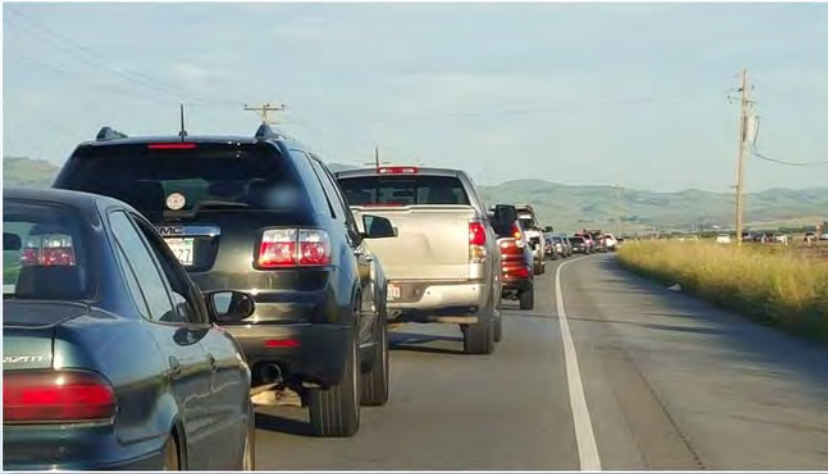


Highway 25 Widening Design Alternatives Analysis

June 2016



Prepared for:



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1. EXECUTIVE SUMMARY

INTRODUCTION

The purpose of the Highway 25 Widening Design Alternatives Analysis Study is to identify alternative design scenarios and delivery strategies for the State Route (SR) 25 4-Lane Widening Project. As currently designed, project costs would exceed anticipated highway improvement revenues in San Benito County for the next 20 years.

The Council of San Benito County Governments (COG) is seeking lower-cost design solutions to enhance safety and traffic operations along the SR 25 corridor as well as increase capacity along the route to alleviate near-term traffic demand. The range of capital improvement projects considered are supported by San Benito County stakeholders, and could be included as part of a future sales tax measure expenditure plan. Near-term projects that address the needs of the existing corridor and can be constructed within the expected range of funding are considered critical factors in garnering public support.

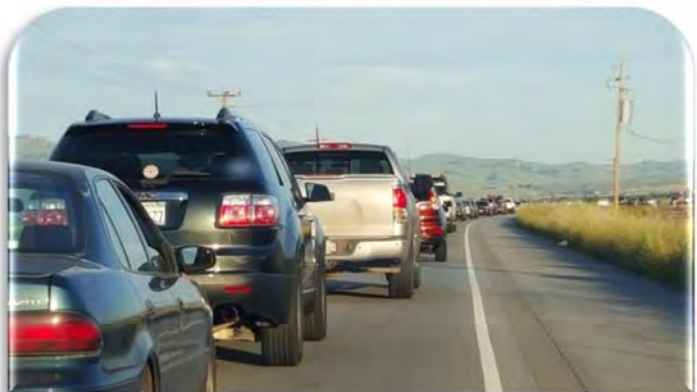
The study limits on SR 25 are from San Felipe Road in Hollister to US Route (US) 101 in Santa Clara County – a distance of 10.6 miles.

EXISTING CONDITIONS

SR 25 between San Felipe Road and US 101 is the main connector between the City of Hollister, and Santa Clara County. The route is a two-lane conventional highway and connects to US 101 at a grade-separated interchange with signalized intersections at San Felipe Road and SR 156. There are two creek crossings, two railroad crossings, and numerous local road and private driveway intersections.

Congestion

Average daily traffic at the San Benito/Santa Clara County Line has more than doubled since the mid-1990's due to rapid population growth and commute trips, and is expected to double again by 2040. The percent time spent following other vehicles is a measure of traffic operations. When traffic volumes exceed the capacity of a two-lane roadway, 100 percent of time is spent following other vehicles and average travel speeds of less than 30 mph. Recent traffic studies show



There is a near-term need to widen SR 25 between San Felipe Road and US 101 to improve traffic flow, reduce delays and increase capacity.

that the average percent of total travel time spent following slower vehicles on southbound SR 25 at the County Line has reached 95 percent during the evening peak hour indicating portions of the corridor are already approaching gridlock conditions.

Safety

In 2000, Highway 25 was designated as a Safety Corridor between US 101 and San Felipe Road. A Task Force was formed and projects were initiated by COG and Caltrans to improve traffic operations and enhance safety along the corridor by addressing (a) potential for head-on collisions, and (b) fast-moving traffic conflicting with slower-moving vehicles entering or exiting local roads and the numerous private driveways. The full range of improvements recommended by the Highway 25 Corridor Task Force was only partially constructed due to funding constraints.



There is a near-term need to complete safety and operational improvements along the SR 25 corridor.

Coordination with Other Planned Highway Projects

Numerous studies have been conducted since the late 1980's to develop needed transportation improvements on SR 25, US 101 and SR 152 within the region. The major planned projects are:

- a) Widen SR 25 between San Felipe Road and east of US 101
- b) Widen US 101 between Monterey Street and SR 129, including a new US 101 / SR 25 interchange
- c) Construct a new alignment for SR 152 between SR 156 and US 101, including an expanded US 101 / SR 25 interchange

No widening of SR 25, US 101 and SR 152 within the above limits, has occurred in over 40 years despite a rapid increase in commuter, commercial and recreational traffic. Due to a massive shortfall in funding statewide and stiff competition to fund an ever growing list of high-priority infrastructure improvements throughout California, construction of these important corridor improvements using traditional funding sources is unlikely to occur in the next 50 years. Opportunities to combine and phase construction of these projects using non-traditional funding sources appears to be the only viable solution to meet the near-term needs of the traveling public.

The routes lie near the fringes of two counties and three Caltrans Districts, therefore, it is vital that local elected officials participate jointly to support and provide policy advice to advance project delivery of these important highway projects in a timely manner.

Potential Improvements

The study was prepared by COG staff and consultants. A collaborative planning process was used through a series of work shop meetings with participating agencies. A Project Development Team (PDT) was formed consisting of staff from COG, Caltrans District 5, San Benito County, City of Hollister, VTA and CHP. The PDT reviewed progress and provided guidance throughout the study. Study findings were also presented to the COG Board of Directors and stakeholders.

A broad range of alternatives was developed by the study team at a conceptual level of detail. These included highway improvement projects to enhance safety and traffic operations, and widen portions of existing SR 25. Options to improve alternative transportation modes, such as public transit, was also considered. An initial screening process was conducted to select viable alternatives. With PDT concurrence, the viable alternatives were then developed in more detail including their cost. The list of viable alternatives recommended for further study and their order of magnitude project cost is summarized in the table below.

ALTERNATIVE	DESCRIPTION	COST
Safety and Operational Enhancements		
SR 25 (Wright Rd to McConnell Rd)	Intersection channelization, concrete median barrier, extended merge lanes and driveway improvements	\$4,800
SR 25 (Santa Clara County)	Intersection and driveway channelization, and private access improvements	\$3,000
Southbound US 101 approach to SR 25	Construct new auxiliary lane between Castro Valley Road and SR 25 off-ramp	\$2,500
SR 25 / SR 156 Intersection Improvements	Extend 2-lane approach and departure length at each leg of the intersection. Install other safety improvements.	\$4,800
SR 25 Passing Lanes	Widen SR 25 to 4 lanes between Hudner Ln and Shore Rd	\$35,000
New SR 25 / SR 156 Interchange	Construct new spread diamond interchange to replace SR 25 / SR 156 signal intersection	\$45,900
SR 25 Widening		
Adopted Alignment (San Felipe Rd to new SR 152)	Construct 4-lane expressway on new alignment with limited access to local roads including a new interchange at SR 156. Remaining portions of existing highway would become local roads	\$180,600 ²
Adopted Alignment (New SR 152 to UPRR) ²		\$97,800 ²
Existing Route (San Felipe Rd to Hudner)	Widen existing highway in San Benito County to 4-lanes and upgrade to expressway design standards, including a new interchange at SR 156 and northerly connection with Adopted Alignment and New SR 152	\$84,800
Existing Route (Hudner to north of Shore Rd)		\$53,400
Alternative Transportation Modes		
Park and Ride Lot Improvements	Additional parking spaces. Improved driveway access	\$820
Intelligent Transportation Systems	Dynamic message signs and CCTV	\$1,950
County Express Bus Service	Additional Route	\$100/year
Support Services	Additional CHP and Freeway Service Patrol	\$120/year

Notes:

1. Costs are in 2015 dollars. Escalation is not included. Actual costs will be higher. Costs shown are in thousands.
2. Assumes 6-lane expressway to accommodate SR 25 and SR 152 traffic between the Pajaro River and the UPRR tracks (located east of US 101).

The proposed highway improvements could be constructed as standalone projects or combined to provide corridor-wide improvements. Combining safety and operational improvements would range from \$51 million to \$154 million. Widening SR 25 within San Benito County would range from \$138 million to \$181 million.

Widening SR 25 in both San Benito and Santa Clara Counties as well as constructing needed improvements on US 101 (between Monterey Street and SR 25), and the new SR 152 alignment (between SR 156 and US 101) would range in cost from \$724 million to \$767 million.

FINANCIAL FEASIBILITY

Financing the SR 25 corridor improvements as well as needed state highway improvements that connect with SR 25, to accommodate present and future travel demand will require a significant investment of both traditional and alternative transportation funding sources. Funding considered includes the State Transportation Improvement Program, Traffic Impact Mitigation Fees, and Public-Private Partnerships. Project phasing and combining of investments is also considered.

SR 25 is the regional connection between Hollister and the Greater Bay Area for commercial, commuter and recreational traffic, and critical to the economic vitality of San Benito County. In addition to widening SR 25 to a 4-lane expressway, widening US 101 to six lanes between Monterey Street and the SR 25 Junction, and constructing a new US 101 / SR 25 interchange are also needed to relieve congestion and improve travel time reliability between San Benito County and the Greater Bay Area.

Improvements on SR 152 between US 101 and I-5 are also urgently needed to relieve congestion and improve travel time reliability on this major east-west trade corridor that links the north-south trade corridor backbones of US 101, I-5 and SR 99 and is the only direct east-west trade route connecting US 101 and SR 99.

Since the SR 152 Trade Corridor Project overlaps the portion of the SR 25 Adopted Alignment in Santa Clara County, and offers a broader range of funding options, combining both projects should be considered.

If San Benito County voters approve Measure P in June 2016, funds to construct the proposed safety and traffic operational improvements on SR 25 in San Benito County and identified in this study would be achievable in the near term.

The recently adopted Traffic Impact Mitigation Fee Nexus Study (January 2016) identifies \$88 million in funding from new development to be contributed to the SR 25 Widening.

Sufficient local funds could also be raised to widen SR 25 to four lanes in San Benito County (\$136M to \$182M), however, funding to complete SR 25 as a 4-lane expressway together with needed improvements on US 101 and SR 152 is not currently programmed by VTA.

Construction of the Santa Clara projects through traditional methods of financing are also

estimated to take up to 50 years to complete which is not considered financially feasible. The gap to fully fund the SR 25, US 101 and SR 152 improvements will grow even wider as construction costs escalate due to the massive funding shortfall statewide.

Alternative methods of financing are needed to complete project delivery for the SR 25, US 101 and SR 152 improvements. Combining SR 25 improvements with US 101 and SR 152 improvements, would better place these projects to compete for a wider range of funding sources.

COG and VTA elected officials have joined forces as a Mobility Partnership to address the SR 152 corridor and to develop options to accelerate project delivery such as a public-private-partnership and formation of a Joint Powers Authority (or similar entity) to govern project delivery. The Mobility Partnership has also partnered with Caltrans to explore new ways of looking at project delivery for SR 152. In order to complete SR 25 as a 4-lane expressway, in a timeframe acceptable to the traveling public, a similar approach should be considered.

NEXT STEPS

This study is intended to serve as a basis for COG and partner agencies to advance project development of specific improvements along the SR 25 corridor as funding opportunities arise. Next steps in the project development process would include:

- Obtain stakeholder consensus on preferred near-term improvements for the SR 25 corridor
- Secure funding to advance project development of near-term fundable projects
- Seek support from San Benito and Santa Clara County elected officials to establish a governing body to fund and deliver projects that upgrade segments of SR 25, SR 152 and US 101 to expressway standards within the next ten years. These improvements are urgently needed to promote trade and preserve the economic vitality of the region

2. INTRODUCTION

In March 2015, the Council of San Benito County Governments (COG) Board of Directors expressed interest in conducting a study to identify alternative design scenarios and delivery strategies for the State Route (SR) 25 4-Lane Widening project. As currently designed, that project cost exceeds anticipated highway improvement revenues in San Benito County for the next 20 years. COG is seeking interim and lower-cost design solutions and alternatives for project phasing and implementation to enhance safety and traffic operations along the SR 25 corridor as well as pursue innovative solutions to increase capacity along the route to meet near-term traffic demand.

A. Background

San Benito County is a rural and agricultural community in the Central Coast Region, south of Silicon Valley. The County is surrounded by the Counties of Santa Clara, Santa Cruz, Monterey, Fresno and Merced. Land area is 1,389 square miles. Terrain varies from flat valley floor, to hilly rangeland in the east, to 5,450 foot peaks far south. The City of Hollister where the County seat is located is at an elevation of 229 feet. The north and northwest segments of the County are comprised of urban areas, leaving the southern portion of the County primarily rural. The population in the County was 55,269 according to the 2010 U.S. Census. The County has two incorporated cities – Hollister, population 35,000, and San Juan Bautista, population 1,700 – and various unincorporated communities (Aromas, Tres Pinos, Panoche, Ridgemark, and Paicines). Major transportation routes bisecting the County include State Routes 101, 129, 156 and 25.

B. Study Goals and Objectives

The range of capital improvement projects considered are expected to be supported by San Benito County stakeholders, and could be included as part of a future sales tax measure expenditure plan. Near term projects that address the needs of the existing corridor and can be constructed within the expected range of funding are considered critical factors in garnering public support.

To facilitate development and selection of conceptual alternatives, a set of goals and objectives were established to guide the study process.

GOALS	OBJECTIVES
Enhance Travel Safety	- Complete the route as a continuous 4-lane expressway facility between San Felipe Road and US 101 - Eliminate signal controlled intersections along the corridor - Consolidate private access and upgrade route to access controlled standards to separate slow and fast moving vehicles - Remove bottlenecks - Improve truck access at interchanges - Improve State Highway System connectivity
Improve Travel Time Reliability	
Improve traffic operations	
Upgrade the SR 25 corridor in a manner that avoids, minimizes, and/or mitigates environmental effects wherever feasible and practical	
Construct phased solutions that are consistent with or do not preclude the SR 25 Adopted Alignment	
Construct fundable solutions	

C. Project Study Area

The Study area includes SR 25 from San Felipe Road in San Benito County to US Route 101 in Santa Clara County – a distance of 10.6 miles. Recommendations for roadway improvements are focused within these limits, however, the Study also included US Route 101 from south of Monterey Street to SR 25, SR 156 between SR 152 and SR 25, and the New SR 152 Alignment study area between SR 156 and SR 25 to coordinate with adjacent planned projects. The study area limits are shown on Attachment A.

D. Study Process

A work plan was developed in coordination with COG staff and consisted of six primary tasks.

Task 1 – Project Kick-Off Meeting

A Project Kick-Off meeting was conducted with the Project Development Team (PDT) to discuss the project scope, team organization, communication procedures, critical activities, data needs, and project deliverables

Task 2 – Background Analysis

The Study Team obtained and reviewed relevant data and information necessary for the study.

Task 3 – Alternatives Development

The Study Team developed a broad range of conceptual alternatives and conducted an initial screening process to select viable alternatives for further consideration. The following criteria was used in the screening process:

- Within range of anticipated funding (\$80M to \$160M)
- Can be constructed within 5 years (near-term)
- Can be constructed within 10 years
- Would enhance travel safety
- Would improve travel time reliability
- Would avoid/minimize/mitigate impacts to environmentally sensitive areas
- Consistent with adjacent projects (e.g. SR 152 Trade Corridor, US 101/SR 25 Interchange, High Speed Transit)

Task 4 – Project Coordination

A series of stakeholder meetings were then conducted to identify and reach consensus on the study limits, scope, goals and objectives, and to provide input on the alternatives considered. Additional issues to be addressed in the study were also identified. PDT meetings included staff from Caltrans, Santa Benito County, California Highway Patrol, VTA, and the City of Hollister. The following PDT and stakeholder meetings were conducted during the course of the study:

- Project Kick-Off Meeting held at COG Offices on November 19, 2015
- Study Work Shop Session No.1 held at COG Offices on December 11, 2015
- Study Work Shop Session No.2 held at County Offices on January 13, 2016
- Study Work Shop Session No.1 held at Caltrans District 5 Offices on January 28, 2016
- COG Board of Directors Briefing held at City Chambers on February 3, 2016
- Study Work Shop Session No.1 held at Caltrans District 5 Offices on March 22, 2016
- COG Stakeholders Briefing held at County Offices on April 7, 2016

Task 5 – Financial Analysis

Order of magnitude project cost estimates were prepared for the proposed improvements selected for further consideration.

Task 6 – Prepare Final Report

The study findings were documented in this report for use by stakeholders to make informed decisions on planning overall corridor improvements and selecting near-term improvements for further development.

E. Previous Study Efforts

Studies to improve Highway 25 within the study limits have been ongoing since the 1990's. Relevant previous study efforts are summarized below.

- SR 25 Safety and Operational Improvements Combined Project Study Report / Project Report and Initial Study with Proposed Mitigated Negative Declaration, 2005
- SR 25 4-Lane Widening Draft Environmental Impact Report / Environmental Impact Statement (EIR/EIS), 2010
- SR 25 Transportation Concept Report (Draft 2016)
- SR 152 Trade Corridor Project: Project Study Report-Project Development Support (PSR-PDS), 2015
- Alternatives Evaluation, New SR 152 Alignment, 2010
- Southern Gateway Transportation and Land Use Study, 2005
- Highway 25 Interim Improvements Draft PSR-PDS, 2014
- On the Move: 2035; San Benito Regional Transportation Plan, 2014
- Hollister / Gilroy Caltrain Extension Final Report , 2000
- Short Range Transit Plan, 2008
- Future Horizons for San Benito County Short- and Long-Range Transit Plan (Draft, 2015)
- San Benito County Bikeway and Pedestrian Master Plan, 2009
- 2035 San Benito County General Plan, 2013
- Regional Transportation Impact Mitigation Fee Nexus Study, January 2016

3. EXISTING CONDITIONS

A. Overview of Existing Transportation System

SR 25 within the study limits is the main connector between the cities of Hollister and Gilroy serving commuter, commercial and recreational traffic. Motorists expect to travel the route at relatively high speeds during the daily commute hours. Between Hollister and US 101, the highway has functioned both as a major intercity route and a primary commuter route since about 1990. An increased number of vehicles travel this stretch of SR 25 due to the rapid population growth and commuter traffic between northern San Benito County and San Jose and the northern Santa Clara Valley (see Table 3-1).

SR 25 is a two-lane conventional highway with one 12 foot travel lane in each direction of travel. The paved shoulder width on both sides of the highway varies from 2 feet to 10 feet. Within the study limits, SR 25 follows a relatively straight and level alignment, and primarily traverses through a rural area consisting mainly of agricultural lands. The posted speed limit is 55 mph. SR 25 connects to US 101 at a grade-separated interchange and there is a signalized intersection where the route crosses SR 156. There are also numerous at-grade local road intersections, private driveways and farm road entrances along the corridor. Union Pacific Railroad has two at-grade crossings and there are two creek crossings at Carnadero Creek and Pajaro River.

B. Traffic Data

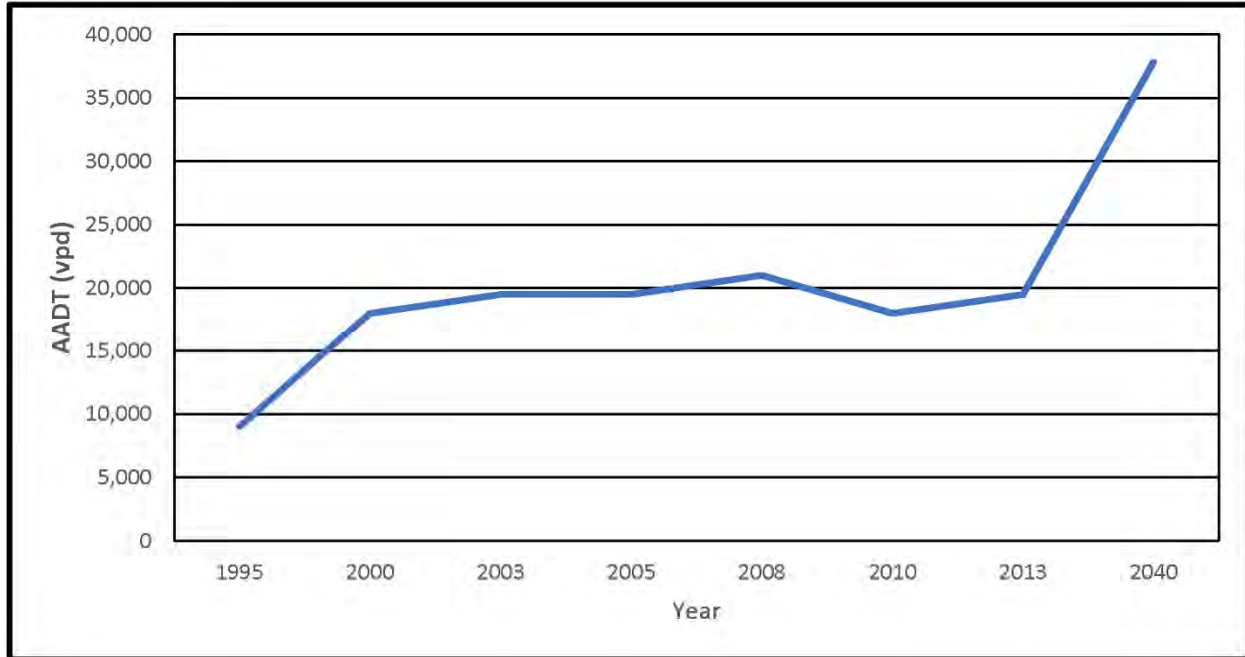
Traffic data from prior studies was utilized for this study to summarize the traffic operational characteristics of the SR 25 corridor within the study limits. A detailed traffic study would be performed to support the environmental planning phase of any highway improvement project that is selected for further development. The primary source of traffic data for this study is the DEIR/EIS prepared for the SR 25 4-Lane Widening Project and the Draft SR 25 Transportation Concept Report. Both documents were prepared by Caltrans District 5.

During peak commute hours, traffic becomes heavy, resulting in congestion. Traffic is often delayed by vehicles turning into and/or out of the numerous driveways and local roads, affecting the flow of the faster-moving vehicles. Conflicts between faster-moving vehicles and slower-moving agricultural traffic occur during off-peak traffic hours. This segment of SR 25 is a conventional highway, so access to driveways is not limited. Between San Felipe Road and US 101 there are approximately 48 private driveways and 11 local road intersections along the SR 25 corridor. Several intersections do not currently have left-turn channelization lanes.

Historical trends in daily two-way traffic volumes on SR 25 at the San Benito/Santa Clara County line are shown in Table 3-1. Daily traffic volumes at this location have increased from 9,000

vehicles per day (vpd) in the mid-1990's to 19,500 vpd in 2013. By 2040, the volumes are forecast to increase to 37,800 vpd.

Table 3-1: Historical Daily 2-Way Traffic Volumes on SR 25 at County Line



Note: AADT – Annual Average Daily Traffic; vpd – vehicles per day

Source: Caltrans Traffic Data (<http://traffic-counts.dot.ca.gov/>); and Draft SR 25 Transportation Concept Report, dated 2016

Commercial truck traffic travels through the area on SR 25 and is also subject to delays due to the congestion. According to the latest Caltrans traffic census data from 2014, truck traffic makes up about 6.5 percent of the total traffic on SR 25 near the US 101 junction.

According to the traffic analysis completed for the SR 25 4-Lane Widening Project, the existing (2006) annual average daily traffic count was 14,700 vehicles between San Felipe Road and SR 156; 21,300 vehicles between SR 156 and the San Benito County-Santa Clara County line; and 22,500 vehicles between that point and US 101 in Santa Clara County. The traffic volumes were lower at the Hollister end of the project because some drivers turn off of SR 25 at Bloomfield Avenue, some motorists turn off of the highway at Shore Road to get to SR 156, and some traffic turns south onto SR 156 to access neighborhoods on the west side of Hollister.

Table 3-2 shows the annual average daily traffic counts for segments of the route adoption area measured in 2013 (existing conditions), and predicted traffic in 2040 (future conditions).

Table 3-2: Existing / Future Traffic Volumes (Briggs Road to County Line)

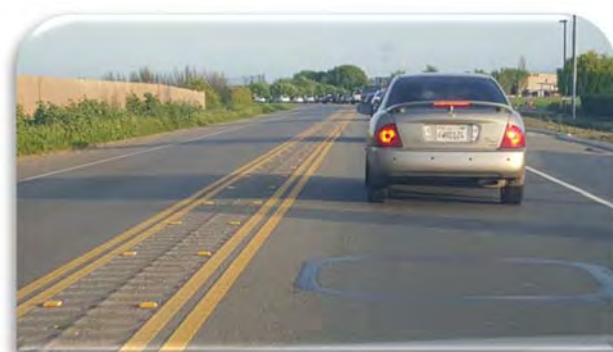
Existing (2013)	Future (2040)
Annual Average Daily Traffic (vpd)	
16,500 to 19,350	32,770 to 36,980
Peak Hour Volume (vpd)	
1,500 to 1,900	3,040 to 3,560

Source: SR 25 Transportation Concept Report, prepared by Caltrans, Draft 2016

When the traffic study was conducted, predicted average annual daily traffic was expected to increase by 37 percent by 2015 on SR 25 between San Felipe Road and SR 156, with 5,400 more daily vehicles than in 2006. In 2035, traffic on this segment was predicted to increase by 9,700 more vehicles per day, a 61 percent increase in traffic. Although the segment of highway between SR 156 and Hudner Lane was predicted to have only 7.5 percent more traffic in 2015 (1,600 more daily vehicles than used the road in 2006), by the year 2035 traffic was predicted to grow by 36 percent from 2006 conditions, adding 7,600 more daily vehicles to the highway compared to 2006 volumes. The segment from Hudner Lane to US 101 was predicted to see less than 1 percent traffic increase in 2015. However, by the year 2035, 9,700 more daily vehicles were expected to be on this stretch of roadway, a 43% increase from existing traffic.

Because SR 25 has a striped median that prohibits passing throughout the length of the project, traffic lines up behind slower vehicles, especially during the morning and evening commute hours.

“Average travel speed” and “percent time spent following” (percentage) are the criteria used to determine Level of Service for two-lane highways. SR 25 within the project limits is classified as a Class I two-lane highway because it is a daily commuter route and the main connector between the cities of Hollister and Gilroy. “Average travel speed” for vehicles is measured in miles per hour.



“Percent time spent following” (percentage) is defined as the average percentage of travel time vehicles spend traveling in lines behind slower vehicles due to their inability to pass. Whenever percent time spent following is measured at 80% or more, the resulting level of service is recorded as level of service E. Level of service F occurs whenever the traffic flow rate exceeds the capacity of the roadway, with 100% time spent following and average travel speed of less than 30 miles per hour. The average percent of total travel time that southbound SR 25 vehicles travel in platoons behind slower vehicles was 95.6% during the evening peak hour in 2013.

C. Accident Data

The most recently available traffic accident data within the study limits was obtained from Caltrans for the three year period October 1, 2010 to September 30, 2013. The following table provides a summary of the accident analysis during that period.

Table 3-2: Accident Summary (November 1, 2003 through October 31, 2008)

Location	Total Accidents	Between Intersections	At Intersections	Fatal	Injury	Fatalities	Persons Injured	Accident Rate					
								Actual			Average		
								FAT	F+I	TOT	FAT	F+I	TOT
Hwy 25 (San Felipe Rd to County Line)	117	74	43	2	46	2	86	0.01	0.28	0.68	0.02	0.30	0.70
Intersections													
Wright Rd	8			1	5	1	14	0.05	0.30	0.39	0	0.10	0.26
E. Briggs Rd	2				2		3	0	0.11	0.11	0	0.07	0.16
W. Briggs Rd	2				1		2	0	0.06	0.11	0	0.07	0.16
Flynn Rd	3				1		2	0	0.05	0.16	0	0.07	0.16
McConnell Rd	1							0	0	0.05	0	0.07	0.16
SR 25/SR 156	36				15		26	0	0.44	1.07	0	0.19	0.50
Hudner Ln	0							0	0	0	0	0.07	0.16
Shore Rd	4				3		7	0	0.13	0.17	0	0.07	0.16

FAT = number of fatal accidents per million vehicle miles

F+I = number of fatal plus injury accidents per million vehicle miles

TOT = total number of accidents per million vehicle miles

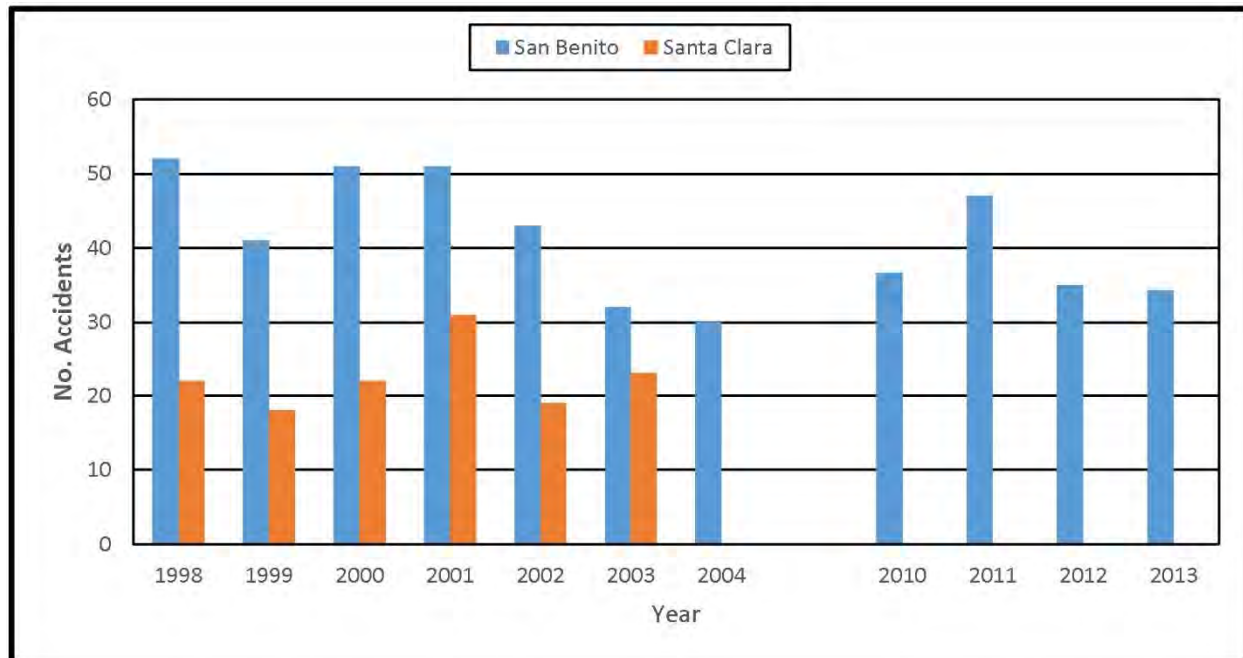
Source: Caltrans Traffic Accident Surveillance and Analysis System (TASAS) database

For the 8.6 mile two-lane section of Route 25 between the San Felipe Road and the San Benito/Santa Clara County Line, the actual accident rate is calculated to be 0.68 accidents per million vehicle miles (MVM), which is similar to the statewide average accident rate of 0.70 accidents per MVM for this type of roadway facility. Of the recorded 117 accidents, 43 occurred at intersections and 74 occurred between intersections. 2 accidents resulted in 2 fatalities and 46 of the accidents resulted in 86 persons injured. Overall, the primary cause of the accidents was recorded as speeding, failure to yield, improper turns, and other violations. The most common type of accident was recorded as rear-end and broadside. A total of 2 head-on collisions were recorded.

The heaviest concentration of accidents reported on SR 25 in San Benito County occurred at the SR 25 / SR 156 intersection. The primary cause of the accidents was recorded as speeding and other violations. The most common type of accident was recorded as rear-end and broadside.

The total number of accidents recorded on SR 25 within the study limits by county since the late 1990's is summarized in Table 3-3. On average, 30 or more accidents occur each year on SR 25 in San Benito County.

Table 3-3: Historical Accident Data on SR 25 (San Benito and Santa Clara counties)



Source: Caltrans Traffic Accident Surveillance and Analysis System (TASAS) database

Beginning in 2000, the Highway 25 Safety Corridor Task Force initiated the following safety projects on SR 25 within the study limits:

- 2000 - the “Stay Alive on 25” campaign designated SR 25 as a daylight headlight zone, installed additional speed limit signs, and replaced pavement delineation
- 2000 - temporary rumble strips were installed in the median of SR 25
- 2001 - a permanent 2-foot wide ground-in rumble strip was constructed
- 2002 – 4-foot wide ‘soft’ median barrier with rumble strip, highly reflective striping, shoulder widening, and channelization at Flynn Road was completed in San Benito County
- 2004 – 4-foot widen ‘soft’ median barrier with shoulder widening, drainage improvements, and channelization at Bloomfield Road was completed in Santa Clara County
- 2010 – widening of SR 25 from just north of Shore Road to Hudner Lane to install a concrete median barrier, shoulder widening, drainage improvements, intersection channelization at Shore Road, Grant Line Road, Hudner Lane; and consolidated driveway system

D. Need for Improvements

Enhance Safety and Traffic Operations

The need to enhance safety and traffic operations on SR 25 between San Felipe Road and US 101 was established by the Highway 25 Safety Task Force in 2000, as follows:

Reduce the Potential for Cross Centerline Collisions

Installation of the concrete median barrier between Hudner Lane and Shore Road has significantly reduced the potential for head-on collisions on this segment of SR 25. Additional locations were recommended by the Task Force.

Reduce the Potential for Speed Differential Collisions

Fast-moving traffic conflicts with slower-moving vehicles entering/exiting local roads and numerous private driveways along SR 25. Reducing the number of access points and improving channelization at bottlenecks, local road intersections and heavily trafficked driveways is needed.

SR 25 Widening (San Felipe Road to US 101)

The need to widen SR 25 between San Felipe Road and US 101 has been established by the separate SR 25 4-Lane Widening Project studies, as follows:

Improve Traffic Flow and Reduce Delays

Passing is prohibited on SR 25 and traffic backs up behind slower vehicles, especially during the morning and evening commute hours. Adding another through lane in each direction would allow for safe passing of slower-moving vehicles.

Increase Capacity

The segment of SR 25 in Santa Clara County is expected to reach capacity in 2016 and the segment in San Benito County between SR 156 and the County Line is expected to reach capacity by 2025 or sooner. The existing corridor will no longer be able to accommodate traffic demand and result in increased delays to the motorists and traffic diverting to alternative routes.

4. OTHER PLANNED IMPROVEMENTS

A. SR 25 Widening

Caltrans has been working in partnership with COG since 2001 to reduce congestion and improve safety and operations on SR 25. Over time, with input from stakeholders and the public, this project has evolved.

As of mid-2007, the project proposed to widen 10.6 miles of SR 25 in San Benito and Santa Clara counties from the existing 2-lane highway to a 4-lane expressway. In late 2007, Caltrans proposed a route adoption for the 11.2-mile stretch of highway from San Felipe Road in Hollister to US 101. A route adoption establishes and documents an exact 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. The route concept for SR 25 is a 4-lane expressway facility.

Caltrans has completed preliminary design and detailed technical studies and circulated a Draft Environmental Impact Report / Environmental Impact Statement (EIR/EIS) to the public for the new SR 25 corridor route adoption that would be offset from the existing route and accommodate a future 4-lane expressway when adequate funds are available to construct the facility. Caltrans is currently in the latter stages of completing approval of the EIR/EIS and a Route Adoption Report of the new SR 25 corridor for CTC adoption. The decision to locate a highway along a specific alignment allows for future land use planning, including establishment of right-of-way boundaries and protection of that right-of-way through local land use controls (a county General Plan).

