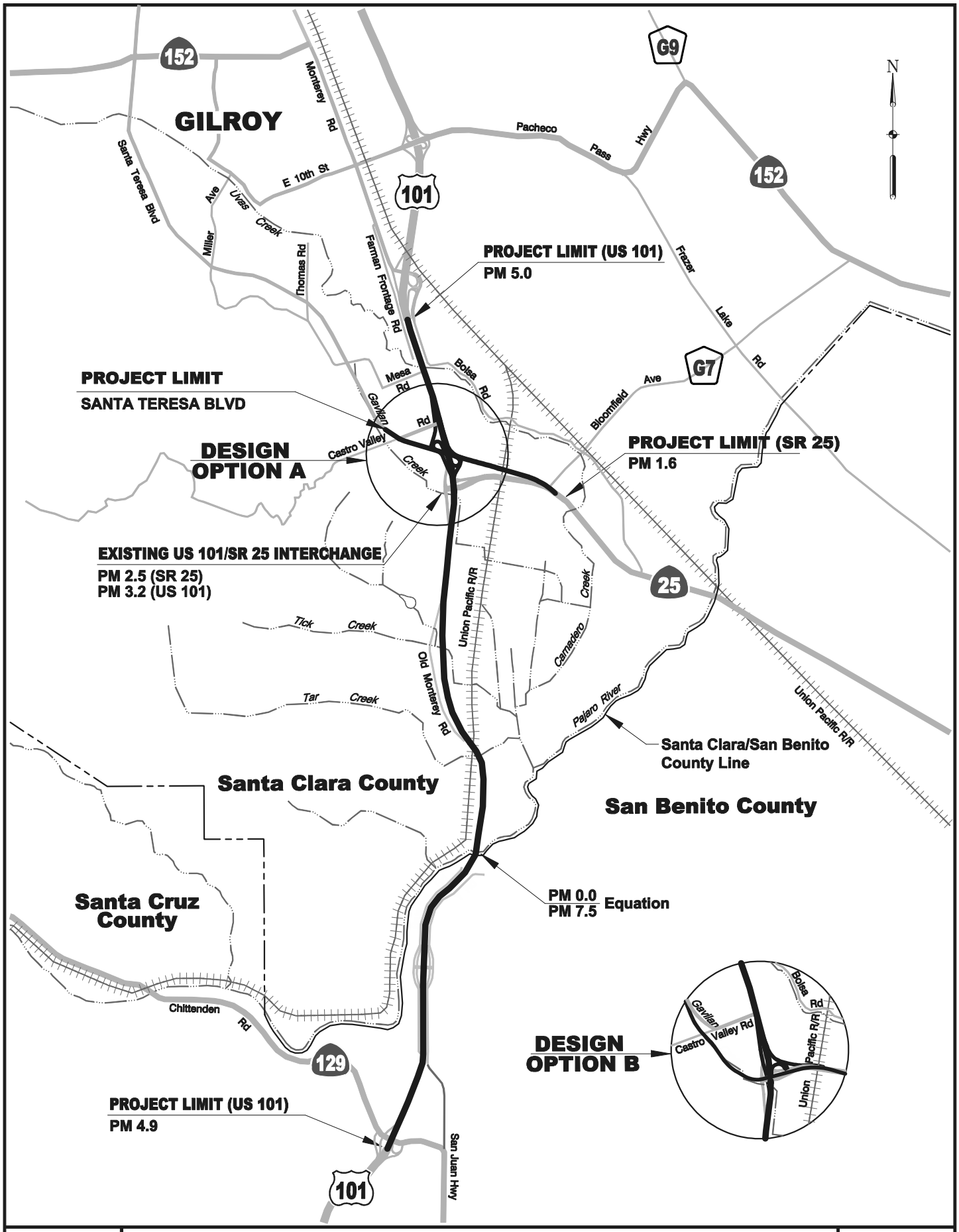
Appendix H Final Environmental Document Board Approval Memo

Appendix I Storm Water Data Report (Signature Page Only)

Appendix J Agencies Coordination Correspondences

Appendix K Cooperative Agreement

Appendix L Pavement Selection Checklist



URS

US 101 WIDENING PROJECT
SR 129 TO MONTEREY ROAD
LOCATION MAP

February, 2009

Figure
-

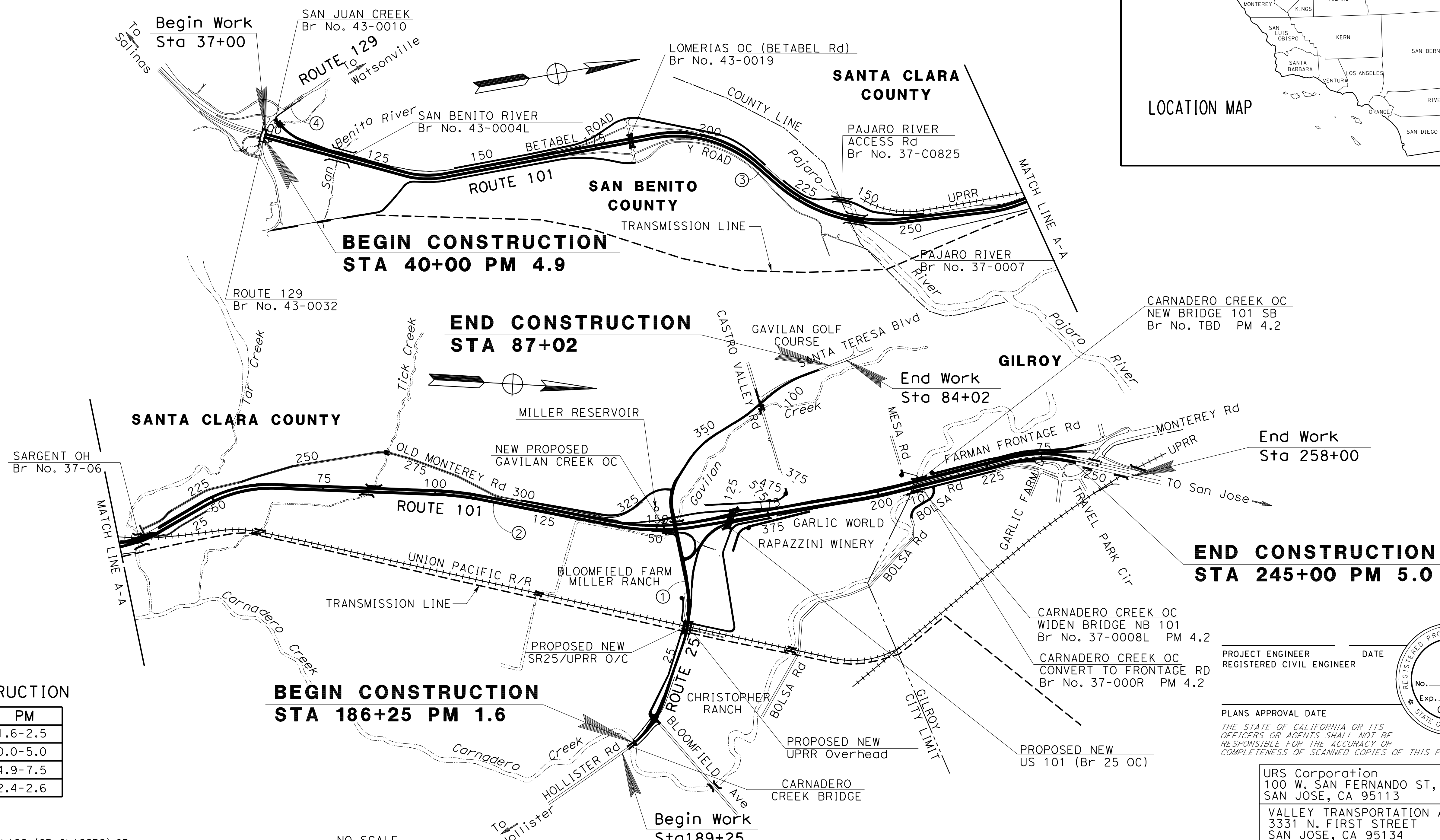
INDEX OF PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SBt,SCl	25,101,129	Var		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SANTA CLARA AND SAN BENITO COUNTIES AT VARIOUS LOCATIONS IN AND NEAR GILROY ON ROUTE 101 FROM 101/129 SEPARATION TO MONTEREY ROAD UNDERCROSSING AND ON ROUTE 25 FROM CARNADERO CREEK BRIDGE TO ROUTE 101/25 SEPARATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



LOCATIONS OF CONSTRUCTION

No	COUNTY	ROUTE	PM
①	SCl	25	1.6-2.5
②	SCl	101	0.0-5.0
③	SBt	101	4.9-7.5
④	SBt	129	2.4-2.6

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO CONTRACTORS."

NO SCALE

APPROVED AS TO IMPACT ON STATE FACILITIES AND CONFORMANCE WITH APPLICABLE STATE STANDARDS AND PRACTICES AND THAT TECHNICAL OVERSIGHT WAS PERFORMED.

DATE SIGNED | LICENSE Exp DATE | REGISTRATION No. | CALTRANS DESIGN OVERSIGHT APPROVAL | CONSULTANT DESIGN ENGINEER

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS Corporation
100 W. SAN FERNANDO ST, SUITE 200
SAN JOSE, CA 95113

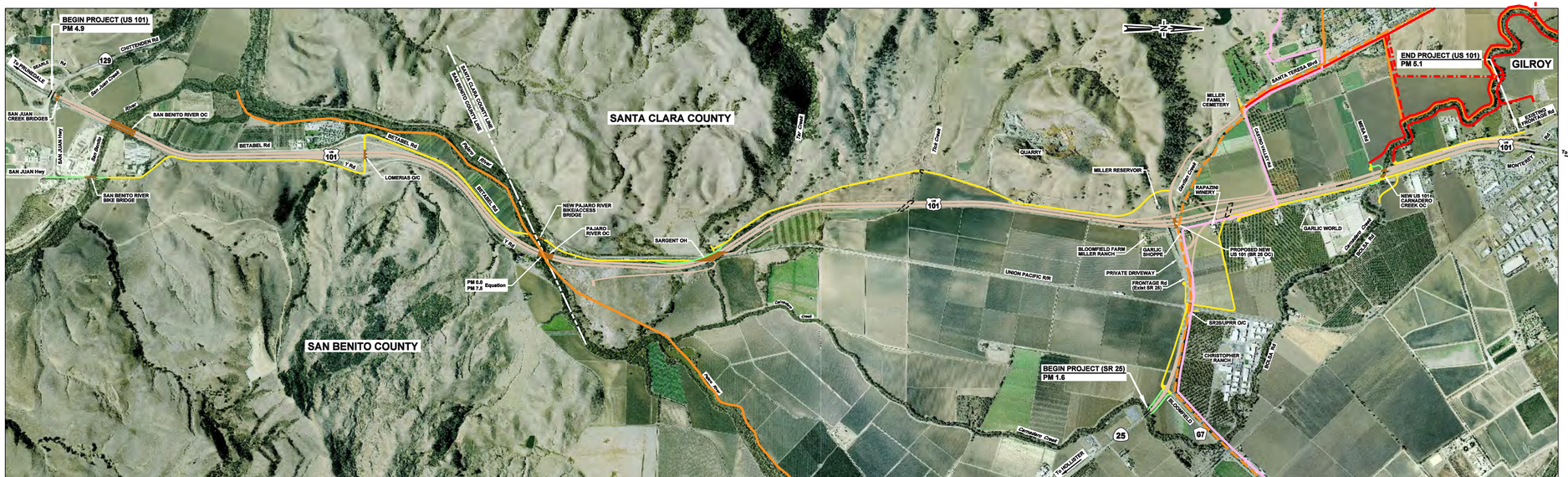
VALLEY TRANSPORTATION AUTHORITY
3331 N. FIRST STREET
SAN JOSE, CA 95134

CONTRACT No.

DATE PLOTTED => 8/8/2013
TIME PLOTTED => 3:50:11 PM
LAST REVISION 00-00-00

LEGEND:

- BUILD ALTERNATIVE
- FRONTAGE/ACCESS ROAD WITH CLASS TWO BIKEPATH
- CLASS ONE BIKEPATH
- BRIDGE STRUCTURE
- SANTA CLARA CO. PROPOSED ON-STREET BICYCLE ROUTE WITHIN ROAD R/W
- SANTA CLARA CO. PROPOSED ON-STREET BICYCLE ROUTE WITH PARALLEL TRAIL
- SANTA CLARA CO. PROPOSED TRAIL ROUTE
- CITY OF GILROY PROPOSED TRAIL ROUTE
- CITY OF GILROY PROPOSED TRAIL ROUTE ALTERNATIVE A
- CITY OF GILROY PROPOSED TRAIL ROUTE ALTERNATIVE B
- CITY OF GILROY PROPOSED TRAIL ROUTE ALTERNATIVE C
- CITY OF GILROY PROPOSED TRAIL BRIDGE
- BAY AREA PROPOSED RIDGE TRAIL ROUTE

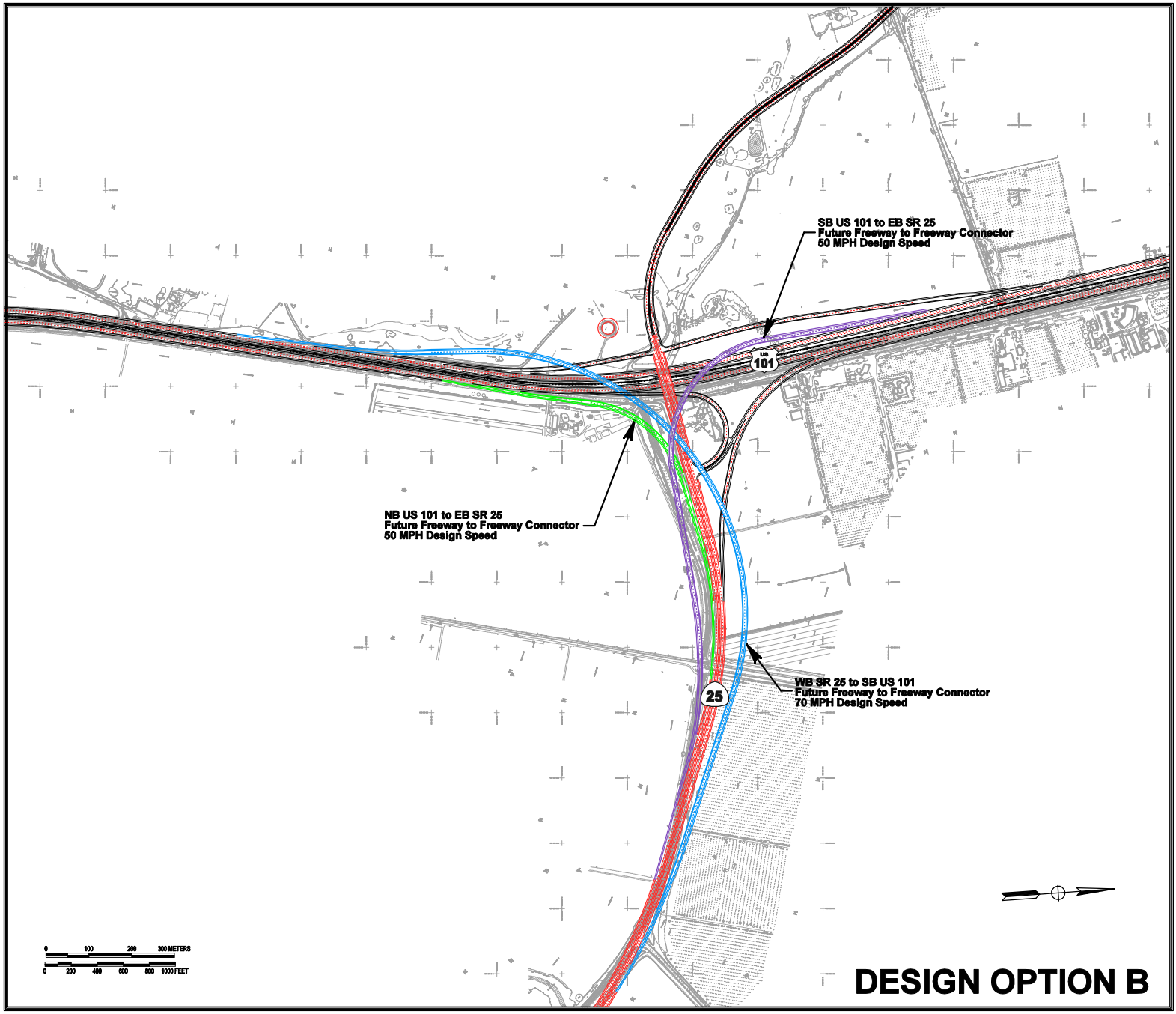


0 750 1500 2250 3000 3750 7500 Ft

URS	US 101-WIDENING (SR129 to Monterey Rd) 04-3A1600 05-SBT-101 - 4.9/7.5 04-SCL-101 - 0.0/5.0 04-SCL-25 - 1.6/2.5	DESIGN OPTION B BIKE AND TRAIL PLANS	Figure 9-2 January 2009