The project cost is estimated at \$280 million (in 2011 dollars) and exceeds anticipated funding revenues in San Benito County through 2035.

Proposed Improvements (see Attachment D)

The route adoption alternative would accommodate the following highway improvements in the future:

- A four-lane expressway with a 46-foot-wide median within a 342-foot-wide right-of-way
- Frontage roads on one or both sides of the expressway, as needed
- A new interchange to replace the SR 25/SR 156 at-grade intersection; the interchange would require grade separation (SR 156 would cross SR 25 with a bridge)
- New bridges over the Pajaro River and Carnadero Creek
- New overheads (bridges) to cross over the Union Pacific Railroad Hollister branch line near the Pajaro River and the Union Pacific Railroad main line east of US 101
- A new SR 25 / US 101 interchange to replace the existing interchange

- A new intersection to connect to frontage roads on either side of the expressway would be located 1.7 miles south of Shore Road
- A realigned intersection at Shore Road and SR 25 would intersect at right angles to improve drivers' ability to see oncoming traffic
- A realigned Bolsa Road intersection southeast of the existing one (with a connector to the western frontage road opposite Bolsa Road)
- Cul-de-sacs of Bolsa Road and Bloomfield Avenue; Bloomfield Avenue would no longer be connected to SR 25
- New frontage roads would incorporate the existing SR 25 roadway where feasible
- The profile (the height of the roadway) of the new alignment from the Pajaro River northwestward to US 101 must be raised to a minimum height of 7 feet because this segment would be in a floodplain. Culverts would be required to prevent the roadway from acting as a dam during floods

The right of way to be acquired along the corridor route adoption would be approximately 497 acres of mainly agricultural land. A number of impacted parcels would be 51 parcels. According to the DEIR/EIS, approximately 160 acres of Williamson Act lands, 14 residential relocations, and 4 business relocations would be acquired to accommodate the corridor route adoption.

B. SR 152 Trade Corridor

SR 152 is a major east-west corridor for interregional traffic connecting the South San Francisco Bay Area, North Central Coast and Central Valley regions. The route is a major international highway trade corridor linking the north-south trade corridor backbones of US 101, I-5 and SR 99, and the only direct east-west route connecting US 101 and SR 99. The closest east-west state highways are 60 miles to the north on I-580, or 120 miles to the south on SR 46. SR 152 is a vital artery between the State's agricultural heartland of the San Joaquin Valley and the Monterey Peninsula.

The use of SR 152 by commuter traffic has grown dramatically in the last decade, particularly for workers traveling from Merced and San Benito Counties to the Bay Area. The corridor is also heavily used for recreational trips. The corridor is not capable of effectively moving existing traffic or traffic expected in the future. Safety, congestion and reduced travel speeds are the major issues affecting trade and mobility. Problems are expected to deteriorate further in the future. Delays to trucks are of particular concern because the economy is highly dependent on reliable and cost-effective truck-freight transportation.

The Project proposes substantial improvements to the full length of SR 152 between US 101 in Santa Clara County on the west and I-5 in Merced County on the east, a total distance of approximately 40 miles. The proposed improvements are divided into segments and summarized in Table 4-1.

Table 4-1: SR 152 Trade Corridor Design Variations Studied in PID Phase

Segment Description		Design Variation
A	New SR 152 Alignment (US 101 to SR 156)	- Range of alignment options and new interchanges (US 101 and SR 156) - Range of interchange options to complete the US 101/SR 25 interchange
B	SR 152 Access Control Improvements (SR 156 to EB SR 152 Pacheco Pass Climbing Lane)	Full and partial access control
C	EB SR 152 Pacheco Pass Climbing Lane	- Range of alignment options for the range of allowable design speeds in mountainous areas - Full and partial access control
D	SR 152 Access Control Improvements (EB SR 152 Pacheco Pass Climbing Lane to SR 33 North)	Full and partial access control
E	SR 152 Access Control Improvements	- Full and partial access control - Range of interchange options to modify the SR 152/I-5 interchange

For Segment A, SR 152 will be reconstructed as a freeway on a new alignment south of its existing alignment. The new alignment will traverse portions of Santa Clara and San Benito Counties, connecting to US 101 at SR 25 on the west and connecting to SR 152 at the SR 152/SR 156 interchange on the east. Three potential alignments for the new freeway are under consideration (see Attachment D). Specific components within this segment will include:

- Modification of the new US 101/SR 25 interchange configuration proposed as part of the separate US 101 Widening Project to accommodate additional traffic generated by the new SR 152 Alignment. Widening of US 101 to a 8-lane freeway between SR 25 and SR 152 (East) will be considered, and may be added pending results of detailed traffic studies.
- SR 25 will be widened and realigned to a 6-lane freeway from the proposed UPRR grade separation, just east of US 101, to just east of the Santa Clara/San Benito County Line, with new bridge crossings at Carnadero Creek, the UPRR, and Pajaro River, and a new interchange at SR 152/Bolsa Road.
- A new SR 25/SR 152 interchange will be constructed just east of the Pajaro River with connections to SR 25.
- SR 152 will be reconstructed as a new 4-lane freeway from the new SR 25/SR 152 interchange to just east of the SR 152/SR 156 interchange. New bridge crossings will be constructed at Frazier Lake Road, High Speed Rail, Tequisquita Slough, Pacheco Creek, and the Santa Clara Conduit. A new interchange at San Felipe Road will be considered, and may be added pending results of detailed traffic studies.

- The existing SR 152/SR 156 interchange will be modified to accommodate a four-lane freeway.
- Frontage roads will be constructed, as needed, to replace existing access to US 101, SR 25 and SR 152 from adjacent properties.
- Bicycle facilities will be constructed, as needed, to replace access lost when US 101 is upgraded to a freeway.

Upon completion of the new freeway, the existing alignment of SR 152 between the city of Gilroy and SR 156 will be relinquished by the State to the city and Santa Clara County and will function as a local roadway.

In the current economic climate of limited federal funding and shortfalls in state and local taxes, new methods of funding infrastructure improvements are being sought to initiate and implement projects that keep traffic moving, commerce flowing and the economy growing. At the request of the California Transportation Commission (CTC), VTA, in coordination with COG, and Caltrans, is exploring the role of both public and private capital together with user fees to move this project forward.

Caltrans approved the Project Study Report-Project Development Support (PSR-PDS) for this Project in early 2015. The approved PSR-PDS authorizes the project to advance to the environmental planning phase. VTA has partial funding for the environmental planning phase and expects to begin technical studies in late 2016.

C. US 101 Widening (Monterey Street to SR 129)

In Summer 2013, the VTA Board approved an EIR to improve US 101 between Monterey Street interchange in Gilroy and the SR 129 interchange in northern San Benito County. The improvements are needed for the following reasons:

- US 101 is currently a 4-lane expressway between these limits and has insufficient capacity to accommodate future demand during peak travel periods. As a result, delays and congestion occur during the AM and PM peak weekday commutes, as well as on weekends.
- The design of the US 101/SR 25 interchange is inadequate to accommodate demand, the result of which is the backup of traffic onto the mainlines of US 101 and SR 25.
- Existing conditions with the project segment of US 101 that do not meet current standards include inadequate shoulder widths, uncontrolled local and private access, reduced sight distance, insufficient distances for traffic to merge and diverge with US 101 traffic, and insufficient street lighting. These conditions, coupled with relatively high travel speeds, have resulted in accident rates that are higher than those on the adjacent freeway segment of US 101 to the north
- The lack of controlled access to US 101 and the absence of frontage roads along the highway requires local traffic associated with the adjacent land uses to utilize US 101. This results in

conflicts between the fast-moving highway traffic and slower-moving vehicles that are entering/existing along the existing highway

- The existing at-grade crossing of the UPRR tracks on SR 25 just west of Bloomfield Road causes traffic backups during train operations.
- The lack of a signalized intersection at the US 101 ramp termini on SR 129 is projected to result in delay as demand increases

To address the project need, the following improvements are proposed:

- Widen and upgrade US 101 to a 6-lane freeway between the Monterey Street and SR 129 interchanges
- Reconstruct the US 101 / SR 25 Interchange
- Construct new auxiliary lanes between the Monterey Street and SR 25 interchanges
- Extend Santa Teresa Boulevard from Castro Valley Road to the new US 101/SR 25 interchange
- Construct frontage roads, as needed to replace existing access to US 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 lost when US 101 is upgraded to a freeway and to improve bicycle access in the project area

Two design options were studied for the reconstruction of the US 101 / SR 25 interchange. Design Option B was selected by the PDT as the preferred alternative based on ability to phase construction, right of way requirements, and farmland impacts. The estimated cost of Design Option B is \$487 million. The conceptual layout of Design Option B and Phase 1 is shown in Attachment D-3.

An initial fundable phase of construction to construct a portion of the US 101 /SR 25 interchange improvements (Phase 1) was developed. The estimate cost of Phase 1 is \$65 million.

D. California High Speed Train

In 2008, the California High Speed Rail Authority completed program-level environmental studies to determine overall route and station locations for the proposed High Speed Train (HST) system from Los Angeles to San Francisco. Following voter approval of additional state bonds for the project later that year, project specific studies for a draft environmental document (DEIR/DEIS) began. Several HST alignments are under consideration for the San Jose to Merced segment of the project. An HST Alternatives Evaluation Report was completed in June 2010 and defined the alignments to be studied in the Environmental Document.

Two alignments pass between the SR 152 and SR 25 corridors (see Attachment D). One alignment includes a station in Downtown Gilroy and the other in East Gilroy. A supplemental HST Alternatives Evaluation Report was completed in 2011. A preferred HST alignment will be selected following circulation of the DEIR/EIS.

The Downtown Gilroy HST alignment would merge with the UPRR tracks near Bloomfield Road. The SR 152 Corridor Project identified opportunities to create a shared transportation corridor with the proposed new SR 152 Alignment which crosses the Soap Lake floodplain area between SR 152 and SR 25.

E. Other Planned Improvements

New Communities – Bolsa Study Area

Within the SR 25 study limits, the San Benito County 2035 General Plan identifies the Bolsa Study Area as a potential New Community Study Area. This area is generally located in northwest San Benito County, between the Santa Clara County line to the north, a segment of SR 25 (from the Santa Clara County line to the City of Hollister) to the east, the City of Hollister to the south, and the steeper topography of the Lomerias Muertas Mountains (Flint Hills) and San Juan Valley to the west. The area also includes a 12-mile segment of the Union Pacific railroad line, which travels west of Bolsa Road running north to south. This area is identified as a New Community Study Area for the following reasons:

- The area has good access to US 101, SR 25 and SR 156, which provides opportunities to attract region-serving commercial uses and to reduce vehicle miles traveled for workers commuting to jobs in other counties. The Union Pacific railroad line runs along the SR 25 corridor providing an opportunity for future transit connections between the Cities of Hollister, San Jose and San Francisco. Development of a New Community in the area could result in the County's first major transit oriented development.
- Development in the area would connect existing and future development to nearby transportation corridors, state and regional public transit, bike, and trail systems.
- The area avoids the large contiguous Farmlands of the San Juan and Hollister Valleys.

- The area has fewer sensitive biological resources and natural open space areas than other areas in the County.

Soap Lake

Soap Lake is a natural floodplain covering approximately 9,000 acres and is generally bounded by SR 152, SR 25 and US 101 within the study limits. Soap Lake provides significant flow attenuation and flood storage benefits for the upper Pajaro River and is key to flood protection. Soap Lake acts as a natural detention basin, storing water and reducing peak flows that would otherwise increase flooding on the lower reaches of the Pajaro River in the Watsonville Area.

The Pajaro River Watershed Flood Prevention Authority (PRWFPA) has identified preservation of the Soap Lake Floodplain in the upper Pajaro River watershed as a priority project. The program seeks to retain the Soap Lake floodplain in its natural and/or agricultural state to the extent practicable and feasible. Although current land use plans limit development potential in the area, the PRWFPA recognizes that other mechanisms are needed to ensure long term preservation. To accomplish this, the PRWFPA has implemented a program to acquire flood easements from property owners using State funds.

Proposed highway improvements that encroach into the floodplain are required to preserve the natural floodplain values of Soap Lake to the extent practicable and feasible.

5. POTENTIAL IMPROVEMENTS

A. RANGE OF IMPROVEMENTS

Three categories of improvements on SR 25 within the study limits were studied to develop a broad range of alternatives for further consideration:

- Interim improvements to enhance safety and traffic operations
- Fundable improvements to widen SR 25 to four lanes
- Alternative modes of transportation such as rail, express bus and rideshare

As a result of the Alternatives Assessment process conducted by the PDT, the following alternatives were selected for further consideration.

B. SAFETY AND OPERATIONAL ENHANCEMENTS

Wright Road to McConnell Road (see Attachment B, Figure 5-1)

Slower moving vehicles that ingress or egress SR 25 at Wright Road, Briggs Road, Flynn Road, State park-and-ride lot, McConnell Road and Quarry Road conflict with faster moving vehicles on SR 25. Several cross centerline collisions have occurred between Wright Road and Flynn Road and the need for a concrete median barrier was identified by the Highway 25 Safety Task Force.

Proposed Improvements

- Pavement widening and installation of concrete median barrier from just north of Wright Road to just north of Briggs Road (West). Installation of the median concrete barrier would eliminate the potential for head-on collisions at this location. The blunt ends of the concrete barrier would be protected with crash cushion devices. Standard Clear Recovery Zone (CRZ) widths would be provided to allow errant vehicles to recover, thereby reducing the potential for them going off the highway. The width provided by the paved shoulder and CRZ would also allow slow moving farm vehicles to travel along SR 25 without encroaching into the traffic lane. This would reduce the potential for vehicles to swerve around slower moving vehicles and pass into oncoming traffic. Fixed objects, such as trees, would be removed to allow construction of the CRZ and improve sight distance at intersections. Other safety measures introduced by prior SR 25 safety projects would also be maintained, such as rumble strips, highly reflectorized striping, and warning signs.
- Intersection channelization improvements at Wright Road, Briggs Road (East), Flynn Road and McConnell Road to provide acceleration and deceleration lanes to provide turning traffic with acceleration and deceleration lanes to enhance merge or diverge movements with SR 25 traffic. Intersection lighting would be improved to provide enhanced visibility.
- Close Briggs Road (West) at SR 25 and shift traffic to Wright Road

- Extend merge lane on northbound SR 25 north of San Felipe Road signal intersection up to approximately 1,500 feet to allow slower moving vehicles to reach operating speed and encourage them to stay in the right lane to allow faster moving vehicles to pass
- Improve access to park-and-ride lot

Benefits

- Recommended by Highway 25 Task Force
- Potential to reduce collisions
- Constructible in near term
- Environmentally cleared under the Highway 25 Safety and Operational Enhancements Project in 2005

SR 25 / SR 156 Intersection (see Attachment B, Figure 5-2)

The length of the merge from two lanes to one lane on the departure side of each leg of SR 25 / SR 156 intersection is approximately 500 feet. An acceleration length of 960 feet is needed for trucks to reach 55 mph, and 1410 feet to reach 65 mph². Merge lane lengths between 1500 feet to 2000 feet should be considered for merge lane operations, however, to also opportunities for platoons of queuing vehicles to disperse and to encourage slow moving vehicles to stay in the right lane.

Proposed Improvements

- Extend four-lane sections on each arm of existing signalized intersection up to approximately 1,500 feet in length to provide (a) additional storage for traffic queuing on intersection approaches, and (b) extend merge length after the intersection to allow slower moving vehicles to reach operating speed and encourage them to stay in the right lane to allow faster moving vehicles to pass
- Install other safety improvements (e.g. delayed green signal, enhanced lighting, high-reflective striping, and additional signage)

Benefits

- Extending merge lanes on both SR 25 and SR 156 legs of intersection is expected to provide additional green time for SR 25 traffic and improve throughput
- Potential to reduce congestion related collisions
- Constructible in near term

² AASHTO A Policy on Geometric Design of Highways and Streets, Table 10-3

SR 25 Passing Lanes (see Attachment B, Figures 5-3A and 5-3B)

During both peak periods, traffic is heavily congested on SR 25 within the study limits. The two-lane segment of SR 25 in Santa Clara County is expected to reach capacity in 2016 and portions of the route in San Benito County are expected to reach capacity in the near future. Other than the short four-lane section at the SR 156 intersection, there are no opportunities for vehicles to pass. Vehicles are not permitted to overtake on the two-lane segment of SR 25. As a consequence, long ‘queues (platoons) of vehicles begin to form. During the evening commute in 2013, the average percent of total travel time that southbound vehicles travel in platoons behind slower vehicles was 95.6%.

Passing lanes are a recognized method of providing passing opportunities on two-lane highways. An added lane can be provided in each direction of travel to improve traffic operations and reduce the potential for congestion related accidents. A lane added to improve overall traffic operations should be long enough to provide a substantial reduction in traffic platooning. Existing (2013) peak hour volumes range from 500 to 1,000 vph. A passing lane length of 1 to 2 miles is recommended for this range of traffic volumes³. Passing lanes are not recommended at intersections in order to minimize the volume of turning movements on a highway section where passing is encouraged. Based on these constraints, the only suitable location for passing lanes on SR 25 within the study limits is between Hudner Lane and Shore Road.



Proposed Improvements

- Widen a two-mile section of SR 25 between Hudner Lane and Shore Road to provide two-lanes in both directions with 12 feet lanes and 10 feet shoulders
- Reconstruct concrete median barrier
- Reconstruct consolidated driveway system, local road intersections and drainage ditches
- Acquire right of way to accommodate roadway widening.
- Relocate utility poles outside of State right of way

Benefits

- Improve traffic operations and reduce delays associated with platooning vehicles
- Potential to reduce congestion related accidents
- Increased effectiveness in combination with extension of merge lanes at SR 156 and San Felipe Road intersections

³ AASHTO A Policy on Geometric Design of Highways and Streets, Table 3-1

SR 25 / SR 156 Interchange (see Attachment B, Figure 5-4)

The SR 25 Adopted Alignment proposes a new interchange at the intersection of SR 25 and SR 156. The heaviest concentration of collisions on SR 25 within San Benito County occur at this location and the type of accidents are typical of congestion related incidents. Both SR 25 and SR 156 approaching the signal intersection have vehicles traveling at high speeds in a rural setting where the potential for red light violations is high. Through traffic volumes on SR 25 in both directions exceed 1,000 vph during peak commute periods. There is a near-term need to eliminate conflicting traffic movements at this heavily trafficked intersection to enhance safety and traffic operations. There are opportunities to construct the new interchange consistent with the SR 25 Adopted Alignment.

Proposed Improvements

- Construct new SR 156 overcrossing structure
- Construct spread diamond interchange configuration to provide for all turning movements. The ramp intersections at SR 156 may need to be signalized to accommodate turning movements
- Close McConnell Road access to SR 25
- Close Quarry Road access to SR 25 and construct frontage road with new access at Flynn Road
- Consolidate private driveways north of SR 156 to connect with SR 25 at Hudner Lane

Benefits

- Consistent with location of interchange for SR 25 Adopted alignment. Realignment of ramps would be required to connect with future SR 25 corridor
- Eliminate signal intersection and conflicts with through traffic on SR 25 and SR 156
- Improve traffic operations

Santa Clara County – SR 25 (see Attachment B, Figure 5-5)

Slower moving vehicles that ingress or egress SR 25 at Bolsa Road, as well as commercial locations at private driveways to Christopher Ranch, Uesugi Farms and Z-Best conflict with faster moving vehicles on SR 25.

Proposed Improvements

- Pavement widening from just south of Bolsa Road to just north of Uesugi Farms driveway to provide a left-turn channelization lane for Z-Best and Uesugi Farms. Other safety measures introduced by prior SR 25 safety projects would also be maintained, such as standard lane, shoulder and clear recovery zone widths.
- Intersection channelization improvements at Bolsa Road to provide acceleration and deceleration lanes to provide turning traffic with acceleration and deceleration lanes to enhance merge or

diverge movements with SR 25 traffic. Intersection lighting would be improved to provide enhanced visibility.

- Modify commercial access to Christopher Ranch with ingress from Bloomfield Road and egress to US 101 from the existing driveway adjacent to UPRR tracks or from Bloomfield. Circulation within the property would also be modified to provide these improvements
- Improve access to the State owned park-and-ride lot located south of Flynn Road

Benefits

- Recommended by Highway 25 Task Force
- Potential to reduce collisions
- Constructible in near term
- Environmentally cleared by 2005 Highway 25 Safety and Operational Enhancements Project

Santa Clara County – US 101 (see Attachment B, Figure 5-6)

High traffic volumes during the afternoon peak period, on the southbound US 101 / SR 25 off-ramp frequently cause queues to spill back on to southbound US 101.

When this occurs, traffic queues form along the outside shoulder of US 101. Queues have been observed to extend north of Castro Valley Road intersection. The shoulder is not wide enough to store queuing vehicles and presents a significant safety concern at this location. Bicyclists are permitted to use the shoulder on this portion of US 101.



Proposed Improvements ⁴

- Construct new auxiliary lane on southbound US 101 between Castro Valley Road and SR 25 off-ramp
- Signalize southbound US 101 / SR 25 ramps intersection

Benefits

- Provide additional storage for queuing vehicles currently using the outside shoulder of southbound US 101. Queuing traffic currently uses shoulder during evening peak period
- Potential to reduce collisions between fast and slow moving vehicles
- The improvements would provide near-term safety improvements, in the event that funds for the initial phase of construction for the US 101/SR 25 Interchange are delayed

⁴ If improvements to the US 101/SR 25 interchange are constructed in the near-term, this alternative would be withdrawn

C. SR 25 WIDENING – EXISTING ROUTE (SAN FELIPE ROAD TO NORTH OF SHORE ROAD)

SR 25 is currently designated as a conventional highway which is defined as a highway without control of access. This is evidenced by the high number of private driveways and local roads that intersect the existing SR 25 corridor, and create potential conflict points and affect travel reliability along the corridor.

The ultimate concept for SR 25 is a four-lane expressway where abutting property owners have restricted access to SR 25 at limited local road intersections or grade separations. Expressways in rural areas are typically designed for higher traffic speeds (70 to 80 mph) compared to conventional highways (55 to 70 mph). Geometric design standards, such as sight distance, clear recovery zone width, and intersection spacing, are also required to accommodate the higher traffic speeds.

Caltrans has completed studies to adopt a new route for SR 25 that would eventually replace 11.2 miles of existing SR 25 two-lane highway facility with a new four-lane expressway facility between San Felipe Road and US 101. See Section 4 for further details.

To address requests made by COG stakeholders and the COG Board, alternatives to widen SR 25 along the existing route was further investigated as part of this study. The alternative to widen existing SR 25 as a four-lane expressway facility between San Felipe Road and north of Shore Road is presented in this section. Other widening alternatives considered and withdrawn are discussed in Section 6.

Proposed Improvements (see Attachment C for conceptual layout of improvements)

- Realign a portion of SR 25 between San Felipe Road and north of Wright Road to provide a four-lane expressway facility with 22-feet wide median. The roadway cross section would be similar to the SR 25 Bypass, south of San Felipe Road
- Widen existing SR 25 to a four-lane expressway with a 46-feet wide median from north of Wright Road to north of Shore Road. The roadway cross section would be similar to the SR 25 Adopted Alignment. The existing roadway would be used for one direction of travel and a new roadbed would be constructed for the other direction. The existing roadbed would be rehabilitated
- The four-lane expressway, north of Shore Road, would connect to the SR 25 Adopted Alignment and SR 152 Trade Corridor as part of a separate project
- Construct new frontage roads to connect Briggs Road to Wright Road, Quarry Road to Flynn Road, and Hudner Lane to SR 156
- Construct new SR 25/SR 156 interchange with spread diamond configuration and grade separation of SR 156
- Construct overcrossing at Wright Road
- A new intersection to connect to frontage roads on either side of the expressway would be located 1.7 miles south of Shore Road.

- Realign intersections at Flynn Road, Grant Line Road, and Shore Road to intersect at right angles to improve drivers' ability to see oncoming traffic.
- Wright Road, Briggs Road (East), Briggs Road (West), Quarry Road, McConnell Road and Hudner Lane would no longer be connected to SR 25.
- Consolidate private driveways and connect them with modified local road intersections or new frontage roads

Benefits

- Provide additional capacity on SR 25 and improves travel time reliability in San Benito County
- Geometric design would meet expressway design standards to the extent feasible
- Construct improvements in phases to meet funding constraints
- Use existing roadbed to minimize pavement costs
- Minimize right of way acquisition (approximately 180 acres required)
- Minimize impacts to prime farmland
- Minimize relocation of residences (2 required)

Challenges

- Separate project required to complete SR 25 as 4-lane expressway to US 101
- Alignment is not consistent with SR 25 Adopted alignment
- Extensive utility relocations outside of State right-of-way required (approximately 160 poles and underground communication line)

D. NEW SR 25 ALIGNMENT ALTERNATIVES

Several San Benito County stakeholders have expressed interest in studying alignments that consolidate SR 152, SR 156 and SR 25 to optimize the high cost of improving these routes separately. Alternatives that shift SR 152 closer to the Hollister area may also stimulate economic growth through more direct access to services and businesses.

The following alternatives were considered as potential new alignments to provide a 4-lane expressway facility for SR 25 in coordination with planned improvements for SR 152. Since these alternatives affect both state highways they will be referred to the Mobility Partnership for further consideration as part of the SR 152 Trade Corridor Study.

New SR 152 Alignment – Option A (SR 156 Junction to SR 25 Adopted Alignment)

Proposed Improvements (see Attachment F, Figure 5-7)

- Widen SR 156 between SR 152 Junction to just east of SR 25 / SR 156 intersection to a 4-lane expressway. SR 152 and SR 156 traffic would be combined on this segment
- Connect SR 152 / SR 156 expressway to SR 25 Adopted Alignment just north of the SR 25 / SR 156 intersection.
- Construct SR 25 Adopted Alignment. A 6-lane facility is anticipated where the SR 152 converges with the SR 25 Adopted Alignment. SR 25, SR 152 and SR 156 traffic would be combined on this segment
- Construct new interchanges at SR 152/SR 156, SR 156/Fairview Road, and at the new SR 152 / SR 25 Junction

Benefits

- Consolidate SR 152 and SR 156 routes between SR 152/SR 156 interchange and SR 25 / SR 156 intersection
- Consolidate SR 152 and SR 25 routes between SR 25 / SR 156 intersection and US 101

New SR 152 Alignment – Option B (SR 156 Junction to SR 25 Adopted Alignment)

Proposed Improvements (see Attachment F, Figure 5-8)

- Widen SR 156 between SR 152 Junction to SR 25 / SR 156 intersection as a 4-lane expressway. SR 152 and SR 156 traffic would be combined on this segment
- Connect SR 152 / SR 156 expressway to SR 25 Adopted Alignment
- Construct SR 25 Adopted Alignment. A 6-lane facility is anticipated where the SR 152 converges with the SR 25 Adopted Alignment. SR 25, SR 152 and SR 156 traffic would be combined on this segment

- Construct new interchanges at SR 152/SR 156, SR 156/Fairview Road, and at SR 152 / SR 25

Benefits

- Consolidate SR 152 and SR 156 routes between SR 152/SR 156 interchange and SR 25 / SR 156 intersection
- Consolidate SR 152 and SR 25 routes between SR 25 / SR 156 intersection and US 101

New SR 25 Alignment (SR 25 / SR 156 to SR 152 Junction)

Proposed Improvements (see Attachment F, Figure 5-9)

This alternative is similar to Option B above except SR 25 is shifted to SR 156

- Widen SR 156 between SR 25 / SR 156 and SR 152 Junction to a 4-lane expressway. SR 25 and SR 156 traffic would be combined on this segment
- Construct new SR 152 Alignment as a 6-lane freeway. SR 25 and SR 152 traffic would be combined on this segment
- Construct new interchanges at SR 152/SR 156, SR 156/Fairview Road, and at the new SR 152 / SR 25 Junction

Benefits

- Consolidate SR 25 and SR 156 routes between SR 152/SR 156 interchange and SR 25 / SR 156 intersection
- Consolidate SR 152 and SR 25 routes between SR 152/SR 156 interchange and US 101

New SR 25 Alignment (San Felipe Road to New SR 152 Alignment)

Proposed Improvements (see Attachment F, Figure 5-10)

- Convert San Felipe Road between SR 25 Bypass and SR 156 to a 4-lane expressway. SR 25 traffic would be shifted to this segment of San Felipe Road
- Widen San Felipe Road between SR 156 and New SR 152 Alignment to a 4-lane expressway. SR 25 traffic would be routed on to this segment of San Felipe Road
- Construct new SR 152 Alignment as a 6-lane freeway. SR 25 and SR 152 traffic would be combined on this segment
- Construct new interchanges on San Felipe Road at SR 156, Fairview Road and at the new SR 152 Alignment

Benefits

- Consolidate SR 152 and SR 25 routes between San Felipe Road interchange and US 101

E. ALTERNATIVE MODES OF TRANSPORTATION

Transportation Demand Management (TDM) strategies focus on reducing or changing travel demand, particularly during peak commute hours, in lieu of increasing roadway supply. The public bases their travel choices on a number of factors including the desire to improve convenience, save time and money, and reduce stress. Essentially, TDM programs utilize alternative transportation modes to encourage travelers to change their habits in ways that result in less congestion.

Seven alternative transportation strategies were considered to change travel demands or to help use the highway more efficiently. Four of those options are recommended for consideration as potential improvements to the SR 25 corridor.

County Express Bus Service - Additional Routes

The San Benito County Local Transportation Authority (LTA) provides both a fixed route transit service and a demand response transit service. The LTA recently produced the *Future Horizons for San Benito County Short- and Long- Range Transit Plan* to address public transportation needs and utilization of these transit options. According to that report, approximately 3.5% of households within the County do not have a vehicle available for use, while 25.0% have access to only one vehicle.

The County Express bus service uses SR 25 to accommodate current transit needs for riders accessing the Gilroy area. It is recommended that the County invest in providing additional Express trips to Gavilan College in Gilroy, enhance the weekend Gilroy Express schedule, expand the weekday midday connections to existing VTA Express Buses serving Gilroy. The reasons for recommending these improvements are as follows:

- The additional routes increase public transit options which reduce roadway congestion.
- There is minimal initial costs and low annual cost requirements.
- The improvements align with the goals of LTA's Transit Plan.



Park-and-Ride Lot Improvements

There is an existing park and ride lot located southwest of SR 25, near Briggs Road (West) that primarily serves two purposes. The lot provides parking for County Sheriff personnel desiring to access their gun range, while local residents use the lot as a Park and Ride destination.

As the gun range is typically not used during peak commute hours, the dual use of the parking lot could continue. However, it is recommended that the parking lot be improved with resurfacing, restriping, new ride-share signage, and perhaps a re-configuration of parking stalls. In lieu of continuing the dual use, a new Park and Ride lot could be constructed in the general vicinity and likely on the southwest side of the highway due to land use constraints. Regardless of the ultimate location for the Park and Ride, increased public outreach efforts are encouraged to promote awareness of this ride sharing option. Reasons to recommend these improvements includes:

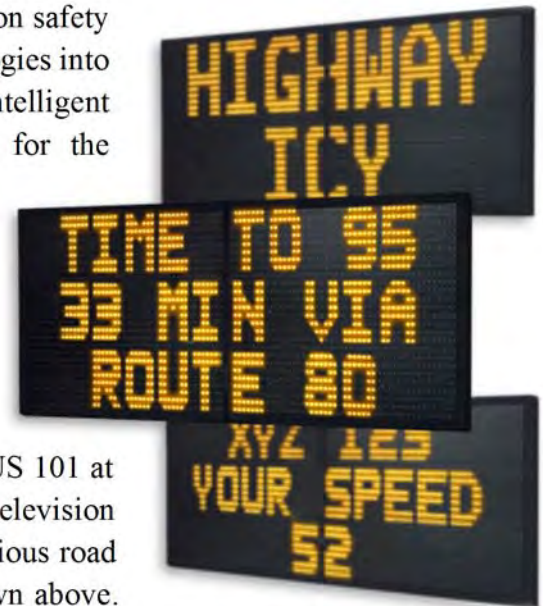
- The Park and Ride lot encourages local residents to share rides which reduces congestion.
- New signage and/or marketing could increase public awareness and utilization of the facility.
- Minimal capital investment is required.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) improve transportation safety and mobility by integrating advanced communication technologies into public infrastructure. As a follow-up to the 2000 Intelligent Transportation Systems (ITS) Strategic Deployment Plan for the Central Coast Region, the Association of Monterey Bay Area Governments (AMBAG), which includes San Benito County, secured grant funding through Caltrans to prepare the Central Coast ITS Project. The goal of that project is to provide guidance to local agencies for the planning, programming and implementation of ITS.

Installation of Dynamic Message Signs in each direction on US 101 at SR 25, SR 25 at SR 156, and four additional closed circuit television (CCTV) locations is recommended to inform motorists of various road conditions. An example of a Dynamic Message Sign is shown above.

Wireless communications of this technology could be monitored by the Caltrans District 5 Transportation Management Center (TMC).



Reasons to recommend these improvements include:

- Alerts motorists to traffic incidents and reduces the likelihood of secondary traffic collisions.
- These technologies have negligible environmental or stakeholder concerns.
- ITS can direct motorists to more efficient traffic routes, which helps reduce traffic delays and air pollution.
- Concurs with the goals and recommendations of the Central Coast ITS Project.

Additional CHP Enforcement, Call Boxes and Freeway Service Patrol

The Freeway Service Patrol program utilizes a fleet of roving tow and service trucks designed to reduce traffic congestion by efficiently re-mobilizing disabled vehicles or towing them off of the highway to a designated safe location. Quickly responding to motorists with disabled vehicles removes them from the highway, alleviates congestion, and reduces the potential for further incidents to occur.

Reasons to recommend these improvements include:

- Can be quickly and easily implemented.
- Supplement existing costs and efforts by the San Benito COG.
- Could be combined with programs for Highways 101, 129, 152 and 156.



F. ORDER OF MAGNITUDE COST ESTIMATES

The purpose of cost estimating for this Study is essential to determine the order of magnitude of funds needed for individual projects, and to assist in developing a phasing strategy to construct them.

Methodology

Capital cost estimates have been prepared using Caltrans' standard Preliminary Engineering Estimate format (i.e. "six-page estimate format"), which estimates roadway, structure, right-of-way/utility relocation, and support costs. Major construction bid items were quantified, since typically the largest 20 percent of the bid items determine 80 percent of the project cost. The remaining construction items were estimated by applying percentages for minor roadway items, mobilization, and contingencies for additional work not yet identified.

A roadway design contingency of 25% is applied to roadway costs. An allowance for the cost of minor items, roadway mobilization and supplemental work is also provided. The contingency and mobilization for bridge structures is 25% and 10% respectively.

Support cost allowances are assumed to be 3% for environmental planning, 12% for final design, and 15% for construction administration. The support cost allowances are assumed to include Caltrans oversight.

All costs are expressed in current year (2015) dollars. Unit prices were compiled from the engineer estimate provided for the SR 25 Widening Project, and from recent Caltrans Cost Data.

Summary of Costs

Table 5-1 summarizes the cost of proposed highway improvement projects described in Section 5B and 5C. Detailed cost estimates are provided in Attachment H.

Table 5-2 summarizes the cost of proposed alternative modes of transportation described in Section 5D.