Bike and Trail Plans Alt 2.dgn 1/15/2011 5:52:33 PM

US 101 WIDENING PROJECT
101/25 INTERCHANGE IMPROVEMENTS



DESIGN OPTION B

PRELIMINARY LAYOUT
FOR DISCUSSION PURPOSES ONLY
February 2009

FUTURE CONNECTORS
ULTIMATE SR-25

URS

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
Type of Estimate:	Preliminary
Program Code:	N/A
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

Project Description: **US101 widening/ugrade to a 6-lane freeway, with new US101/SR25 Interchange. Extension of Santa Teresa Boulevard to US101/SR25 Interchange. Auxiliary lanes added on US101 between SR25 and Monterey Road. New grade seperated UPRR crossing on SR25. Improvements at the US101/SR129 Interchange.**

Limits: **US101 in San Benito County from PM 4.9 to 7.5, US129 in San Beniton County from PM 2.4 to 2.6, US101 in Santa Clara County from PM 0.0 to 5.0, and SR25 in Santa Clara County from PM 1.6 to 2.8.**

Proposed Improvements:

- **Widen US 101 to a 6-lane freeway between the Monterey Road interchange in Gilroy to the State Route (SR) 129 interchange in northern San Benito County.**
- **Reconstruct the US 101/SR 25 interchange.**
- **Construct an auxiliary lane in each direction on US 101 between the Monterey and SR 25 interchanges.**
- **Extend Santa Teresa Boulevard approximately 0.5 miles from Castro Valley Road to the new US 101/SR 25 interchange.**
- **Construct improvements at the southbound US 101 off-ramp to SR 129.**
- **Construct frontage roads, as needed, to replace existing access to US 101 from adjacent properties.**
- **Grade-separate the Union Pacific Railroad (UPRR) crossing on SR 25**
- **Construct and improve bicycle facilities when US 101 is upgraded to a freeway.**
- **Construct flood bridges on NB US 101 on-ramp, SB US 101 off-ramp, and SR 25.**

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$	206,500,000.00	
TOTAL STRUCTURE ITEMS	$	132,000,000.00	
SUBTOTAL CONSTRUCTION COSTS	**$**	**338,500,000.00**	
ESCALATION TO 2017	$	21,000,000.00	(1)
TOTAL CONSTRUCTION COSTS	**$**	**359,500,000.00**	
TOTAL RIGHT OF WAY ITEMS	$	44,000,000.00	
TOTAL CAPITAL COST	**$**	**403,500,000.00**	
Project Report and Enviro Doc	$	-	
Design Phase (PS&E)	$	27,500,000.00	(2)
Construction Administration	$	27,500,000.00	(3)
TOTAL SUPPORT COST	**$**	**55,000,000.00**	
TOTAL PROJECT COST	**$**	**458,500,000.00**	

Note 1 - Based on the current escalation rate of 3.00% per year to mid-year of construction.
- Current schedule has construction commencing in 2015 and lasting 3 years.

Note 2 - Design Phase (PS&E) costs are calculated using a 8% non-escalated construction cost.

Note 3 - Construction Administration costs are calculated using a 8% non-escalated construction cost.

Project Engineer:	Minyoung Kim	(408) 297-9585	8/27/2013
	(Print Name)	(Phone)	(Date)
Approved by Project Manager:	Ray Akkawi	(408) 297-9585	8/27/2013
	(Print Name)	(Phone)	(Date)
Approved by VTA Project Manager:	Darrell Vice	(408) 952-4219	8/27/2013
	(Print Name)	(Phone)	(Date)

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Section 1 - Earthwork					
Roadway Excavation	1,020,000	CY	$ 18.00	$ 18,360,000.00	
Duff	1,837,000	CF	$ 0.25	$ 459,000.00	
Imported Borrow	459,000	CY	$ 15.00	$ 6,885,000.00	
Reclaim Soil On-site	2,811,000	SF	$ 0.85	$ 2,389,000.00	
Clearing & Grubbing	390	Ac	$ 8,000.00	$ 3,120,000.00	
Develop Water Supply	1	LS	$ 80,000.00	$ 80,000.00	
Remove Inlet	52	EA	$ 700.00	$ 36,000.00	
Cold Plane ACP	170,000	SY	$ 2.00	$ 340,000.00	
Remove Concrete Barrier	9,520	LF	$ 12.00	$ 114,000.00	
Remove CL Fence	0	LF	$ 5.00	$ -	
Remove MBGR	4,640	LF	$ 10.00	$ 46,000.00	
Remove DTBB	15,330	LF	$ 8.00	$ 123,000.00	
Remove Culvert	1,530	LF	$ 40.00	$ 61,000.00	
Remove R/W Fencing	36,500	LF	$ 4.00	$ 146,000.00	
				Total Earthwork	$ 32,159,000.00
Section 2 - Structural Section					
RHMA-G	105,440	Ton	$ 110.00	$ 11,598,000.00	
HMA (A)	115,590	Ton	$ 100.00	$ 11,559,000.00	
LCB	67,640	CY	$ 110.00	$ 7,440,000.00	
CRCP	19,960	CY	$ 200.00	$ 3,992,000.00	
Class 3 Permeable	3,860	CY	$ 40.00	$ 154,000.00	
Lime Stablized Subgrade	73,978	SY	$ 12.00	$ 888,000.00	
Class 3 Aggregate Base	36,480	CY	$ 60.00	$ 2,189,000.00	
Class 4 Aggregate Subbase	243,700	CY	$ 20.00	$ 4,874,000.00	
SEG (Class B1)	289,857	SY	$ 3.00	$ 870,000.00	
				Total Structural Section	$ 43,564,000.00
Section 3 - Drainage					
RCB - Concrete	1,440	CY	$ 950.00	$ 1,368,000.00	
RCB - Reinforcement	140,000	LB	$ 1.00	$ 140,000.00	
24" APC	3,000	LF	$ 150.00	$ 450,000.00	
30" APC	1,000	LF	$ 200.00	$ 200,000.00	
36" APC	250	LF	$ 250.00	$ 63,000.00	
42" APC	250	LF	$ 300.00	$ 75,000.00	
Inlet	67	EA	$ 3,000.00	$ 201,000.00	
12" RCP	130	LF	$ 130.00	$ 17,000.00	
18" RCP	1,650	LF	$ 230.00	$ 380,000.00	
36" RCP	440	LF	$ 270.00	$ 119,000.00	
40" RCP	0	LF	$ 320.00	$ -	
8" CMP	70	LF	$ 100.00	$ 7,000.00	
18" CMP	1,990	LF	$ 150.00	$ 299,000.00	
24" CMP	130	LF	$ 160.00	$ 21,000.00	
36" CMP	50	LF	$ 190.00	$ 10,000.00	
90" CMP	120	LF	$ 540.00	$ 65,000.00	
				Total Drainage	$ 3,415,000.00

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EA:	04-3A1600

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Section 4 - Specialty Items					
Retaining Walls (MSE)	78,700	SF	$ 125.00	$ 9,838,000.00	
Retaining Walls (Std-minor)	2,425	SF	$ 95.00	$ 230,000.00	
Highway Planting	1	LS	$ 2,500,000.00	$ 2,500,000.00	
Plant Establishment	1	LS	$ 400,000.00	$ 400,000.00	
Chain Link Fence	5,020	LF	$ 15.00	$ 75,000.00	
Construction Site WPC	1	LS	$ 3,000,000.00	$ 3,000,000.00	
Erosion Control	1	LS	$ 3,200,000.00	$ 3,200,000.00	
Treatment BMPs	1	LS	$ 5,225,000.00	$ 5,225,000.00	
Environ. Mitigation	1	LS	$ 18,700,000.00	$ 18,700,000.00	
Time-Related Overhead	1,590	WDAY	$ 1,500.00	$ 2,385,000.00	
Concrete Barriers	6,850	LF	$ 60.00	$ 411,000.00	
Crash Cushion (MBGR)	2	EA	$ 25,000.00	$ 50,000.00	
MBGR	3,360	LF	$ 40.00	$ 134,000.00	
DTBB	18,110	LF	$ 50.00	$ 906,000.00	
ROW Fence	36,900	LF	$ 10.00	$ 369,000.00	
Debris Catchment Fence	2,820	LF	$ 22.00	$ 62,000.00	
Weed Block	60,000	SF	$ 1.00	$ 60,000.00	
Concrete Barrier (Fill Slope)	15,000	LF	$ 20.00	$ 300,000.00	
Crash Cushion (Stage Const)	10	EA	$ 40,000.00	$ 400,000.00	
Temporary Pavement	187,400	SF	$ 15.00	$ 2,811,000.00	
Temporary Wall	8,750	SF	$ 50.00	$ 438,000.00	
SWPPP	1	LS	$ 4,300,000.00	$ 4,300,000.00	
				Total Specialty Items	$ 55,794,000.00
Section 5 - Traffic Items					
Lighting (new & relocate)	1	LS	$ 1,000,000.00	$ 1,000,000.00	
Roadside Sign	850	EA	$ 350.00	$ 298,000.00	
Overhead Sign	7	EA	$ 180,000.00	$ 1,260,000.00	
CMS (relocate)	2	EA	$ 200,000.00	$ 400,000.00	
Traffic Control System	1,390	WDAY	$ 2,000.00	$ 2,780,000.00	
Ground Mounted Signs	1	LS	$ 300,000.00	$ 300,000.00	
Construction Area Signs	1	LS	$ 40,000.00	$ 40,000.00	
Portable CMS	1	LS	$ 400,000.00	$ 400,000.00	
Temporary Railing (Type K)	93,900	LF	$ 15.00	$ 1,409,000.00	
Striping	400,000	LF	$ 0.75	$ 300,000.00	
TOS - Ramp Metering	2	EA	$ 100,000.00	$ 200,000.00	
Traffic Count Stations	4	EA	$ 150,000.00	$ 600,000.00	
Traffic Signal	1	EA	$ 300,000.00	$ 300,000.00	
				Total Traffic Items	$ 9,287,000.00
				SUBTOTAL SECTIONS 1 - 5:	$ 144,219,000.00

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

					Unit Cost	Section Cost
Section 6 - Minor Items						
Subtotal Sections 1 - 5	$ 144,219,000.00	X	5%		$ 7,210,000.00	
					TOTAL MINOR ITEMS:	$ 7,210,000.00
Section 7 - Roadway Mobilization						
Subtotal Sections 1 - 6	$ 151,429,000.00	X	10%		$ 15,220,000.00	
					TOTAL ROADWAY MOBILIZATION	$ 15,220,000.00
Section 8 - Roadway Additions						
Subtotal Sections 1 - 6	$ 151,429,000.00	X	5%		$ 7,610,000.00	
Contingencies						
Subtotal Sections 1 - 6	$ 151,429,000.00	X	20%		$ 30,441,000.00	
					TOTAL ROADWAY ADDITIONS	$ 38,051,000.00
					TOTAL ROADWAY ITEMS (Total of Sections 1 - 8)	$ 204,700,000.00
Section 9 - Supplemental Work						
Maintain Traffic	1	LS	$	400,000.00		$ 400,000.00
					TOTAL SUPPLEMENTAL WORK	$ 400,000.00
Section 10 - State Furnished						
CHP Enhanced Enforcement (COZEEP)	1	LS	$	1,025,000.00		$ 1,030,000.00
Resident Engineers Office	1	LS	$	320,000.00		$ 320,000.00
TMP - Public Awareness	1	LS	$	50,000.00		$ 50,000.00
					TOTAL STATE FURNISHED	$ 1,400,000.00
					TOTAL ROADWAY ITEMS (Total of Sections 1 - 10)	$ 206,500,000.00

Estimate Prepared By:	Minyoung Kim	(408) 297-9585	8/9/2013
	(Print Name)	(Phone)	(Date)

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

II. STRUCTURES	#1	#2	#3	#4	#5
Bridge Name	Carnadero Creek - US101 NB	Carnadero Creek - US101 SB	UPRR[1]	SR25 O.C. US101	Carnadero Creek - East Frontage Rd
Structure Type	CIP/RC Slab	CIP/RC Slab	CIP/RC Slab	CIP/RC Slab	CIP/RC Slab
Width (Ft) - New Construct.		70.83	62.33	86.83	
Width (Ft) - Widening	36.67				
Width (Ft) - Retrofit					37.17
Span Lengths (Ft)	141.06	122.00	310.00	308.00	140.00
Total New Construct. Area (SF)	0	8,641	19,322	26,744	0
Total Widening Area (SF)	5,173	0	0	0	0
Total Retrofit Area (SF)	0	0	0	0	5,204
Footing Type (pile/spread)	Pile	Pile	Pile	Pile	
Cost per SF New Construct.	$ -	$ 710.00	$ 300.00	$ 255.00	$ -
Cost per SF Widening	$ 715.00	$ -			$ -
Cost per SF Retrofit		$ -			$ 170.00
Cost for New Construction	$ -	$ 6,135,300.00	$ 5,796,700.00	$ 6,819,600.00	$ -
Cost for Widening	$ 3,698,500.00	$ -		$ -	$ -
Cost for Retrofit	$ -	$ -		$ -	$ 884,600.00
Subtotal Cost for Structures	$ 3,698,500.00	$ 6,135,300.00	$ 5,796,700.00	$ 6,819,600.00	$ 884,600.00
10%	$ 392,400.00	$ 651,000.00	$ 615,000.00	$ 723,600.00	$ 93,900.00
25%	$ 981,000.00	$ 1,627,400.00	$ 1,537,600.00	$ 1,808,800.00	$ 234,600.00
Railroad Related Costs	$ -	$ -	$ -	$ -	$ -
Total Structure Cost	$ 5,071,900.00	$ 8,413,700.00	$ 7,949,300.00	$ 9,352,000.00	$ 1,213,100.00

Structures Page Subtotal $ 32,000,000.00

Note 1: UPRR length increased by 30' to allow for frontage road west of UPRR instead of APS cost based bike lane.