Table 5-1: Order of Magnitude Costs - Proposed Highway Improvements

Alternative	Construction	Right-of-Way	PA/ED	PS&E	CM	Total
Safety and Operational Enhancements						
SR 25 (Wright to McConnell)	\$3.6	\$0.2	\$0.1	\$0.4	\$0.5	\$4.8
SR 25 (Santa Clara County)	\$2.2	\$0.1	\$0.1	\$0.3	\$0.3	\$3.0
Southbound US 101 Auxiliary Lane	\$1.9	\$0	\$0.1	\$0.2	\$0.3	\$2.5
SR 25 / SR 156 Intersection – Merge Lanes	\$3.7	\$0	\$0.1	\$0.4	\$0.6	\$4.8
SR 25 Passing Lanes (Hudner to Shore)	\$24.7	\$2.9	\$0.7	\$3.0	\$3.7	\$35.0
SR 25 / SR 156 Interchange	\$31.6	\$4.8	\$1.0	\$3.8	\$4.7	\$45.9
SR 25 Widening						
Adopted Alignment (San Felipe to New SR 152)	\$115.8	\$30.0	\$3.4	\$13.9	\$17.4	\$180.6
Adopted Alignment (New SR 152 to UPRR) ³	\$68.7	\$8.5	\$2.1	\$8.2	\$10.3	\$97.8
Existing Route (San Felipe to Hudner)	\$55.3	\$12.9	\$1.7	\$6.6	\$8.3	\$84.8
Existing Route (Hudner to New SR 152)	\$33.2	\$10.2	\$1.0	\$4.0	\$5.0	\$53.4
Existing Route (Total)	\$88.5	\$23.1	\$2.7	\$10.6	\$13.3	\$138.2

Notes:

3. Costs are in 2015 dollars. Escalation is not included. Actual costs will be higher. Costs shown are in millions.
4. SR 25 Widening Adopted Alignment costs provided by Caltrans District 5 and are in 2011 dollars
5. Assumes 6-lane expressway to accommodate SR 25 and SR 152 traffic between the Pajaro River and the UPRR tracks (located east of US 101).

Table 5-2: Order of Magnitude Costs - Proposed Alternatives Modes of Transportation

Alternative	Construction	Right-of-Way	PA/ED	PS&E	CM	Total
Park-and-Ride Lot Improvements ²	\$590	\$50	\$20	\$70	\$90	\$820
Intelligent Transportation Systems ³	\$1500	\$0	\$50	\$180	\$220	\$1950

	Annual Cost
County Express Bus Service - Additional Route ⁴	\$100
Additional CHP Enforcement, Call Boxes and Freeway Service Patrol ⁵	\$120

Notes:

1. Cost shown are in thousands
2. Assumes parking lot size of 0.70 acres
3. Assumes (4) Dynamic Message signs costing \$250,000/sign and (4) CCTV installations costing \$60,000/location. Monitoring to be provided by Caltrans District 5 Transportation Management Center. The cost to install a T1 communication line is estimated to be \$260,000.
4. Assumes \$150,000 bus purchase cost with 7 year life (\$22,000 per year) and operations and maintenance at \$78,000 per year (cost includes bus driver). This is the cost to add one additional route per day to the Gilroy Caltrain Station or Gavilan College.
5. Assumes \$20,000 per year for freeway service tow patrol, and \$100,00 per year for additional CHP enforcement.

6. ALTERNATIVES CONSIDERED AND WITHDRAWN

As a result of the Alternatives Assessment process conducted with the PDT, the following alternatives were withdrawn from further consideration.

A. SAFETY AND OPERATIONAL ENHANCEMENTS

Mesa Road Overcrossing

The intersection of Mesa Road with US 101 is located immediately south of Carnadero Creek Bridge. There are safety concerns for merge and diverge movements with US 101 traffic since there are narrow shoulders approaching the intersection, and acceleration and deceleration lanes are not provided.



Proposed Improvements (see Attachment E, Figure 6-1)

- Construct grade separation connecting Mesa Road with realigned Bolsa Road. [Note: Improvements were originally proposed as part of the Gilroy ‘orbital’ roadway facility and documented in the South County Circulation Study]
- Close Mesa Road access to US 101 and shift traffic to Castro Valley Road [optional solution]

Factors Considered to Withdraw Alternative from further study

- Does not affect safety and operations on SR 25
- US 101 Widening Project (Monterey Street to SR 129) proposes to close access to US 101
- Investigate closure of Mesa Road as a near term solution to enhance safety at this location. [Note: US 101 Widening Project (Monterey Street to SR 129) proposes to close access to US 101 but is not currently considered a near-term project]
- Recommend grade separation as future City of Gilroy project to improve east-west connectivity across US 101

Northbound US 101 – Extend SR 25 On-Ramp Merge

The SR 25 on-ramp merge with northbound US 101 is approximately 300 feet in length and does not provide adequate distance for slow moving vehicles to reach operating speeds that match US 101 traffic speeds. There are also numerous private driveways that connect with northbound US 101 between the SR 25 on-ramp and Carnadero Creek. There are safety concerns for merge and diverge movements with US 101 traffic since there are narrow shoulders, and acceleration and deceleration lanes are not provided.

Proposed Improvements (see Attachment E, Figure 6-2)

- Construct auxiliary lane on northbound US 101 to extend SR 25 on-ramp merge length to approximately 1500 feet
- Extend auxiliary lane on northbound US 101 to Carnadero Creek to provide opportunities for traffic to merge and diverge with adjacent private driveways.

Factors Considered to Withdraw Alternative from further study

- Does not affect safety and operations on SR 25
- Not consistent with US 101 Widening Project (Monterey Street to SR 129)
- Consider as short-term solution to enhance safety at this location

SR 25 / SR 156 Intersection Grade Separation

The existing signalized intersection is located on a high-speed highway facility in a rural setting. The number of collisions at this intersection exceed the statewide average for similar facilities. Eliminating conflicting traffic movements would reduce the potential for broadside and rear-end type collisions.

Proposed Improvements (see Attachment E, Figure 6-3)

- Construct new overcrossing structure on SR 156 at the SR 25 intersection
- Close signalized intersection

Factors Considered to Withdraw Alternative from further study

- Existing SR 25 / SR 156 turning movements would need to divert to alternative routes with increased travel times

SR 25 Widening – Moveable Barrier System

Using a moveable barrier system requires at least three lanes for traffic where the direction of travel for the center lane can be reversible. The moveable barrier system can be used to shift a physical barrier that separates traffic, to provide



additional capacity in either direction of travel. For rural highways where high speeds can be expected, adequate inside and outside shoulder widths would be required. The barrier system is typically moved during off-peak periods to switch the central lane from one side of the road to another.

Proposed Improvements (see Attachment E, Figure 6-4)

- Widen existing roadway to provide third lane for contraflow operations use during peak periods. Additional widening to provide standard inside and outside shoulders, and clear recovery zone would be required
- Grade separation of contraflow lane at SR 156 and Shore Rd intersections
- Consolidate private driveways and improve local road intersections

Factors Considered to Withdraw Alternative from further study

- High operation and maintenance costs
- Required to be a 'closed' system to avoid wrong way movements
- A separate barrier system would be required between major intersections
- Local road intersections would be modified to provide right-in and -out movements only

SR 25 Widening – Managed Shoulders

The use of the outside shoulder as a travel lane during peak periods has been implemented in some locations for use by carpools or buses only.



Proposed Improvements (see Attachment E, Figure 6-5)

- For use by bus, vanpool, and/or carpool during peak periods
- Widen each direction approx. 7' to provide 12' managed lane and 5' outside shoulder
- Consolidate private driveways and improve local road intersections

Factors Considered to Withdraw Alternative from further study

- Difficult to enforce violations
- Safety concerns at intersection locations due to conflicting traffic movements
- Additional widening required to allow for off-tracking and clear recovery zone
- Limited opportunity to provide continuous managed shoulder between San Felipe Road and US 101

B. SR 25 WIDENING

At the request of the COG Board of Directors, the study included consideration of alternatives to widen the existing SR 25 route to 4 lanes between San Felipe Road and US 101. At work shop meetings held during the study process, Caltrans stated that any improvements considered to widen the existing SR 25 route would be required to meet expressway design standards.

Interim Widening (Option 1) – Conventional Highway (San Felipe Rd to Shore Rd)

Improvements for this alternative were studied by a private consultant and documented in an unpublished PSR-PDS titled “State Route 25 Widening, Hollister to Gilroy – Interim Improvements”, dated October 2014. Improvements are intended to accommodate proposed development on both sides of SR 25 between Hudner Lane and Shore Road.

Proposed Improvements (see Attachment E, Figure 6-6A and 6-6B)

- Widen existing roadway to the east between San Felipe Road and SR 156 to provide four 12 feet wide lanes, 8 feet wide outside shoulders and 5 to 8 feet wide inside shoulders separated by a concrete median barrier
- Improve the SR 25 / SR 156 signal intersection by providing additional storage for turning movements.
- Widen existing roadway to the west between SR 156 and Shore Road and provide a new two lane roadbed that generally follows the SR 25 Adopted Alignment and be separated by a wide median. A 60 feet wide setback for future development to the west is proposed between Grant Line Road and north of Shore Road
- A new 4-lane collector roadway for future development is proposed at Grant Line Road with new signal intersection with SR 25
- Access to most driveways, Briggs Road and McConnell Road would be consolidated or converted to right turn in- and out- movements. Left and U-turns would be permitted at Wright Road, Flynn Road, Hudner Lane, and SR 156, with turning movements protected by traffic signal control or roundabouts pending more detailed traffic studies. Left turns to McConnell Road would be permitted
- A new signalized intersection is proposed at Shore Road

Factors Considered to Withdraw Alternative from further study

- Widening of the existing SR 25 corridor to a four-lane conventional highway was considered by Caltrans during preparation of the SR 25 Widening Project DEIR/EIS. The PDT decided to withdraw the alternative at that time, however, since it was not consistent with the route concept for SR 25 (which envisions an expressway). The improvements

would not eliminate the numerous access points or the slower moving vehicles on the highway - factors that slow down the flow of traffic.

- Nonstandard design features for shoulder width, median width, and access control are not expected to be approved by Caltrans
- Signal intersections at Shore Road, Grant Line Road, and SR 156 would not improve travel time on SR 25 and is not expected to be supported by Caltrans or stakeholders
- Full right-of-way acquisition for the adopted alignment would be required between SR 156 and north of Shore Road
- Widening the existing corridor north of Shore Road would require grade separation of the UPRR tracks at the County Line. This could potentially conflict with the proposed California High Speed Train ‘Downtown Gilroy’ alignment and eliminate rail access to the Tri-Cal facility. Grade separating SR 25 over the UPRR tracks and Pajaro River would impact the Soap Lake floodplain and impact driveway access to the Tri-Cal facility.

Interim Widening (Option 2) – Conventional Highway (San Felipe Rd to Shore Rd)

Improvements for this alternative were also studied by a private consultant and documented in aforementioned PSR-PDS titled “State Route 25 Widening, Hollister to Gilroy – Interim Improvements”, dated October 2014. Improvements are intended to accommodate proposed development on both sides of SR 25 between Hudner Lane and Shore Road.

Proposed Improvements (see Attachment E, Figure 6-7A and 6-7B)

- Convert use of existing roadway between San Felipe Road and SR 156 for northbound traffic only. Construct a new 2-lane roadway along the SR 25 Adopted Alignment for use by southbound traffic. Construct a connecting roadway between each direction of travel at Briggs Road
- Other improvements would be similar to Option 1

Factors Considered to Withdraw Alternative from further study

In addition to the factors described for Option 1, the following additional issues were identified:

- Full right-of-way acquisition for the adopted alignment would be required between San Felipe Road and north of Shore Road

Interim 4-Lane Widening – Expressway (San Felipe Rd to Shore Rd)

Proposed Improvements (see Attachment E, Figure 6-8A and 6-8B)

- The proposed improvements would be similar to the alternative described in Section 5C with the exception that a 22 foot median would be provided along the entire length of the corridor

Factors Considered to Withdraw Alternative from further study

- Nonstandard design feature for a 22 feet wide median with concrete barrier separation is not expected to be approved by Caltrans for a high-speed rural expressway facility

NEW SR 25 ALIGNMENT ALTERNATIVES

“3-in-1” Alternative (San Felipe Rd to Shore Rd)

Improvements for this alternative were studied as part of the Southern Gateway Transportation and Land Use Study prepared by VTA in 2005. The improvements were referred to as “Scenario 4; New East-West Route; Option A in the study report

Proposed Improvements (see Attachment E, Figure 6-9)

- Widen SR 156 between SR 152 Junction to just east of SR 25 to a 4-lane conventional divided highway
- Construct a new 6-lane freeway from just east of the SR 25 / SR 156 intersection to connect with US 101 near Betabel Road. The freeway would combine SR 152, SR 156 and SR 25 traffic
- Construct new interchanges at SR 152/SR 156, SR 156/Fairview Road, SR 156/San Felipe Road, US 101 and two other locations on the new 6-lane freeway segment

Factors Considered to Withdraw Alternative from further study

- Concentrated traffic volumes from SR 25, SR 152, and SR 156 at the proposed US 101 interchange are expected to degrade operations on US 101
- High capital cost
- Significant environmental impacts associated with new corridor alignment
- Limited opportunities to phase improvements since large part of route is on a new alignment
- Not supported by stakeholders
- New alignment conflicts with proposed Bolsa Study Area

C. ALTERNATIVE MODES OF TRANSPORTATION

Bus Rapid Transit/Bus Bypass Shoulder

The PDT considered an improvement that would widen the roadway shoulder for use exclusively by buses during congested travel times. Dynamic lane control signage would regulate lane availability for buses and notify other motorists that they would not be allowed to access this widened shoulder.

The reasons that this alternative is not being recommended for implementation are as follows:

- The roadway shoulder provides a safety factor for errant vehicles. This alternative would remove that safety feature during congested travel times.
- Enforcement of this exclusive use for buses is difficult to implement and requires additional patrol vehicles.

Class I Bike Path (Multi-Use Trail) along UPRR track alignment

The *2009 San Benito County Bikeway and Pedestrian Master Plan* identifies a Class I multi-use path to be installed parallel and adjacent to SR 25 along the UPRR Hollister Branch Line (Projects H-2 and U-2). This same path is also listed in Appendix C of the *On the Move: 2035 San Benito Regional Transportation Plan* as project I.D. no SB-A23-SB. A Class I multi-use path is a pedestrian and bicycle facility that cannot be accessed by motor vehicles and is often separated from the roadway prism. This specific track alignment has been purchased by a privately owned short line railroad operation, Hollister Railroad LLC.

The Bikeway Master Plan also indicates that a Class III Bike route, which is a shared facility with motor vehicles, is recommended for SR 25 from the County line to San Felipe Road (Projects U-5 and H-44). This Class III route would be located within the roadway shoulders and essentially runs parallel to the proposed Class I path noted above.

The reasons that the multi-use trail is not being recommended for implementation are as follows:

- Properties adjacent to SR 25 and local intersecting roadways lack connectivity to other bicycle or pedestrian facilities.
- Right-of-way acquisition within railroad property is a complex process and quite costly.
- A Class III bicycle route can be accommodated within the roadway shoulders being proposed for both roadway widening alternatives.

7. COMBINED IMPROVEMENTS

COMBINED IMPROVEMENT SCENARIOS

The proposed improvements described in Section 5 could be constructed as standalone projects or combined to provide corridor-wide improvements. The following four scenarios outline the full range of highway improvements on SR 25 that could be constructed to meet near-term or long-term funding. Alternative modes of transportation are assumed to be standalone projects and are not discussed in this section.

Scenario 1 – SR 25 Safety and Operational Enhancements (see Attachment G, Figure 7-1)

- Southbound US 101 Auxiliary Lane (Castro Valley Road to SR 25 off-ramp)
- SR 25 channelization and intersection improvements (Santa Clara County)
- SR 25 Passing Lanes (Hudner Lane to Shore Road)
- SR 25 / SR 156 Intersection (extend merge lanes)
- SR 25 Intersection and median barrier improvements (Flynn Road to Wright Road)

Approximate Total Project Cost:	\$51M
San Benito County:	\$45M
Santa Clara County:	\$6M

Scenario 2 – SR 25 Safety and Operational Enhancements (see Attachment G, Figure 7-2)

- US 101 / SR 25 Interchange (Phase 1) [\$65M]
- SR 25 channelization and intersection improvements (Santa Clara County)
- SR 25 Passing Lanes (Hudner Lane to Shore Road)
- SR 25 / SR 156 Interchange
- SR 25 intersection and median barrier improvements (Flynn Road to Wright Road)

Approximate Total Project Cost:	\$154M
San Benito County:	\$86M
Santa Clara County:	\$68M

Scenario 3 – SR 25, US 101 and SR 152 Widening Projects (see Attachment G, Figure 7-3)

- US 101 Widening (Monterey Street to SR 25) and new US 101 / SR 25 Interchange [\$260M]
- New SR 152 Alignment (SR 156 to SR 25) [\$228M]
- SR 25 Widening Adopted Alignment (San Benito County) [\$181M]
- SR 25 Widening Adopted Alignment (Santa Clara County) [\$98M]

Approximate Total Project Cost: \$767M

San Benito County: \$181M

Santa Clara County: \$586M

SR 152 Trade Corridor Only \$586M

SR 25 Corridor Only \$539M

Scenario 4 – SR 25, US 101 and SR 152 Widening Projects (see Attachment G, Figure 7-4)

- US 101 Widening (Monterey Street to SR 25) and new US 101 / SR 25 Interchange [\$260M]
- New SR 152 Alignment (SR 156 to SR 25) [\$228M]
- SR 25 Widening – Existing Route (San Benito County) [\$138M]
- SR 25 Widening Adopted Alignment (Santa Clara County) [\$98M]

Approximate Total Project Cost: \$724M

San Benito County: \$138M

Santa Clara County: \$586M

SR 152 Trade Corridor Only \$586M

SR 25 Corridor Only \$496M

8. FINANCIAL FEASIBILITY

Financing the SR 25 corridor improvements as well as needed state highway improvements that connect with SR 25, to accommodate present and future travel demand will require a significant investment of both traditional and alternative transportation funding sources. Funding considered includes the State Transportation Improvement Program, Traffic Impact Mitigation Fees, and Public-Private Partnerships. Project phasing and combining of investments is also considered.

SR 25 is the regional connection between Hollister and the Greater Bay Area for commercial, commuter and recreational traffic, and critical to the economic vitality of San Benito County. In addition to widening SR 25 to a 4-lane expressway, widening US 101 to six lanes between Monterey Street and the SR 25 Junction, and constructing a new US 101 / SR 25 interchange are also needed to relieve congestion and improve travel time reliability between San Benito County and the Greater Bay Area.

Improvements on SR 152 between US 101 and I-5 are also urgently needed to relieve congestion and improve travel time reliability on this major east-west trade corridor that links the north-south trade corridor backbones of US 101, I-5 and SR 99 and is the only direct east-west trade route connecting US 101 and SR 99.

Since the SR 152 Trade Corridor Project overlaps the portion of the SR 25 Adopted Alignment in Santa Clara County, and offers a broader range of funding options, combining both projects should be considered.

If San Benito County voters approve Measure P in June 2016, funds to construct the proposed safety and traffic operational improvements on SR 25 in San Benito County and identified in this study would be achievable in the near term.

The recently adopted Traffic Impact Mitigation Fee Nexus Study (January 2016) identifies \$88 million⁵ in funding from new development to be contributed to the SR 25 Widening.

Sufficient local funds could also be raised to widen SR 25 to four lanes in San Benito County (\$136M to \$182M), however, funding to complete SR 25 as a 4-lane expressway together with needed improvements on US 101 and SR 152 is not currently programmed by VTA.

Construction of the Santa Clara projects through traditional methods of financing are also estimated to take up to 50 years to complete which is not considered financially feasible. The gap to fully fund the SR 25, US 101 and SR 152 improvements will grow even wider as construction costs escalate due to the massive funding shortfall statewide.

⁵ Source: Regional Transportation Impact Mitigation Fee Nexus Study, Appendix A-TIMF Improvement Costs and Cost Allocations; (Final Draft Report); dated January 2016

Alternative methods of financing are needed to complete project delivery for the SR 25, US 101 and SR 152 improvements. Combining SR 25 improvements with US 101 and SR 152 improvements, would better place these projects to compete for a wider range of funding sources.

When properly structured and executed, alternative project delivery approaches offer a variety of potential advantages including:

- Faster delivery of infrastructure assets and introduction of new technologies under a public-private-partnership (PPP) project approach. Through the use of alternative financing, the combined improvements could be delivered to the travelling public within a 10-year timeframe.
- Access to private capital through methods of alternative financing such as PPPs provide public agencies a mechanism to accelerate project construction and pay back the initial public investment.
- Maintenance savings for the State. A concession agreement with a PPP can assign the costs of maintenance to the private entity thus freeing up limited state maintenance resources (SHOPP) for other needed projects.

COG and VTA elected officials have joined forces as a Mobility Partnership to address the SR 152 corridor and to develop options to accelerate project delivery such as a PPP and formation of a Joint Powers Authority (or similar entity) to govern project delivery. The Mobility Partnership has also partnered with Caltrans to explore new ways of looking at project delivery for SR 152. In order to complete SR 25 as a 4-lane expressway, in a timeframe acceptable to the traveling public, a similar approach will be needed.

9. NEXT STEPS

This planning level study has been prepared by COG staff in collaboration with stakeholders and COG Board members to provide a range of improvements along the SR 25 corridor that could be funded with local tax measure funds and matching funds from other sources. This study will also serve as a basis for COG and partner agencies to advance project development of specific improvements along the SR 25 corridor as funding opportunities arise.

The study findings also set the precedent for addressing policy issues such as:

- Coordinating SR 25 corridor improvements with planned improvements on SR 152 and US 101. There are opportunities for the SR 152 Mobility Partnership to include SR 25 corridor improvements under their purview to ensure that overall improvements on US 101, SR 152 and SR 25 are constructed efficiently and effectively to meet the safety, operational and capacity needs of the region
- Develop innovative financing policies aimed at meeting the long-term capital investment needs of San Benito County.
- Develop a strategy for COG to preserve right of way needed for recommended projects

With completion of the preliminary studies, the recommended next steps for the study are:

- Obtain stakeholder consensus on preferred near-term improvements for the SR 25 corridor
- Seek support to establish a governing body to fund and deliver the major capacity increasing projects identified on the SR 25, SR 152 and US 101 regional network in this area. These improvements are urgently needed to promote trade and preserve the economic vitality of the region
- Secure funding to advance project development of near-term fundable projects

10.PROJECT DEVELOPMENT TEAM

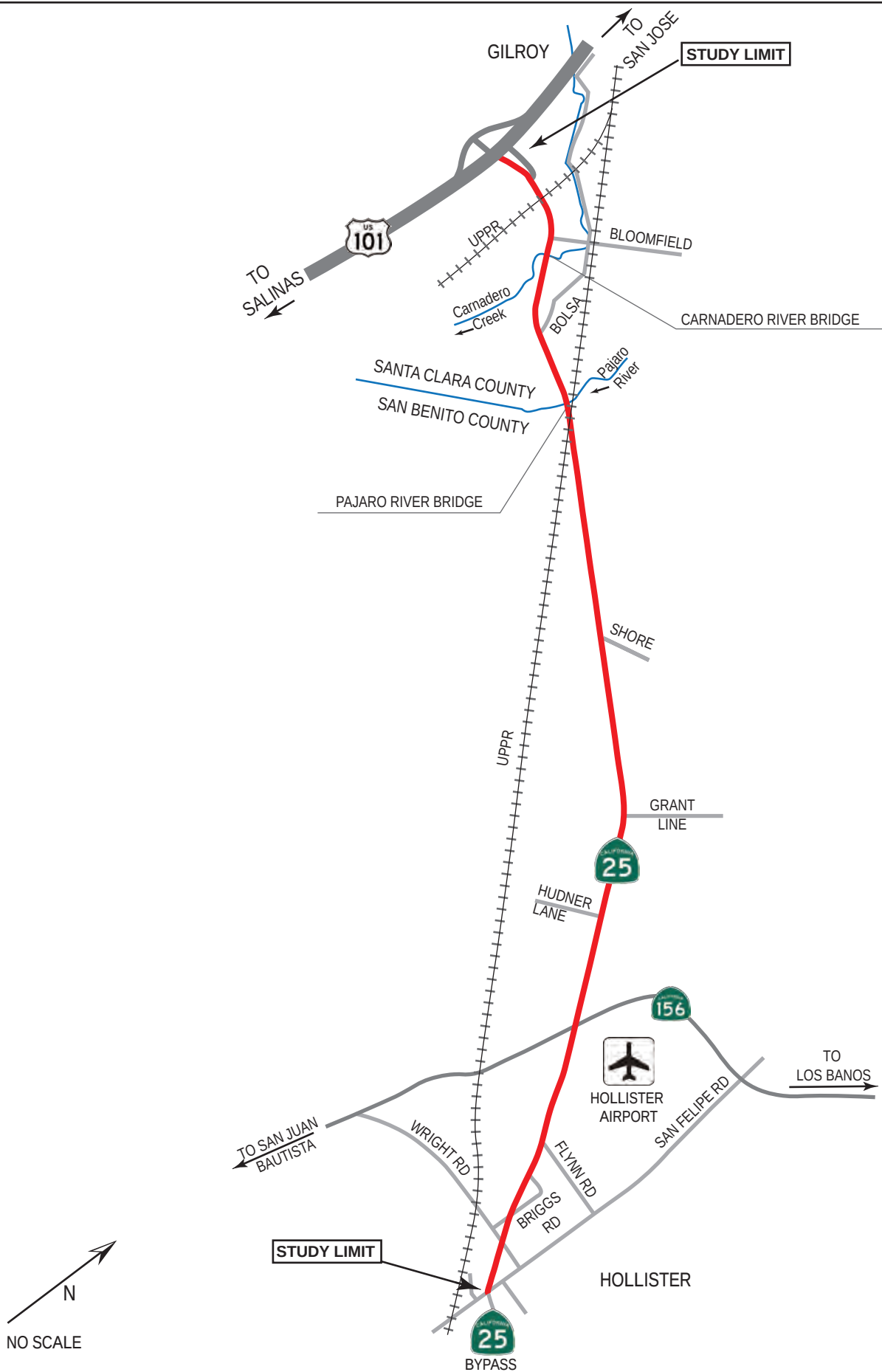
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11.ATTACHMENTS

- A. Vicinity Map
- B. Exhibits: Potential Improvements – Safety and Operational Enhancements
- C. Exhibits: Potential Improvements – SR 25 Widening
- D. Exhibits: Adjacent Projects
- E. Exhibits: Alternatives Considered and Withdrawn
- F. Alternative SR 25 Alignments
- G. Exhibits: Combined Improvement Scenarios
- H. Preliminary Cost Estimates