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

II. STRUCTURES (cont.)	#6	#7	#8	#9	#10
Bridge Name	Existing SR25 O.C. US101 Removal	Existing US101 SB Off-ramp to SR25 Removal	San Benito River - US101 NB	San Benito River - US101 SB	San Benito River - Bike
Structure Type	CIP/RC Slab	CIP/RC Slab	CIP/T&I Beam	CIP/T&I Beam	CIP/PS Box
Width (Ft) - Removal	43.50	27.50			16.83
Width (Ft) - Widening			32.08	38.48	
Width (Ft) - Retrofit			10.00	10.00	
Span Lengths (Ft)	212.00	545.00	721.75	709.58	300.00
Total New Construct. Area (SF)	11,250	12,800	0	0	5,049
Total Widening Area (SF)	0	0	23,154	27,305	0
Total Retrofit Area (SF)	0	0	7,218	7,096	0
Footing Type (pile/spread)	N/A	N/A	Driven Pile	Driven Pile	CIDH
Cost per SF Removal	$ 14.00	$ 24.00	$ -	$ -	$ 231.30
Cost per SF Widening			$ 241.71	$ 256.44	
Cost per SF Retrofit			$ 90.06	$ 84.56	$ -
Cost for New Construction	$ 157,500.00	$ 307,200.00	$ -	$ -	$ 1,167,800.00
Cost for Widening			$ 5,596,500.00	$ 7,002,000.00	$ -
Cost for Retrofit			$ 650,000.00	$ 600,000.00	$ -
Subtotal Cost for Structures	$ 157,500.00	$ 307,200.00	$ 6,246,500.00	$ 7,602,000.00	$ 1,167,800.00
Cost of 10% Mobilization	$ 16,000.00	$ 31,300.00	$ 636,300.00	$ 774,300.00	$ 118,900.00
Cost of 25% Contingency	$ 40,100.00	$ 78,200.00	$ 1,590,600.00	$ 1,935,900.00	$ 297,400.00
Railroad Related Costs	$ -	$ -	$ -	$ -	$ -
Total Structure Cost	$ 213,600.00	$ 416,700.00	$ 8,473,400.00	$ 10,312,200.00	$ 1,584,100.00

Structures Page Subtotal $ 21,000,000.00

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

II. STRUCTURES	#11	#12	#13	#14	#15
Bridge Name	Lomerias O.C. US101	Tar Creek - PGE Access Rd	San Juan Creek	Pajaro River - US101 NB&SB	Pajaro River - Bike/Access
Structure Type	PC I-Girder	CIP/RC Slab	CIP/RC T-Beam	CIP/PC Box Girder	CIP/PS Box
Width (Ft) - New Construct.		18.83		140.83	42.83
Width (Ft) - Widening	11.92		16.50		
Width (Ft) - Retrofit			20.00		
Span Lengths (Ft)	215.00	40.00	80.00	381.00	360.00
Total New Construct. Area (SF)	0	753	0	53,656	15,419
Total Widening Area (SF)	2,563	0	1,320	0	0
Total Retrofit Area (SF)	0	0	1,600	0	0
Footing Type (pile/spread)	CIDH	CIDH	CIDH	Driven Pile	CIDH
Cost per SF New Construct.	$ -	$ 341.75	$ -	$ 230.74	$ 166.18
Cost per SF Widening	$ 316.52	$ -	$ 443.79	$ -	$ -
Cost per SF Retrofit	$ -	$ -	$ 62.50	$ -	$ -
Cost for New Construction	$ -	$ 257,400.00	$ -	$ 12,380,600.00	$ 2,562,300.00
Cost for Widening	$ 811,200.00	$ -	$ 585,800.00	$ -	$ -
Cost for Retrofit	$ -	$ -	$ 100,000.00	$ -	$ -
Subtotal Cost for Structures	$ 811,200.00	$ 257,400.00	$ 685,800.00	$ 12,380,600.00	$ 2,562,300.00
Cost of 10% Mobilization	$ 87,500.00	$ 27,800.00	$ 74,000.00	$ 1,335,200.00	$ 276,300.00
Cost of 25% Contingency	$ 218,700.00	$ 69,400.00	$ 184,900.00	$ 3,338,100.00	$ 690,800.00
Railroad Related Costs	$ -	$ -	$ -	$ -	$ -
Total Structure Cost	$ 1,117,400.00	$ 354,600.00	$ 944,700.00	$ 17,053,900.00	$ 3,529,400.00

Structures Page Subtotal $ 23,000,000.00

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

DIST - CO - RTE:	05-SBT-101, 05-SBT-129, 04-SCL-101, 04-SCL-25
PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

II. STRUCTURES (cont.)	#16	#17	#18	#19	#20
Bridge Name	Sargent OH - US101 SB&NB	Pajaro River Bridge Removal	Sargent OH Bridge Removal	Flood Bridge On-Ramp	Flood Bridge Off-Ramp
Structure Type	CIP/PC Box&I-Grdr	Steel Plate Girder	CIP/PS Box	CIP/RC Slab	CIP/RC Slab
Width (Ft) - New Construct.				38.83	38.83
Width (Ft) - Widening	112.92	60.00	34.00		
Width (Ft) - Retrofit	50.00				
Span Lengths (Ft)	616.42	340.00	606.67	400.00	176.00
Total New Construct. Area (SF)	0	0	0	15,532	6,834
Total Widening Area (SF)	69,606	20,400	20,627	0	0
Total Retrofit Area (SF)	30,821	0	0	0	0
Footing Type (pile/spread)	CIDH	CIDH	CIDH	Pile	Pile
Cost per SF New Construct.	$ -	$ -	$ -	$ 240.00	$ 165.00
Cost per SF Widening	$ 228.51	$ 21.18	$ 25.31		
Cost per SF Retrofit	$ 16.23	$ -	$ -		
Cost for New Construction	$ -	$ -	$ -	$ 3,727,700.00	$ 1,127,600.00
Cost for Widening	$ 15,905,700.00	$ 432,100.00	$ 522,100.00	$ -	$ -
Cost for Retrofit	$ 500,200.00	$ -	$ -	$ -	$ -
Subtotal Cost for Structures	$ 16,405,900.00	$ 432,100.00	$ 522,100.00	$ 3,727,700.00	$ 1,127,600.00
Cost of 10% Mobilization	$ 1,642,500.00	$ 43,300.00	$ 52,300.00	$ 373,200.00	$ 112,900.00
Cost of 25% Contingency	$ 4,106,300.00	$ 108,200.00	$ 130,700.00	$ 933,000.00	$ 282,200.00
Railroad Related Costs	$ -	$ -	$ -	$ -	$ -
Total Structure Cost	$ 22,154,700.00	$ 583,600.00	$ 705,100.00	$ 5,033,900.00	$ 1,522,700.00

Structures Page Subtotal $ 30,000,000.00

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

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PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

II. STRUCTURES (cont.) #21

Bridge Name	SR25 Flood Bridge
Structure Type	CIP/RC Slab
Width (Ft) - New Construct.	86.00
Width (Ft) - Widening	
Width (Ft) - Retrofit	
Span Lengths (Ft)	400.00
Total New Construct. Area (SF)	34,400
Total Widening Area (SF)	0
Total Retrofit Area (SF)	0
Footing Type (pile/spread)	Pile
Cost per SF New Construct.	$ 230.00
Cost per SF Widening	
Cost per SF Retrofit	
Cost for New Construction	$ 7,912,000.00
Cost for Widening	$ -
Cost for Retrofit	$ -
Subtotal Cost for Structures	$ 7,912,000.00
Cost of 10% Mobilization	$ 882,300.00
Cost of 25% Contingency	$ 2,205,700.00
Railroad Related Costs	$ -
Total Structure Cost	$ 11,000,000.00

Structures Page Subtotal **$ 11,000,000.00**

Specialty:
Overflow Culvert 101 $ 15,000,000.00

Specialty Subtotal **$ 15,000,000.00**

Total Structures **$ 132,000,000.00**

Estimate Prepared By: Minyoung Kim (408) 297-9585 (Phone) 3/20/2013 (Date)

US101 - Gilroy Widening Project Option B (Monterey St to SR 129)

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PM:	PM 0.0/5.0, PM 4.9/7.5, PM 1.3/2.6, PM 2.4/2.6
EA:	04-3A1600

III. RIGHT OF WAY ITEMS

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility reloctaion occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr) *	Escalated Value
Acquisition, including excess lands and damages to remainders	$ 16,970,739.70	5.00%	$ 19,361,930.00
Easement (Utility and Aerial)	$ 403,971.16	5.00%	$ 460,890.00
Utility Relocation	$ 17,895,325.00	5.00%	$ 19,960,410.00
Relocation Assistance Program (RAP)	$ 855,000.00	5.00%	$ 975,470.00
Clearance (Demolition)	$ 300,000.00	5.00%	$ 342,270.00
UPRR Service Contract	$ 20,000.00	5.00%	$ 22,820.00
R/W Support - Property Owner Appraisals	$ 338,000.00	5.00%	$ 385,620.00
R/W Support - Title and Escrow Fees	$ 433,000.00	5.00%	$ 494,010.00
R/W Support - R/W Engineering	$ 664,000.00	5.00%	$ 757,560.00
R/W Support - Legal Expense	$ 590,000.00	5.00%	$ 673,130.00
R/W Support - Acquisition/Relocation Agent	$ 496,000.00	5.00%	$ 565,890.00
TOTAL RIGHT OF WAY	$ 38,966,035.86		$ 44,000,000.00

* - Based on the current escalation rate per year

Estimate Prepared By:	Minyoung Kim	(408) 297-9585	8/29/2013
	(Print Name)	(Phone)	(Date)

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

Date: **March 21, 2013**

EA 04-3A1600
Co. Santa Clara Rte. 101 PM 0.0/5.0
Co. San Benito Rte. 101 PM 4.9/7.5
Co. Santa Clara Rte. 25 PM 1.6/2.5
Co. San Benito Rte. 129 PM 2.4/2.6
Expense Authorization

Attention: District Branch Chief
Local Public Agency Services

Subject: **RIGHT OF WAY DATA SHEET- LOCAL PUBLIC AGENCY SERVICES (DESIGN OPTION B)**

Project Description:

Right of way necessary for the subject project will be the responsibility of Santa Clara Valley Transportation Authority (VTA).

The information in this data sheet was developed by URS Corporation .

I. *Right of Way Engineering*

Will right of way engineering be required for this project?

- No
- Yes X

  - Hard copy (base map)
  - Appraisal map
  - Acquisition Documents
  - Property Transfer Documents
  - R/W Record Map
  - Record of Survey

II. *Engineering Surveys*

1. Is any surveying or photogrammetric mapping required?

   No _____ Yes X (Complete the following)

2. Datum Requirements

   Yes X The project will adhere to the following criteria.
   - Horizontal datum - policy is CCS 83, CA-HPGN, TBD, and imperial units
   - Vertical datum - policy is NAVD 88
   - Units - imperial is required

   No _____ Provide an explanation on additional page.

3. Will land survey monument perpetuation be scoped into the project, if required?

   Yes X

   No _____ Provide explanation on additional page.

III. ***Parcel Information (Land and Improvements)***

Are there any property rights required within the proposed project limits?

No _____ Yes ___X___ (Complete the following)

	Part Take	Full Take	Estimate $
A. Number of Vacant Land Parcels	2		$ 4,569.95
B. Number of Single Family Residential Units	13	1	$ 10,514,306.80
C. Number of Multi-Family Residential Units	0		$ 0.00
D. Number of Commercial/Industrial Parcels	9	1	$ 1,383,566.10
E. Number of Farm/Agricultural Parcels	24	1	$ 4,090,399.24
F. Other Parcels (define in "Remarks" section)	2		$ 4,034.45
G. Aerial Easements (Above Railroad Facilities)	2		$ 360,676.80
H. Permanent Utilities Easements	5		$ 43,240.36
I. Private Water Wells (Cost to cure)	15		$ 430,000.00
J. Access Control Closure	19	3	$ 140,000.00
Totals	91	6	$ 17,374,710.86

Provide a general description of the right of way and excess lands required (zoning, use, improvements, critical, or sensitive parcels, etc.).

The project will require right of way acquisitions from a number of residential, agricultural, commercial, and open space properties as shown above. Improvements on the residential properties consists of single family houses and farm workers cottages. The majority of the commercial properties impacted by the project have an agricultural/farm-related business such as crops sales kiosks and smaller grocery shops, with exception of two properties. The properties include a winery and wedding facility that will remain in place but will have the existing access off US 101 relocated.
Two aerial easements will be required for the new UPRR grade separation at SR 25 and the widening of the existing Sargent Bridge across UPRR tracks.

IV. ***Dedications***

Are there any property rights that have been acquired, or anticipate will be acquired, through the "dedication" process for the Project?

No __X__ Yes _____ (Complete the following)

Number of dedicated parcels
Have the dedication parcel(s) been accepted by the municipality involved ?

V. ***Excess Lands / Relinquishments***

Are there Caltrans property rights which may become excess lands or potential relinquishment areas?

No _____ Yes ___X___ (Provide an explanation on additional page.)

Freeway agreement would need to be updated to reflect the selected alternative geometry; primarily the westerly shift of U.S. 101 and the relinquishing of the existing northbound lanes between SR 25 and Monterey Street. A new freeway agreement would be needed with San Benito County as part of the expressway-to-freeway upgrade. These agreements would provide for the relinquishment of the local roads and bicycle facilities that are constructed as part of the project.

VI. ***Relocation Information***

Are relocation displacements anticipated?

No _____ Yes __X__ (Complete the following)

A. Number of Single Family Residential Units	3	
Estimated RAP Payments		$ 230,000
B. Number of Multi-Family Residential Units	0	
Estimated RAP Payments		$
C. Number of Business/Nonprofit	5	
Estimated RAP Payments		$ 625,000
D. Number of Farms	0	
Estimated RAP Payments		$
E. Other (define in the "Remarks" section)	0	
Estimated RAP Payments		
Totals	8	$ 855,000

VII. ***Utility Relocation Information***

Anticipate any utility facilities or utility rights of way to be affected?

No _____ Yes __X__ (Complete the following)

		Estimated Relocation Expense		
Facility	Owner	Sponsor Obligation	Utility Owner Obligation	Total Cost
A. Relocate 4" Gas Line	PG&E	$626,310	$626,310	$1,252,620
B. Relocate 10" Gas Line	PG&E	$150,000	$	$150,000
C. Relocate Copper Line	AT&T	$82,000	$	$82,000
D. Relocate Fiberoptic Line	AT&T	$108,900	$108,900	$217,800
E. Relocate Fiberoptic Line	Level 3	$152,000	$	$152,000
F. Relocate Fiberoptic Line	Sprint/Verizon	$194,000	$	$194,000
G. Relocate 12kV Poles	PG&E	$450,000	$450,000	$900,000
H. New 12kV Poles	PG&E	$75,000	$	$75,000
I. Relocate Cable Poles	AT&T	$81,000	$81,000	$162,000
J. Relocate Telecommunications	Verizon	$1,657,050	$36,300	$1,693,350
K. New 115kV Poles	PG&E	$500,000	$	$500,000
Total Number of facilities (With 25% Contingency)		$5,095,325 *	$1,628138	$6,723,463

*This amount reflects the estimated total financial obligation by the Sponsor.

Additional information concerning utility involvement on this project?

VIII. ***Rail Information***

Are railroad facilities or railroad rights of way affected?

No _____ Yes __X__ (Complete the following)

Describe railroad facilities or railroad rights of way affected.

Owner's Name	Transverse Crossing	Longitudinal Encroachment
A. **Union Pacific Railroad**	**1**	**1**
B.		

Discuss types of agreements and rights required from the railroads. Are grade crossings requiring services contracts, or grade separations requiring construction and maintenance agreements involved?

A service contract will be needed to obtain UPRR approval of the new grade separation across SR 25 and the modifications to the crossing across US 101 at Sargent Overhead Bridge. The service cost for the preliminary plan review and approval runs is $20,000. Once the plans are approved, a construction and maintenance agreement between Caltrans and UPRR will be executed to address these two UPRR crossings.

IX. ***Clearance Information***

Are there improvements that require clearance? **

No _____ Yes __X__ (Complete the following)

A. Number of Structures to be demolished ____1____ $ 300,000
Estimated Cost of Demolition (Billboard)

X. ***Hazardous Materials/Waste***

Are there any site(s) and/or improvements(s) in the Project Limits that are known to contain

hazardous materials? None _____ Yes __X__ (Explain in the "Remarks" section)

Are there any site(s) and/or improvement(s) in the Project Limits that are suspected to contain

hazardous waste? None _____ Yes __X__ (Explain in the "Remarks" section)

XI. ***Project Scheduling***

	Proposed lead time	Completion date
* Preliminary Engineering, Surveys	3 months	09/2013
* R/W Engineering Submittals	3 months	12/2013
* R/W Appraisals/Acquisition	18 months	06/2015
Proposed Environmental Clearance		06/2013
Proposed R/W Certification		06/2015

XII. ***Proposed Funding***

	TBD	Local	State	Federal	Other
Acquisition / Easement	$17,374,710.86				
Utilities	$ 5,095,325.00				
Relocation Assistance Program / Clearance	$ 1,155,000.00				
UPRR Service Contract	$ 20,000.00				
R/W Support (Appraisals and R/W Services)	$ 2,521,000.00				
Total	$26,165,981.86				

*Right of way costs will increase 5% each year for the next three years.
Therefore, $29,500,000 is used in the cost estimate.

XIII. ***Remarks***

Based on initial site investigation, hazardous materials have been historically found within the corridor and adjacent to corridor. Soil and groundwater sampling will be conducted during the PS&E phase.

Project Sponsor Consultant

Prepared by:

Chadi Chazbek
Project Manager
URS Corporation

3/21/13
Date

Project Sponsor

Reviewed and Approved by:

Darrell Vice
Project Manager
Santa Clara VTA

3/21/13
Date

R/W Professional (ie: qualified consultant or agency)

Reviewed and Approved by:

Bijal Patel
Deputy Director, Property Development& Management
Santa Clara VTA

3/21/13
Date

Caltrans
Reviewed and approved based on information provided to date:

Caltrans District Branch Chief

3/21/13
Date

Local Public Agency Services

Division of Right of Way

Rev8/98 pgk

State of California **Business, Transportation and Housing Agency**

Memorandum

To: Project File **Date: November 3, 2010**

From: Chadi Chazbek, PE
URS Corporation
100 W San Fernando St, Suite 200
San Jose, CA 95113

Subject: REQUEST FOR TRANSPORTATION MANAGEMENT PLAN DATA SHEET

Project Data

PROJECT MANAGER:	Chadi Chazbek (URS)/Nick Saleh (CT)
PROJECT ENGINEER:	Abhijeet Bhoi (URS)/Tung Ly(CT)
DIST-EA: 04-3A1600	PROGRAM (HB1, HE11, etc.): N/A
PROJECT COMMON NAME: US 101 Widening Project: Monterey Rd to SR 129	
CO-RTE-PM (KP): 04-SCl-101-PM 0.0/5.0 , 05-SBt-101-PM 4.9/7.5, 04-SCl-25-PM 1.3/2.6, 05-SBt-129-2.4/2.6	
LEGAL DESCRIPTION:	
DETAILED WORK DESCRIPTION: Widen the existing 4-lane expressway in Santa Clara County and freeway in San Benito County and upgrade US State Route (US) 101 to a 6-lane freeway facility from State Route (SR) 129 in San Benito County to Monterey Street in Santa Clara County including construction of a new US 101/SR 25 Interchange that connects to SR 25 and Santa Teresa Boulevard.	
CONSTRUCTION COST ESTIMATE: Construction Capital Construction Support Total	 $414M - $418M $56M - $57M $470M - $475M
PROJECT PHASE: PSR ☐ PR ☑ PS&E ☐ %	

Traffic Impact Description

A) The Project includes the following:
(Check applicable type of facility closures)

- ☑ Highway or freeway lanes
- ☑ Highway or freeway shoulders
- ☐ Freeway connectors
- ☑ Freeway off-ramps
- ☑ Freeway on-ramps
- ☑ Local streets

B) Major operations requiring traffic control and working days for each

Operation	# of working days
☑ Clearing and grubbing	20
☑ Existing feature removal	20
☑ Excavation of embankments construction	120
☑ Structural section construction	120
☑ Drainage feature construction	90
☑ Structures construction	180
☑ MBGR/Barrier construction	30
☑ Striping	30
☑ Electrical component construction	60
☑ Other	5
Total days requiring traffic control	675

C. Project staging description and # of working days required per stage:

Stage Description	# of working days per stage
Stage 1: Ramp improvements at SR-25 and Monterey St. New SB mainline lanes, frontage roads, new SR-25 overcrossing and UPRR Bridge (option A), widening of Lomerias OC, Pajaro Access Rd Bridge, Carnadero Creek OC, and flood bridges.	320
Stage 2: Remaining ramp improvements at SR-25 and SR-129. Remaining mainline widening, new SR-25 overcrossing and UPRR Bridge (Option B), widening of San Benito River OC, Pajaro River OC, Sargent OH, San Juan Creek OC, and flood bridges.	320
Stage 3: Overlay, remove the temporary ramps and pavement.	70

D. Have you considered any construction strategies that can restore existing number of lanes?

☑ Temporary Roadway Widening
Structure Involvement?
Yes _____ No ✓ if "yes", notify Project Manager
☑ Lane Restriping (Temporary narrow lane widths)
☑ Roadway Realignment (Detour around work area)
☑ Median and/or Right Shoulder Utilization
☐ Use of HOV lane as a Temporary Mixed Flow Lane
☑ Staging alternatives (Explain below)

Attachments

- Title Sheet
- Typical Cross Section
- Layouts
- Back up calculations for Section B

Abhijeet Bhoi (URS)	(408) 297-9585
Tung Ly (CT)	(510) 622-0770
Project Design Engineer	Contact Phone Number
Chadi Chazbek (URS)	(408) 297-9585
Nick Saleh (CT)	(510) 286-6355
Senior Engineer	Contact Phone Number

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

Co/Rte/PM: 04-SCl-101-PM 0.0/5.0, 05-SBt-101-PM 4.9/7.5, 04-SCl-25-PM 1.3/2.6, 05-SBt-129-2.4/2.6 EA 04-3A1600 Project Manager Chadi Chazbek

Project Limit: On Rte. 101 between Rte 129 and Monterey Rd.

Project Description: Widen Rte.101 from 4 lanes to 6 lanes and construct new US 101/SR 25 Interchange.

1) Public Information

☒	a. Brochures and Mailers	$ 10,000
☒	b. Press Release	$ 10,000
☐	c. Paid Advertising	$
☒	d. Public Information Center/Kiosk	$ 10,000
☐	e. Public Meeting/Speakers Bureau	
☐	f. Telephone Hotline	
☐	g. Internet, E-mail	
☒	h. Notification to impacted groups (i.e. bicycle users, pedestrians with disabilities, others)	$ 20,000
☐	i. Others _____ **TOTAL**	**$ 50,000**

2) Traveler Information Strategies

☐	a. Changeable Message Signs (Fixed)	$
☒	b. Changeable Message Signs (Portable)	$ 400,000
☒	c. Ground Mounted Signs	$ 300,000
☐	d. Highway Advisory Radio	$
☐	e. Caltrans Highway Information Network (CHIN)	
☐	f. Detour maps (i.e. bicycle, vehicle, pedestrian...etc)	
☐	g. Revised Transit Schedules/maps	
☐	h. Bicycle community information	
☐	i. Others	
	_____ **TOTAL**	**$ 700,000**

3) Incident Management

☒	a. Construction Zone Enhanced Enforcement Program (COZEEP)	$ 1,000,000
☒	b. Freeway Service Patrol	$ 25,000
☒	c. Traffic Management Team	
☐	d. Helicopter Surveillance	$
☐	e. Traffic Surveillance Stations (Loop Detector and CCTV)	$
☐	f. Others _____ **TOTAL**	**$ 1,025,000**

TMP Data Sheet (cont.)

4) Construction Strategies

☒	a. Lane Closure Chart	$
☒	b. Reversible Lanes	$
☒	c. Total Facility Closure	$
☒	d. Contra Flow	$
☒	e. Truck Traffic Restrictions	$
☐	f. Reduced Speed Zone	$
☒	g. Connector and Ramp Closures	$
☒	h. Incentive and Disincentive	$
☐	i. Moveable Barrier	$
☒	j. Others Construction Area Signs	$ 40,000
☐		**TOTAL** **$ 40,000**

5) Demand Management

☐	a. HOV Lanes/Ramps (New or Convert)	$
☐	b. Park and Ride Lots	$
☐	c. Rideshare Incentives	$
☐	d. Variable Work Hours	
☐	e. Telecommute	
☐	f. Ramp Metering (Temporary Installation)	$
☐	g. Ramp Metering (Modify Existing)	$
☐	h. Others	$

6) Alternate Route Strategies

☐	a. Add Capacity to Freeway Connector	$
☐	b. Street Improvement (widening, traffic signal... etc)	$
☒	c. Traffic Control Officers	$
☒	d. Parking Restrictions	
☐	e. Others	$

7) Other Strategies

☐	a. Application of New Technology	$
☐	e. Others	$

TOTAL ESTIMATED COST OF TMP ELEMENTS = $1,815,000

*Please note that any change in project scope, schedule, or cost will require resubmittal of TMP Data Sheet request.

PREPARED BY Chadi Chazbek (URS) / Nick Saleh (CT) DATE 11-03-10

APPROVAL RECOMMENDED BY Ashween Shah (CT) DATE 11-03-10

Project Risk Register
PA / ED Phase

DIST- EA 04-3A1600	Project Name: US 101 WIDENING - SR 129 to Monterey Road	Project Manager: Chadi Chazbek		Date Created: 02/05/07	Last Updated: 03/12/09
	Co - Rte - PM: Sbt/Scl-101-4.9/5.0	Telephone: (408) 297-6962			

ITEM	ID #	Status	Threat / Opport-unity	Category	Date Risk Identified	Risk Discription	Root Causes	Primary Objective	Overall Risk Rating	Cost/Time Impact Value	Risk Owner	Risk Trigger	Strategy	Response Actions w/ Pros & Cons	Adjusted Cost/Time Impact Value	WBS Item	Status Date and Review Comments
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1	04-3A1600-01	Active	**Threat**	ENV	11/01/05	TMDL (Total Maximum Daily Load) Standards change.	New standards could result in a revised scope of work, cost changes and project delays. Revised scope could require additional environmental work that could impact the schedule. The changes could be positive or negative.	TIME	Probablility 1=Very Low (1-9%) **Low** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Work with Central Coast RWQCB to monitor TMDL standards. If TMDL standards change, provide additional BMP's to minimize project impacts.			
2	04-3A1600-02	Active	**Threat**	DESIGN Roadway	09/01/05	Hazardous Material encountered.	The project will involve soil disturbance along the existing highway and within agricultural areas. If Hazardous Materials are encountered project costs could increase.	COST	Probablility 1=Very Low (1-9%) **Low** Impact 2 =Low		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	A Preliminary Site Investigation (PSI) will be conducted during the environmental phase. If the PSI finds hazardous materials, the schedule and/or cost of the project may need to be updated.			An ISA has been conducted and found no hazardous material within the project limits.
3	04-3A1600-03	Active	**Threat**	PM	10/01/05	Timely reviews.	Assigned staff may be reassigned to higher priority projects or transfer to other units. This may result in schedule delays.	TIME	Probablility 5=Very High (60-99%) **High** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Ensure that team members are aware of deadlines and their importance. Distribute current schedule at monthly PDT meetings and draw attention to critical path items. Steering Committee to monitor using the list of deliverables.			
4	04-3A1600-04	Active	**Threat**	PM	11/05/05	Deliverables contain significant errors.	Deliverables (R/W Data Sheet, ED, PS&E, etc.) could contain significant errors. Correcting these errors could increase project costs and cause schedule delays.	TIME	Probablility 2=Low (10-19%) **Low** Impact 2 =Low		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	All deliverables will be reviewed utilizing the approved QC/QA plan, errors will be corrected prior to delivery. Schedule will allow adequate time for quality submittals and reviews, and will account for the experience level of the assigned staff.			
5	04-3A1600-05	Active	**Threat**	PM	11/01/05	Northern Segment - Timely phased funding.	Due to budget constraints (CT, VTA,ERSB), the appropriate levels of funding for northern segment may not be available when needed.	COST	Probablility 5=Very High (60-99%) **High** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Periodically review potential funding sources and confirm direction through the Executive Steering Committee.			Target constuction completion date in 2013. Delay in identifying funding sources will have a significant impact on construction schedule.
6	04-3A1600-06	Active	**Threat**	PM	11/01/05	Southern Segment - Timely phased funding.	Due to budget constraints (CT, VTA,ERSB), the appropriate levels of funding for southern segment may not be available when needed.	COST	Probablility 3=Med (20-39%) **Med** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Periodically review potential funding sources and confirm direction through the Executive Steering Committee.			No target constuction date is set for southern segment. Segment will be built as funding becomes available.
7	04-3A1600-07	Active	**Threat**	PM	11/01/05	New stakeholder needs.	New stakeholders and/or new stakeholder needs could be identified late in the project. As a result, the scope, cost, and/or schedule could be affected.	TIME	Probablility 2=Low (10-19%) **Low** Impact 2 =Low		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Obtain major stakeholder buy-in during PA&ED phase including CT Maintenance and Landscape. Hold public workshops to get input.			4/24/08: Major stakeholders coordination including meetings with Santa Clara and San Benito Counties, SCVWD, City of Gilroy, Pre-GAD concurrence, bike/pedestrian/equestrian groups, Public Scoping Meeting, and meetings with private property owners occurred

Approved by:_____
date

Project Risk Register

PA / ED Phase

	DIST- EA 04-3A1600					Project Name: US 101 WIDENING - SR 129 to Monterey Road			Project Manager: Chadi Chazbek							Date Created: 02/05/07	Last Updated: 03/12/09
						Co - Rte - PM: Sbt/Scl-101-4.9/5.0			Telephone: (408) 297-6962								
ITEM	ID #	Status	Threat / Opport-unity	Category	Date Risk Identified	Risk Discription	Root Causes	Primary Objective	Overall Risk Rating	Cost/Time Impact Value	Risk Owner	Risk Trigger	Strategy	Response Actions w/ Pros & Cons	Adjusted Cost/Time Impact Value	WBS Item	Status Date and Review Comments
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
8	04-3A1600-08	Active	**Threat**	PM	11/01/05	Unexpected environmental issues.	Unexpected environmental issues (archaeological, biological, etc.) could lead to schedule delays and increased mitigation costs.	TIME	Probablility 2=Low (10-19%) **Low** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Perform detailed environmental field studies and early involvment from resource agencies.			
9	04-3A1600-09	Active	**Threat**	R/W	11/01/05	Property owner objections.	Landowners may object to permits to enter, appraisal findings, or they may resist acquisition. Condemnation may be required, which could delay the project.	TIME	Probablility 3=Med (20-39%) **Med** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Schedule R/W to allow for possible delays. If delays are caused by parcels not needed for operational improvements, those parcels and improvements could be delayed/dropped from the project.			
10	04-3A1600-10	Active	**Threat**	DESIGN Roadway	11/01/05	Buried man-made objects.	Construction crews may encounter buried man-made objects that are not shown on the plans. The contractor will need to be compensated for handling such items, resulting in increased costs.	COST	Probablility 1=Very Low (1-9%) **Low** Impact 1 =Very Low		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	End of Phase	ACCEPT	Every effort should be made to discover these objects during the planning and design phases. Added cost for those that aer not found until construction should be covered by the 5% contingencies.			
11	04-3A1600-11	Active	**Threat**	PM	11/01/05	Migratory birds.	Nesting bird surveys must be conducted prior to removing any vegetation from January 1st through August 31st. If nesting birds are found, designated areas of the construction site could be off limits, which could cause construction delays.	TIME	Probablility 5=Very High (60-99%) **High** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	1. Early identification of nesting bird habitat. Once Identified, avoid if possible. 2. Schedule construction to remove trees in late summer or fall to avoid nesting window. 3. If project schedule won't work, prepare separate construction contract to remove trees and place netting on bridges during the non-nesting window.			
12	04-3A1600-12	Active	**Threat**	R/W	11/01/05	Utility relocations issues.	Utility relocations are required. If the utilities cannot be relocated outside of State R/W, utility easements will be required. Late identification of utility easements will cause schedule delays.	TIME	Probablility 2=Low (10-19%) **Med** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early identification of utilites and design with the intent of minimizing relocation impacts.			
13	04-3A1600-13	Active	**Threat**	DESIGN Roadway	02/14/07	UPRR coordination issues.	UPRR crossings at Sargent OH and SR 25 are being modified and will require R/R coordination.	TIME	Probablility 3=Med (20-39%) **Med** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Propose full standard designs with respect to R/R. Prioritize this work so that coordination can start as early as possible.			
14	04-3A1600-14	Active	**Threat**	DESIGN Roadway	02/14/07	Issues with Design Standards.	Exceptions from Design Standards will be required to keep the project within scope/schedule and budget. Some potential issues may be median width, interchange spacing, local access, and bicycle facilities.	COST	Probablility 2=Low (10-19%) **Low** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early coordination with Caltrans Design Reviewers, with regular follow-up and close out meetings.			A coordination with Caltrans geometricians has occurred and an early acceptance of design exceptions is obtained.