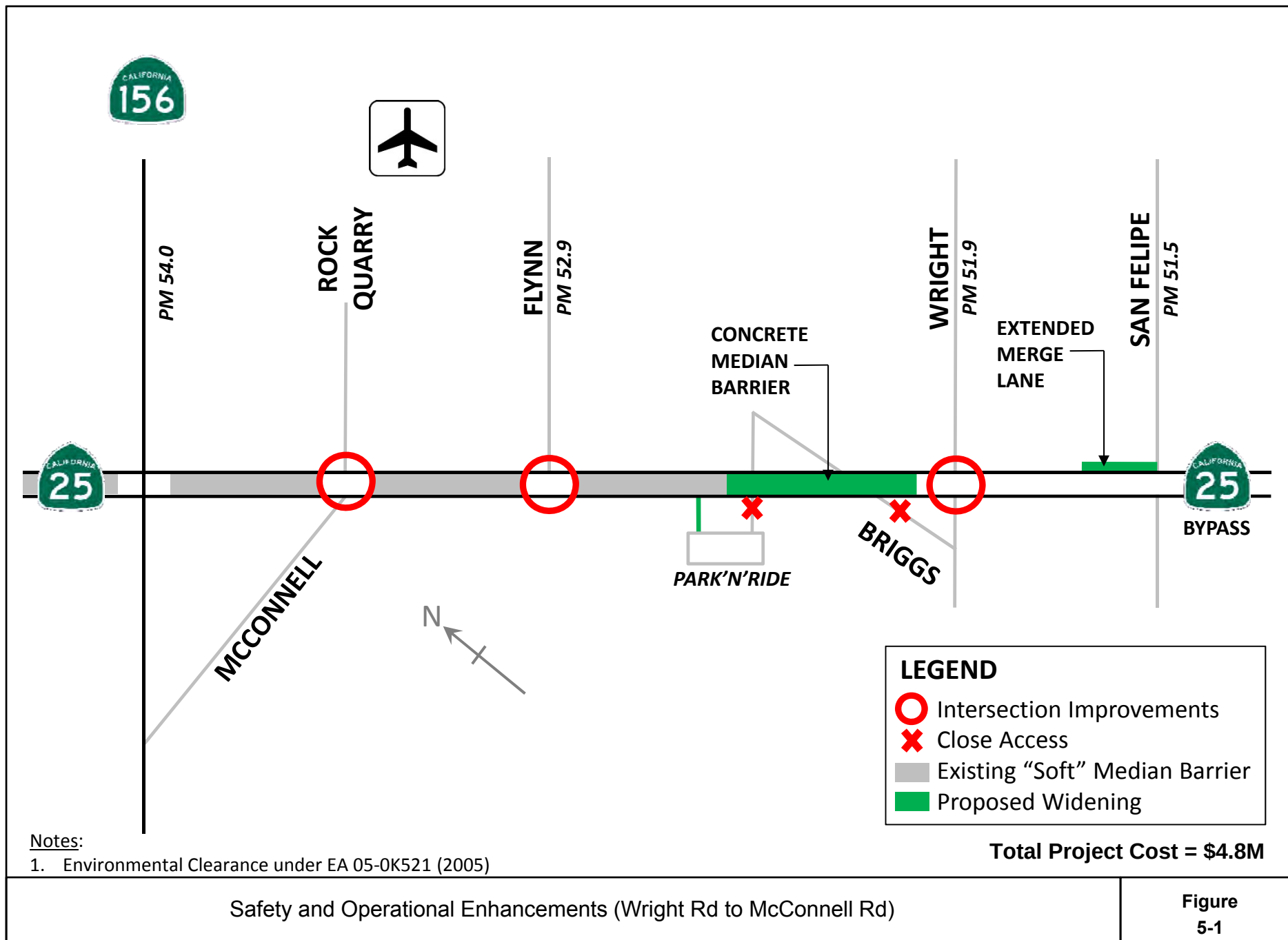
ATTACHMENT A

VICINITY MAP

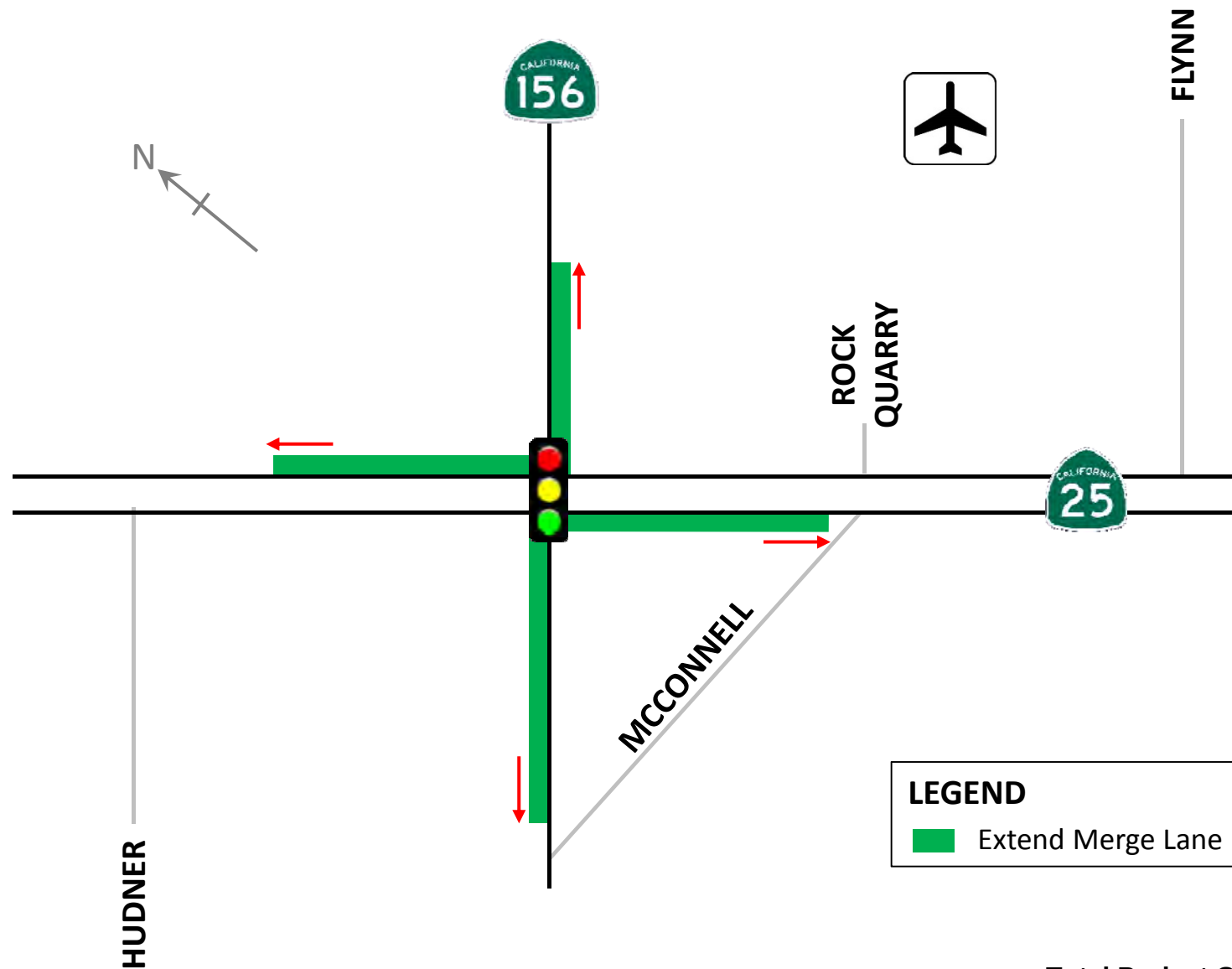


ATTACHMENT B

**POTENTIAL IMPROVEMENTS –
SAFETY AND OPERATIONAL ENHANCEMENTS**

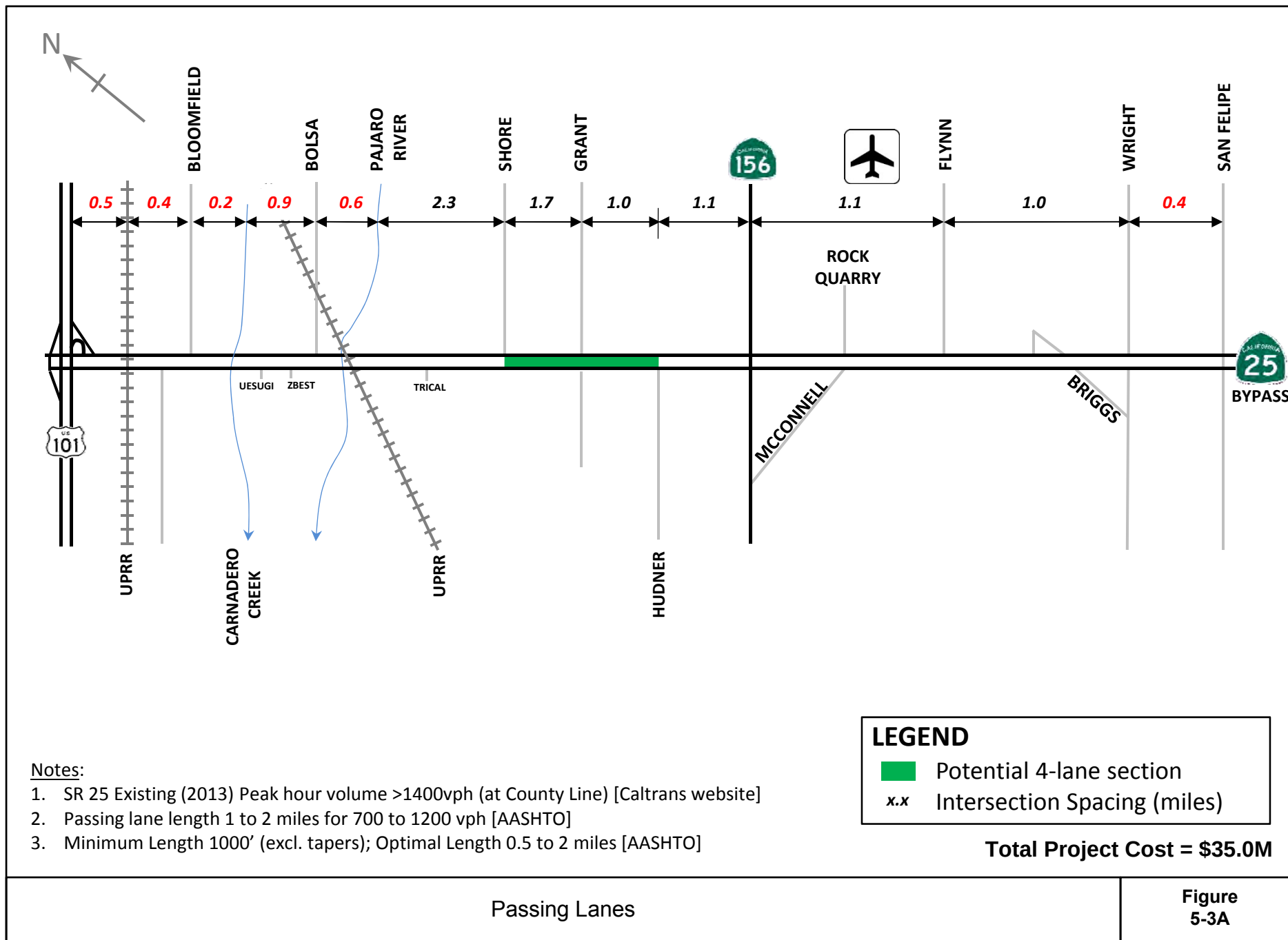


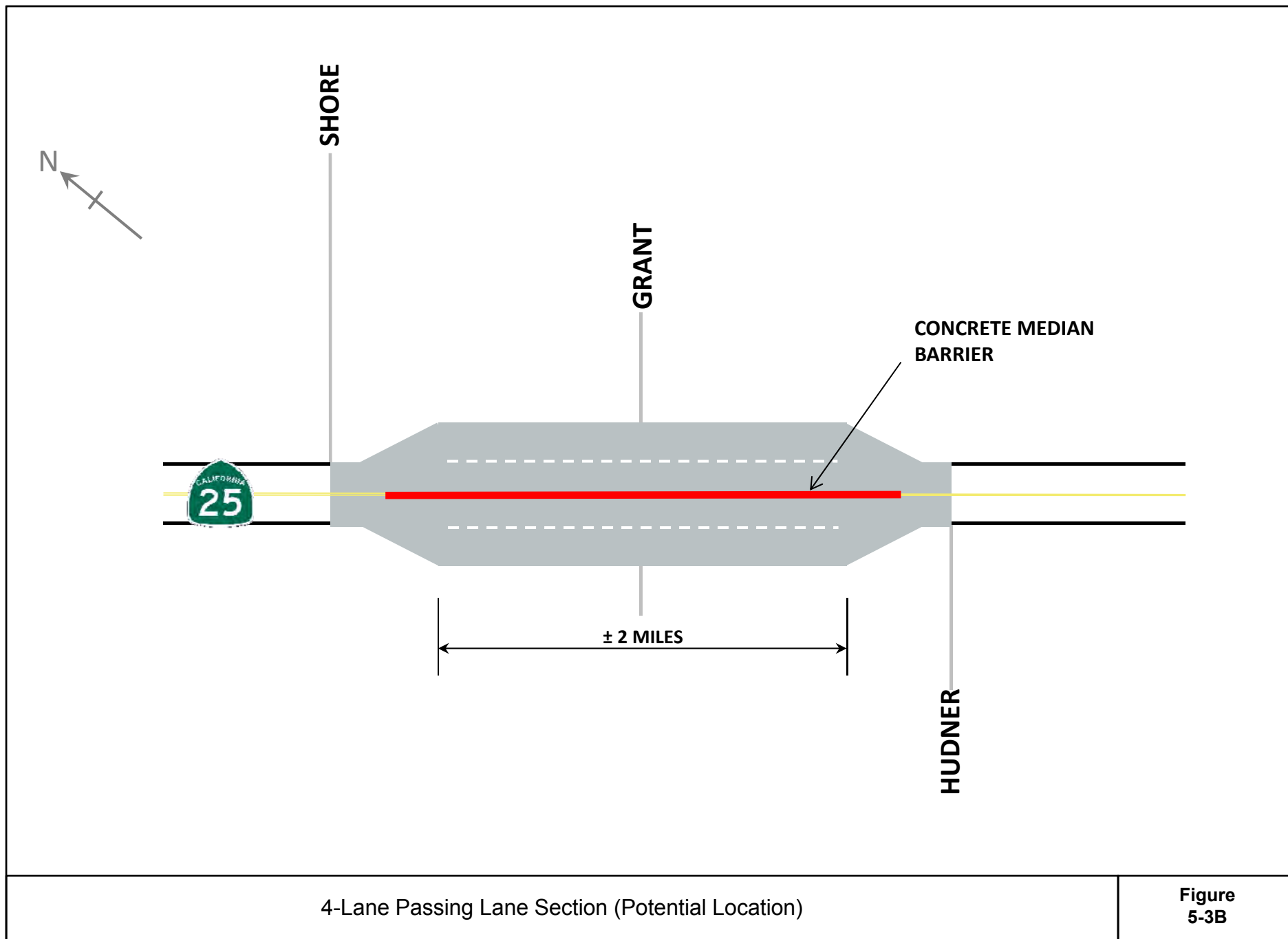
**Figure
5-1**



SR 25/SR 156 Intersection Extend Merge Lanes on SR 25 and SR 156

Figure
5-2





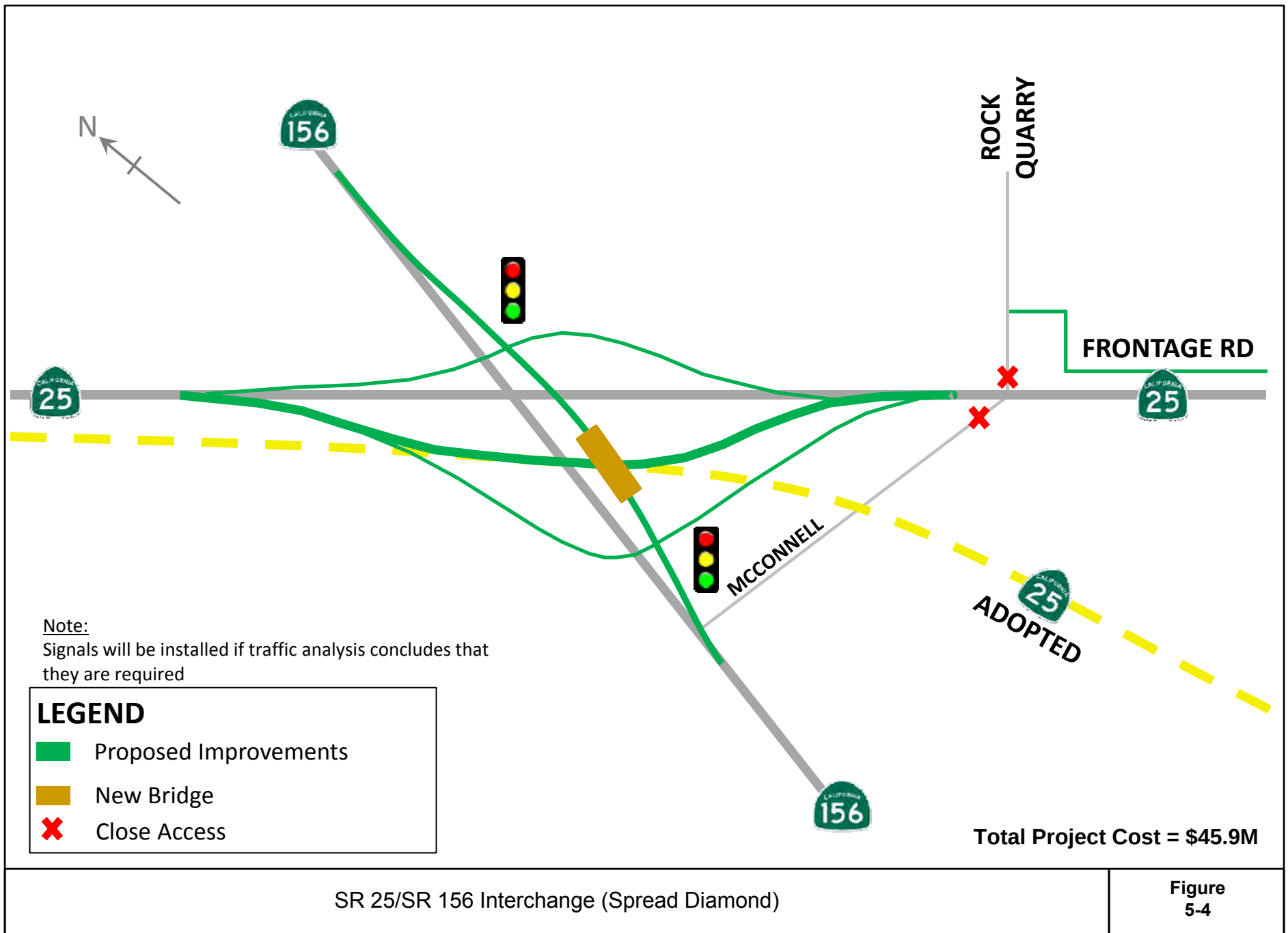
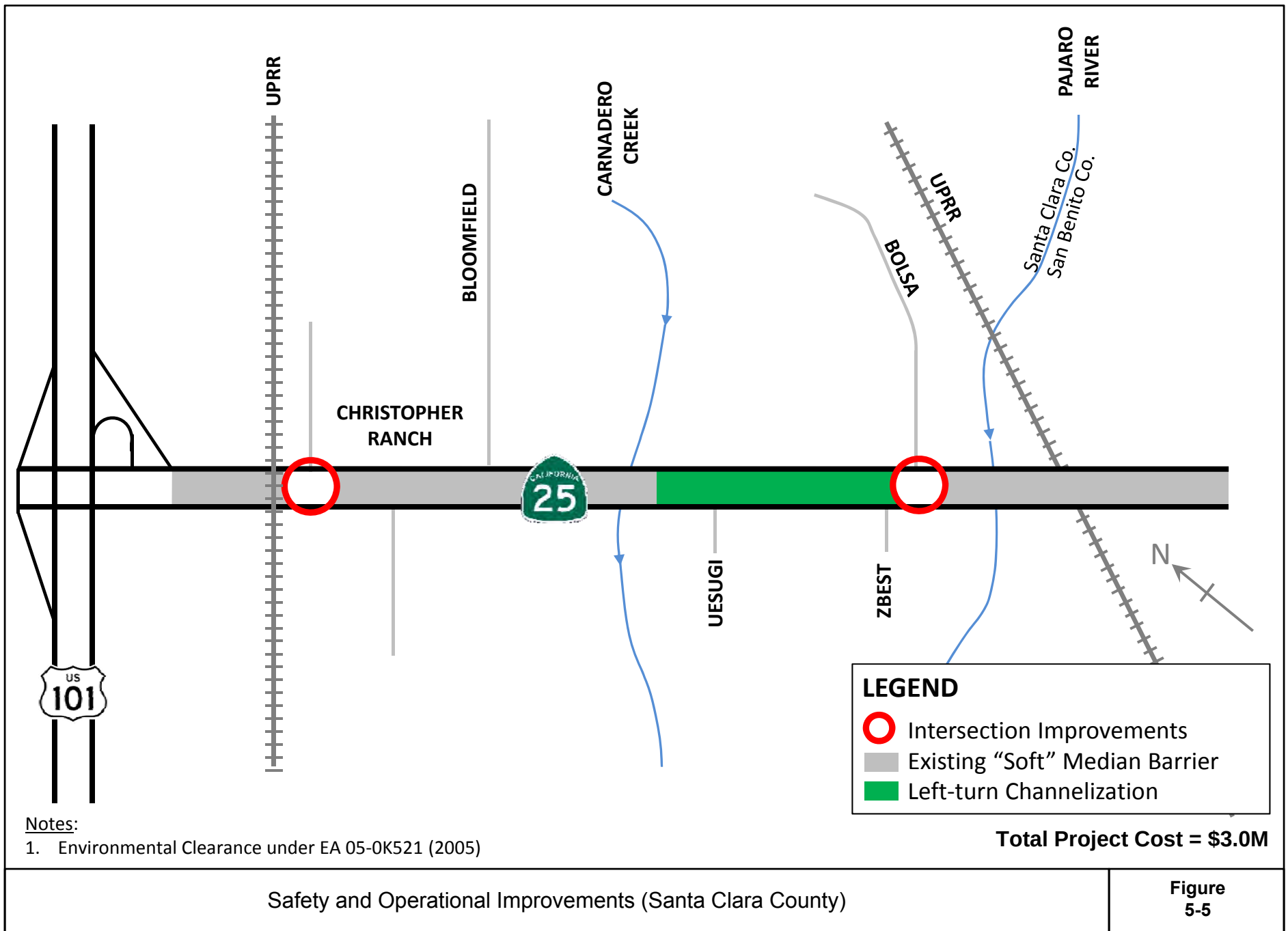
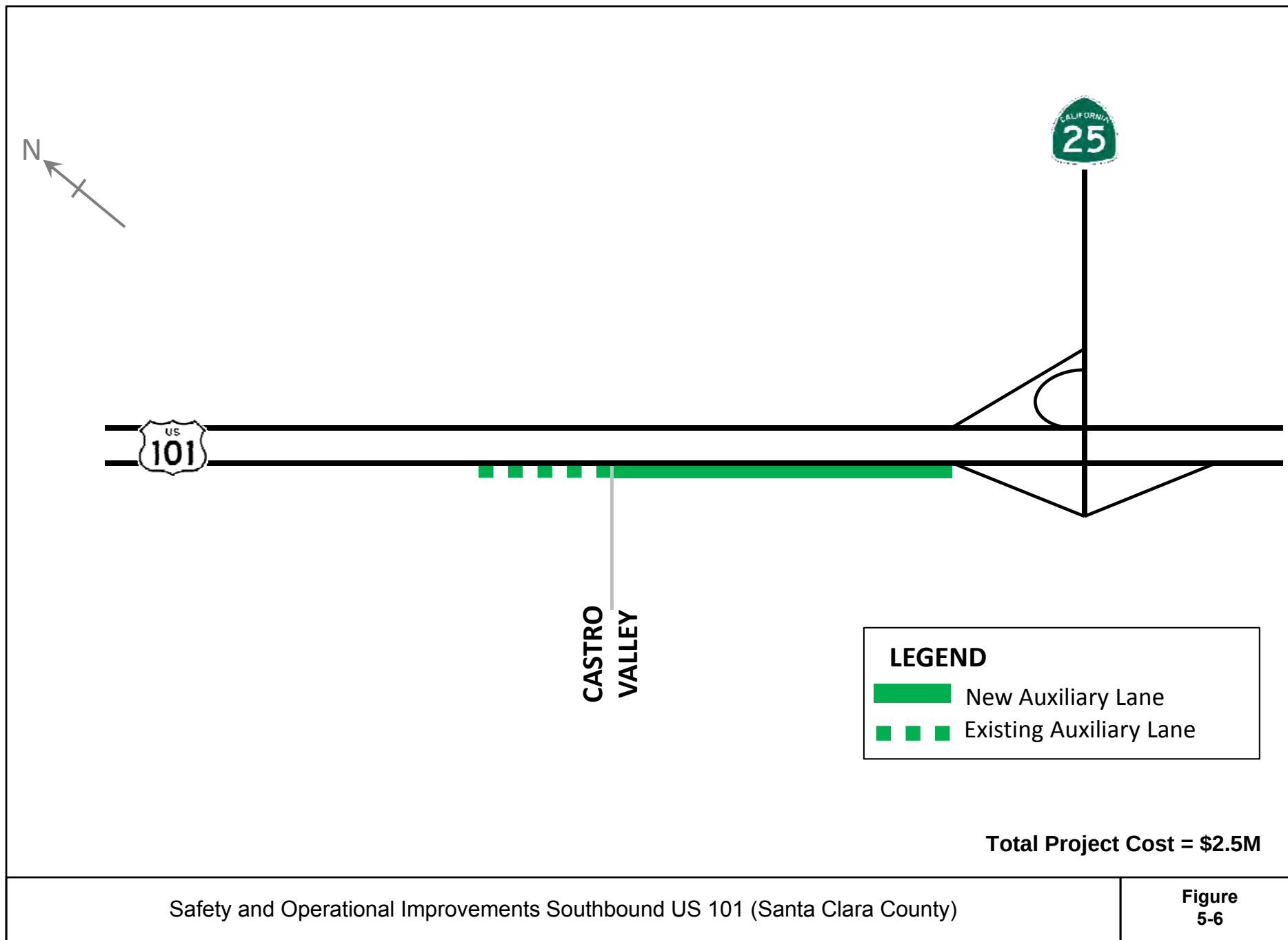


Figure
5-4

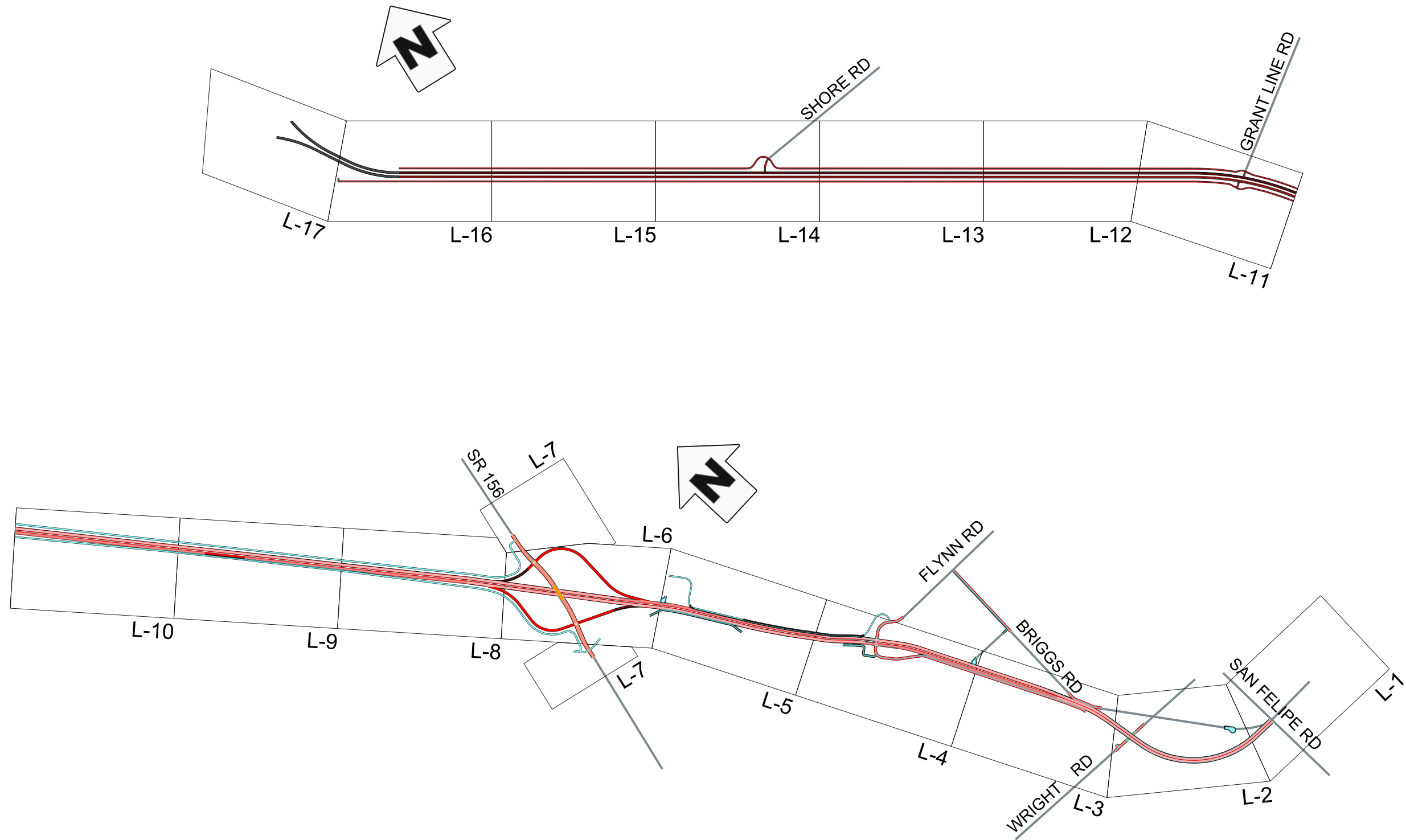




ATTACHMENT C

POTENTIAL IMPROVEMENTS –

SR 25 WIDENING



Total Project Cost = \$138.2M

April 2016

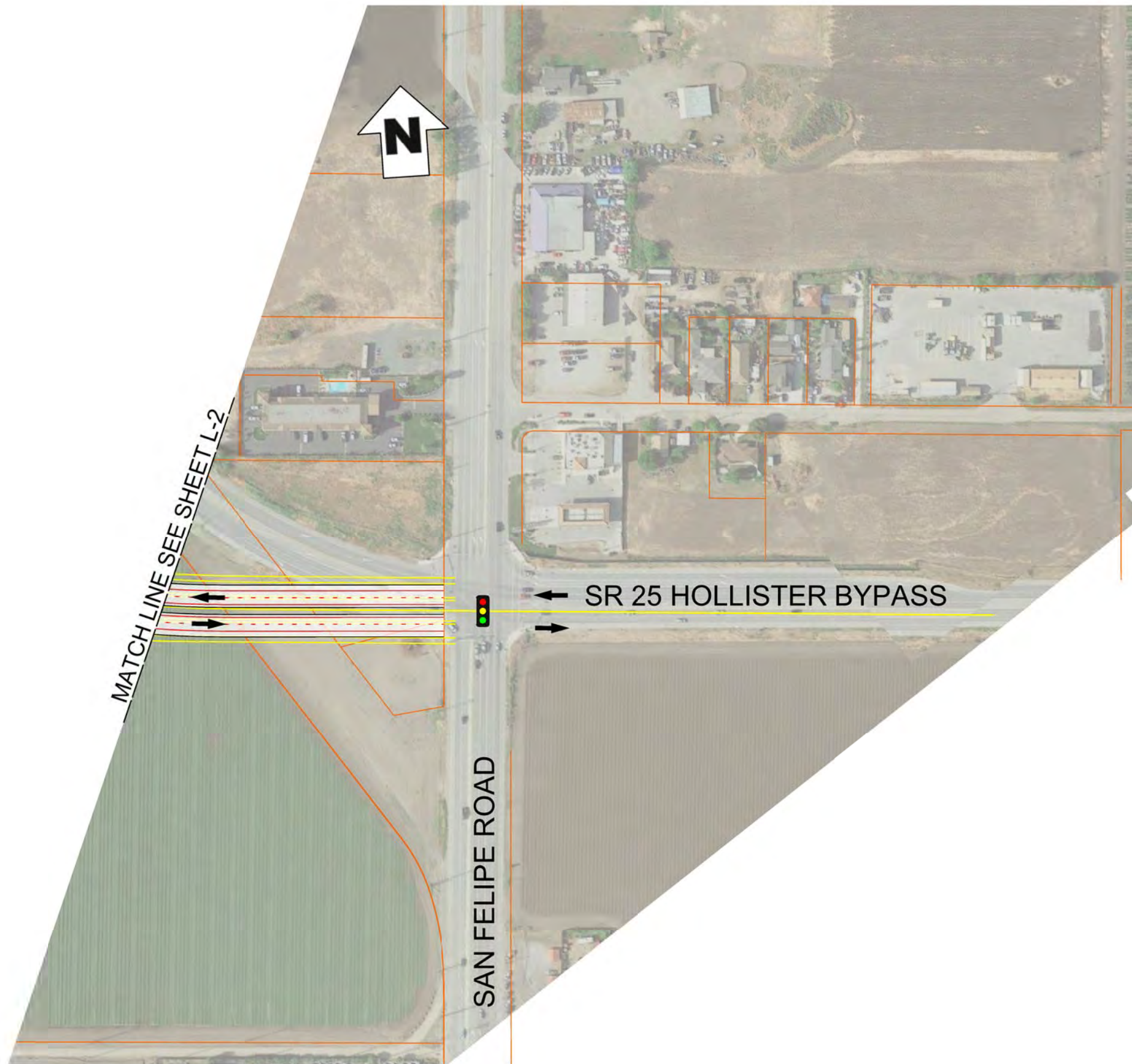


HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING - KEY MAP

Sheet
K-1

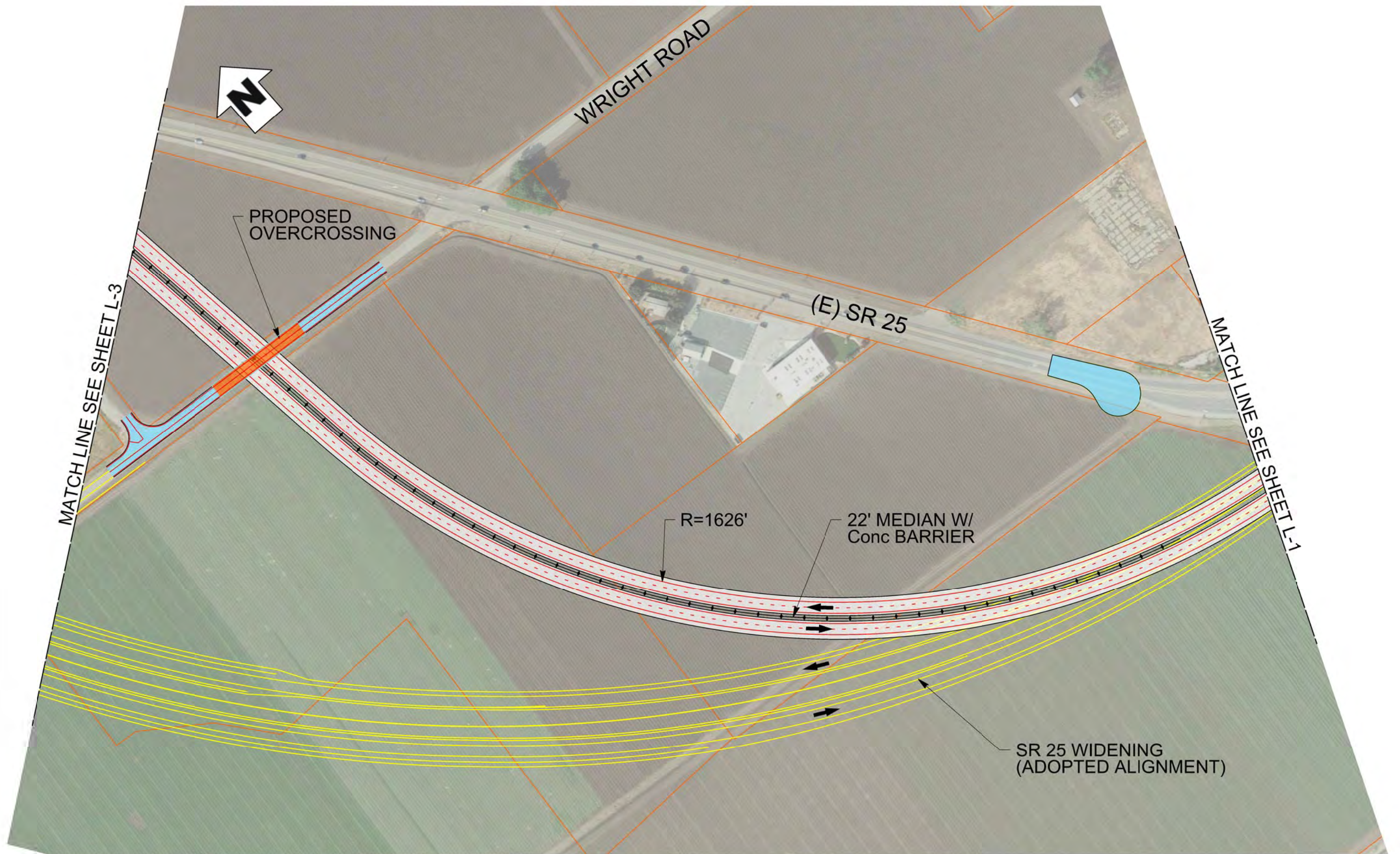
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LEGEND

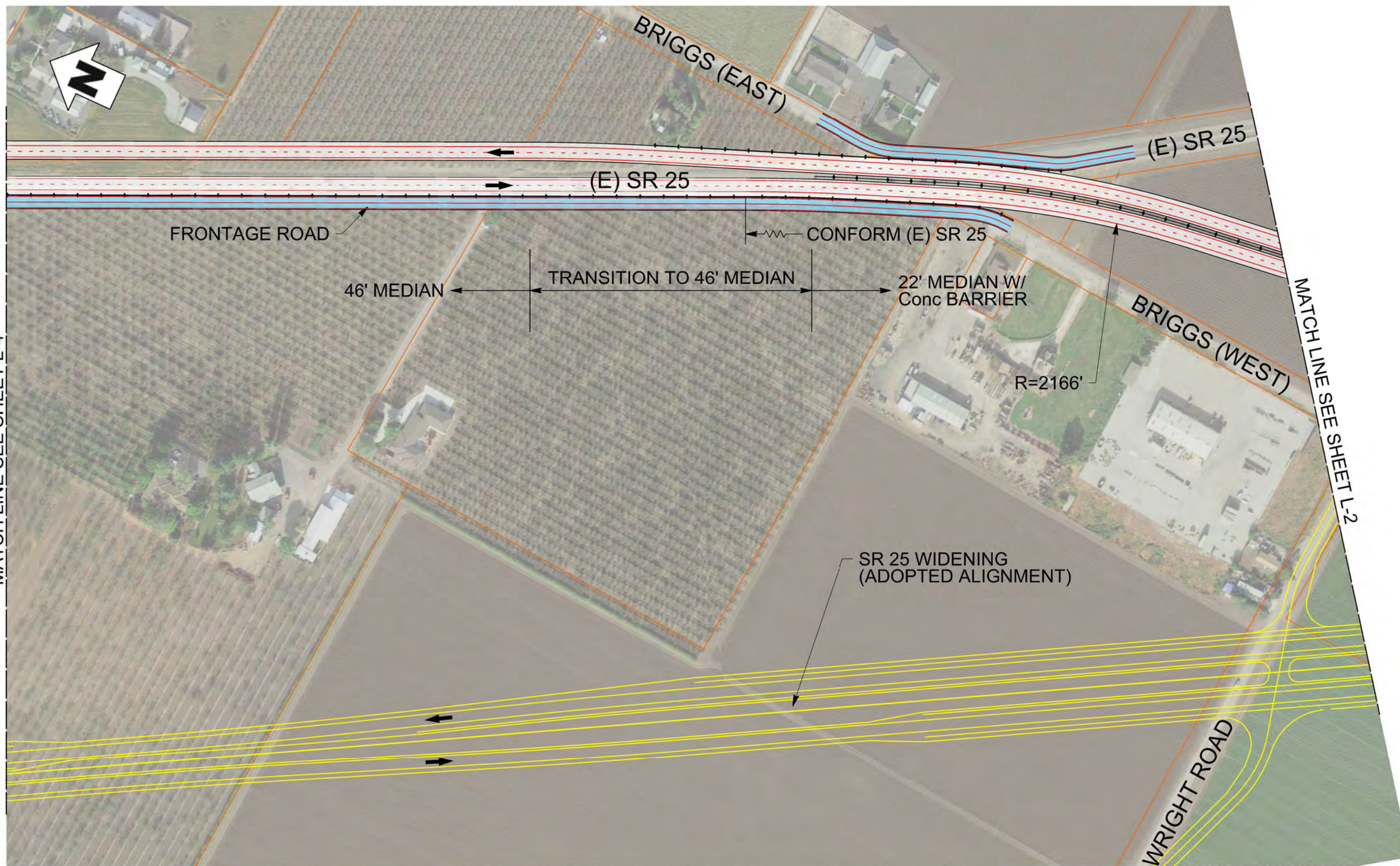
-  INTERIM SR 25 WIDENING (SAN FELIPE Rd TO NORTH OF SHORE Rd) - EXISTING ROUTE
-  FRONTAGE ROAD/DRIVEWAY
-  SR 25 WIDENING (ADOPTED)
-  PROPOSED BRIDGE
-  NEW SR 152 ALIGNMENT
-  NEW/MODIFIED SIGNAL
-  EXISTING RIGHT OF WAY/PROPERTY LINE
-  CONCRETE BARRIER
-  RETAINING WALL
- (E) EXISTING

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MATCH LINE SEE SHEET L-4



wmh

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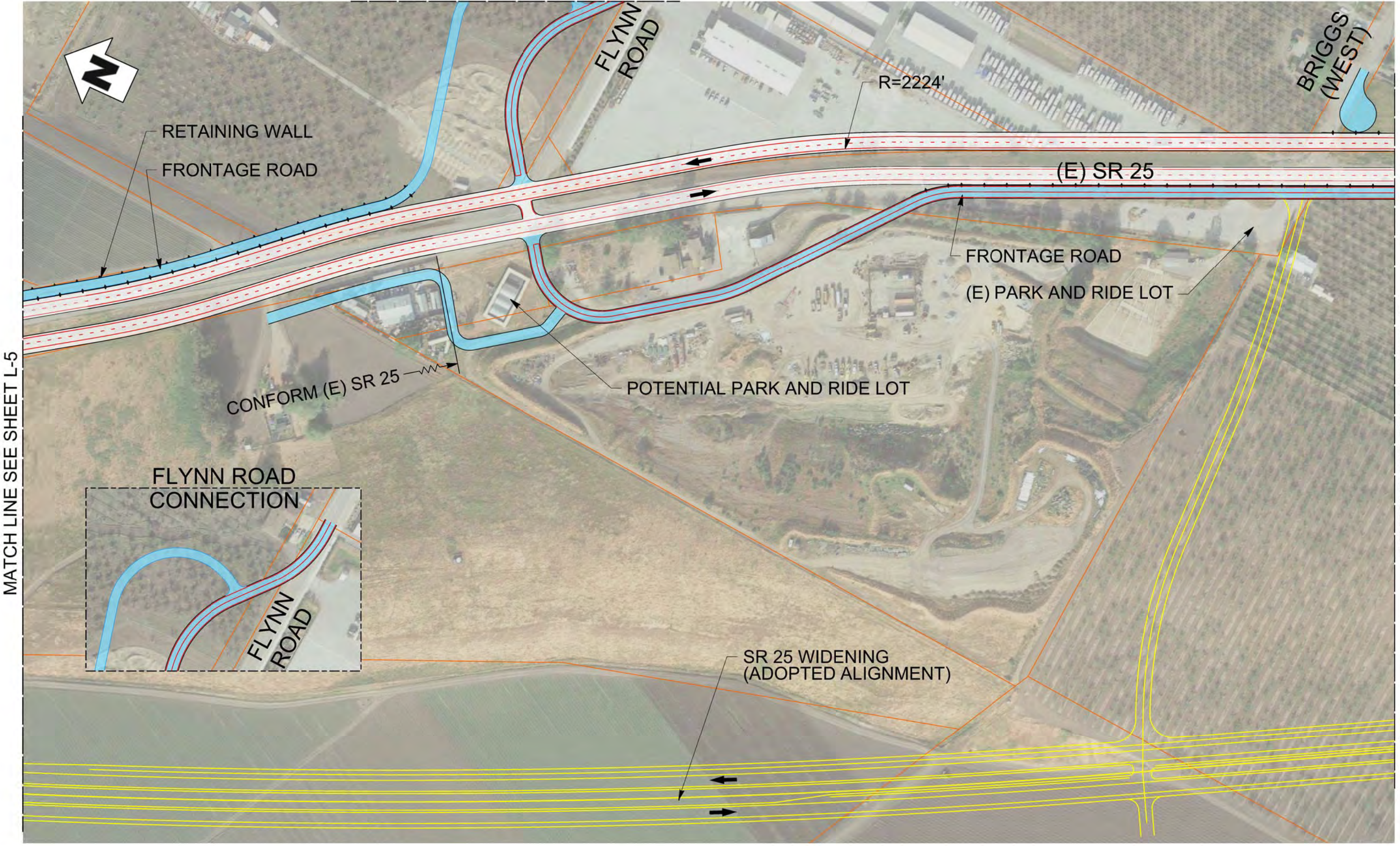
HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet
L-3

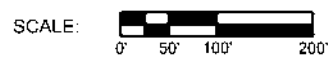
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MATCH LINE SEE SHEET L-5