Approved by:_____
date

Project Risk Register

PA / ED Phase

	DIST- EA 04-3A1600					**Project Name:** US 101 WIDENING - SR 129 to Monterey Road			**Project Manager:** Chadi Chazbek							**Date Created:** 02/05/07	**Last Updated:** 03/12/09
						Co - Rte - PM: Sbt/Scl-101-4.9/5.0			**Telephone:** (408) 297-6962								
ITEM	ID #	Status	Threat / Opport-unity	Category	Date Risk Identified	Risk Discription	Root Causes	Primary Objective	Overall Risk Rating	Cost/Time Impact Value	Risk Owner	Risk Trigger	Strategy	Response Actions w/ Pros & Cons	Adjusted Cost/Time Impact Value	WBS Item	Status Date and Review Comments
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
15	04-3A1600-15	Active	**Threat**	DESIGN Roadway	02/14/07	Floodplain issues.	A good portion of the proposed project is within the exisitng floodplain and historic flooding of US 101 and SR 25 have been recorded.	COST	Probablility 5=Very High (60-99%) **High** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early focused studies on floodplain and flooding, coordinating with local agencies and Caltrans to get consesus on a realistic cost effective solution.			
16	04-3A1600-16	Active	**Opportunity**	DESIGN Roadway	02/14/07	Geotechnical issues.	Geotechnical testing could encounter unsuitable material or unstable slope conditions.	COST	Probablility 2=Low (10-19%) **Low** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Accelerate geotechnical testing as feasible. Focus early drilling on sites with highest potential for instability.			Initial geotechnical investigation of the slopes around Miller Reservior showed that the proposed 2:1 project slopes are adequate since they are milder than existing slopes. Further analysis is still in progress.
18	04-3A1600-18	Active	**Threat**	PM	02/14/07	Coordination with other projects.	Other planned and proposed projects in the area could impact the scope, schedule and cost of the project. Some of these potential projects are: SR 25 4-Lane, SR 152 Realignment.	TIME	Probablility 2=Low (10-19%) **Low** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Periodically review potential conflicting projects and confirm their direction through the Executive Steering Committee.			SR 25 4-Lane project is now a TIER-1 document. Project geometry and traffic have been coodinated with D5. Low probability of conflict.
19	04-3A1600-19	Active	**Threat**	PM	02/14/07	Competing construction projects.	Due to CMIA funding opportunity, many projects in the area will be on a very agressive and similar schedule. These projects could be competing for bid services from contractors and material sources, potentially raising prices.	COST	Probablility 3=Med (20-39%) **Med** Impact 4 =High		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	MITIGATE	Track competing projects and try to schedule construction with them in mind.			
20	04-3A1600-20	Active	**Threat**	ENV	02/14/07	Conceptual Environmental Mitigation issues.	Working with resource agencies to agree on reasonable mitigation ratios.	COST	Probablility 2=Low (10-19%) **Low** Impact 2 =Low		URS, Chadi Chazbek (408) 297-6962 (408) 655-3298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early coordination with resource agencies. Continue VTA discussions on programatic permitting (HCP) and mitigation banking.			Project includes on-going involvement of agencies.
22	04-3A1600-22	Active	**Threat**	ENV	02/14/07	SHPO Concurrence issues.	Often difficult to get timely review, comments and concurrence due to agency staffing.	TIME	Probablility 2=Low (10-19%) **Med** Impact 4 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early coordination with resource agencies. Involved due to potential permitting issues from Army Corp.			John to comment. Some SHPO concurrence was obtained on the 4f property limits.
23	04-3A1600-23	Active	**Threat**	ENV	02/14/07	Cultural Resources issues.	On-going Native American Consultation Process during the environmental and construction phases.	TIME	Probablility 2=Low (10-19%) **Med** Impact 4 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early coordination with Native American Groups.			
24	04-3A1600-24	Active	**Threat**	DESIGN Roadway	02/14/07	Stream Crossings issues.	Bridge reconstruction and widening, as well as box culvert construction, over several streams is proposed on the project.	COST	Probablility 2=Low (10-19%) **Med** Impact 4 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	AVOID	Where possible design structures to minimize (Consider "clear span") impacts to the streams.			

Approved by:_____
date

Project Risk Register
PA / ED Phase

	DIST- EA 04-3A1600					Project Name: US 101 WIDENING - SR 129 to Monterey Road			Project Manager: Chadi Chazbek							Date Created: 02/05/07	Last Updated: 03/12/09
						Co - Rte - PM: Sbt/Scl-101-4.9/5.0			Telephone: (408) 297-6962								
ITEM	ID #	Status	Threat / Opport-unity	Category	Date Risk Identified	Risk Discription	Root Causes	Primary Objective	Overall Risk Rating	Cost/Time Impact Value	Risk Owner	Risk Trigger	Strategy	Response Actions w/ Pros & Cons	Adjusted Cost/Time Impact Value	WBS Item	Status Date and Review Comments
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
25	04-3A1600-25	Active	**Threat**	ENV	02/26/08	Critter Crossings	Need agreement from CDFG and USFWS on mitigation for wildlife crossings	COST	Probablility 2=Low (10-19%) **Med** Impact 4 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	AVOID	Implement design features to minimize impact and satisfy CDFG and USFWS requirements as feasible			Had a meeting with CDFG and completed field reviews. Preliminary consensus reached with CDFG and obtained agreement on median barrier, opening details, and fencing along ROW. Meeting minutes with CDFG to be sent to USFWS. USFWS has not been responsive.
26	04-3A1600-26	Active	**Threat**	DESIGN Structures	04/15/08	Liquefaction Potential	Liquefaction potential at the proposed structures for Carnadero Creek and Sargent OH.	COST	Probablility 3=Med (20-39%) **High** Impact 8 =High		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Investigate cost of mitigation for liquefaction potential versus full replacement of the bridges			
27	04-3A1600-27	Active	**Threat**	DESIGN Structures	04/15/08	Highway Seismicity	Potential for Caltrans Structure HQ requirements for full structure replacement (Sargent SB, San Benito, and Carnadero Creek) due to timber pile and seismic concern.	COST	Probablility 2=Low (10-19%) **Med** Impact 4 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Early coordination with Caltrans Structure HQ to identify requirements and mitigate them in the APS document.			
28	04-3A1600-28	Active	**Threat**	ENV	02/27/09	Fish Passage	Potential impacts to the fish passage at the structures, especially at Pajaro River.	COST	Probablility 3=Med (20-39%) **Med** Impact 3 =Med		URS, Chadi Chazbek (408) 297-6962 4086553298 chadi_chazbek@urscorp.com	Quarterly	ACCEPT	Haven't received any response from NOAA Fisheries			NES will be submitted in a few weeks for review by the agencies.

Approved by:_____
date

SANTA CLARA
Valley Transportation Authority

Date: May 28, 2013
Current Meeting: June 6, 2013
Board Meeting: June 6, 2013

BOARD MEMORANDUM

APPROVED ACCEPTED ADOPTED AMENDED DEFERRED REVIEWED
Santa Clara Valley Transportation Authority
Board of Directors
Sandra A. Weymouth, Board Secretary
BY Susan E. Garcia
DATE June 6, 2013

TO: Santa Clara Valley Transportation Authority Board of Directors

THROUGH: General Manager, Michael T. Burns

FROM: Chief CMA Officer, John Ristow

SUBJECT: U.S. 101 Improvements (Monterey Street to SR 129) Final Environmental Impact Report

Policy-Related Action: No **Government Code Section 84308 Applies: No**

ACTION ITEM

RECOMMENDATION:

Approve the following actions for the U.S. 101 Improvements Project

1) Certify that the Environmental Impact Report (EIR):
   a) Meets the requirements of the California Environmental Quality Act (CEQA);
   b) Represents the independent judgment of the Lead Agency; and
   c) Was presented to the VTA Board of Directors and that they reviewed and considered the EIR.
2) Adopt:
   a) Findings;
   b) Facts in Support of Findings; and
   c) Statement of Overriding Considerations
3) Adopt a Mitigation Monitoring and Reporting Program
4) Adopt the Recommended Project Description (Build Alternative B and Bike Alternative 2)

BACKGROUND:

The U.S. 101 Improvement Project (Project) would widen and upgrade a 7.6-mile project segment of U.S. 101 from Monterey Street in the City of Gilroy in Santa Clara County to State Route 129 (SR 129) in San Benito County. The Project also includes improvements to 1.2 miles of State Route 25 between U.S. 101 and Carnadero Creek in Santa Clara County.

Currently, there is insufficient capacity along the U.S. 101 project segment, including the U.S. 101/SR 25 interchange, to accommodate future demand. There are higher accident rates in this segment compared to U.S. 101 to the north of the project limits. The lack of controlled access results in conflicts between fast-moving highway traffic and slower-moving vehicles that are entering/exiting the highway. There are safety and delay issues associated with the at-grade Union Pacific Railroad (UPRR) crossing on SR 25. Finally, there is projected to be increasing travel delay over time at the U.S. 101 ramp termini on SR 129 with the existing traffic control.

Within the project limits, U.S. 101 is a 4-lane expressway in Santa Clara County and a 4-lane freeway in San Benito County. The project would complete the upgrade of U.S. 101 to freeway standard in Santa Clara County and accommodate projected traffic demand. The project would also enhance safety and improve traffic operations along the project segment of U.S. 101, enhance the movement of goods along the transportation corridor, and maintain and enhance bicycle access in the project area. To accomplish these goals, the project would include the following features:

- Widen and upgrade U.S. 101 to a 6-lane freeway between the Monterey Street interchange in Gilroy and the SR 129 interchange in northern San Benito County.
- Reconstruct the U.S. 101/SR 25 interchange. There are two design options for the reconstructed interchange being considered, which are discussed below.
- Construct an auxiliary lane in each direction on U.S. 101 between the Monterey Street and SR 25 interchanges.
- Extend Santa Teresa Boulevard approximately 0.5 miles from Castro Valley Road to the new U.S. 101/SR 25 interchange.
- Construct improvements at the southbound U.S. 101 off-ramp to SR 129.
- Construct frontage roads, as needed, to replace existing access to U.S. 101 from adjacent properties.
- Grade-separate the UPRR crossing on SR 25 just west of Bloomfield Avenue.
- Construct bicycle facilities, as needed, to replace access that would be lost when U.S. 101 is upgraded to a freeway and to improve bicycle access in the project area.

The schedule for construction of the proposed project has not been determined because funding has not been secured. Further, recognizing the uncertainties associated with highway funding from various federal, state, and local programs, it is probable that the project will be constructed in phases as funding permits. Phasing is common on large capital improvement projects such as the proposed project.

DISCUSSION:

Environmental Impact Report

VTA prepared an Environmental Impact Report (EIR) as the Lead Agency under the California Environmental Quality Act (CEQA), in cooperation with the California Department of

Transportation (Caltrans). The document evaluates the environmental impacts of the Build Alternative and No Build Alternative, and discusses several alternatives that were considered but eliminated from further discussion. The Executive Summary from the EIR is included as Attachment A.

The Draft EIR was released for a 50-day public review and comment period from March 14, 2013 to April 29, 2013. A public meeting was held on March 29, 2013 at the Gilroy Library. During the public review period, written submissions were received from federal, state, and local agencies or organizations, as well as comments from the public, containing over 200 individual comments. Many of the comments focused on biological resources including wildlife connectivity, flooding and water quality, and recreational trails. VTA responded to all comments in the Final EIR, which was released on May 27, 2013 and distributed to those who submitted comments on the Draft EIR, as well as other interested stakeholders.

The Build Alternative Design Options

The Build Alternative includes two design options (A and B) for the US 101/25 interchange and two alternatives for a bike path. The primary difference between Design Option A and Design Option B is the location of the reconstructed U.S. 101/SR 25 interchange. Under Design Option A, the interchange would be reconstructed approximately 0.2 miles north of its existing location, while under Design Option B, the interchange would be reconstructed at essentially the same location as the existing facility. Both interchange design options would continue to allow all traffic movements between U.S. 101 and SR 25, and both options would include a connection to Santa Teresa Boulevard.

The Build Alternative would eliminate bicycle access on U.S. 101 and SR 25 within the project limits. Under Design Option A, there are two bike alternatives to replace this access. These alternatives would also accommodate pedestrians and equestrians.

- Bike Alternative 1 would route bicyclists under U.S. 101 and the U.S. 101/SR 25 ramps via large box culverts installed as part of the project for flood passage.

- Bike Alternative 2 avoids routing cyclists through long culverts under the freeway. This alternative would continue the bike route on Monterey Road along the east side of U.S. 101 between the interchange and Carnadero Creek, cross under U.S. 101 along the south bank of Carnadero Creek, and connect to Mesa Road on the west side of U.S. 101. Alternative 2 is approximately 1.2 miles longer than Alternative 1.

Under Design Option B, the lack of vertical clearance in the culverts does not accommodate Bike Alternative 1; therefore, only Bike Alternative 2 would be feasible.

Findings

The CEQA Findings (Attachment B) include the environmental impacts identified in the EIR, including potentially significant adverse impacts. All impacts are reduced to a less-than-significant level with implementation of mitigation measures, with the exception of the following:

- **Growth**. Under both Design Options, the Build Alternative would result in a direct and significant growth-inducing impact *if* the application for the El Rancho San Benito Specific Plan in San Benito County is submitted, and *if* the approval of this Plan is conditioned upon the widening of U.S. 101.
- **Farmland**. Under both Design Options, the Build Alternative would directly result in the conversion of prime farmland and lands under Williamson Act contracts to non-agricultural uses. Mitigation is included in the Project that partially reduces this impact, but not to a less-than-significant level.
- **Visual/Aesthetics**. Under Design Option A, the Build Alternative would result in a significant adverse change to the visual environment at one vantage point due the U.S. 101/SR 25 interchange being reconstructed approximately 0.2 miles north of its existing location. While aesthetic treatment to the interchange, which includes architectural and/or landscape design solutions, would reduce the impact somewhat, it would not reduce the impact to a less than significant level.