MATCH LINE SEE SHEET L-3

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HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet
L-4

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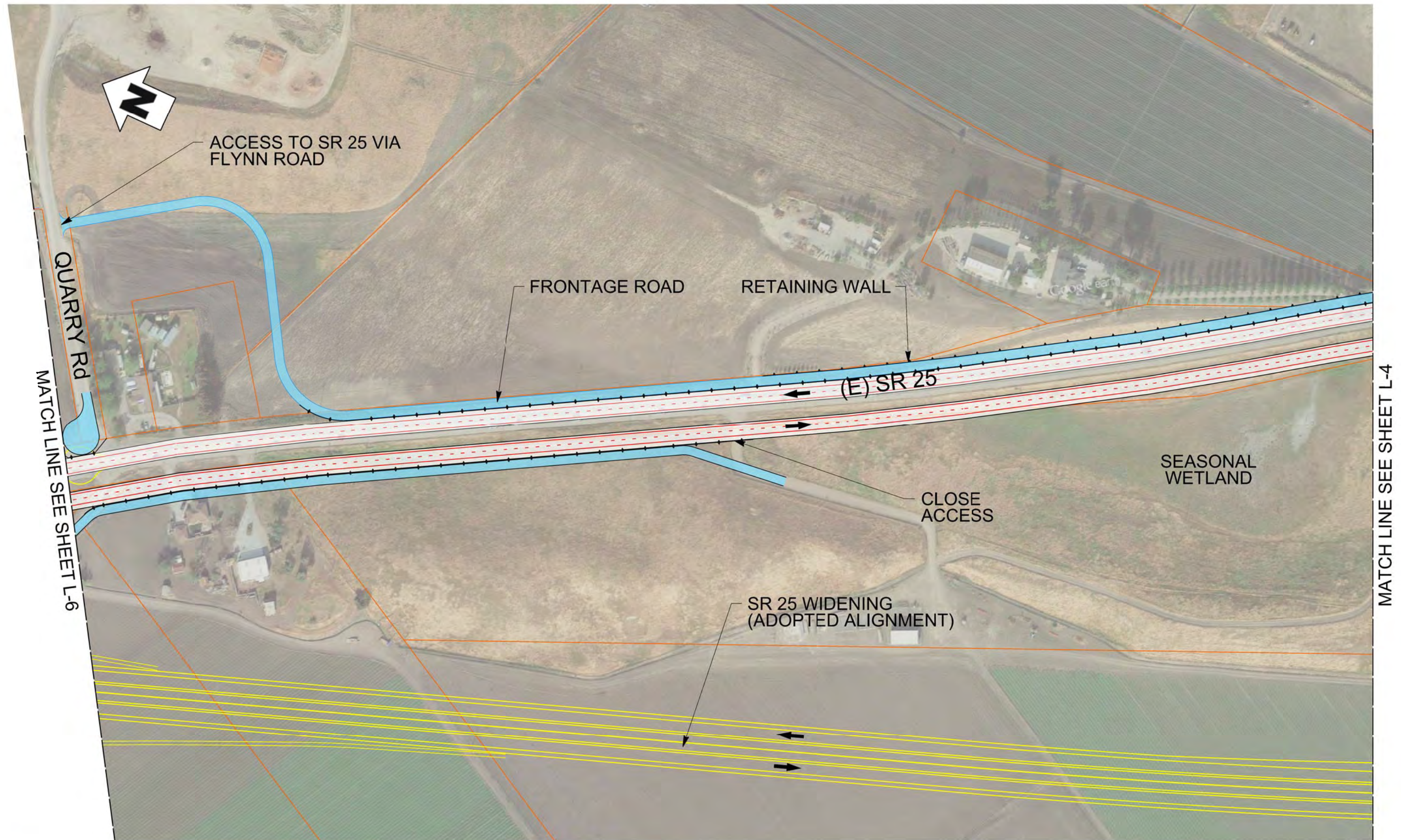
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INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

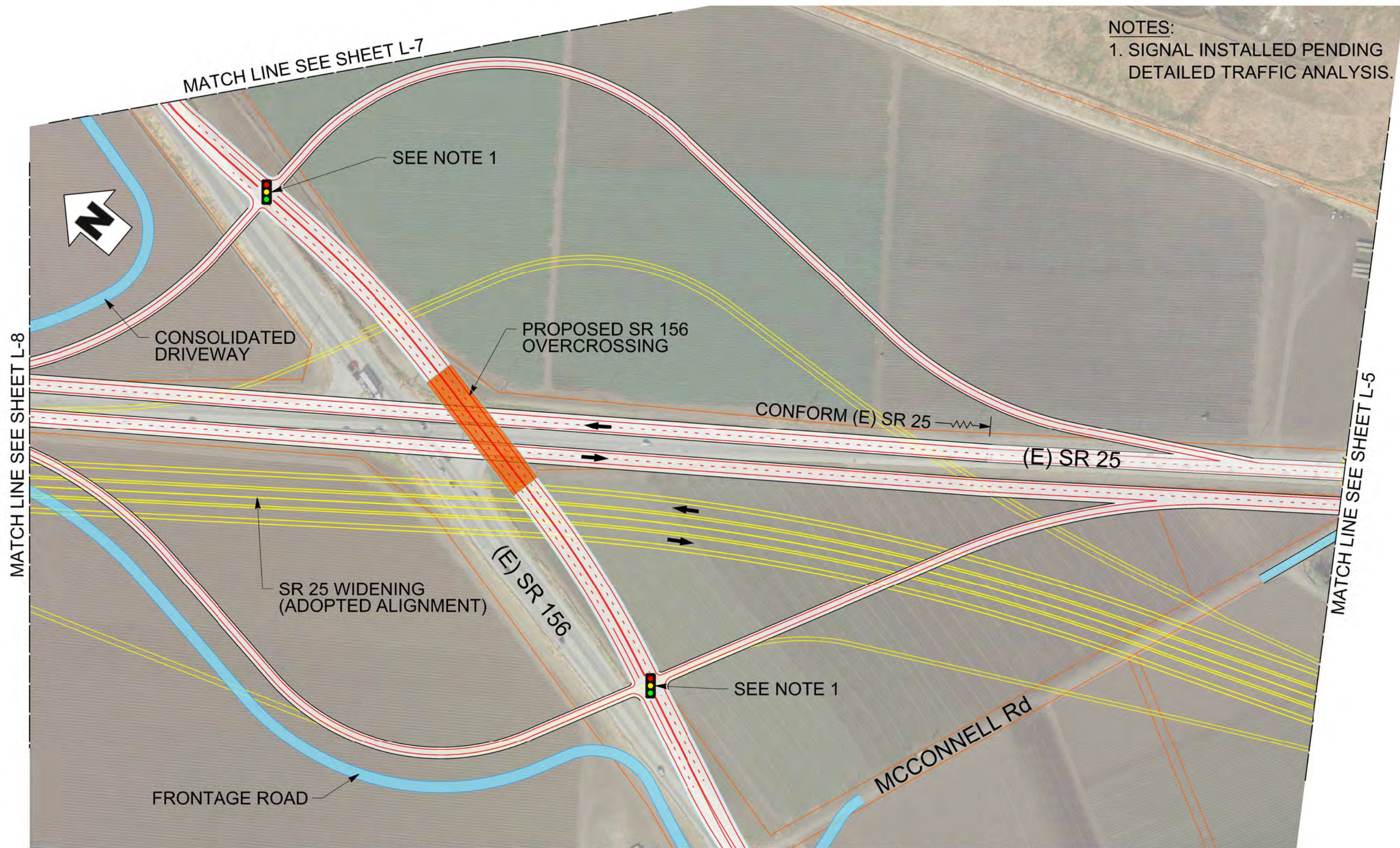
April 2016

Sheet

L-5



NOTES:
1. SIGNAL INSTALLED PENDING
DETAILED TRAFFIC ANALYSIS.



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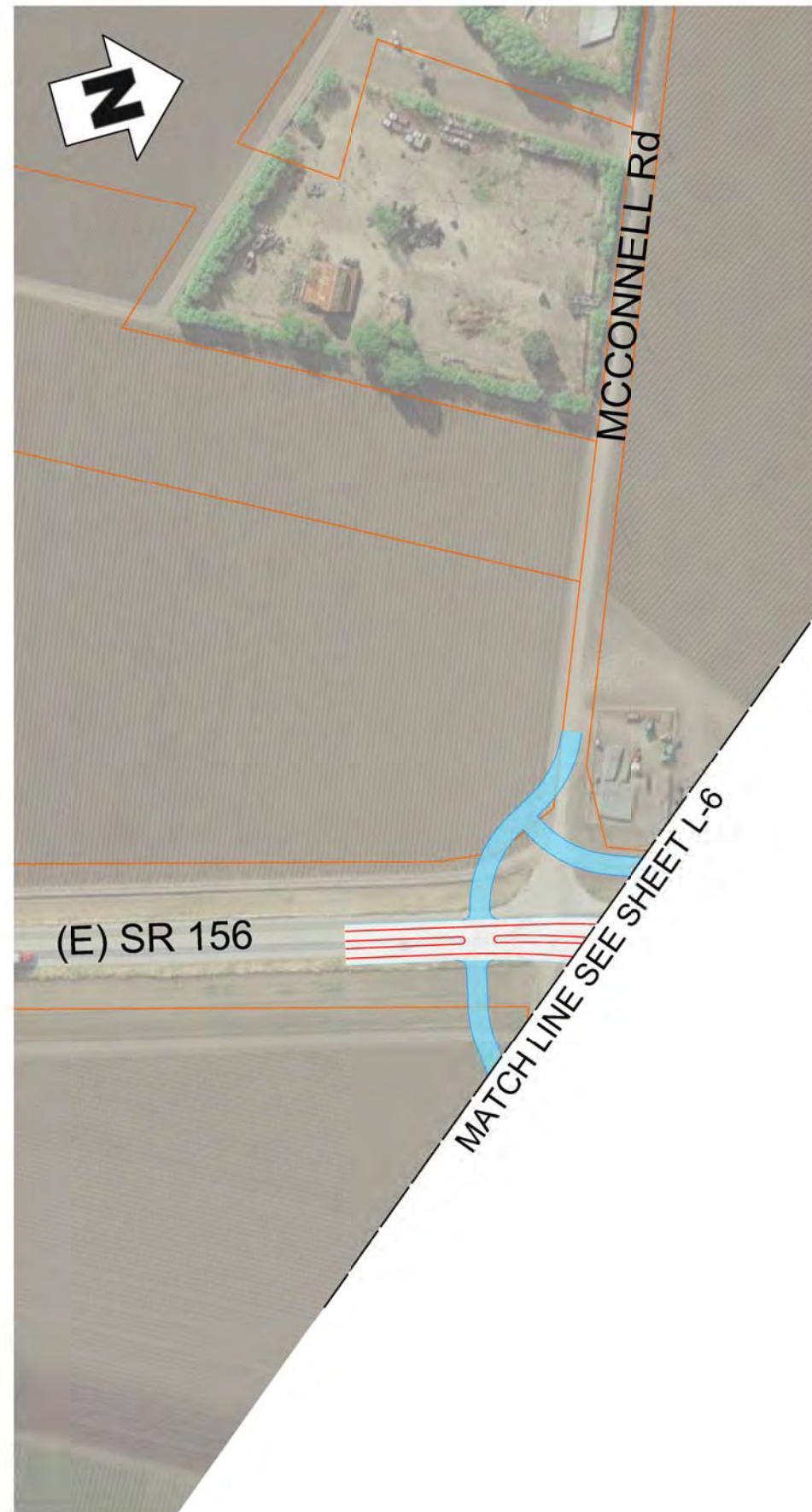


SCALE: 0' 50' 100' 200'

HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS **INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)**

April 2016

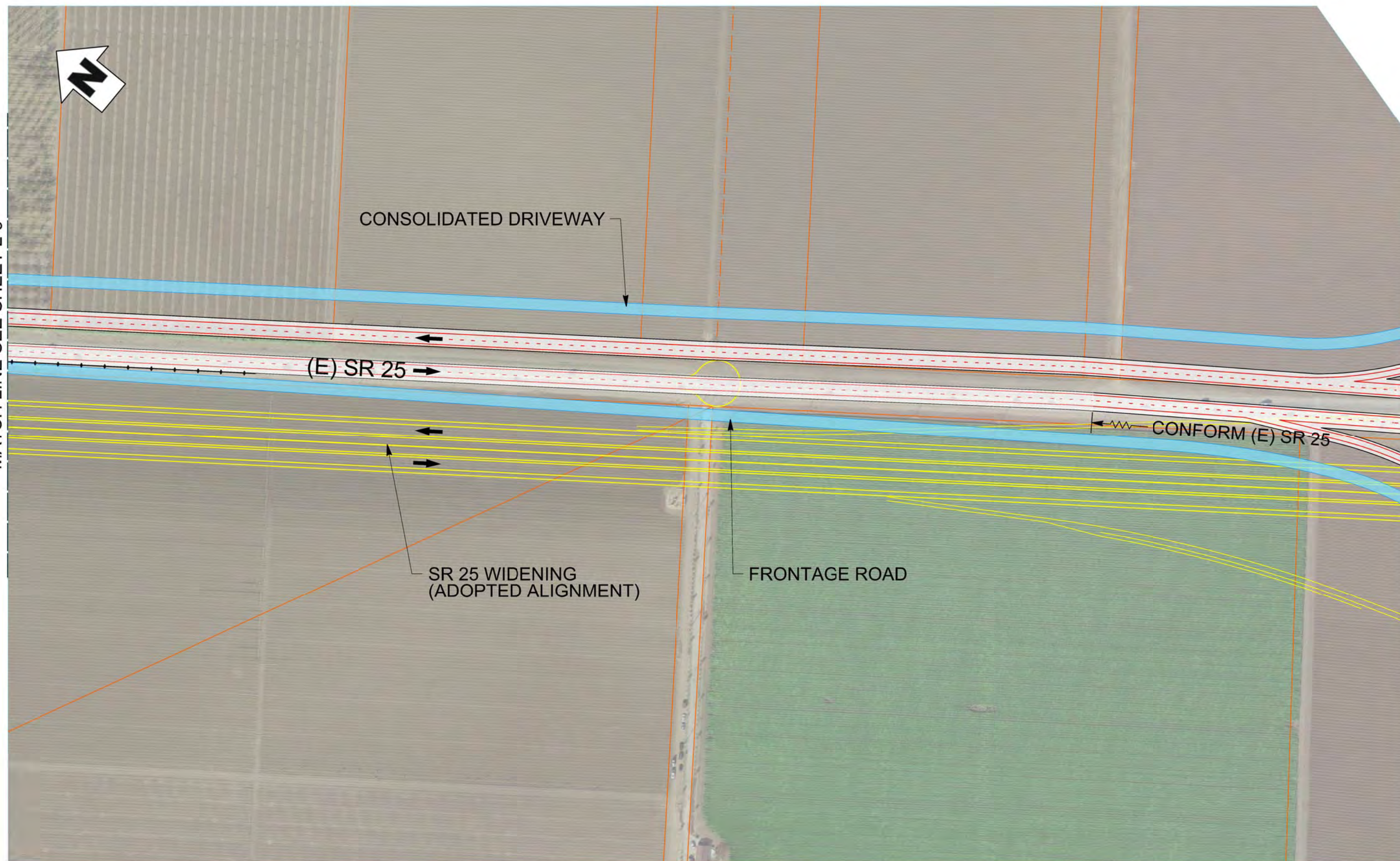
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L-6



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MATCH LINE SEE SHEET L-9

MATCH LINE SEE SHEET L-6



SCALE: 0' 50' 100' 200'

HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

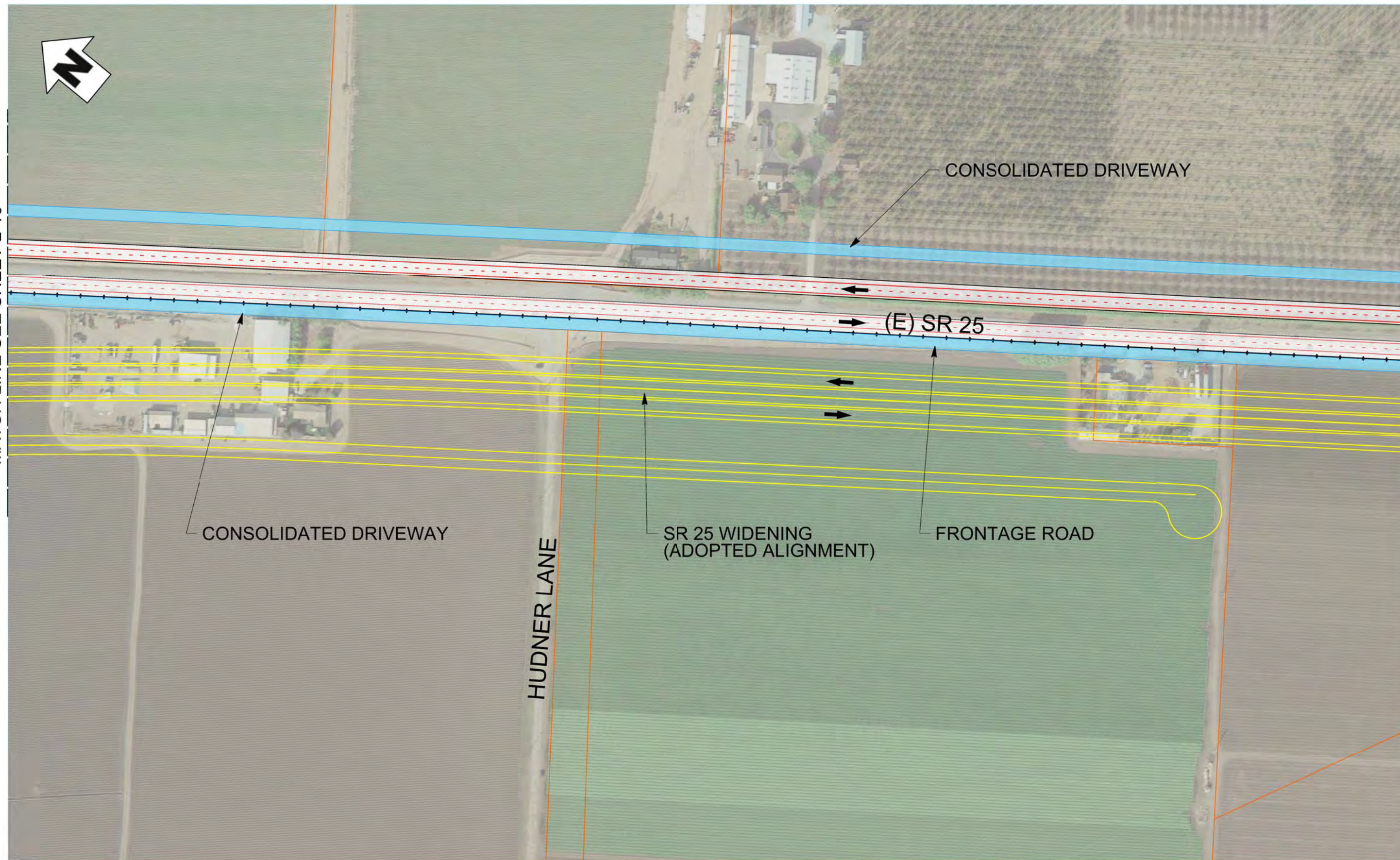
April 2016

Sheet
L-8

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MATCH LINE SEE SHEET L-8



SCALE: 0' 50' 100' 200'

HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

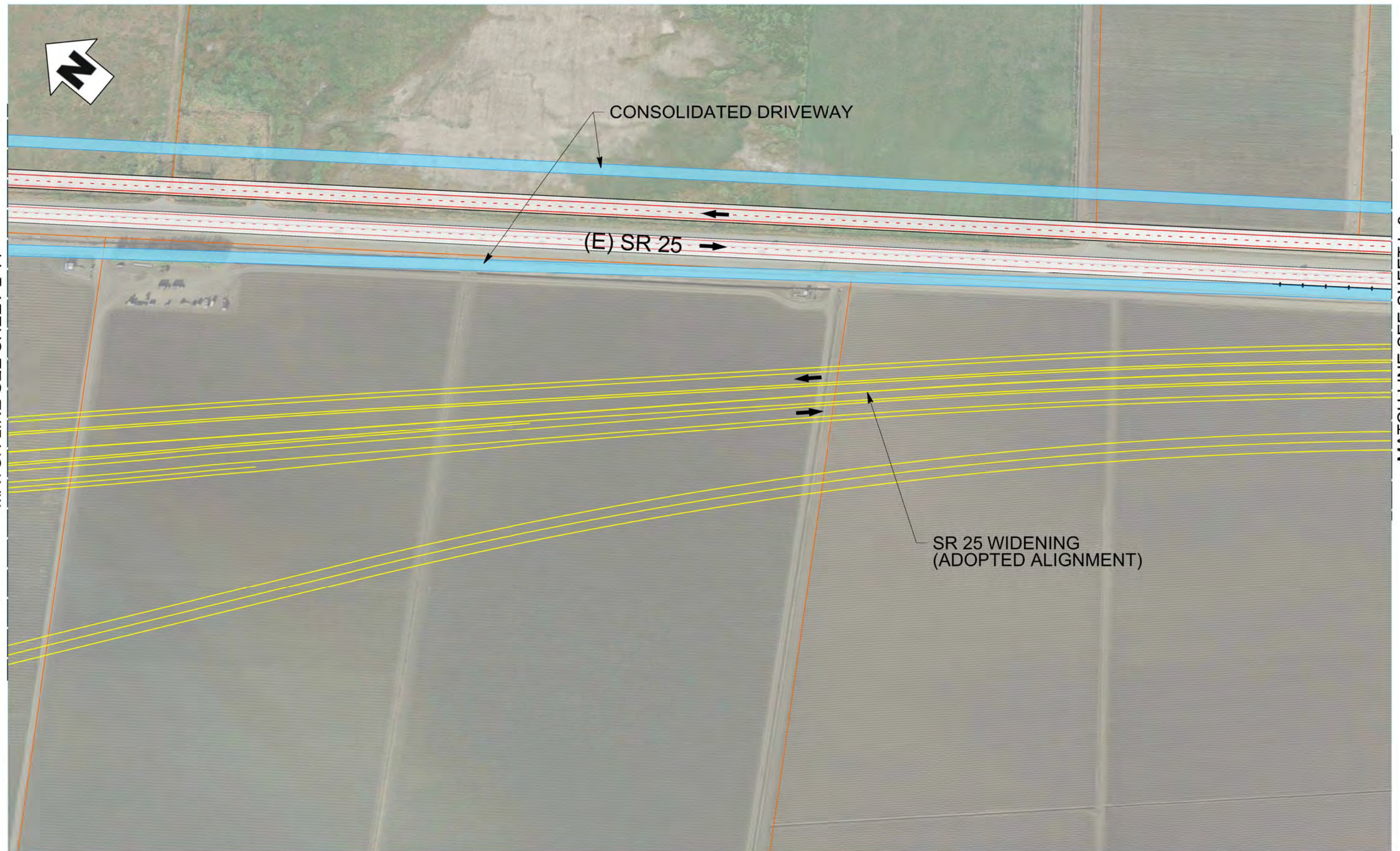
INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet
L-9

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MATCH LINE SEE SHEET L-9



wmh

SCALE:  0' 50' 100' 200'

HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet

L-10

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wmh

SCALE: 0' 50' 100' 200'

HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet

L-11

MATCH LINE SEE SHEET L-12



CONSOLIDATED DRIVEWAY

(E) SR 25

CONSOLIDATED DRIVEWAY

SR 25 WIDENING
(ADOPTED ALIGNMENT)

GRANT
LINE RD

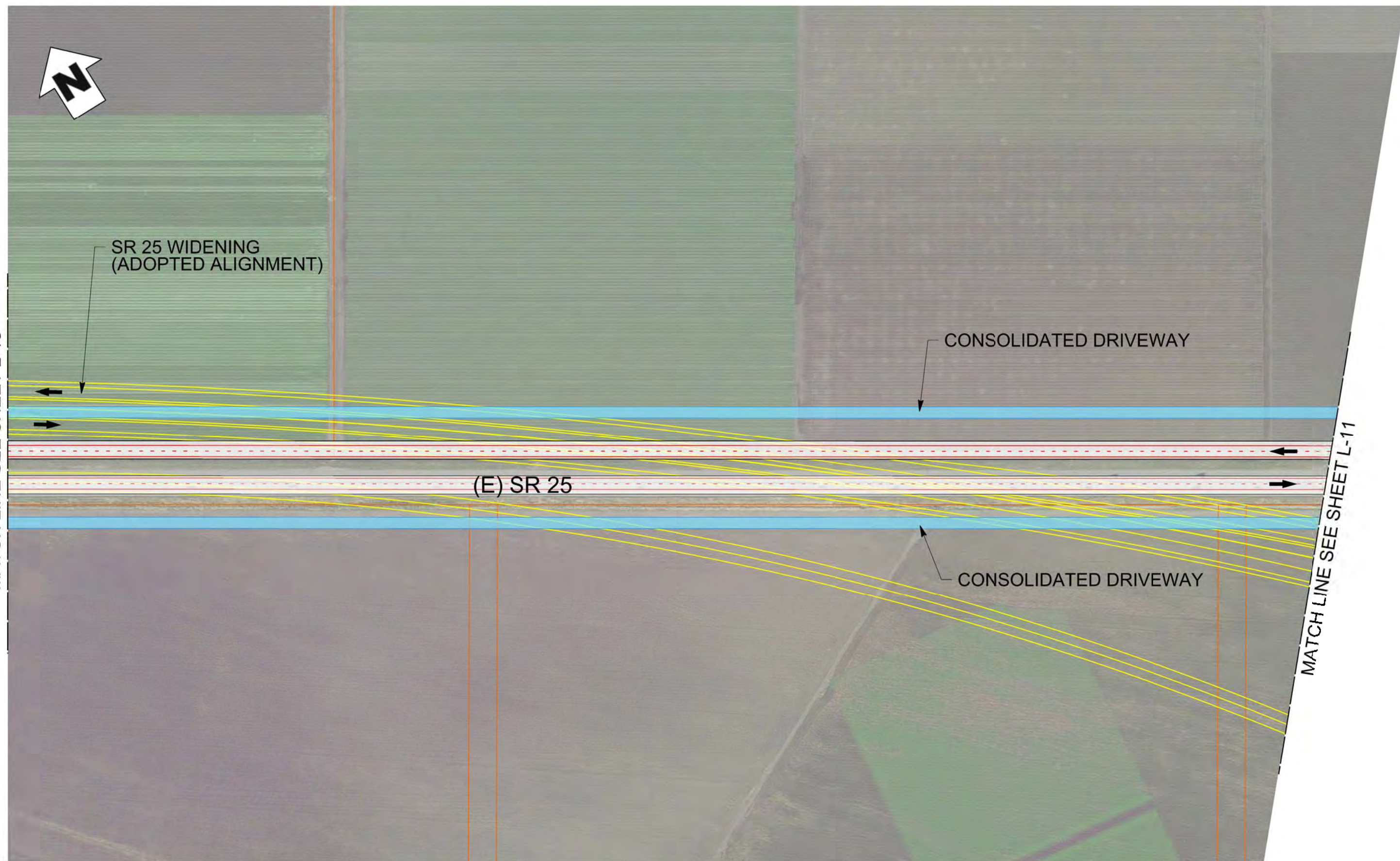
R=5080'

SEASONAL
WETLAND

MODIFY
INTERSECTION

MATCH LINE SEE SHEET L-10

MATCH LINE SEE SHEET L-13



wmh

SCALE:



HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet

L-12



MATCH LINE SEE SHEET L-14

CONSOLIDATED DRIVEWAY

SR 25 WIDENING
(ADOPTED ALIGNMENT)

(E) SR 25

MATCH LINE SEE SHEET L-12

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wmh

SCALE:



HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

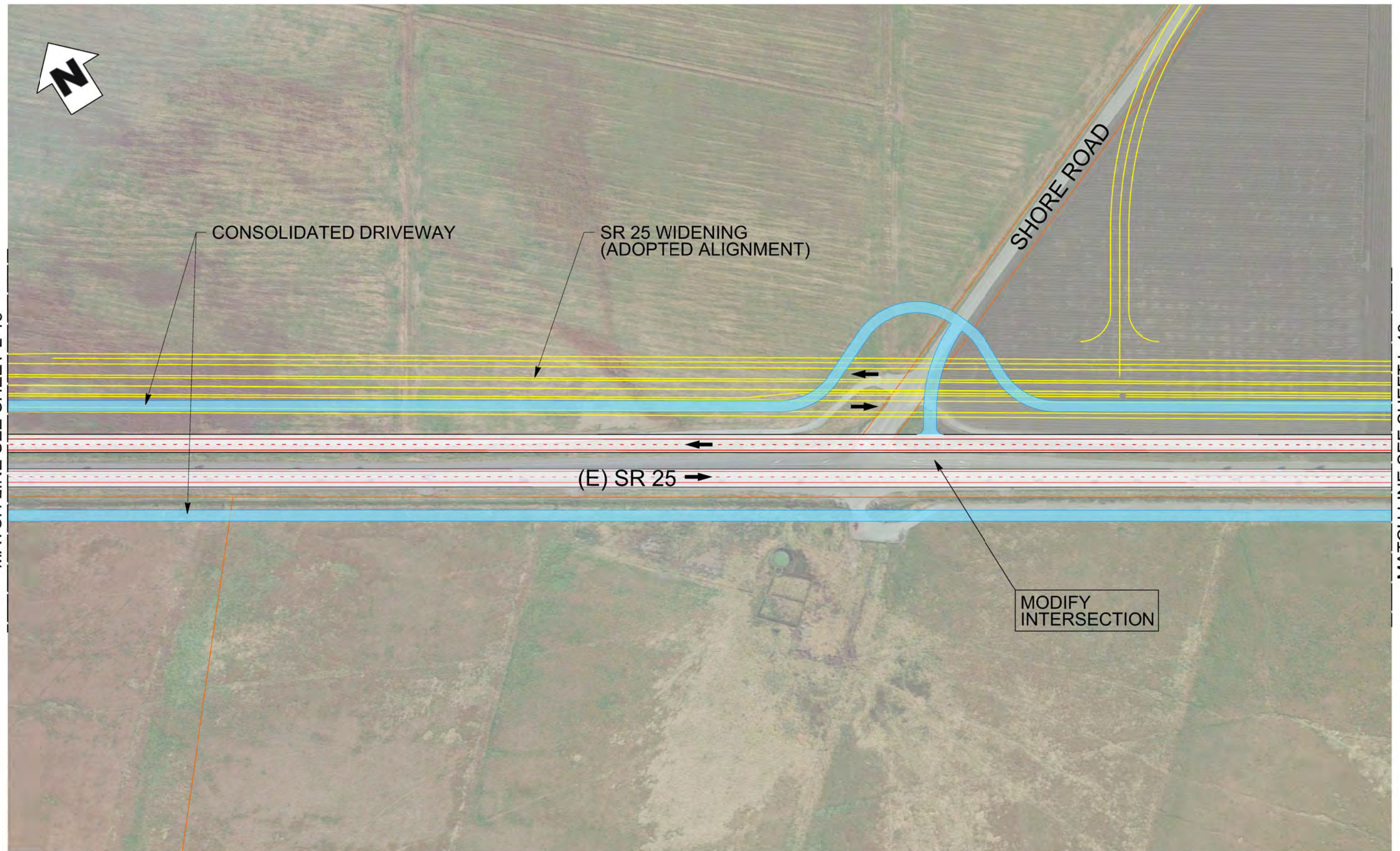
April 2016

Sheet

L-13

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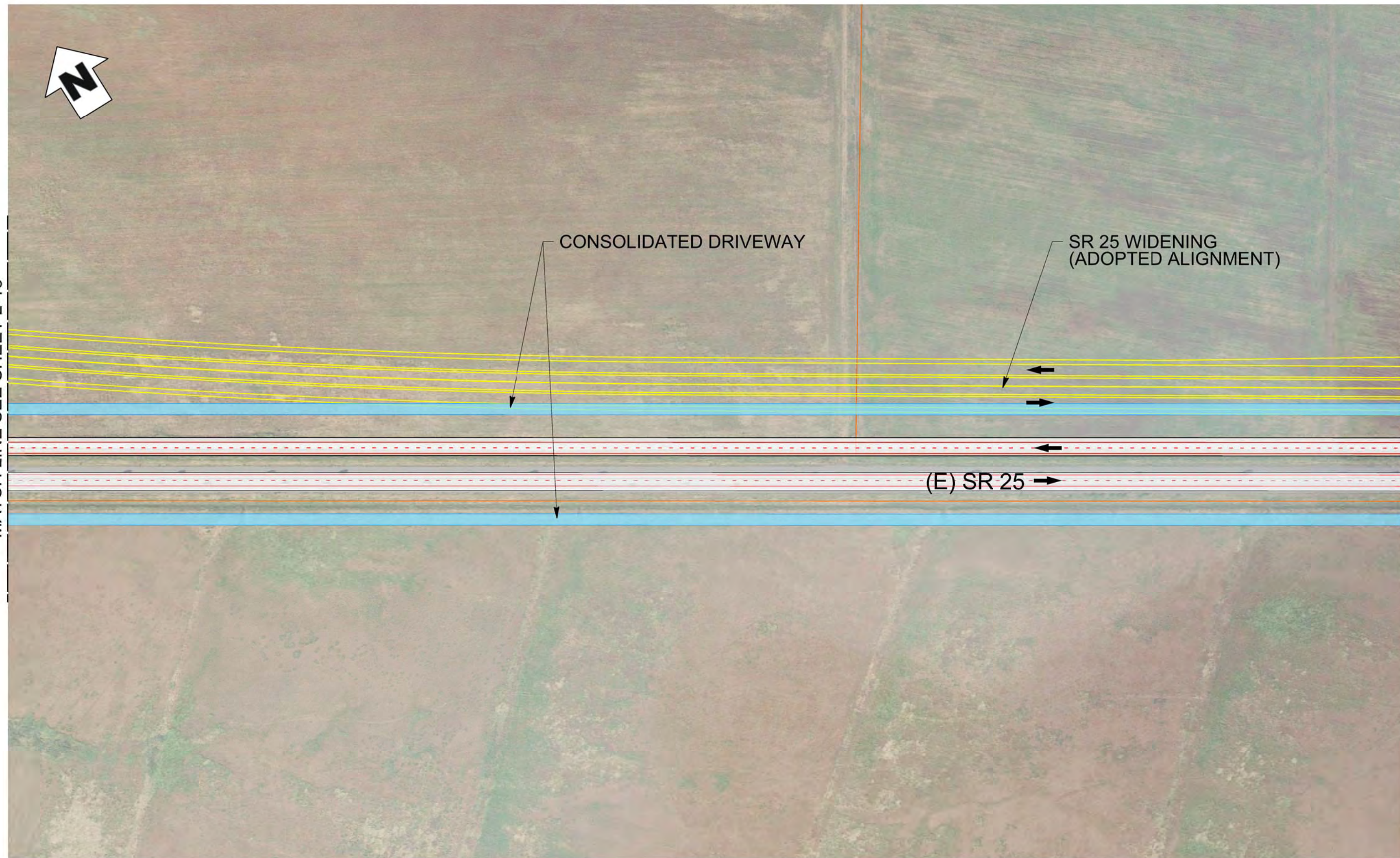
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MATCH LINE SEE SHEET L-13

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MATCH LINE SEE SHEET L-3



wmh

SCALE:



HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

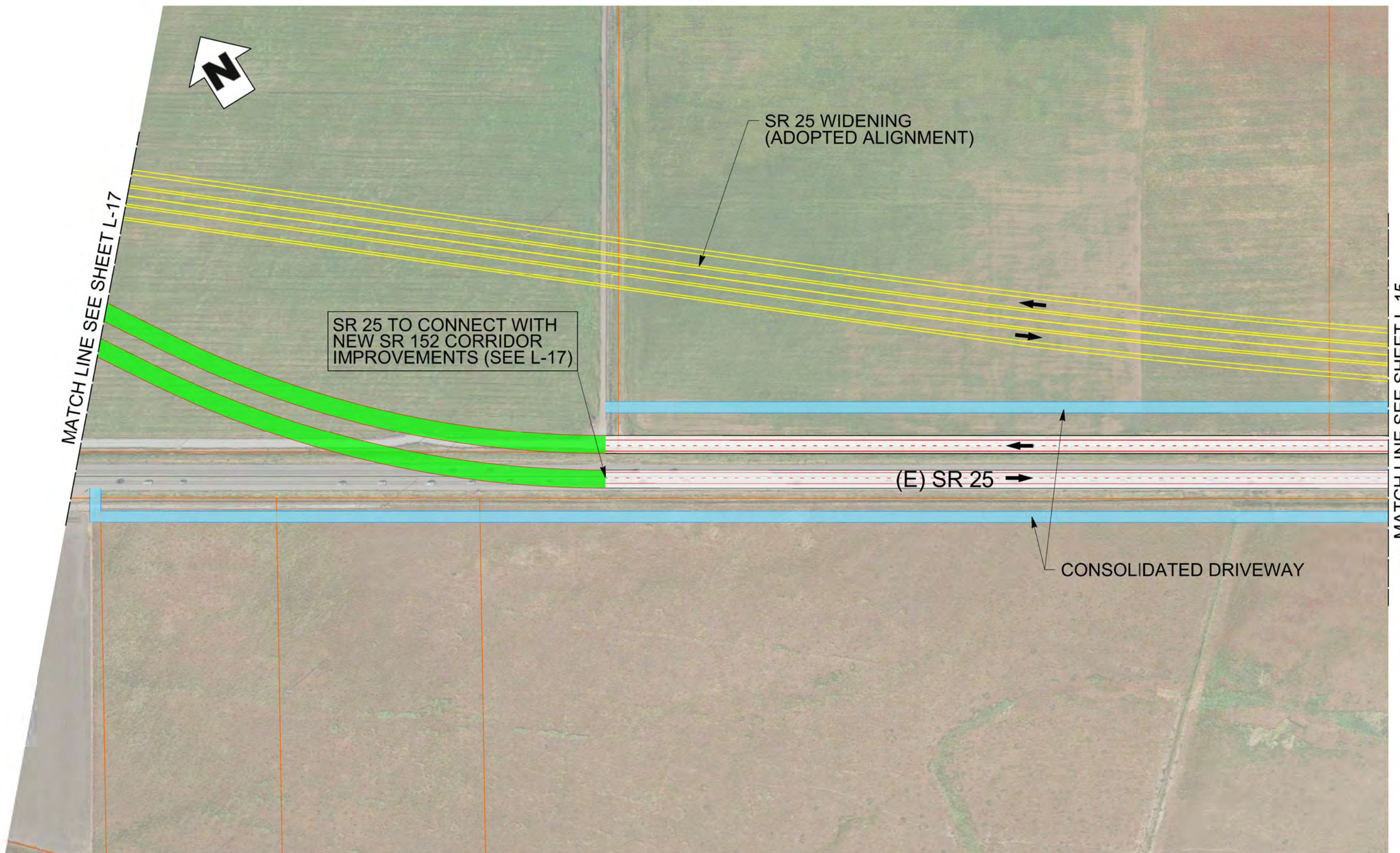
INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet

L-15

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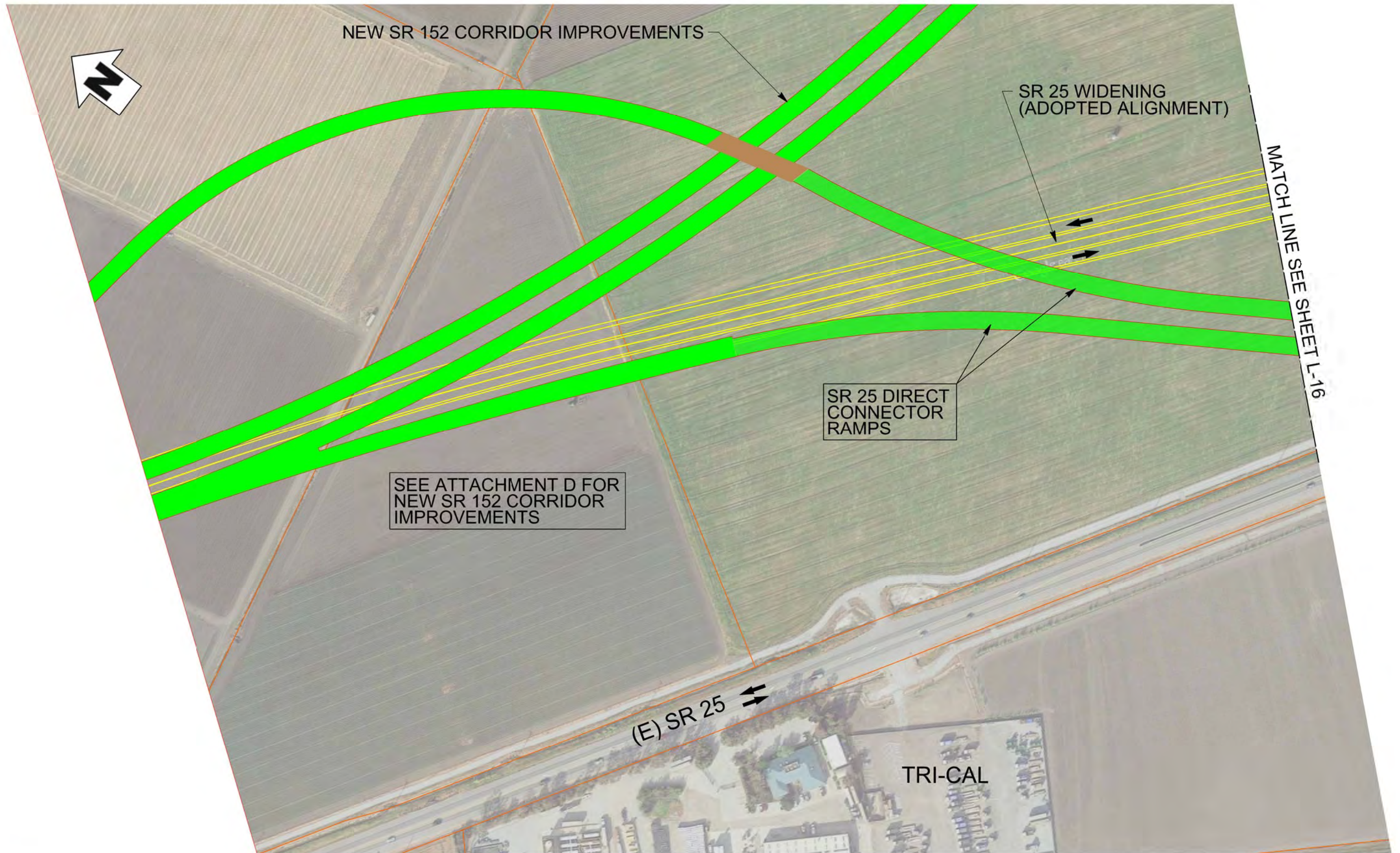
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HIGHWAY 25 WIDENING DESIGN ALTERNATIVES ANALYSIS

INTERIM SR 25 WIDENING (CONCEPTUAL LAYOUT)

April 2016

Sheet
L-17



ATTACHMENT D

ADJACENT PROJECTS

D-1: SR 25 WIDENING (ADOPTED ALIGNMENT)

D-2: SR 152 TRADE CORRIDOR IMPROVEMENTS (US 101 TO I-5)

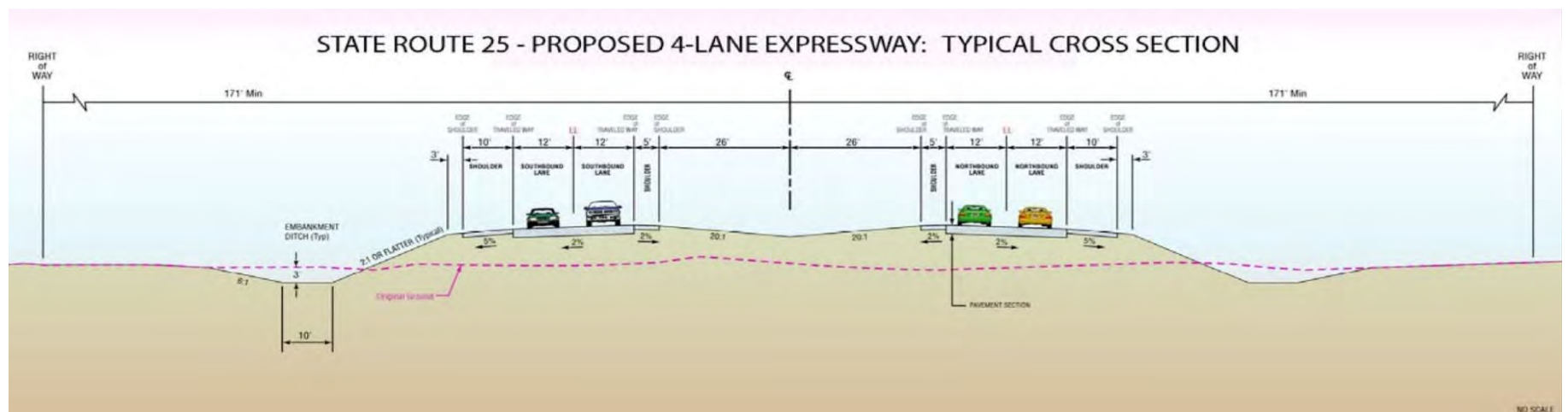
D-3: US 101 / SR 25 IMPROVEMENTS

SR 25 WIDENING (ADOPTED ALIGNMENT)



SR 25 Widening (San Felipe Rd to east of US 101) Adopted Alignment

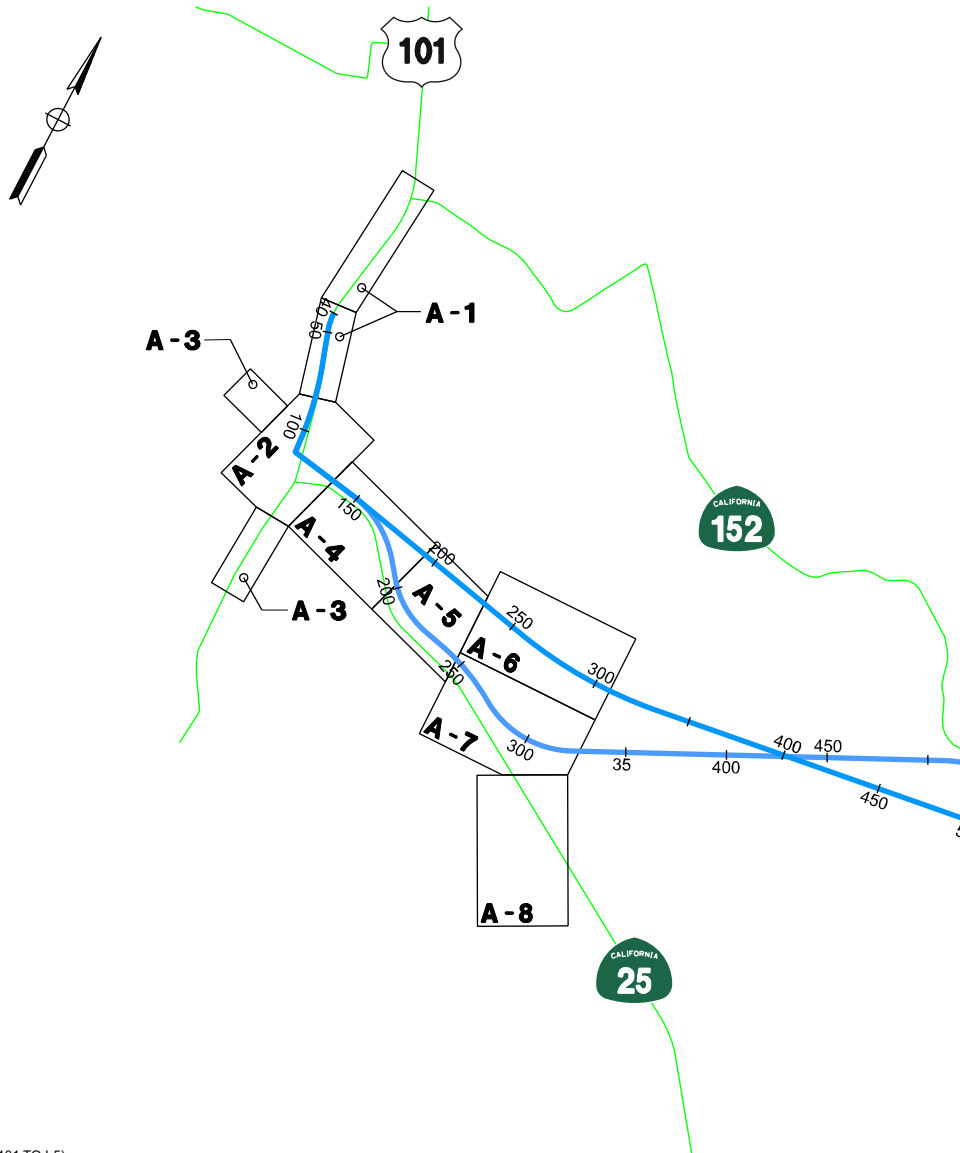
**Figure
1A**



SR 25 Widening (San Felipe Rd. to east of US 101) Adopted Alignment (46' Median)

**Figure
1B**

SR 152 TRADE CORRIDOR IMPROVEMENTS (US 101 TO I-5)



KEY MAP

SOURCE: SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5)
APPROVED PSR-PDS, DATED FEBRUARY 2015

DISTRICT: 04, 05, 10	ROUTE: 152	PREPARED BY: WMH CORPORATION	PREPARED FOR: SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	DESIGNED BY: S. PATEL	DATE: 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5) - SEGMENT A	K-1
COUNTY AND POST MILE: SCL 9.9/35.2, MER 0.0/15.0				DRAWN BY: A. PAEZ	DATE: 02/17/2012		
			CHANGE UNIT: XXXXX	EM: 04-0G2300	CHECKED BY: B. STEWART	DATE: 02/17/2012	KEY MAP

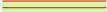
EXH-DESIGN-K01.dgn

10/24/2012 12:34:00 PM
SV081001

NOTES:

1. RIGHT OF WAY AND PARCEL DATA OBTAINED FROM RECORD MAPS.
2. HIGH SPEED TRAIN ALIGNMENT SOURCE:
SAN JOSE TO MERCED SECTION ALIGNMENT ALTERNATIVES MAP
www.cahighspeedrail.ca.gov (03/01/11)

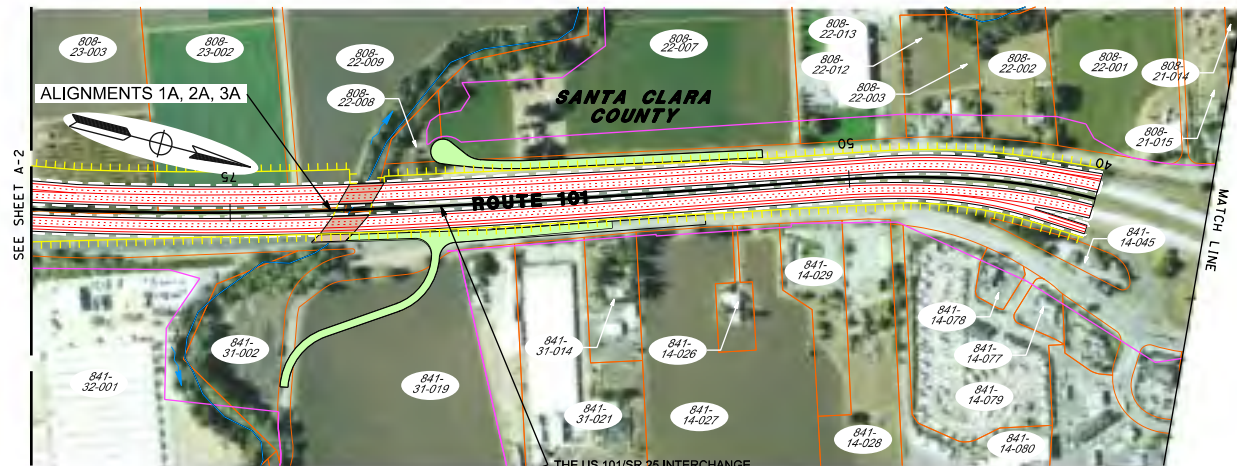
LEGEND:

	STATE HIGHWAY		PROPOSED ROW *
	COUNTY LINE/CITY LIMIT		PROPOSED ROW WITH ACCESS CONTROL *
	LOCAL ROAD		PROPOSED LOCAL ROAD IMPROVEMENT
	PARCEL BOUNDARIES		PROPOSED HIGHWAY IMPROVEMENT
	WATER COURSE		PROPOSED BRIDGE
	EXISTING ROW		FUTURE IMPROVEMENTS
	EXISTING ROW WITH ACCESS CONTROL		PROPOSED ACCESS
	EXISTING RAILROAD		EXISTING ACCESS
	PRELIMINARY STUDY LIMITS	R	RIGHT TURN ACCESS ONLY
	PREVIOUS ENVIRONMENTAL STUDIES	L	LEFT AND RIGHT TURN ACCESS
	HIGH SPEED TRAIN *	-	CLOSED TO SR152

DISTRICT:	ROUTE:	PREPARED BY:	PREPARED FOR:	NO SCALE		DESIGNED BY:	DATE:	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5)	A-0
04, 05, 10	152	WMH CORPORATION	SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300			S. VOGTMAN	02/17/2012		
COUNTY AND POST MILE:				DRAWN BY:	DATE:				
SCL 9.9/35.2, MER 0.0/15.0				S. VOGTMAN	02/17/2012				
				CHARGE UNIT:	EA:	CHECKED BY:	DATE:	BUILD ALTERNATIVE (SEGMENT A)	
				XXXXX	04-0G2300	T. LEE	02/17/2012		

EXH-DESIGN-SH1 A-00.dgn

10/24/2012 9:45:34 AM SVOGTMAN



THE US 101/SR 25 INTERCHANGE IMPROVEMENTS UTILIZES THE FOOTPRINT FOR EA 04-297600 TO ESTABLISH THE PSR-PDS PRELIMINARY STUDY LIMITS (PSL) AND WILL ACCOMMODATE ADDITIONAL TRAFFIC FROM THE NEW SR 152 ALIGNMENT BETWEEN US 101 AND SR 156.



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHt A-0

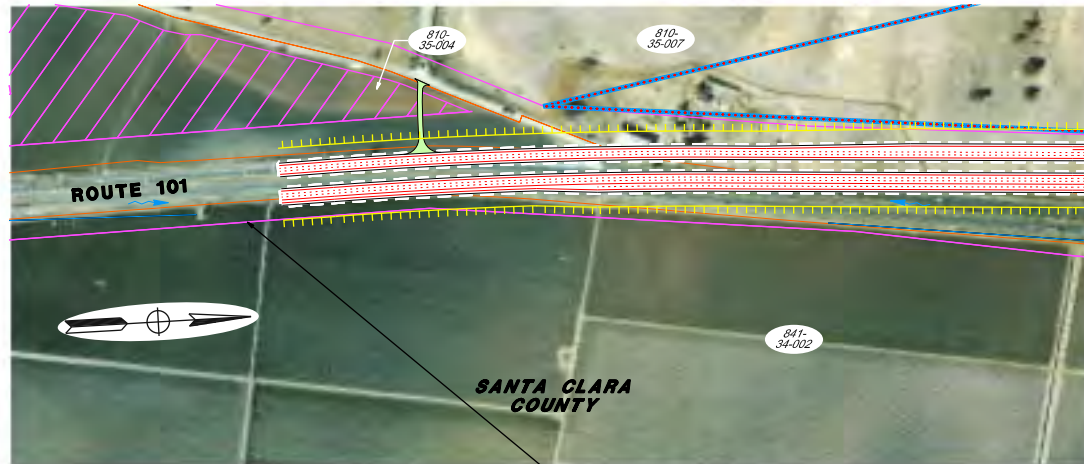
DISTRICT: 04, 05, 10	ROUTE: 152	PREPARED BY: WMH CORPORATION	PREPARED FOR: SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	500 250 0 250 500 SCALE: 1" = 500'	DESIGNED BY: S. VOGTMAN	DATE: 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5)	A-1
COUNTY AND POST MILE: SCL 9.9/35.2, MER 0.0/15.0				CHARGE UNIT: XXXXX	DRAWN BY: S. VOGTMAN	DATE: 02/17/2012		
				EM 04-OG2300	CHECKED BY: T. LEE	DATE: 02/17/2012		
BUILD ALTERNATIVE (SEGMENT A)								



DISTRICT 04, 05, 10	ROUTE 152	PREPARED BY WMH CORPORATION	PREPARED FOR SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	500 250 0 250 500 SCALE: 1" = 500'	DESIGNED BY S. VOGTMAN DRAWN BY S. VOGTMAN CHECKED BY T. LEE	DATE 02/17/2012 DATE 02/17/2012 DATE 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5) BUILD ALTERNATIVE (SEGMENT A)	A-2
COUNTY AND POST MILE SCL 9.9/35.2, MER 0.0/15.0				CHARGE UNIT XXXXX	EA 04-0G2300			

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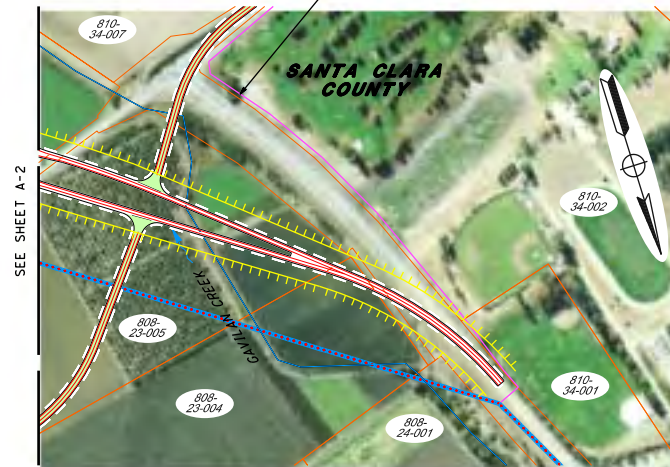
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SEE SHEET A-2

**SANTA CLARA
COUNTY**

THE US 101/SR 25 INTERCHANGE IMPROVEMENTS UTILIZES THE FOOTPRINT FOR EA 04-297600 TO ESTABLISH THE PSR-PDS PRELIMINARY STUDY LIMITS (PSL) AND WILL ACCOMMODATE ADDITIONAL TRAFFIC FROM THE NEW SR 152 ALIGNMENT BETWEEN US 101 AND SR 156.



SEE SHEET A-2

**SANTA CLARA
COUNTY**

FOR NOTES, ABBREVIATIONS
AND LEGEND, SEE Sht A-0

DISTRICT: 04, 05, 10	ROUTE: 152	PREPARED BY: WMH CORPORATION	PREPARED FOR: SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	5002500250500 SCALE: 1" = 500'	DESIGNED BY: S. VOGTMAN	DATE: 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5)	A-3
COUNTY AND POST MILE: SCL 9.9/35.2, MER 0.0/15.0				DRAWN BY: S. VOGTMAN	DATE: 02/17/2012			
				CHECKED BY: T. LEE	DATE: 02/17/2012			
BUILD ALTERNATIVE (SEGMENT A)								

EXH-DESIGN-SHT A-03.dgn

10/24/2012 9:45:54 AM SVOGTMAN



FOR NOTES, ABBREVIATIONS
AND LEGEND, SEE SHt A-0

DISTRICT: 04, 05, 10	ROUTE: 152	PREPARED BY: WMH CORPORATION	PREPARED FOR: SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	500 250 0 250 500 SCALE: 1" = 500'	DESIGNED BY: S. VOGTMAN	DATE: 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5)	A-5
COUNTY AND POST MILE: SCL 9.9/35.2, MER 0.0/15.0				CHANGE UNIT: XXXXX	DRAWN BY: S. VOGTMAN	DATE: 02/17/2012		
				EA: 04-0G2300	CHECKED BY: T. LEE	DATE: 02/17/2012		
BUILD ALTERNATIVE (SEGMENT A)								

EXH-DESIGN-SHT A-05.dgn

10/24/2012 9:46:01 AM S:\046101



FOR NOTES, ABBREVIATIONS
AND LEGEND, SEE Sht A-0

DISTRICT: 04, 05, 10	ROUTE: 152	PREPARED BY: WMH CORPORATION	PREPARED FOR: SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	500 250 0 250 500 SCALE: 1" = 500' CHARGE UNIT: XXXXX EM: 04-0G2300	DESIGNED BY: S. VOGTMAN DRAWN BY: S. VOGTMAN CHECKED BY: T. LEE DATE: 02/17/2012 DATE: 02/17/2012 DATE: 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5) BUILD ALTERNATIVE (SEGMENT A)	A-6
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FOR NOTES, ABBREVIATIONS
AND LEGEND, SEE Sht A-0

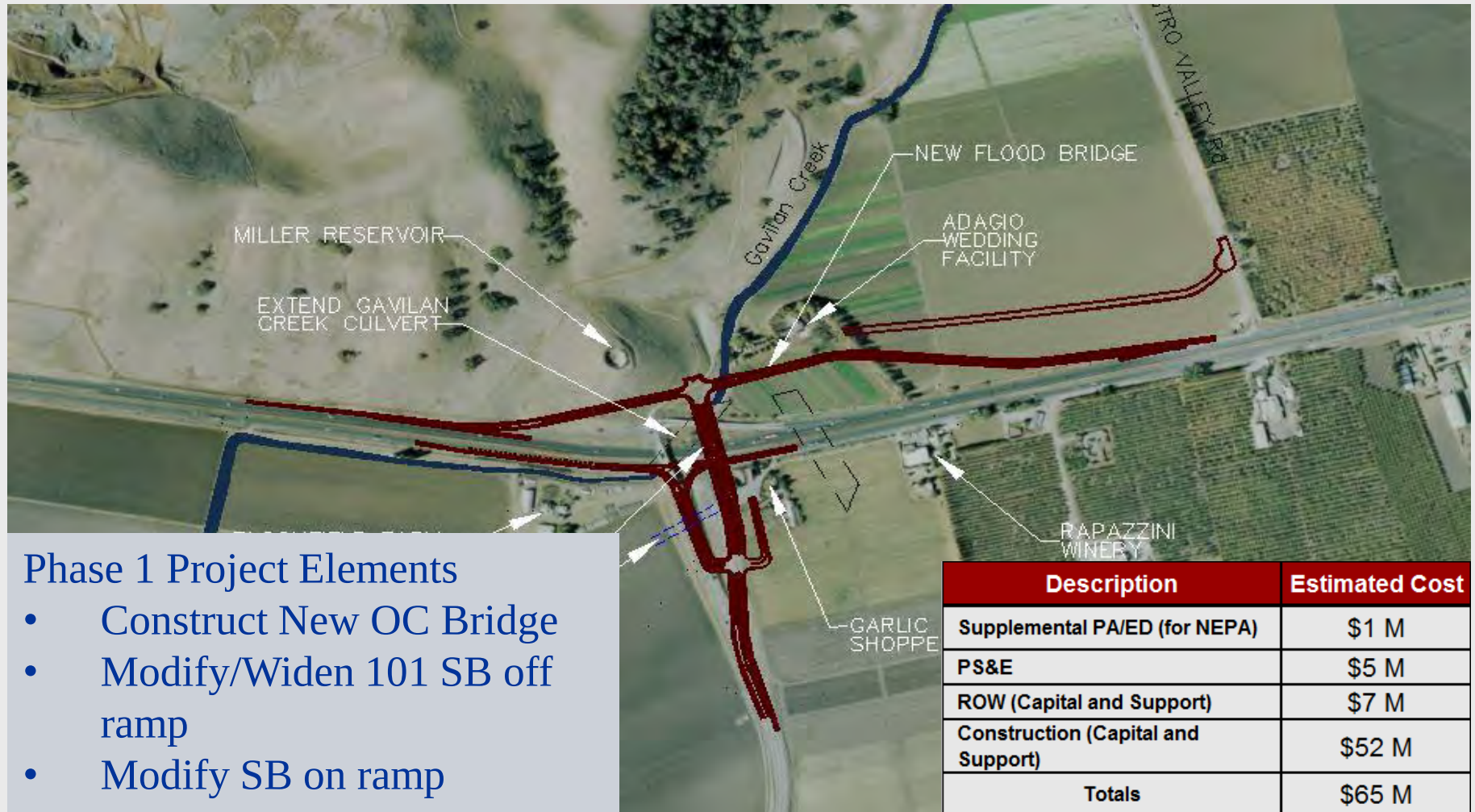
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COUNTY AND POST MILE: SCL 9.9/35.2, MER 0.0/15.0				CHANGE UNIT: XXXXX	EA: 04-OG2300			

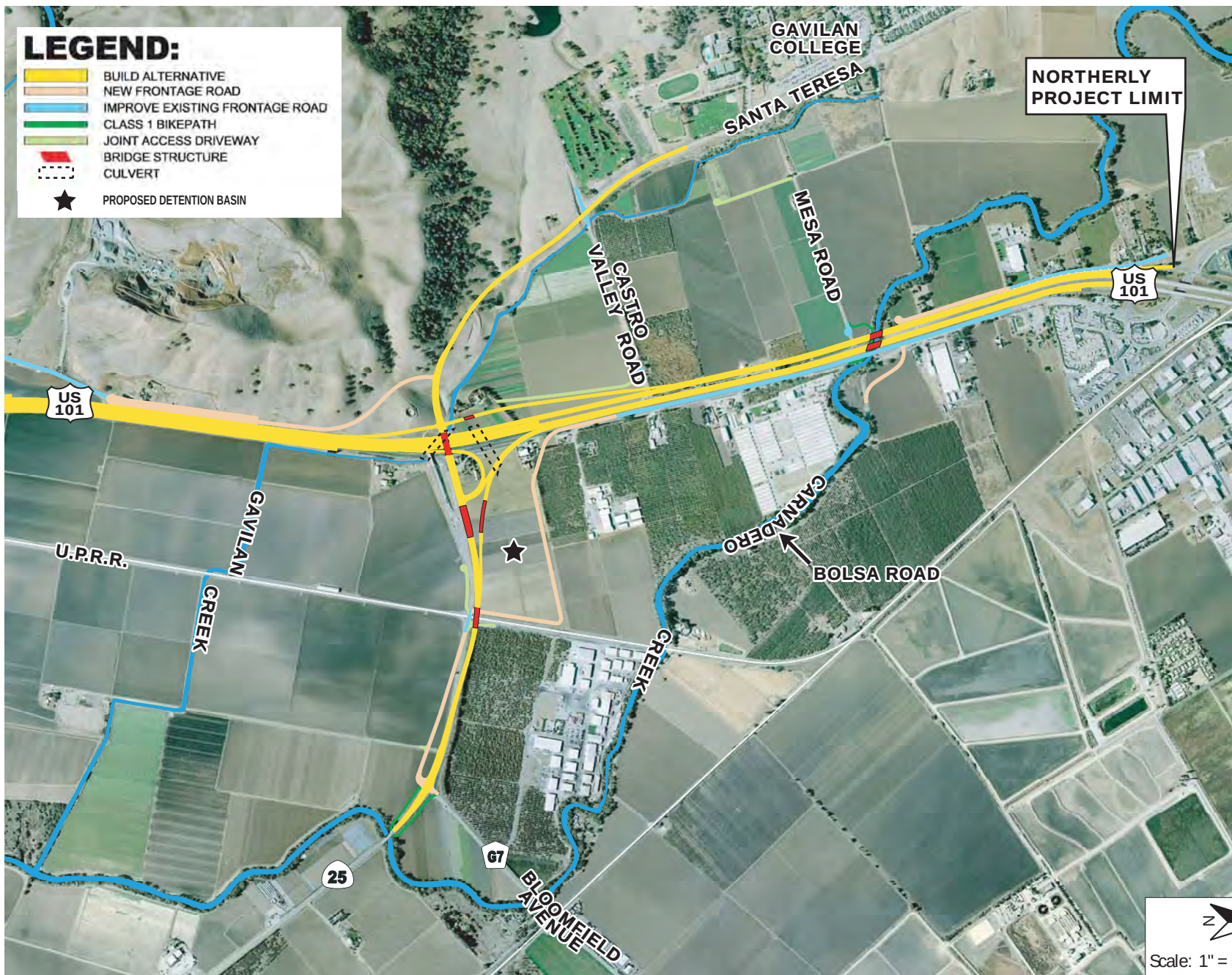


DISTRICT: 04, 05, 10	ROUTE: 152	PREPARED BY: WMH CORPORATION	PREPARED FOR: SANTA CLARA VALLEY TRANSPORTATION AUTHORITY 3331 NORTH FIRST STREET SAN JOSE, CA 95134 (408) 321-2300	500 250 0 250 500 SCALE: 1" = 500' CHARGE UNIT: XXXXX	DESIGNED BY: S. VOGTMAN DRAWN BY: S. VOGTMAN CHECKED BY: T. LEE	DATE: 02/17/2012 DATE: 02/17/2012 DATE: 02/17/2012	SR 152 TRADE CORRIDOR PROJECT (US101 TO I-5) BUILD ALTERNATIVE (SEGMENT A)	A-8
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US 101 / SR 25 IMPROVEMENTS

US 101/SR 25 Interchange – Phase 1 Project

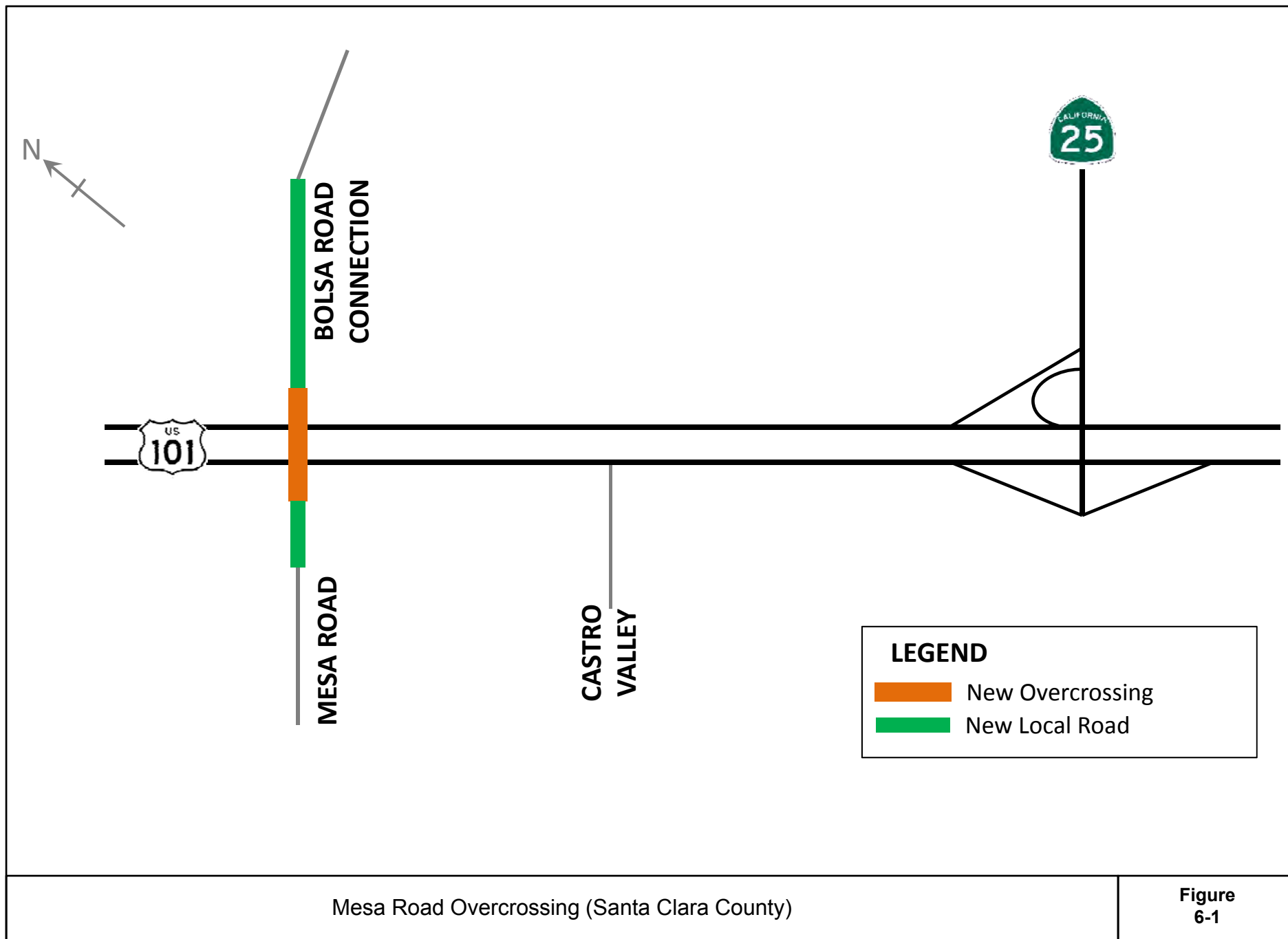




PROPOSED PROJECT PLANS (DESIGN OPTION B)