Statement of Overriding Considerations

CEQA recognizes that in determining whether and how a project should be approved, VTA has an obligation to balance a variety of public objectives, including economic, environmental, and social factors when approving transportation projects. The Statement of Overriding Considerations (Attachment B) reflects the balancing of competing public objectives for the Project, which includes significant effects on the environment.

Mitigation Monitoring and Reporting Program

CEQA also requires a Mitigation Monitoring and Reporting Program be developed and implemented for the project to track compliance with the mitigation measures in the EIR. The MMRP is included as Attachment C.

Recommended Project Description

The recommended project description is the Build Alternative with Design Option B for the U.S. 101/SR 25 interchange and Alternative 2 for bicycle access for the following reasons:

- **Right-of-Way**. The amount of right-of-way needed to construct the project under Design Option A is approximately 191 acres, as compared to approximately 160 acres under Design Option B.
- **Prime and Unique Farmlands**. Direct impacts to lands designated as Prime Farmland or Unique Farmland is approximately 157 acres under Design Option A, as compared to approximately 122 acres under Design Option B.
- **Construction Phasing**. Design Option A cannot be phased into individual construction packages and, therefore, requires a large initial investment to reconstruct the U.S. 101/SR 25 interchange. In contrast, Design Option B can be phased into individual construction packages and, therefore, requires a smaller initial investment.

In addition, the Bay Area Ridge Trail Council, Central Coast Regional Water Quality Board, San Benito Council of Governments, and members of the public have stated preference for Design

Option B due to less environmental impacts overall. (One comment card, inadvertently omitted from the Final EIR, is included as Attachment D; this commentor also supports Design Option B.) No commentor on the Draft EIR indicated preference for Design Option A.

The National Park Service, Bay Area Ridge Trail Council, Open Space Authority, and Santa Clara County Parks and Recreation have stated preference for Bike Alternative 2. No commentor on the Draft EIR indicated preference for Bike Alternative 1.

ALTERNATIVES:

The VTA Board could choose to adopt the No Build Alternative. For the Build Alternative, the VTA Board could select the design option, and possibly the bike alternative, that vary from the staff recommendations.

FISCAL IMPACT:

There is no direct financial impact related to the approval of the environmental document.

STANDING COMMITTEE DISCUSSION/RECOMMENDATION:

The Congestion Management Program and Planning Committee (CMPP) approved this item at the May 23, 2013 meeting and unanimously recommended it to the full Board for approval.

Prepared by: Ann Calnan
Memo No. 4069

I certify that the foregoing instrument is a true and exact copy of the original on file in the Secretary of the Board of Director's office.

Date 6/7/13

Dist-County-Route: 04-SCl-101, 05-SBt-101, 04-SCl-25

Post Mile Limits: 0.0/5.0 (SCl 101), 4.9/7.5(SBt 101), 1.6/2.5 (SCl 25)

Project Type: Highway Widening

Project ID (or EA): 03-3A1600

Program Identification: HB5

Phase: ☐ PID
☒ PA/ED
☐ PS&E

Regional Water Quality Control Board(s): Central Coast (Region 3)

Is the Project required to consider Treatment BMPs? Yes ☒ No ☐

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

If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: _____

Total Distributed Soil Area: Option A: 431.8ac, Option B: 411.7ac Risk Level: 3

Estimated: Construction Start Date: 01/31/2013 Construction Completion Date: 12/03/2014

Notification of Construction (NOC) Date to be submitted: 12/31/2012

Erosivity Waiver	Yes ☐	Date: _____	No ☒
Notification of ADL reuse (if Yes, provide date)	Yes ☒	Date: TBD in PS&E Phase	No ☐
Separate Dewatering Permit (if yes, permit number)	Yes ☐	Permit # TBD	No ☐

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

Analette Ochoa — 8/26/10

Analette Ochoa, P.E., Registered Project Engineer — Date

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

Nick Saleh — 9/10/2010

Nick Saleh, Project Manager — *Date*

Robert W. Braga — 9/28/10

Bob Braga, Designated Maintenance Representative — *Date*

For Tammy J. Smith — 9/27/2010

David Yam, Designated Landscape Architect Representative — *Date*

[Stamp Required for PS&E only] for Jac Lee — 9/9/10

Norman Gonsalves, District/Regional Design SW Coordinator or Designee — *Date*

County of Santa Clara

Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95032-7669
(408) 355-2200 FAX 355-2290
Reservations (408) 355-2201
www.parkhere.org

February 20, 2009

Mr. Darrell Vice
Santa Clara Valley Transportation Authority
3331 North First St
San Jose, CA 95134

Subject: US 101 Widening Project (SR 129 to Monterey Road) Bike/Trail Route Integration

Dear Darrell,

Thank you again for coordinating a meeting to update us regarding the revisions to the above-mentioned project and the efforts to incorporate comments offered by County Parks in 2008. The revisions to the alignment of proposed trails and connections to existing trails presented at the January 23, 2009 meeting provide the much-needed continuity to meet the Goals of the Santa Clara Countywide Trails Master Plan. We offer the following support and recommendations:

- Santa Clara County Parks supports the revisions presented that offer improved safety to non-motored users at the Bloomfield Road/Hwy 25 intersection and safe crossing of Hwy 101 with a trail under-crossing at the expanded Uvas-Carnadero Creek Bridge.

- Santa Clara County Parks supports the recommendation to change the alignment of the Bay Area Ridge Trail from Castro Valley Road to Mesa Road in order to provide better long-term trail connections to the proposed trail under-crossing at Hwy 101 Uvas-Carnadero Creek Bridge.

- Santa Clara County Parks supports efforts by the City of Gilroy to provide access from local trails and roadways to the proposed Hwy 101 frontage roads, thereby furthering the goals and objectives of the City of Gilroy Trails Master Plan on both sides of Hwy 101.

- Santa Clara County Parks recommends that VTA consider the proposed trail under-crossing at Hwy 101 Uvas-Carnadero Creek Bridge be considered as the environmentally superior alternative to a trail alignment across Hwy 101 that is contingent upon the use of 8’ high box culverts under the Hwy 101/Hwy 25 interchange.

- Santa Clara County Parks recommends that VTA consider compliance with the Countywide Trails Master Plan Interjurisdictional Design Guidelines for trail widths, surfacing, horizontal and vertical clearances, site distances, etc…with special consideration of long term impacts that trail design will have on equestrian access.

- Santa Clara County Parks recommends that Phase I alternatives provide safe and reasonable passage for non-motorized users, especially at at-grade crossings at the Bloomfield Road/Hwy 25 intersection, crossing at UPRR tracks, and that use of highway shoulders on Hwy 101 southbound are properly designed, clearly marked, and adequately sized to prevent inadvertent conflicts with motorized traffic.

- County Parks recommends that VTA continue discussions with various agencies, including the City of Gilroy and the Santa Clara Valley Water District, during the design development stage, to address issues related to the long-term transfer of trail and bikeway improvements/easements/maintenance agreements to the appropriate entities.

If you have any questions, please do not hesitate to contact me at elish.ryan@prk.sccgov.org or at 408.355-2236.

Sincerely,

Elish Ryan
Planner III

Cc: Julie Mark, Santa Clara County Parks
Mike Griffis, Santa Clara County Roads and Airports
Sue Tippetts, Santa Clara Valley Water District
Bern Smith, Bay Area Ridge Trail
Rick Smelser, City of Gilroy
Chadi Chazbek, URS Corporation

BAY AREA
RIDGE TRAIL
COUNCIL

February 23, 2008

Mr. Darrell Vice
Santa Clara Valley Transportation Authority
3331 North First St
San Jose, CA 95134
Subject: US 101 Widening Project (SR 129 to Monterey Road) Bike/Trail Route Integration

Dear Darrell,

The Bay Area Ridge Trail Council (BARTC) appreciates VTA's efforts to incorporate regional multiuse trail plans in the design of the Hwy 101 widening project, and applauds your recently proposed plan revisions (as presented at our January 23, 2009 meeting). In particular we wish to highlight the following:

• We support the planned trail under-crossings at the two Carnadero Creek bridges -- Hwy 25 near Bloomfield Road, and Hwy 101. These revisions are major improvements to the plan, as they will provide for significantly safer routes than the previous proposed crossings, and make equestrian access feasible.

• We strongly recommend that VTA designate the proposed trail undercrossing at Hwy 101 Uvas-Carnadero Creek Bridge as the environmentally superior alternative to a trail alignment under the Hwy 101/Hwy 25 interchange. The Uvas-Carnadero Creek Bridge location will accommodate access by equestrians and other trail users far better than the more southerly site.

• We support the recommendation to change the proposed alignment of the Bay Area Ridge Trail from Castro Valley Road to Mesa Road. This recommended alignment change is consistent with our Ridge Trail design guidelines, as it would provide better long-term trail connections to the prospective trail under-crossing at Hwy 101 Uvas-Carnadero Creek Bridge.

• We support efforts by VTA, Santa Clara County Parks and the City of Gilroy to provide access from local trails and roadways to the Bay Area Ridge Trail at the Hwy 101 frontage roads, per the goals and objectives of the County and City Trails Master Plans.

1007 GENERAL KENNEDY AVENUE, SUITE 3, SAN FRANCISCO, CA 94129-1405
(415) 561-2595 FAX: (415) 561-2599
INFO@RIDGETRAIL.ORG WWW.RIDGETRAIL.ORG

• We recommend that VTA adopt the Countywide Trails Master Plan Interjurisdictional Design Guidelines, in particular as they pertain to accommodation of full multiuse access, including equestrians.

• We recommend that Phase I alternatives, especially those crossings at the Hwy 101/Hwy25 interchange, the Bloomfield Road/Hwy 25 intersection, and the UPRR tracks, provide for safe and reasonable non-motorized travel.

• We recommend that VTA seek comments regarding the new plans from the Anza National Historic Trail Superintendent Naomi Torres <Naomi.Torres@nps.gov>. Ms Torres succeeded Stan Bond, who participated in an earlier meeting regarding the project.

Thanks again for the opportunity to comment on these plans. We continue to support VTA's goals to develop secure trail routes through the project site.

Regards --

Bern Smith

Cc: Julie Mark, Santa Clara County Parks
Elish Ryan, Santa Clara County Parks
Sue Tippetts, Santa Clara Valley Water District
Rick Smelser, City of Gilroy
Chadi Chazbek, URS Corporation
Michelle deRobertis, VTA

04-SCL-101-PM 2.5/5.0
04-SCL-25-PM 1.6/2.5
05-SBt-101-PM 4.9/7.5
US 101 Widening
04-235-3A160K
District Agreement No. 4-2171

COOPERATIVE AGREEMENT

This AGREEMENT, entered into effective on June 19, 2008, is between the STATE OF CALIFORNIA, acting by and through its Department of Transportation, referred to herein as "STATE," and the

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY, a public entity, referred to herein as "VTA."

RECITALS

1. STATE and VTA, pursuant to Streets and Highways Code section 114 and other applicable law, are authorized to enter into a Cooperative Agreement for improvements to the State Highway System (SHS) within Santa Clara County.

2. VTA desires to develop a project consisting of widening US 101 from Monterey Road to State Route (SR) 129, reconstruction of the US 101/SR 25 interchange, construction of auxiliary lanes between Monterey Road and SR 25 in each direction, widening of SR 25 from US 101 to Carnadero Creek, grade separation of the UPRR crossing on SR 25, and interchange improvements at SR 129 in Monterey/Bay Area region, referred to herein as "PROJECT."

3. VTA is willing to fund one hundred percent (100%) of all capital outlay and support costs, except that the costs of STATE's Independent Quality Assurance (IQA) of PROJECT and STATE's costs incurred as the California Environmental Quality Act (CEQA) Lead Agency and National Environmental Policy Act (NEPA) Lead Agency, if applicable, in the review and approval, if appropriate, of the PROJECT environmental documentation prepared entirely by VTA, will be borne by STATE. VTA will be responsible for performing all project development work, which consists of all activities required to deliver the Project Approval and Environmental Document (PA&ED); all activities required to deliver the Plans Specification and Estimates (PS&E); and all activities required to acquire the Right of Way (R/W), all hereinafter referred to as "PROJECT DEVELOPMENT."

4. STATE funds will not be used to finance any of the PROJECT capital and support costs except as set forth in Recital 3 above.

5. The terms of this Agreement shall supersede any inconsistent terms of any prior Memorandum of Understanding (MOU) or agreement relating to PROJECT.

6. PROJECT landscape maintenance and construction will be the subject of a separate future agreement or agreements.

7. This Agreement will define the roles and responsibilities of the CEQA Lead Agency and CEQA Responsible Agency regarding the environmental documentation, studies, and reports necessary for compliance with CEQA. This Agreement will also define roles and responsibilities for compliance with NEPA, if applicable.

8. The parties now define hereinbelow the terms and conditions under which PROJECT is to be developed, designed, and financed.

SECTION I

VTA AGREES:

1. To fund one hundred percent (100%) of all PROJECT DEVELOPMENT capital and support costs except for costs of STATE's IQA, and STATE's review, comment, and approval, if appropriate, of the PROJECT environmental documentation for CEQA, and NEPA, if applicable.

2. To not use STATE funds for any PROJECT capital and support costs, except as set forth in this Agreement.

3. All PROJECT work performed by VTA, or performed on VTA's behalf, shall be performed in accordance with all State and Federal laws, regulations, policies, procedures, and standards that STATE would normally follow. All such PROJECT work shall be submitted to STATE for STATE's review, comment, and concurrence at appropriate stages of development.

4. All PROJECT work, except as set forth in this Agreement, is to be performed by VTA. Should VTA request that STATE perform any portion of PROJECT work, except as otherwise set forth in this Agreement, VTA shall first agree to reimburse STATE for such work pursuant to an amendment to this Agreement or a separate executed agreement.

5. To have a Project Report (PR) and detailed Plans, Specifications, and Estimates (PS&E) prepared, at no cost to STATE, and to submit each to STATE for STATE's review and concurrence at appropriate stages of development. The PR and the final PS&E for PROJECT shall be signed on behalf of VTA by a Civil Engineer registered in the State of California. VTA agrees to provide landscape plans prepared and signed by a licensed California Landscape Architect.

6. To have all necessary right of way maps and documents used to acquire right of way by VTA prepared by or under the direction of a person authorized to practice land surveying in the State of California. Each right of way map and document shall bear the appropriate professional seal, certificate number, expiration date of registration certification and signature of the licensed person in Responsible Charge of Work.

7. To permit STATE to monitor, participate, and oversee the selection of personnel who will prepare the PR, prepare environmental documentation, including the investigative studies and technical environmental reports, prepare the PS&E, provide right of way engineering services, and provide right of way acquisition services. VTA agrees to consider any request by STATE to discontinue the services of any personnel considered by STATE to be unqualified on the basis of credentials, professional expertise, failure to perform, and/or other pertinent criteria.

8. To submit to STATE for review and concurrence all Right of Way Engineering Land-Net Maps and Right of Way Appraisal Maps, Records of Survey, and Right of Way Record Maps in accordance with STATE's Right of Way Manual, Chapter 6, Right of Way Engineering, STATE's Plans Preparation Manual, STATE's Surveys Manual, applicable State laws, and other pertinent reference materials and examples as provided by STATE.

9. Personnel who prepare the PS&E and environmental documentation, including the investigative studies and technical environmental reports, shall be made available to STATE, at no cost to STATE, through completion of PROJECT construction to discuss problems which may arise during PS&E, right of way acquisition, construction, and/or to make design revisions for contract change orders. Said personnel shall be prohibited from working for future PROJECT construction contractor.

10. Personnel who prepare right of way maps, documents, and related materials shall be made available to STATE, at no cost to STATE, during and after construction of PROJECT until completion and acceptance by STATE of Right of Way Record Maps, Records of Survey, and title to any property intended to be transferred to STATE.

11. To make written application to STATE for necessary encroachment permits authorizing entry of VTA onto the SHS right of way to perform surveying and other investigative activities required for preparation of the PR, environmental documentation, and/or PS&E.

12. To identify and locate all utility facilities within the area of PROJECT as part of the design responsibility for PROJECT. All utility facilities not relocated or removed in advance of construction shall be identified on the PS&E for PROJECT.

13. If any existing utility facilities conflict with the construction of PROJECT or violate STATE's encroachment policy, VTA shall make all necessary arrangements with the owners of such facilities for their timely accommodation, protection, relocation, or removal.

    a. The costs for the PROJECT's positive identification and location, protection, relocation, or removal of utility facilities whether inside or outside STATE's right of way shall be determined in accordance with Federal and California laws and regulations, and STATE's policies and procedures, standards, practices, and applicable agreements including, but not limited to, Freeway Master Contracts.

14. To furnish evidence to STATE, in a form acceptable to STATE, that arrangements have been made for the protection, relocation, or removal of all conflicting facilities within the SHS right of way and that such work will be completed prior to the award of the contract to construct PROJECT or as covered in the PS&E for said contract. This evidence shall include a reference to all required SHS encroachment permits.

15. To acquire and furnish all right of way, if any, outside of the existing SHS right of way and to perform all right of way activities, including all eminent domain activities, if necessary, at no cost to STATE, and in accordance with procedures acceptable to STATE. These activities shall comply with all applicable State and Federal laws and regulations, subject to STATE's IQA to ensure that the completed work and title to property acquired for PROJECT is acceptable for incorporation into the SHS right of way.

16. To utilize the services of a qualified public agency or a qualified consultant, as determined by STATE's District Division Chief of Right of Way, in all matters related to the acquisition of right of way in accordance with STATE's procedures as published in STATE's current Right of Way Manual. Whenever personnel other than personnel of a qualified public agency, or a qualified consultant, are utilized, administration of the personnel contract shall be performed by a qualified Right of Way person employed or retained by VTA.

17. To certify legal and physical control of right of way ready for construction and that all right of way parcels were acquired in accordance with applicable State and Federal laws and regulations, subject to review and concurrence by STATE prior to the advertisement for bids for the contract to construct PROJECT.

18. To deliver to STATE legal title to the right of way, including access rights, free and clear of all encumbrances detrimental to STATE's present and future uses not later than the date of acceptance by STATE of maintenance and operation of the SHS facility. Acceptance of said title by STATE is subject to a review of a Policy of Title Insurance in the name of the State of California to be provided and paid for by VTA.

19. To be responsible for, and to the STATE's satisfaction, the investigation of potential hazardous material sites within and outside of the existing SHS right of way that could impact PROJECT as part of performing any preliminary engineering work. If VTA discovers hazardous material or contamination within the PROJECT study area during said investigation, VTA shall immediately notify STATE.

20. If VTA desires to have STATE advertise, award, and administer the construction contract for PROJECT, VTA shall provide STATE with acceptable plans prepared by VTA or VTA's consultant on either 80 min/700mb CDs or DVDs 4.7 GB or 8.5 GB double capacity DVDs using Micro Station Version 08.05.02.47 .dgn files, CaiCE Visual Transportation Version 10, SP5 (CaiCE VT). One copy of the data on CD/DVD, including the Engineer's electronic signature and seal, shall be provided to STATE upon completion of the final PROJECT PS&E. STATE reserves the right to modify these CD/DVD requirements and STATE shall provide VTA advance notice of any such modifications. Files may be submitted on up to five (5) CDs or, if larger, on DVDs. All submittal files shall be compressed and shall be successfully run through AXIOM FILEFIXER software or EDG. Reimbursement to STATE for costs incurred by STATE to advertise, award, and administer the construction contract for PROJECT will be covered in the separate Cooperative Agreement referred to in Article 19 of Section III of this Agreement.

21. All aerial photography and photogrammetric mapping shall conform to STATE's current standards.

22. A copy of all original survey documents resulting from surveys performed for PROJECT, including original field notes, adjustment calculations, final results, and appropriate intermediate documents, shall be delivered to STATE and shall become property of STATE. For aerial mapping, all information and materials listed in the document "Materials Needed to Review Consultant Photogrammetric Mapping" shall be delivered to STATE and shall become property of STATE.

23. All original recorded land title documents created by PROJECT shall be delivered to STATE and become property of STATE.

24. To submit to STATE a list of STATE horizontal and vertical control monuments which will be used to control surveying activities for PROJECT.

25. VTA shall include a "conflict of interest" requirement in the PROJECT design consultant contract(s) that prohibits that design consultant from being employed or under contract to the future PROJECT construction contractor, except that the PROJECT designer may be retained to check shop drawings, do soils foundations tests, test construction materials, and perform construction surveys.

SECTION II

STATE AGREES:

1. At no cost to VTA, to complete STATE's review as CEQA Lead Agency and NEPA Lead Agency, if applicable, of the environmental documentation prepared and submitted by VTA and to provide IQA of all VTA work necessary for completion of the PR and PS&E for PROJECT done by VTA, including, but not limited to, investigation of potential hazardous material sites and all right of way activities undertaken by VTA or its designee, and provide prompt reviews and concurrence, as appropriate, of submittals by VTA, while cooperating in timely processing of documents necessary for completion of the environmental documentation, PR, and PS&E for PROJECT.

2. Upon proper application by VTA and by VTA's contractor, to issue, at no cost to VTA and VTA's contractor, the necessary encroachment permits for required work within the SHS right of way as more specifically defined elsewhere in this Agreement.

SECTION III

IT IS MUTUALLY AGREED:

1. All obligations of STATE under the terms of this Agreement are subject to the appropriation of resources by the Legislature, State Budget Act authority and the allocation of funds by the California Transportation Commission (CTC).

2. The parties to this Agreement understand and agree that STATE's IQA is defined as providing STATE policy and procedural guidance through to completion of the PROJECT preliminary engineering, PS&E, and right of way phases administered by VTA. This guidance includes prompt reviews by STATE to assure that all work and products delivered or incorporated into the PROJECT by VTA conform with then existing STATE standards. IQA does not include any PROJECT related work deemed necessary to actually develop and deliver the PROJECT, nor does it involve any validation to verify and recheck any work performed by VTA and/or its consultants or contractors and no liability will be assignable to STATE, its officers and employees by VTA under the terms of this Agreement or by third parties by reason of STATE's IQA activities. All work performed by STATE that is not direct IQA shall be chargeable against PROJECT funds as a service for which STATE will invoice its actual costs and VTA will pay or authorize STATE to reimburse itself from then available PROJECT funds.

3. The Project Study Report (PSR) for PROJECT, approved on May 25, 2005, is by this reference, made an express part of this Agreement.

4. The basic design features shall comply with those addressed in the approved PSR, unless modified as required for completion of the PROJECT's environmental

documentation and/or if applicable, requested by the Federal Highway Administration (FHWA).

5. The design, right of way acquisition, and preparation of environmental documentation and related investigative studies and technical environmental reports for PROJECT shall be performed in accordance with all applicable Federal and STATE standards and practices current as of the date of performance. Any exceptions to applicable design standards shall first be considered by STATE for approval via the processes outlined in STATE's Highway Design Manual and appropriate memoranda and design bulletins published by STATE. In the event that STATE proposes and/or requires a change in design standards, implementation of new or revised design standards shall be done as part of the work on PROJECT in accordance with STATE's current Highway Design Manual Section 82.5, "Effective Date for Implementing Revisions to Design Standards." STATE shall consult with VTA in a timely manner regarding the effect of proposed and/or required changes on PROJECT.

6. STATE will be the CEQA Lead Agency and VTA will be a CEQA Responsible Agency. STATE will be the NEPA Lead Agency. VTA will assess PROJECT impacts on the environment and VTA will prepare the appropriate level of environmental documentation and necessary associated supporting investigative studies and technical environmental reports in order to meet the requirements of CEQA and if applicable, NEPA. VTA will submit to STATE all investigative studies and technical environmental reports for STATE's review, comment, and approval. The environmental document and/or categorical exemption/exclusion determination, including the administrative draft, draft, administrative final, and final environmental documentation, as applicable, will require STATE's review, comment, and approval prior to public availability.

   If, during preparation of preliminary engineering, new information is obtained which requires the preparation of additional environmental documentation to comply with CEQA and if applicable, NEPA, this Agreement will be amended to include completion of those additional tasks by VTA.

7. VTA agrees to obtain, as a PROJECT cost, all necessary PROJECT permits, agreements and/or approvals from appropriate regulatory agencies, unless the parties agree otherwise in writing. If STATE agrees in writing to obtain said PROJECT permits, agreements, and/or approvals, those said costs shall be paid by VTA, as a PROJECT cost.

8. VTA shall be fully responsible for complying with and implementing any and all environmental commitments set forth in the environmental documentation, permit(s), agreement(s) and/or environmental approvals for PROJECT. The costs of said compliance and implementation shall be a PROJECT cost.

9. If there is a legal challenge to the environmental documentation, including supporting investigative studies and/or technical environmental report(s), permit(s), agreement(s), environmental commitments and/or environmental approval(s) for PROJECT, all legal costs associated with those said legal challenges shall be a PROJECT cost.

10. VTA, subject to STATE's prior review and approval, as a PROJECT cost, shall be responsible for preparing, submitting, publicizing and circulating all public notices related to the CEQA environmental process and if applicable, the NEPA environmental process, including, but not limited to, notice(s) of availability of the environmental

document and/or determinations and notices of public hearings. Public notices shall comply with all State and Federal laws, regulations, policies and procedures. STATE will work with the appropriate Federal agency to publish notices in the Federal Register, if applicable.

11. STATE, as a PROJECT cost, shall be responsible for overseeing the planning, scheduling and holding of all public meetings/hearings related to the CEQA environmental process and if applicable, the NEPA environmental process. VTA, to the satisfaction of STATE and subject to all of STATE's and FHWA's policies and procedures, shall be responsible for performing the planning, scheduling and details of holding all public meetings/hearings related to the CEQA environmental process and if applicable, the NEPA environmental process. STATE will participate as CEQA Lead Agency and if applicable, the NEPA Lead Agency, in all public meetings/hearings related to the CEQA environmental process and if applicable, the NEPA environmental process, for PROJECT. VTA shall provide STATE the opportunity to provide comments on any public meeting/hearing exhibits, handouts or other materials at least ten (10) days prior to any such public meetings/hearings. STATE maintains final editorial control of exhibits, handouts or other materials to be used at public meetings/hearings.

12. In the event VTA would like to hold separate and/or additional public meetings/hearings regarding the PROJECT, VTA must clarify in any meeting/hearing notices, exhibits, handouts or other materials that STATE is the CEQA Lead Agency and if applicable, the NEPA Lead Agency, and VTA is the CEQA Responsible Agency. Such notices, handouts and other materials shall also specify that public comments gathered at such meetings/hearings are not part of the CEQA and if applicable, NEPA, public review process. VTA shall provide STATE the opportunity to provide comments on any meeting/hearing exhibits, handouts or other materials at least ten (10) days prior to any such meetings/hearings. STATE maintains final editorial control of exhibits, handouts or other materials to be used at public meetings/hearings solely with respect to text or graphics that could lead to public confusion over CEQA and if applicable, NEPA, related roles and responsibilities.

13. All administrative draft and administrative final reports, studies, materials, and documentation relied upon, produced, created, or utilized for PROJECT will be held in confidence, and where applicable, Government Code section 6254.5(e) shall protect the confidentiality of such documents in the event said documents are shared between the Parties.

    Parties will not distribute, release, or share said documents with anyone other than employees, agents, and consultants who require access in order to complete PROJECT DEVELOPMENT without the written consent of the Party authorized to release them, unless required or authorized to do so by law.

14. VTA's share of all changes in PROJECT DEVELOPMENT costs associated with modifications to the basic design features as described above shall be in the same proportion as described in this Agreement, unless mutually agreed to the contrary by STATE and VTA in a subsequent amendment to this Agreement.

15. The party that discovers hazardous materials will immediately notify the other party to this Agreement. HM-1 is defined as hazardous material (including but not limited to hazardous waste) that requires removal and disposal pursuant to federal or state law, whether it is disturbed by PROJECT or not. HM-2 is defined as hazardous material (including but not limited to hazardous waste) that may require removal and disposal pursuant to federal or state law, only if disturbed by PROJECT.

16. STATE, independent of PROJECT, is responsible for any HM-1 found within existing SHS right of way. STATE will undertake HM-1 management activities with minimum impact to PROJECT schedule and will pay all costs for HM-1 management activities. VTA, independent of PROJECT, is responsible for any HM-1 found outside existing SHS right of way. VTA will undertake HM-1 management activities with minimum impact to PROJECT schedule and will pay all costs for HM-1 management activities.

17. If HM-2 is found within the limits of PROJECT, the public agency responsible for advertisement, award, and administration (AAA) of the PROJECT construction contract will be responsible for HM-2 management activities. Any management activity cost related to HM-2 is a PROJECT construction cost.

18. Management activities related to either HM-1 or HM-2 include, without limitation, any necessary manifest requirements and designation of disposal facility.

19. STATE's acquisition or acceptance of title to any property on which any hazardous material is found will proceed in accordance with STATE's policy on such acquisition.

20. A separate Cooperative Agreement or agreements will be required to address landscape maintenance, and to cover responsibilities and funding for the construction phase of PROJECT.

21. Nothing within the provisions of this Agreement is intended to create duties or obligations to or rights in third parties not parties to this Agreement or to affect the legal liability of either party to the Agreement by imposing any standard of care with respect to the development, design, construction, operation, or maintenance of the SHS and public facilities different from the standard of care imposed by law.

22. Neither STATE nor any officer or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by VTA under or in connection with any work, authority or jurisdiction conferred upon VTA or arising under this Agreement. It is understood and agreed that VTA will fully defend, indemnify, and save harmless STATE and all its officers and employees from all claims, suits, or actions of every name, kind and description brought forth under, including, but not limited to, tortious, contractual, inverse condemnation or other theories or assertions of liability occurring by reason of anything done or omitted to be done by VTA under this Agreement.

23. Neither VTA nor any officer or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by STATE, under or in connection with any work, authority or jurisdiction conferred upon STATE or arising under this Agreement. It is understood and agreed that STATE will fully defend, indemnify, and save harmless VTA and all its officers and employees from all claims, suits, or actions of every name, kind and description brought forth under, including, but not limited to, tortious, contractual, inverse condemnation or other theories or assertions of liability occurring by reason of anything done or omitted to be done by STATE under this Agreement.

24. Prior to the commencement of any work pursuant to this Agreement, either STATE or VTA may terminate this Agreement by written notice to the other party.

25. No alteration or variation of the terms of this Agreement shall be valid unless made by a formal amendment executed by the parties hereto and no oral understanding or agreement not incorporated herein shall be binding on any of the parties hereto.