ATTACHMENT E

ALTERNATIVES CONSIDERED AND WITHDRAWN



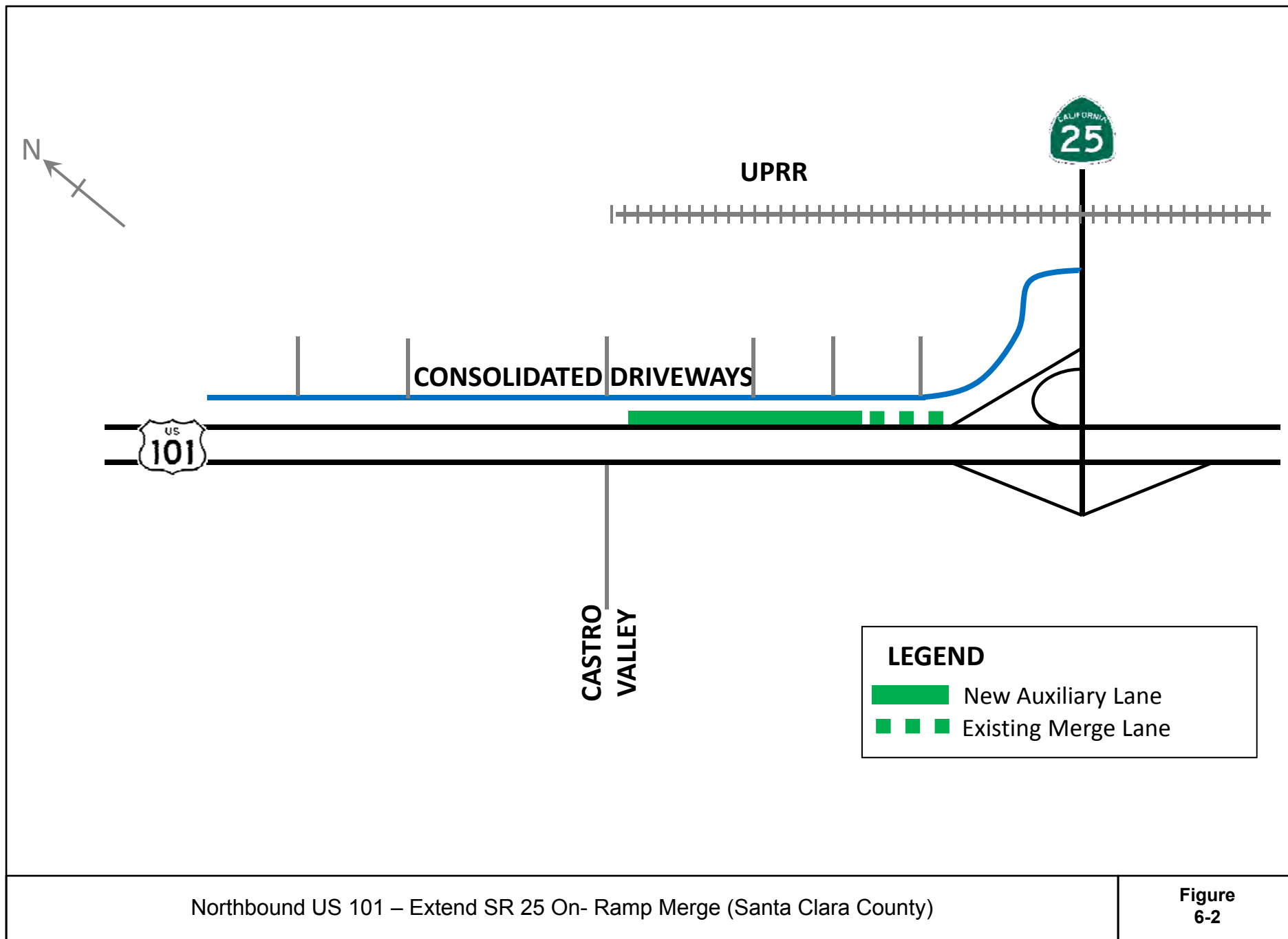
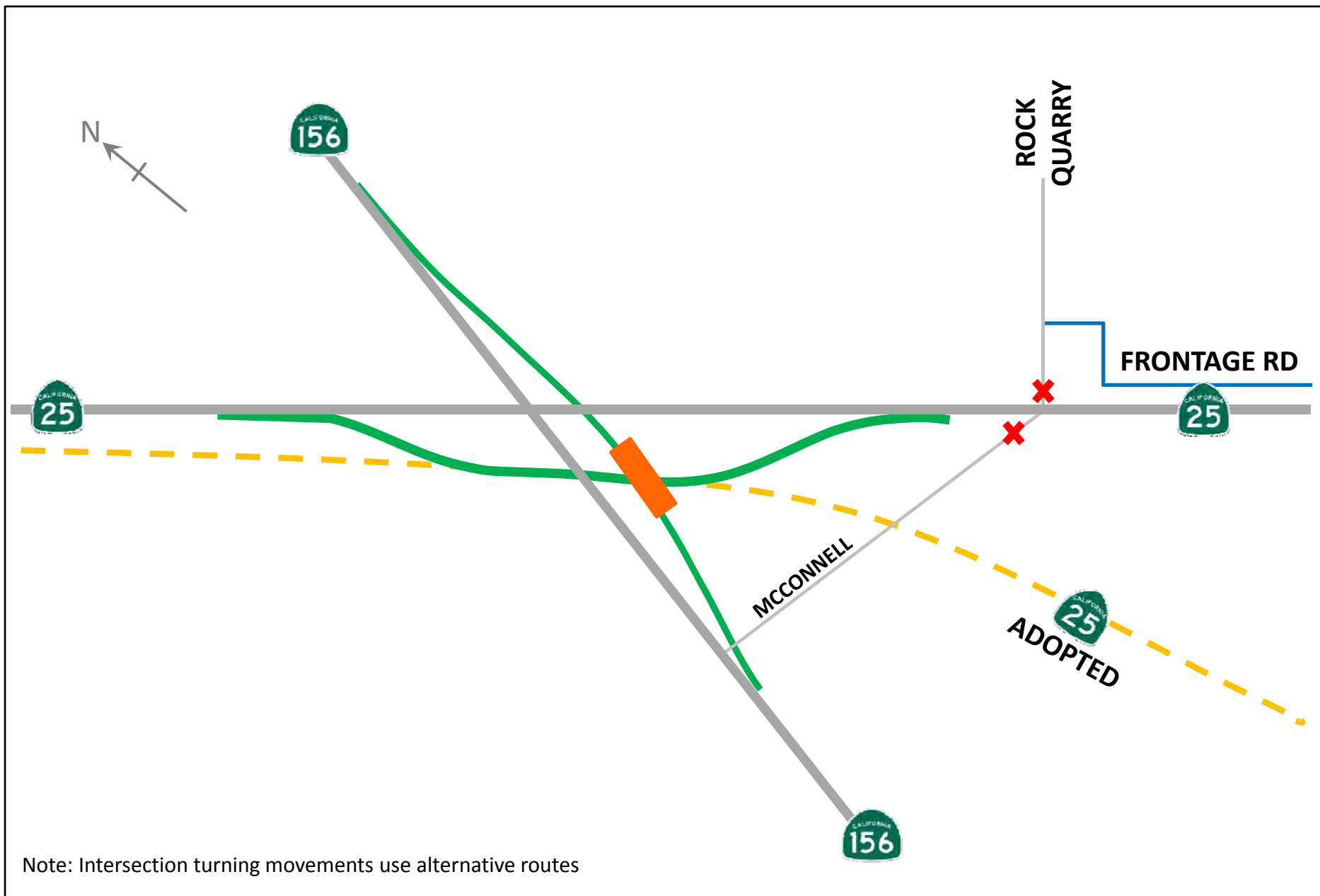
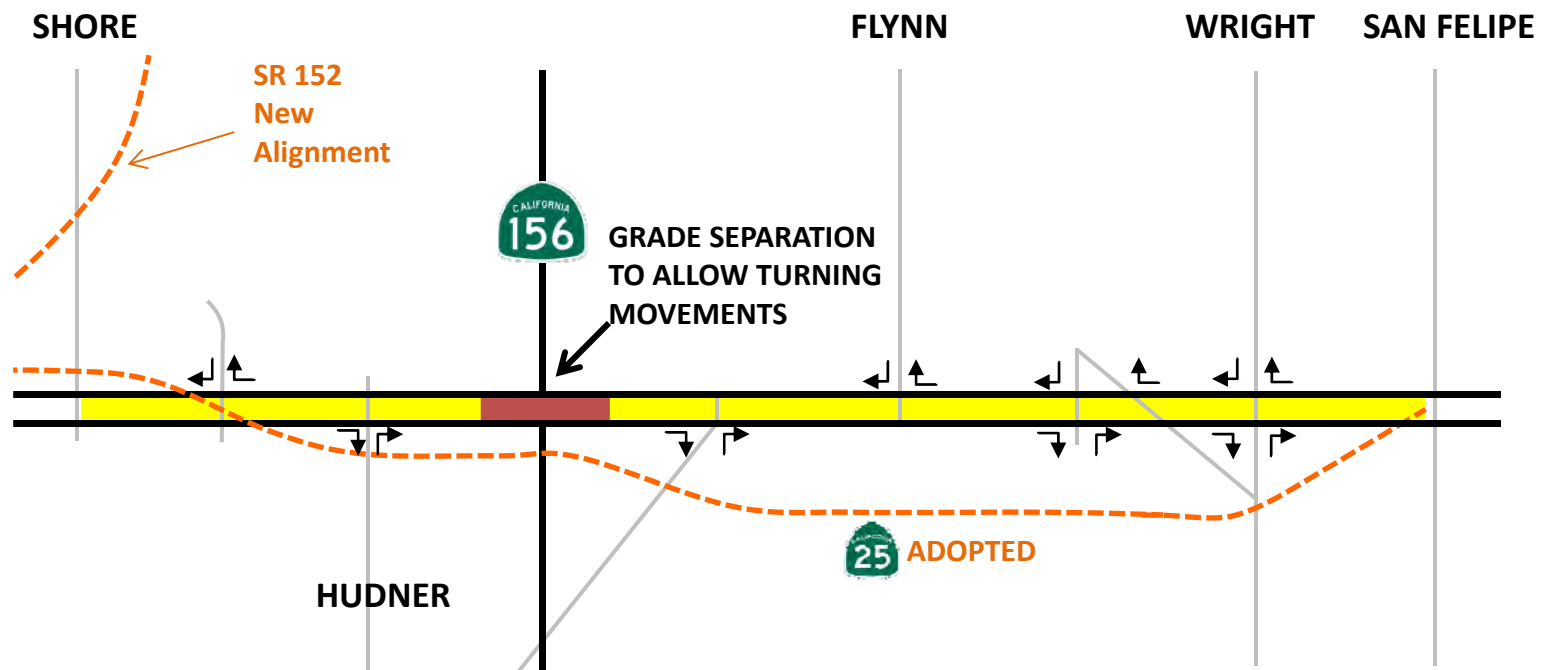


Figure
6-2



SR 25 / SR 156 Intersection Grade Separation

Figure
6-3



- Grade separation bridge structure needed for major turning movements
- Major turning movements are right in – right out only

SR 25 Widening – Moveable Barrier System (Concept)

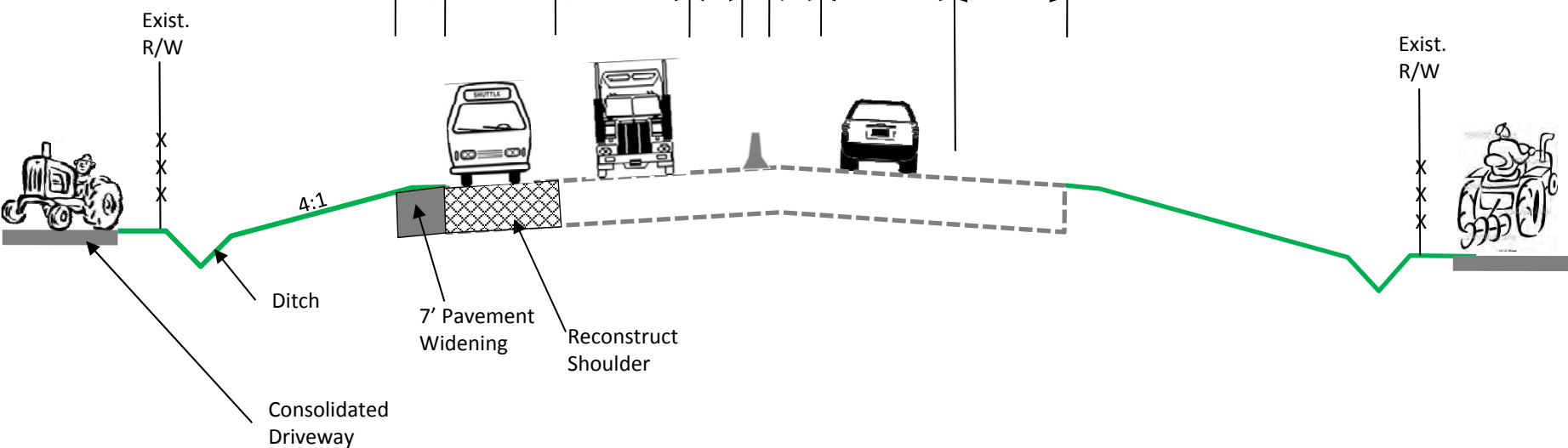
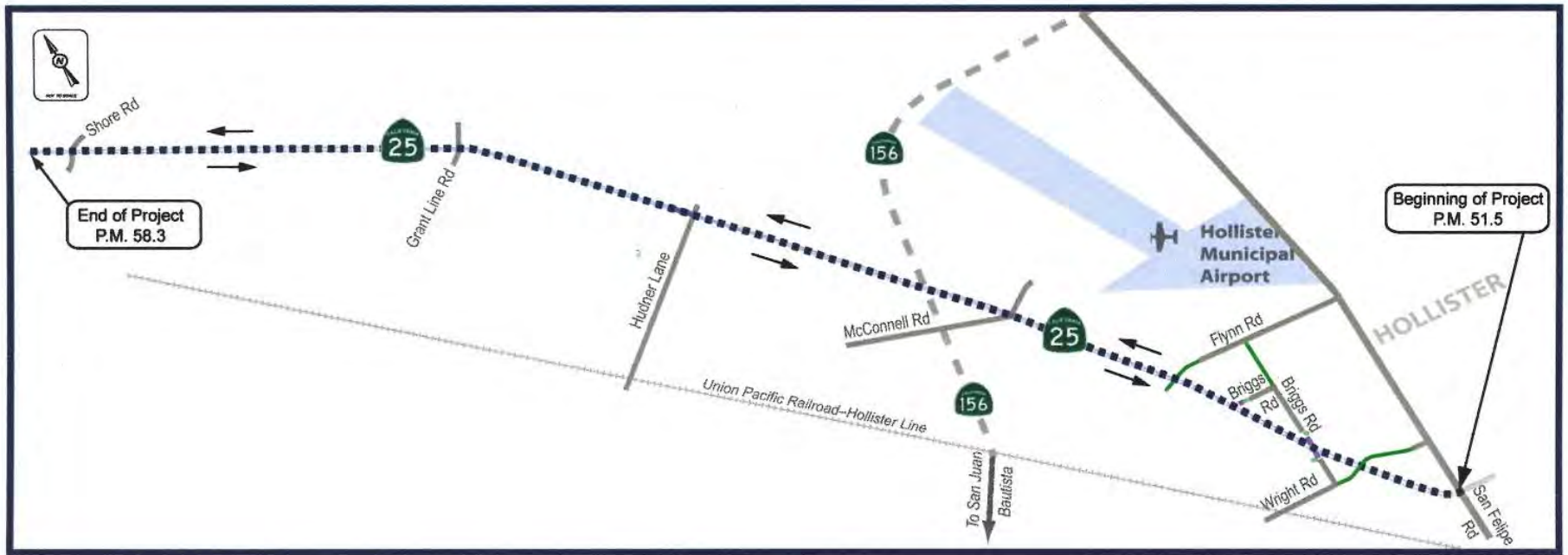


Figure 6-5



Interim SR 25 Widening (San Felipe Rd to north of Shore Rd) Widen Existing (Option 1)

Figure
6-6A

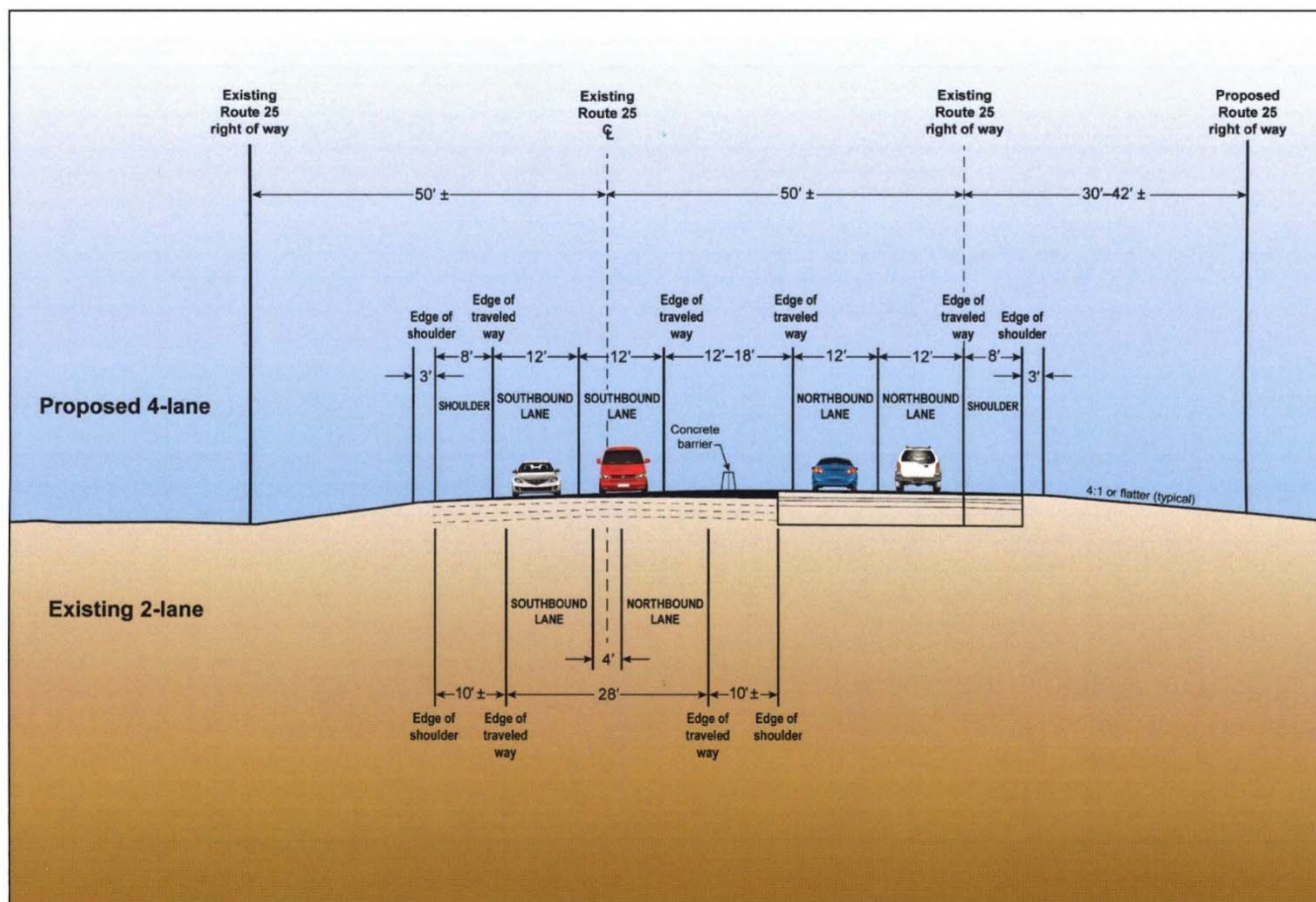
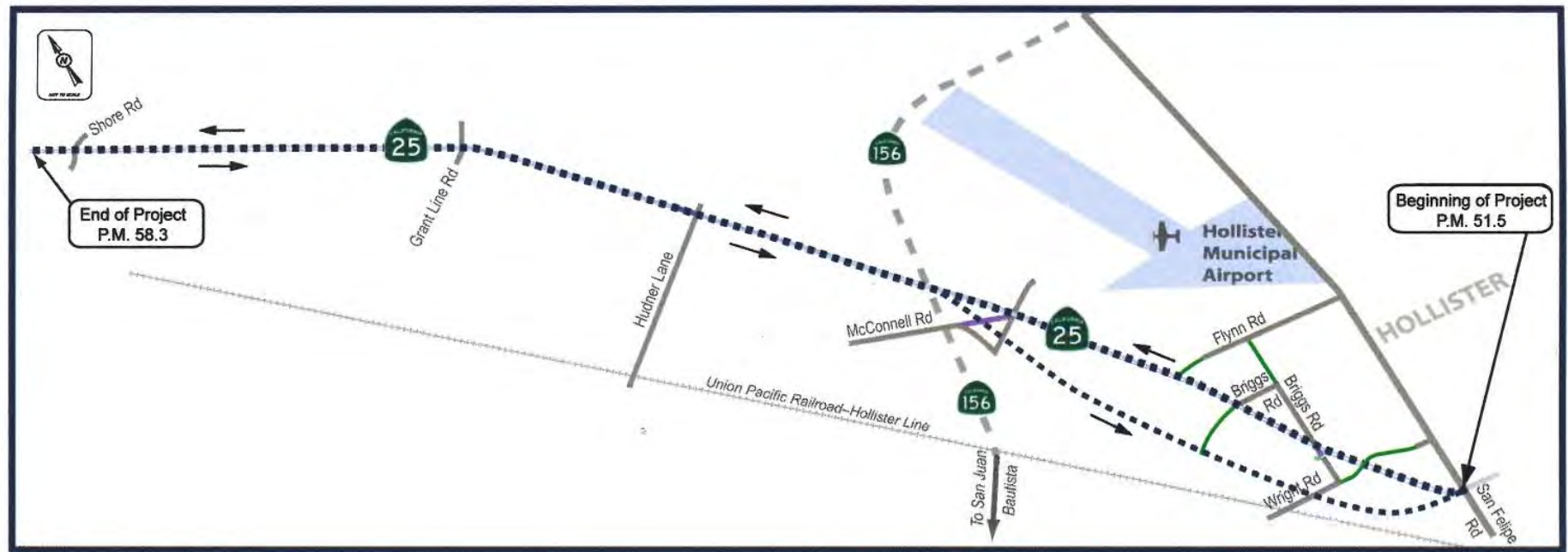


Figure 7-2. Typical Cross Section of Build Alternative 1 Conventional Highway (San Felipe Road to SR 156)



Interim SR 25 Widening (San Felipe Rd to north of Shore Rd) Widen Existing (Option 2)

Figure
6-7A

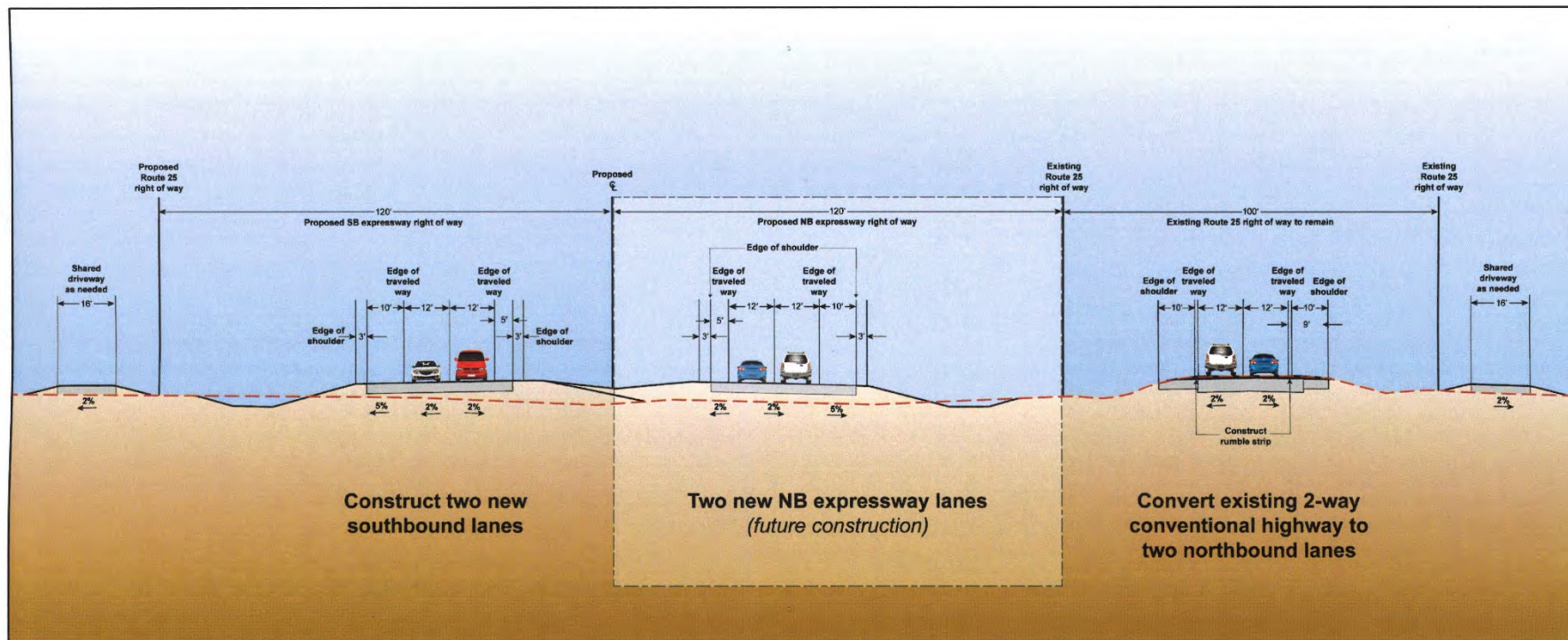
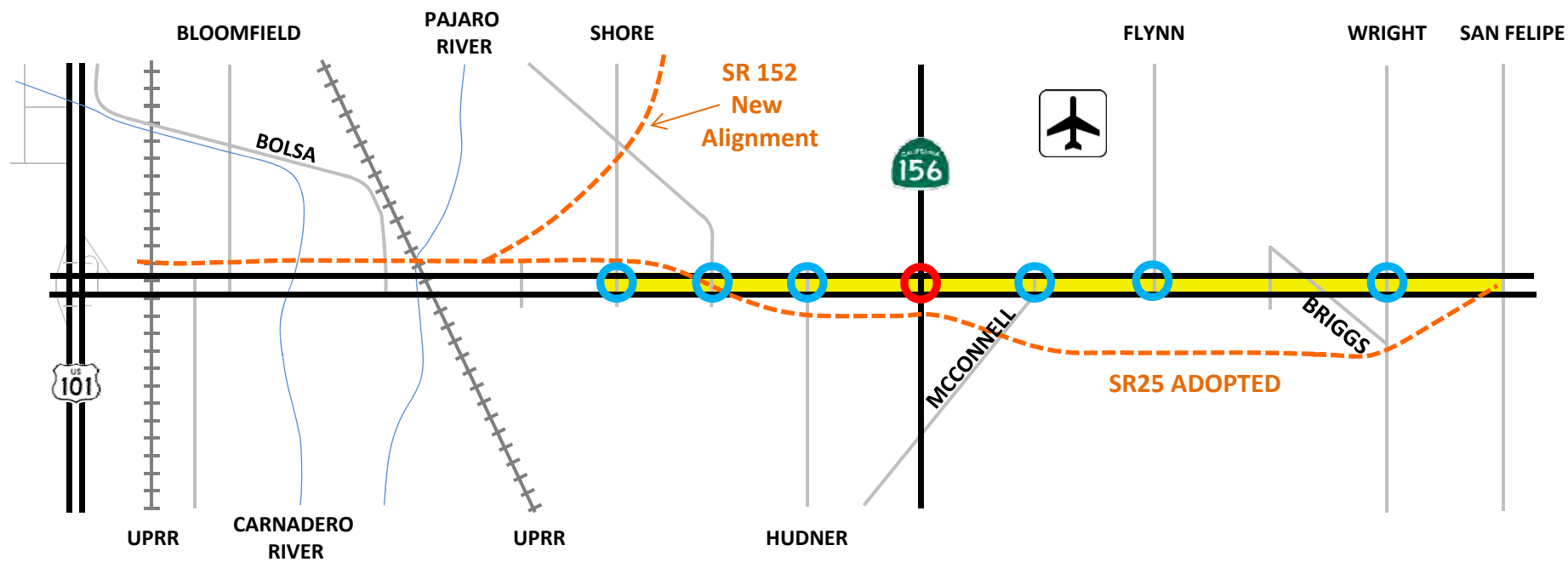


Figure 7-3. Typical Cross Section of Alternatives 1 and 2 Divided Highway (Route 156 to Grant Line Road)



Note:

1. Consolidate private access to local road intersections

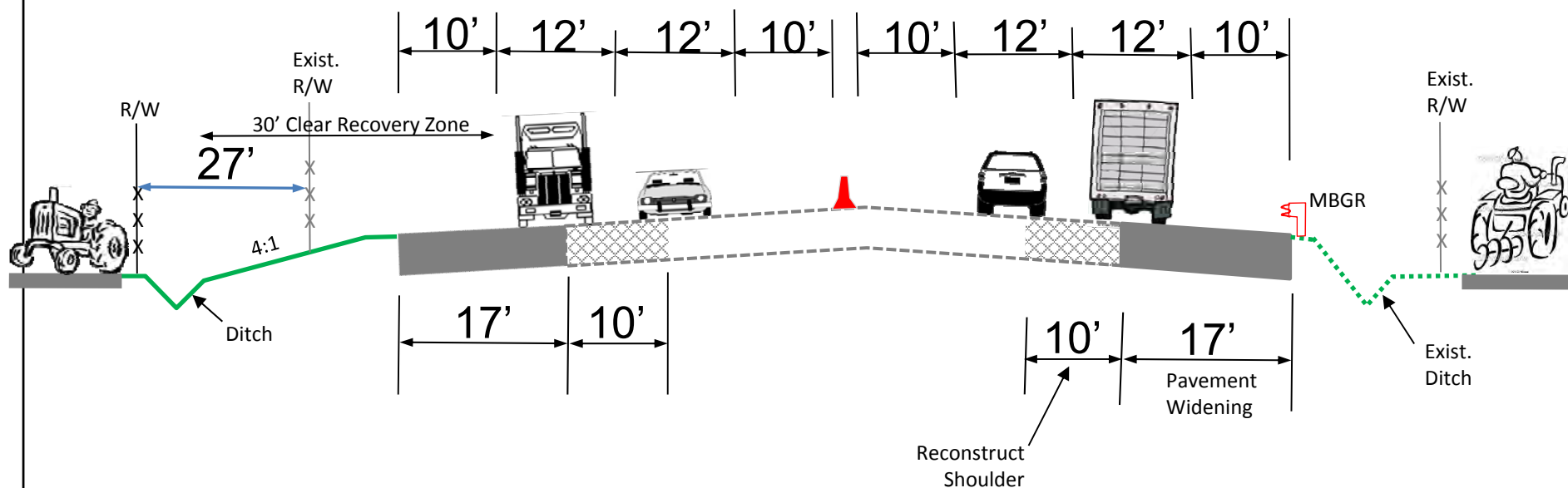
LEGEND

- New Road
- New Interchange
- Intersection Improvements

Interim 4-Lane Widening (Option 1) – Conventional Highway (San Felipe Rd to Shore Rd)

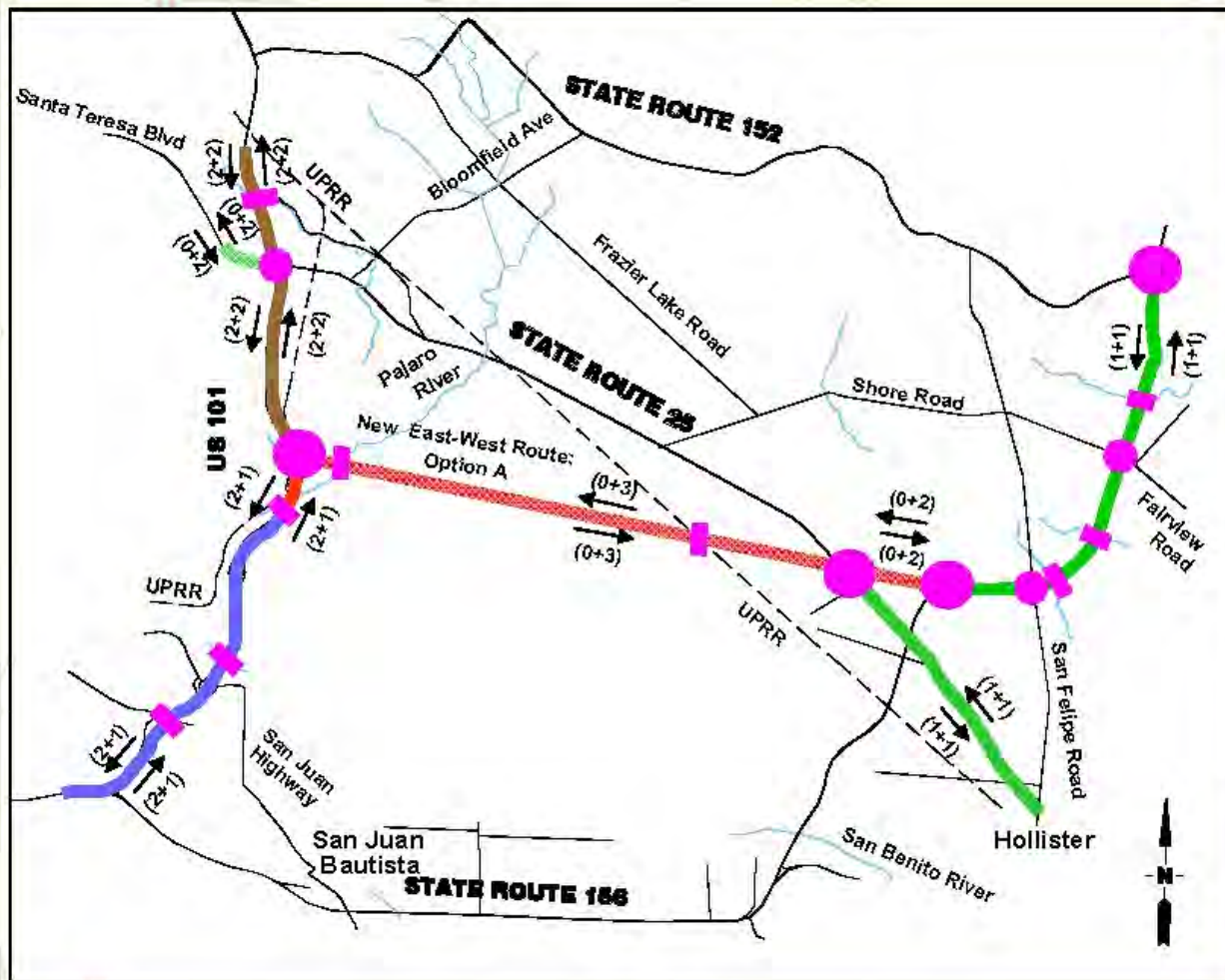
Figure
6-8A

Note: Widening is shown symmetrical to centerline but would be offset to right or left to avoid constraints (e.g. poles, buildings, etc.)