26. This Agreement shall terminate upon the satisfactory completion of all post-PROJECT construction obligations of VTA and the delivery of required PROJECT construction documents, with concurrence of STATE, or on June 30, 2016, whichever is earlier in time, except that the ownership, operation, maintenance, indemnification, environmental commitments, legal challenges, and claims articles shall remain in effect until terminated or modified, in writing, by mutual agreement. Should any construction related or other claims arising out of PROJECT be asserted against one of the parties, the parties agree to extend the fixed termination date of this Agreement, until such time as the construction related or other claims are settled, dismissed or paid.

STATE OF CALIFORNIA
Department of Transportation

WILL KEMPTON
Director

By: _____
Deputy District Director

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY

By: _____ 06/07/08
MICHAEL T. BURNS
General Manager

Approved as to form and procedure:

_____
Attorney
Department of Transportation

Approved as to form:

_____ 6/6/08
Counsel EVELYNN TRAN

Certified as to funds:

_____
District Budget Manager

Certified as to financial terms and policies:

_____
for Accounting Administrator

(Rev. 3/04/10)

PAVEMENT STRATEGY CHECKLIST

Date: 8/14/2013

Project description and project elements:

US 101 Improvement (from SR 129 to Monterey St)

The California Department of Transportation (Department), in cooperation with the Santa Clara Valley Transportation Authority (VTA), proposes to widen the existing expressway and freeway lanes; and upgrade U.S. 101 to freeway standards from SR 129 in San Benito County (Post Mile [PM] 4.9) to Monterey Street in Santa Clara County (PM 5.0), including construction of a new U.S. 101/SR 25 interchange that connects to SR 25 and Santa Teresa Boulevard.

U.S. 101 will be widened/upgraded from a four-lane expressway to a six-lane freeway between 0.1 mile south of the U.S. 101/ Monterey Street Interchange and San Benito/Santa Clara County line. U.S. 101 from the county line to SR 129 is already a freeway, and will be widened from four to six lanes. An auxiliary lane will be added in each direction on U.S. 101 between the SR 25 and Monterey Street interchanges. To meet freeway standards, all private and local access with U.S. 101 would be closed and relocated to controlled intersections. The total project length is 7.6 miles. Within the project segment, existing bridges will be widened or replaced, as necessary, to accommodate the widened highway. Shoulders, medians, sight distances, lighting, and other geometrics and safety features will be improved, as necessary, within the project limits.

The project would reconstruct the U.S. 101/SR 25 interchange and would include a new bridge to convey SR 25 over U.S. 101. It would also include ramps to allow all traffic movements between U.S. 101 and SR 25. The proposed work at the reconstructed U.S. 101/SR 25 interchange would include a minor realignment of SR 25 to a location just north of the UPRR crossing. The existing at-grade UPRR crossing on SR 25 would be replaced with a grade-separated crossing. The limit of work on SR 25 would be just south of Bloomfield Avenue at the northern end of the Carnadero Creek Bridge where it ties back to existing SR 25 (PM 1.6).

Traffic signals would be installed at 1) the U.S. 101 southbound ramp termini with SR 129; and 2) the northbound and southbound ramp termini with SR 25. The U.S. 101 southbound off-ramp to SR 129 would be widened to two lanes, a 2300-ft deceleration lane will be added on southbound U.S. 101 feeding into this off-ramp, and an auxiliary lane will be added westbound on SR 129 from the SB U.S. 101 off-ramp signal to just west of Searle Rd.

EA: 04-3A1600 Project Manager: Nick Saleh

Co/Rte: SCl/101, SBt/101, SCl/25 Office: Santa Clara County

Project Engineer: Tuan Nguyen Program: HB5 Major Program

Design Senior: Hassan Nikzad PM Limits: 0.0/5.0, 4.9/7.5, 1.6/2.5

Materials Engineer (8th floor) : Kai Heung Signature _____

This project is at the following phase (please check one):

☐ PID (PSSR, etc.) ☒ PR ☐ PS&E ☐ OTHER

Describe existing structural section (e.g., shoulder, traveled way). Show limits if different sections are within the project:

Station	Pavement Component	Thickness (feet)
US 101 "M"98+90 to "M" 238+00	AC (Type A)	0.54
	PMCTB	0.71
	Class 2 AB	0.25
	Class 4 AS	1.75
US 101 "M" 238+00 to "N" 296+30 and "A" 46+00 to "A" 226+00	AC	0.57
	Cement Treated Base	0.66
	Imported Base Material	1.17
US 101 "A" 226+00 to "A" 245+14	PCC	0.70-0.75
	Cement Treated Base	0.45
	Class 4 AS	0.50-0.55
	Perm	1.70

What pavement types/structural sections does Materials propose for each segment (shoulders and traveled way)?

A. US 101 pavements at the locations of existing flexible pavement:
Design Factors are TI = 13.5, R-value = 5, GE (required) = 4.10 feet.

Section Component	Thickness (feet)	Gravel Equivalent (feet)
RHMA-G	0.20	
HMA (Type A)	0.45	1.05
LCB	0.70	1.33
Class 4 AS	1.75	1.75
SEG (Class B1)	--	--
Total		4.13

B. US 101 pavements at the locations of existing rigid pavement:
Design Factors are TI = 15.5, Table 623.1E (Type II, Central Coast Climate Region, with lateral support).

Section Component	Thickness (feet)
CRCP	0.90
HMA	0.25
Class 3 Permeable*	1.70
Lime Stabilized Subgrade	1.00

C. SR 25 at the locations of new proposed pavement:
Design Factors are TI = 13.0, Table 623.1E (Type II, Central Coast Climate Region, with lateral support).

Section Component	Thickness (feet)
CRCP	0.80
HMA	0.25
Class 4 AS	0.70
Lime Stabilized Subgrade	1.00

Pavement is involved in:

☒ Entire project OR ☐ Part of the project

Assumptions (Is future widening in Regional Transportation Plan? Yes or no?): Yes

Please provide information for all of the following items that apply to this project.

	Yes	No	Question
1.	☐	☒	Are you implementing an innovative strategy (e.g., cold foam Hot-Mix Asphalt (HMA)), pre-cast concrete pavement, continuously reinforced pavement, etc)? If so, which are you implementing and why? If not, why not? Standard application of structural pavement has been proposed.
2.	☒	☐	Has Rapid Rehab strategy been considered (e.g., weekend closures and lane replacements)? Explain: Weekend closure and nighttime work will be required for this project. Rapid rehab strategies will be considered and details will be developed during the design phase.
3.	☒	☐	Are you using Rubberized Hot-Mix Asphalt (RHMA) in this project? If not, justify: Yes, rubberized hot mix asphalt (RHMA-G) is being used.
4.	☒	☐	Was Life Cycle Analysis performed? Yes.
5.	☐	☒	Does existing pavement have a settlement problem? Explain: No indication of settlement problem exists in the corridor.

	Yes	No	Question
6.	☐	☒	a) Is this project (or part of project) maintaining the grade profile? b) If not, explain how the profile change affects the pavement strategy choice (cut v. fill): The new southbound U.S. 101 travel-way between Monterey Street and SR 25 would be on a new profile that meets current design standards. The project proposes raising the profile of SR 25 to establish a UPRR grade separation. The Pajaro River Bridge will be raised by approximately 2.7 feet and reconstructed along the same horizontal alignment. The alignment of the new northbound lanes at US 101 Sargent Bridge would feature a larger horizontal curve radius and up to 9 feet higher profile than the existing northbound bridge.
7.	☒	☐	Will there be a new barrier? New concrete barriers will be provided at various locations.
8.	☒	☐	Is the proposed structural section on cut or fill or both? Provide limits of both, if applicable. The proposed structural sections are on both cut and fill. For the limits, please refer to typical cross sections in the Project Report.
9.	☐	☒	Are highly expansive basement soils present? No, design R-value is 5.
10.	☒ ☐	☐ ☐	Are as-builts (including structural section information regarding edge drains, under drains, lime treatment, permeable blanket, etc.) available? If no, did you check map files and online? If yes, existing structural section was based on (check one): ☒ as-built ☐ actual boring
11.	☒	☐	Do the project limits have problems with groundwater (e.g., high water table, flow requirements, etc.)? If yes, explain: A Chevron Service Station located within the study area adjacent to the northern end of the site (5887 Monterey Street) that has groundwater flowing toward the southeast, away from the project site. No construction is expected to be within 50 feet of the station. The study area is presently and has historically been used for agricultural purposes. Soil, surface water, and groundwater in agricultural areas within the study area may be impacted with herbicides and pesticides.
12.	☐	☒	Has the availability of pavement materials (i.e., long haul distances from plants) been considered? If yes, how does material availability affect pavement type selection?

<table>
<tr><th></th><th>Yes</th><th>No</th><th>Question</th></tr>
<tr><td>13.</td><td>☒</td><td>☐</td><td>Will the existing pavement be rehabilitated?</td></tr>
<tr><td></td><td>☐</td><td>☒</td><td>What are the age and condition of the existing adjacent lanes?
Explain: The portion of U.S. 101 to be widened will have a rubberized HMA overlay constructed on top of the existing and proposed pavement section. Existing pavement sections that require rehabilitation will be repaired prior to receiving the final rubberized HMA overlay. The exact thickness and limits of pavement overlay and pavement reconstruction areas will be determined during the design phase once pavement deflection studies are complete.</td></tr>
<tr><td>14.</td><td>☒</td><td>☐</td><td>What is the type of pavement/structural section (corridor pavement type/structural section continuity) on upstream/downstream roadway?
Explain if several:
US 101 Conform (at SR 129):
<table>
<tr><th>Feet</th><th>Item</th></tr>
<tr><td>0.54</td><td>AC (Type A)</td></tr>
<tr><td>0.71</td><td>PMCTB</td></tr>
<tr><td>0.25</td><td>Class 2 AB</td></tr>
<tr><td>1.75</td><td>Class 4 AS</td></tr>
</table>
US 101 Conform (at Monterey St):
<table>
<tr><th>Feet</th><th>Item</th></tr>
<tr><td>0.70-0.75</td><td>PCC</td></tr>
<tr><td>0.45</td><td>Cement Treated Base</td></tr>
<tr><td>0.50-0.55</td><td>Class 4 AS</td></tr>
<tr><td>1.70</td><td>Perm</td></tr>
</table></td></tr>
<tr><td>15.</td><td>☒</td><td>☐</td><td>Is TMP data (lane closure charts) available and was it considered?
Yes. See Project Report.</td></tr>
<tr><td></td><td>☒</td><td>☐</td><td>Will there be nighttime paving? If so, provide lane closure hours:
Closure hours to be determined during the design phase.</td></tr>
<tr><td>16.</td><td>☐</td><td>☒</td><td>Was field Maintenance input considered?
Field Maintenance input to be evaluated during the design phase.</td></tr>
<tr><td>17.</td><td>☒</td><td>☐</td><td>Were climate conditions (extreme temperature, rainfall, etc.) considered?
Yes, the climate in this area is characterized by moderate climatic conditions. This consists of mild winters, mild summers, small daily and seasonal temperature ranges and high relative humidity. Average monthly precipitation varies from less than 0.1 inch to 3 inches in the months of July and January, respectively.
If so, which ones do you anticipate affecting the pavement job?
Temperatures in the winter season will restrict the contractor’s ability to place AC product especially in the night hours.</td></tr>
</table>

	Yes	No	Question
18.			Which stage construction requirements (matching adjacent sections, temporary paving, etc.) were considered? New roadways and structures have been laid out geometrically (horizontally and vertically) and coordinated with existing facilities to assess whether detours or temporary roadway widening would be needed to construct new facilities. Four stages of construction are anticipated to complete the project. A construction 'stage' is generally associated with a major shift in traffic. Several construction 'phases' may be associated with each construction stage. Individual phases of construction would be developed as detailed design progresses.
19.	☒	☐	Is this a large-scale project? Explain all quantity take-off: See Project Report for quantity take-off.
20.	☐	☒	Is there Open-Graded Hot-Mix Asphalt (OGHMA) on the existing pavement? No existing OGHMA within the project limit.
21.	☒	☐	Was environmental impact considered? Explain: Yes, an EIR has been prepared.
22.			What is the proposed pavement design life? 20 and 40 years.
23.			What is the final lane line configuration? U.S. 101 from the county line to SR 129 is already a freeway, and will be widened from four to six lanes. An auxiliary lane will be added in each direction on U.S. 101 between the SR 25 and Monterey Street interchanges. Each travel lane is proposed to be a standard 12-foot width with inside and outside shoulders of 10 feet. The typical section of SR 25 consists of two 12-foot lanes and two 10-foot shoulders, and a 4-foot soft median. The typical section of Santa Teresa Boulevard consists of two 12-foot lanes and two 8-foot shoulders and a 4-foot soft median (rumble strip). The typical section of SR 129 consists of two 12-foot lanes and two 8-foot shoulders, and a 0- to 12-foot soft median.
24.	☒	☐	Are there vertical clearance issues? If yes, explain: All OC meet standard 16 feet-6 inches except at Lomerias OC. Proposed vertical clearance at the Lomerias OC is 16 feet-2 inches.

<table>
<tr><th></th><th>Yes No</th><th>Question</th></tr>
<tr><td>25.</td><td></td><td>What is the traffic index?
<table>
<tr><th>Segment</th><th>Station</th><th>Design Life</th><th>TI</th></tr>
<tr><td rowspan="2">US 101</td><td rowspan="2">“M”98+90 to “N” 296+30 and “A” 46+00 to “A” 245+14</td><td>20 years</td><td>13.5</td></tr>
<tr><td>40 years</td><td>15.5</td></tr>
<tr><td rowspan="2">SR 25</td><td rowspan="2">“B” 91+64 to 194+50</td><td>20 years</td><td>11.5</td></tr>
<tr><td>40 years</td><td>13.0</td></tr>
</table></td></tr>
<tr><td>26.</td><td>☐ ☒</td><td>Are there existing retrofit edge drains?
No existing retrofit edge drain.</td></tr>
<tr><td>27.</td><td>☐ ☒</td><td>Will shoulders be used as detours?
The shoulders will not be used as detours.</td></tr>
<tr><td>28.</td><td>☐ ☒
☒ ☐</td><td>Is there settlement at bridge approaches?
Liquefaction can result in loss of foundation support and settlement of overlying structures. The Santa Clara County Hazard Zones map (2002) and the ABAG liquefaction Susceptibility Map (2007) show the area underlain by alluvium along U.S. 101 from the new proposed SR 25 interchange south to about Tar Creek as having “high” liquefaction susceptibility. This hazard zone also includes the alluvium underlying SR 25 extending east to about the Bloomfield Road intersection and all of the proposed realigned SR 25 west of U.S. 101 in the alluvium adjacent to Gavilan Creek. The U.S. 101 Carnadero Creek crossing is mapped as having “very high liquefaction susceptibility” as a thin strip within the active creek channel. The alluvium underlying U.S. 101 from the north end of the project at PM 5.1 to about Castro Valley Road, except for the thin strip adjacent to Carnadero Creek, is mapped as having “moderate liquefaction susceptibility”, and the bedrock underlying the hills west of U.S. 101 and southwest of Santa Teresa Blvd has “low to very low liquefaction susceptibility”.

Are bridge approach slabs being replaced? Does such replacement include shoulders?
Bridge approach slab type N is being placed. Shoulders are included.</td></tr>
<tr><td>29.</td><td>☒ ☐</td><td>Is there a minimum standard (2% or 1.5%) cross-slope?
If not standard, provide date of design exception approval:_____
1.5% CROSS SLOPE

The proposed pavement will have cross slope of 2%.</td></tr>
<tr><td>30.</td><td></td><td>Provide the pavement condition report.
Pavement condition report to be prepared during the design phase.</td></tr>
<tr><td>31</td><td>☐ ☒</td><td>Other factors?
Explain:</td></tr>
</table>