☐ Option A: 30' Clear Recovery Zone and 27' R/W Take

☐ Option B: Install MBGR with no R/W Take



"3 in 1" Alternative

ATTACHMENT F

ALTERNATIVE SR 25 ALIGNMENTS

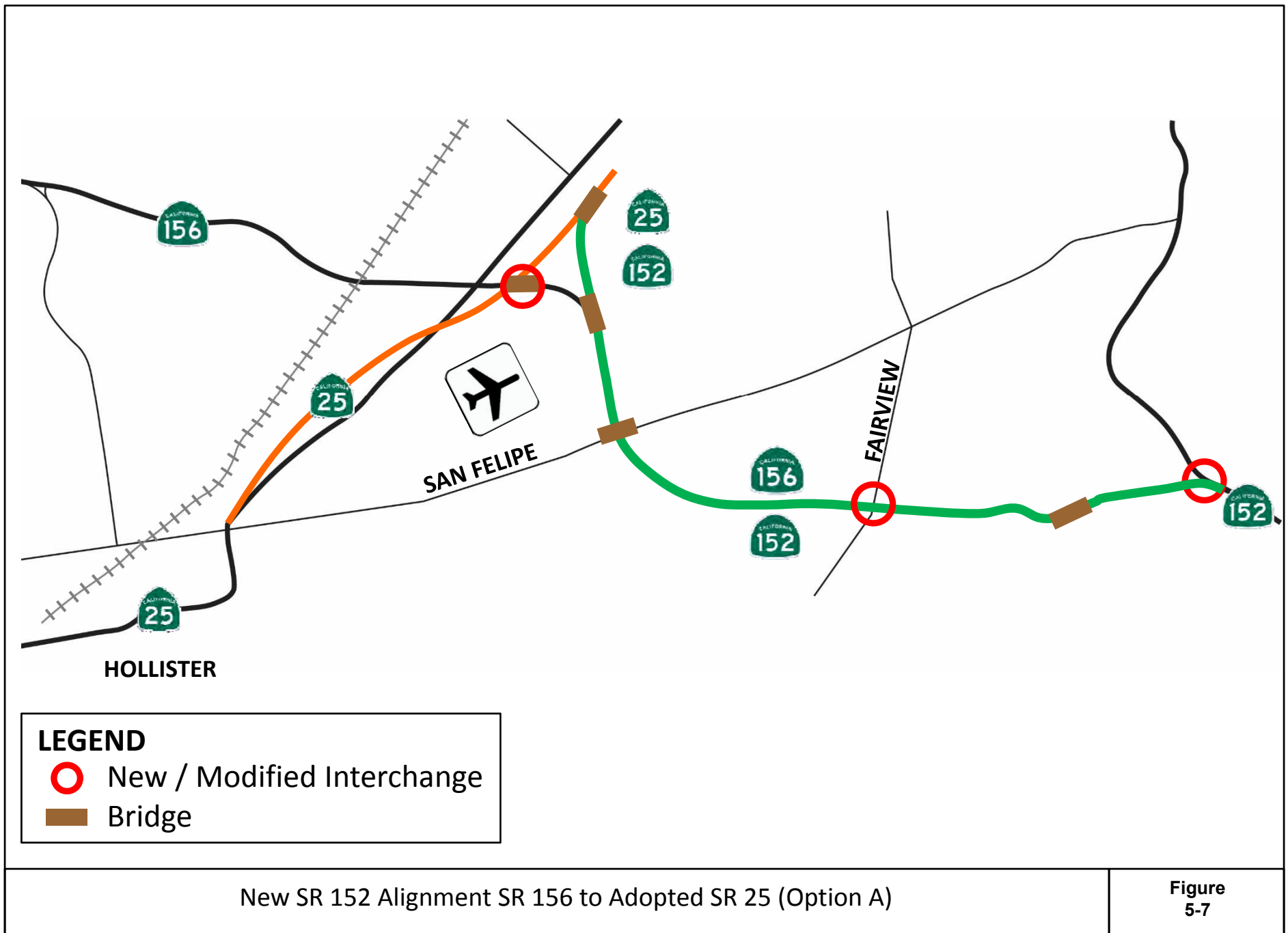


Figure
5-7

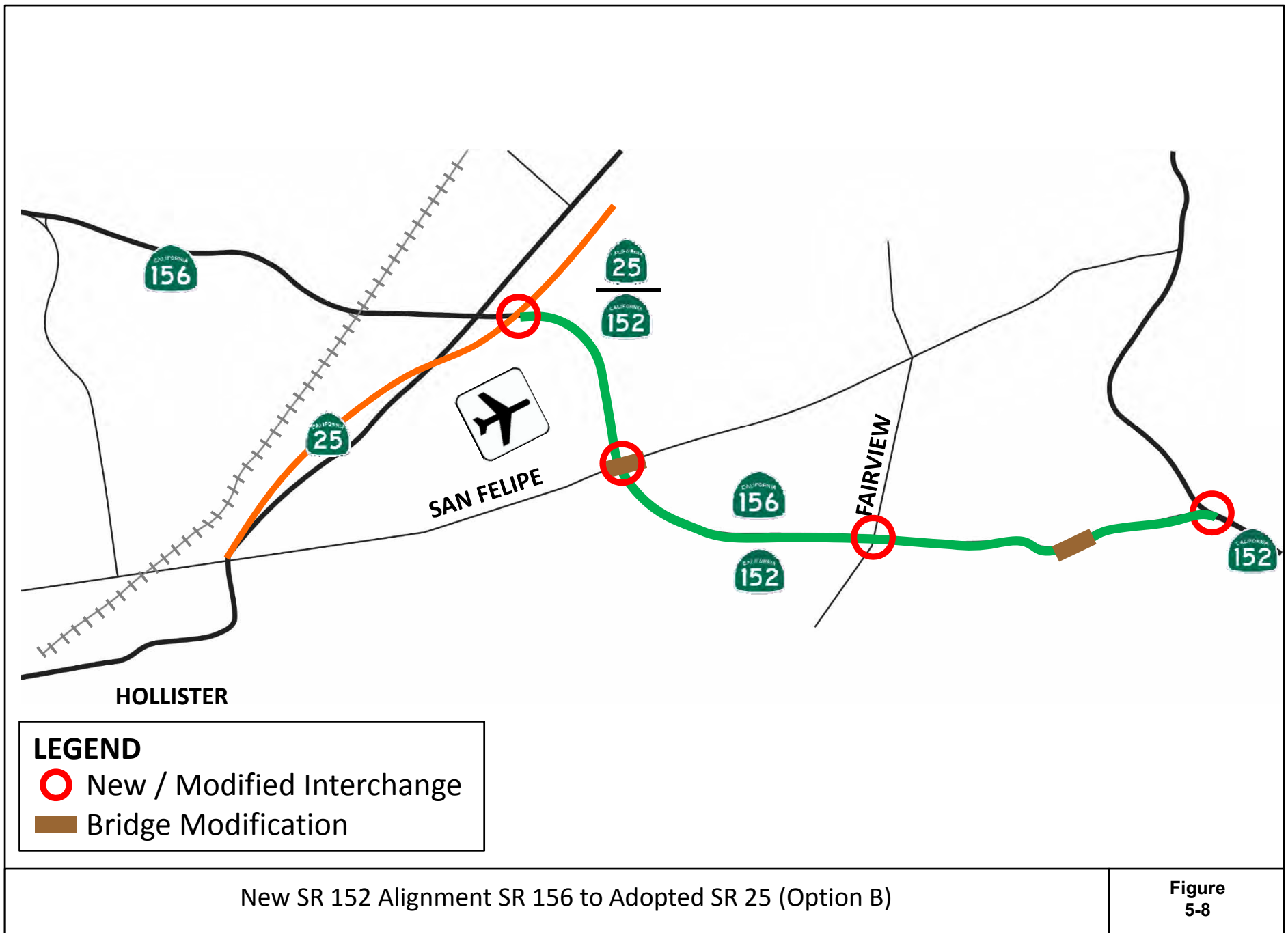


Figure
5-8

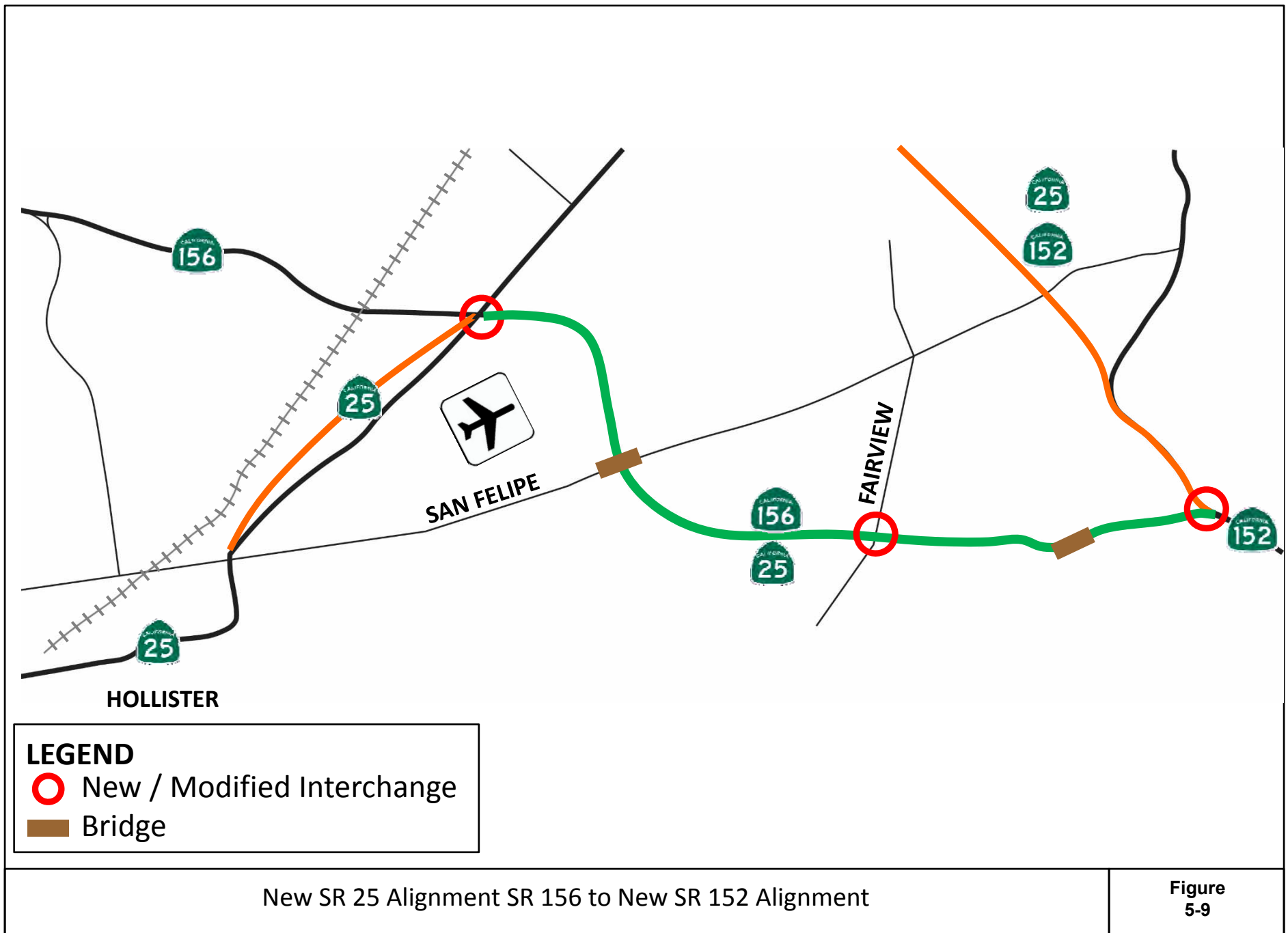
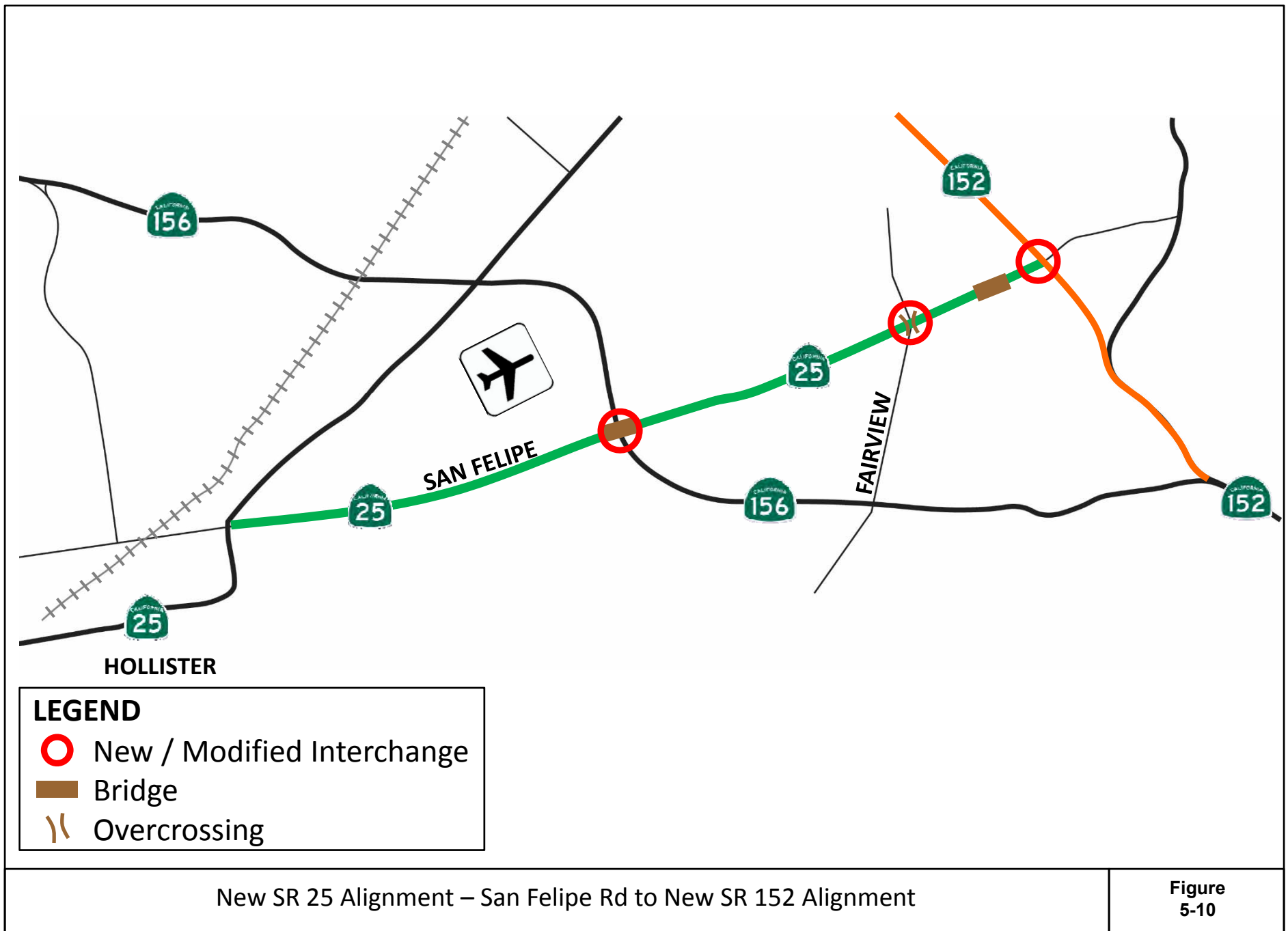
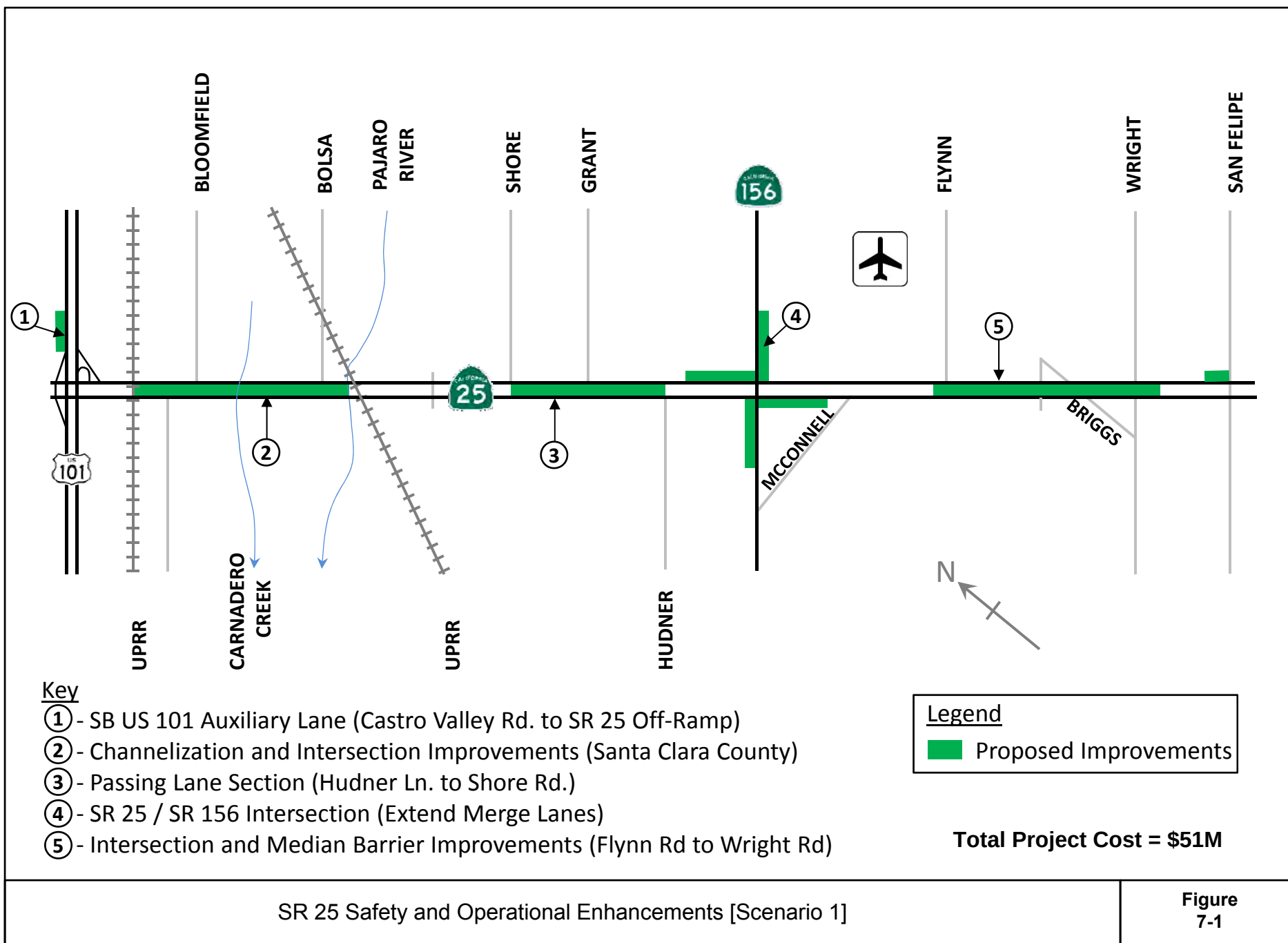


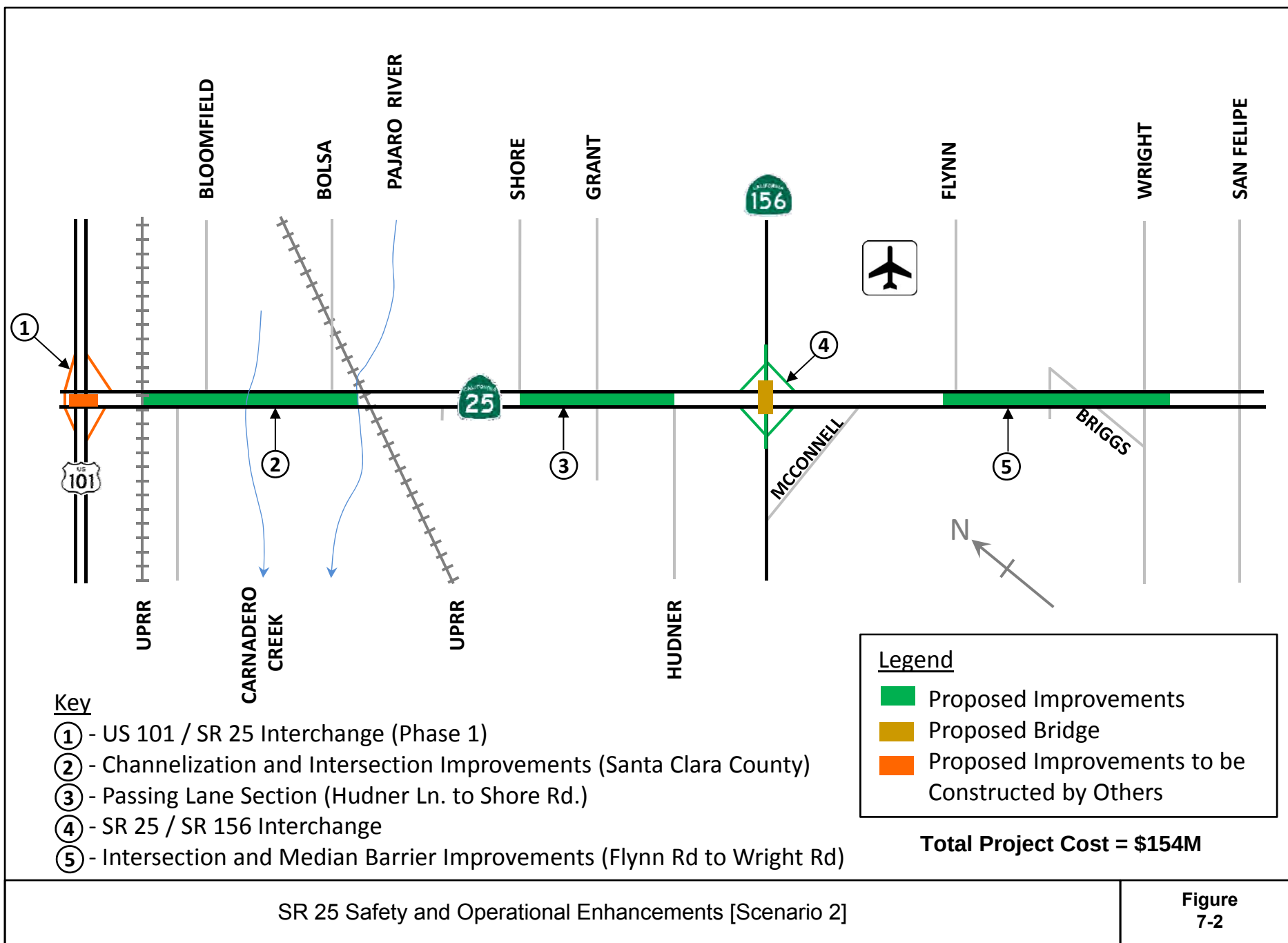
Figure
5-9

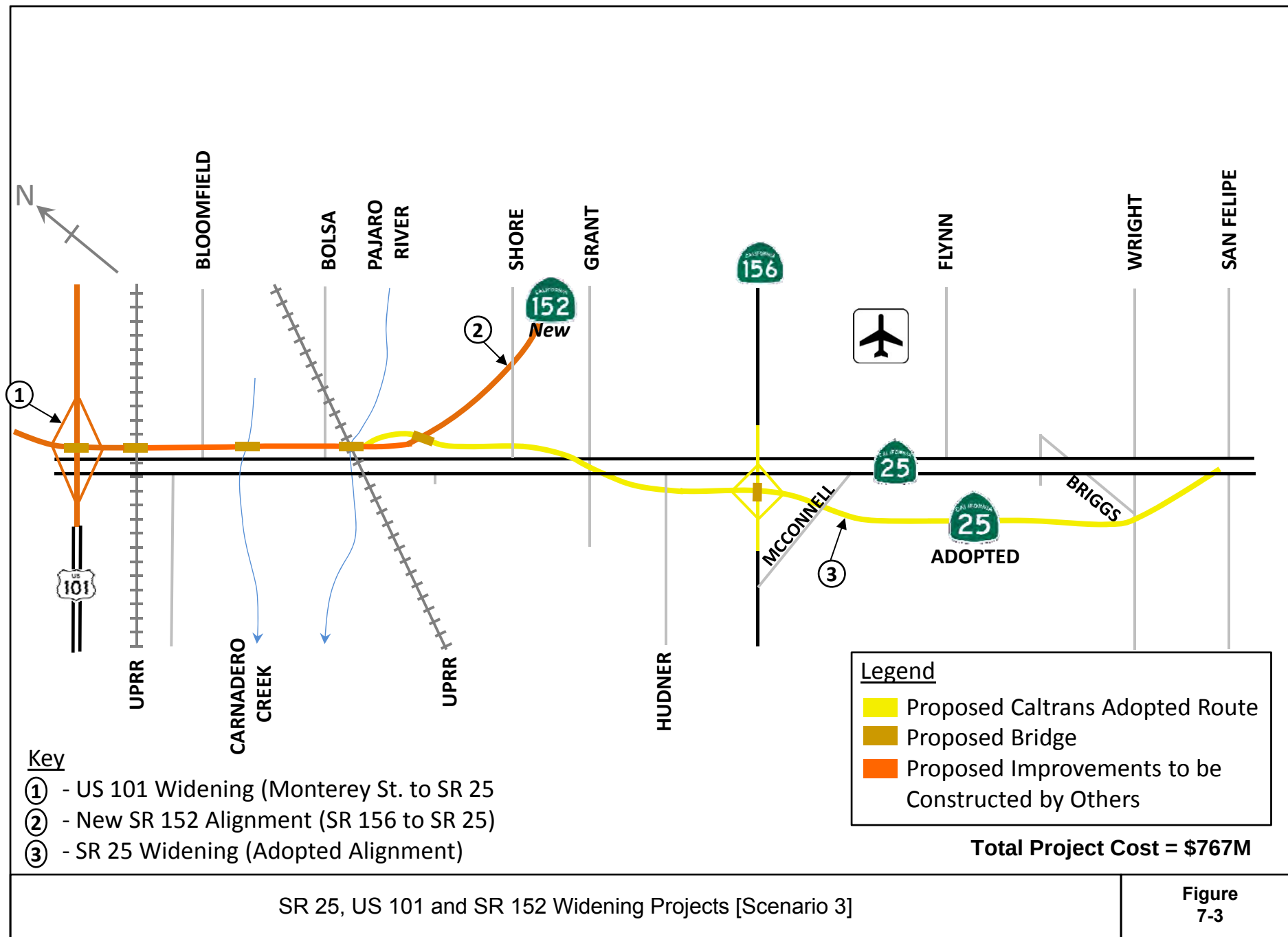


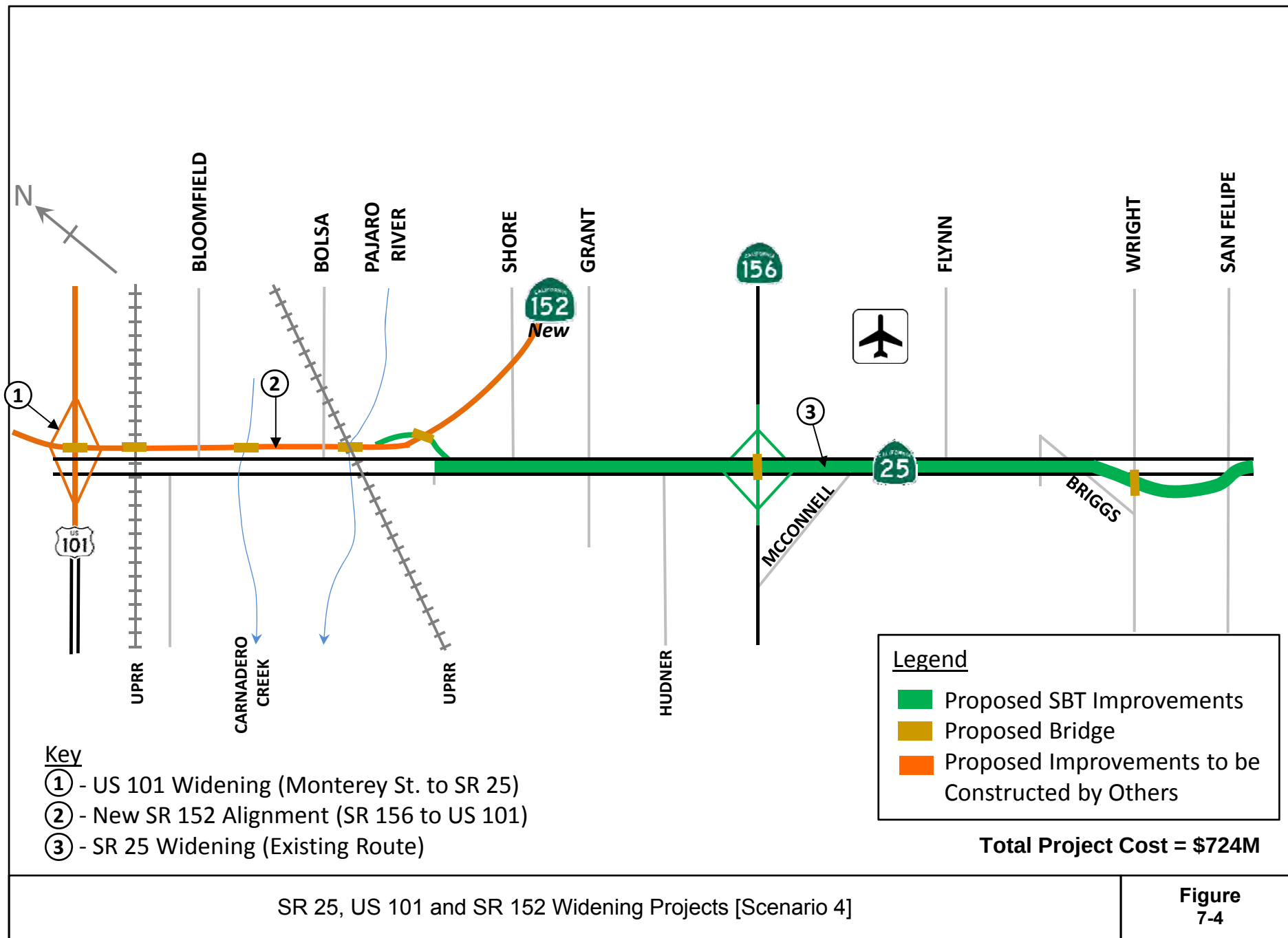
ATTACHMENT G

COMBINED IMPROVEMENT SCENARIOS









ATTACHMENT H

PRELIMINARY COST ESTIMATES

H-1: SR 25 (WRIGHT RD. TO MCCONNELL RD.)

H-2: SR 25 (SANTA CLARA COUNTY)

H-3: SOUTHBOUND US 101 AUXILIARY LANE

H-4: SR 25 / SR 156 INTERSECTION – MERGE LANES

H-5: SR 25 PASSING LANES (HUDNER TO SHORE)

H-6: SR 25 / SR 156 INTERCHANGE

H-7: EXISTING ROUTE (SAN FELIPE TO HUDNER)

H-8: EXISTING ROUTE (HUDNER TO NEW SR 152)

H-9: ADOPTED ALIGNMENT (NEW SR 152 TO UPRR)

SAFETY AND OPERATIONAL IMPROVEMENTS

SR 25 (WRIGHT ROAD TO MCCONNELL ROAD)

PRELIMINARY COST ESTIMATE

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE 05-SBt-25

Type of Estimate (Pre-PSR,
PSR, PR, etc.): PSR/PR

Program Code:

KP: 83.55/85.16

EA: 05-0K520K

Project Description:

PP No. : 0

Limits: Highway 25 Safety and Operational Enhancements Project

Proposed Improvement: Phase 2 Proposed Improvements - Wright Road to Flynn Road

(Scope) (a) Intersection improvements at Wright Road

(b) Intersection improvements at Briggs Road (East)

(c) Intersection improvements at Briggs Road (West)

Preliminary Cost Estimate for PSR/PR

(1) SUPPLEMENTAL PROJECT REPORT/ ENVIRONMENTAL REPORT PHASE @	\$26,000
(2) FINAL PS&E PHASE @	\$100,000
(3) RIGHT OF WAY & UTILITY	\$80,000
(4) CONSTRUCTION PHASE	
ROADWAY ITEMS	\$970,000
STRUCTURE ITEMS	\$0
CONSTRUCTION ADMINISTRATION @	\$70,000
SUBTOTAL CONSTRUCTION PHASE	\$1,040,000

TOTAL ESTIMATED COST \$1,246,000

Reviewed by	Tim Lee	(408)-297-9585	15-Oct-04
Project Engineer			
Approved by	William Hadaya	(408)-297-9585	15-Oct-04
Project Manager		(Phone)	(Date)

Sheet: 1 of 6

SOURCE: PROJECT REPORT / PROJECT STUDY REPORT,
STATE ROUTE 25 OPERATIONAL ENHANCEMENTS, 2005

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SBt-25

KP: 83.55/85.16

EA: 05-0K520K

PP No. :

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	6,450	M3	\$17	\$109,650	
Roadway Excavation (Type Y)		LS	\$0	\$0	
Clearing & Grubbing	1	LS	\$5,000	\$5,000	
Develop Water Supply	1	LS	\$2,000	\$2,000	
Water Pollution Control	1	LS	\$9,000	\$9,000	
				<u>Total Earthwork</u>	<u>\$125,650</u>
<u>Section 2 - Structural Section *</u>					
Asphalt Concrete (Type A)	2,350	TONNE	\$58	\$136,300	
Pavement Overlay		M2	\$10	\$0	
Aggregate Base (CI 2)	2,500	M3	\$38	\$95,000	
New Driveway		LS	\$85,000	\$0	
Pavement Reinforcing Fabric		M2	\$1	\$0	
Cold Plane Asphalt Concrete		M2	\$10	\$0	
Subgrade Preparation		M2		\$0	
Permeable Material					
Blanket & Edge Drains		LS	\$0	\$0	
				<u>Total Structural Section</u>	<u>\$231,300</u>
<u>Section 3 - Drainage</u>					
Sanitary Sewer Pipe		M	\$460	\$0	
Sanitary Sewer Manhole		EA	\$7,000	\$0	
Modify SS Manhole		EA	\$2,000	\$0	
Minor Concrete (Pipe Encasement)		M3	\$250	\$0	
Abandon Sanitary Sewer		LS	\$4,000	\$0	
Extend Culvert		M	\$250	\$0	
Headwall/Flared End Section		M3	\$2,000	\$0	
Remove Culvert		M	\$100	\$0	
Remove Headwall		EA	\$1,500	\$0	
				<u>Total Drainage</u>	<u>\$0</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SBt-25
KP: 83.55/85.16
EA: 05-0K520K
PP No. : 0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Prepare SWPPP	1	LS	\$2,000	\$2,000	
Temp Erosion Control		M2	\$0.5	\$0	
Temp Silt Fence		M	\$10	\$0	
Driveway Closure		EA	\$2,000	\$0	
Lead Compliance Plan		LS	\$0	\$0	
Perm Erosion Control	1	LS	\$8,000	\$8,000	
Highway Planting	1	LS	\$2,000	\$2,000	
Fiber Rolls		M	\$15	\$0	
Permanent Treatment BMP	1	LS	\$10,000	\$10,000	
Finishing Roadway	1	LS	\$15,000	\$15,000	
Lighting	1	LS	\$90,000	\$90,000	
			<u>Total Specialty Items</u>		<u>\$127,000</u>
<u>Section 5 - Traffic Items</u>					
Temp Traffic Stripe		M	\$2.5	\$0	
Temp Railing (Type K)	900	M	\$30	\$27,000	
Temp Crash Cushion Module	130	EA	\$200	\$26,000	
Port Changeable Message		EA	\$10,000	\$0	
Construction Area Signs	1	LS	\$9,000	\$9,000	
Traffic Control Systems	1	LS	\$70,000	\$70,000	
Traffic Management Plan	1	LS	\$20,000	\$20,000	
Remove Striping & Markings	1	LS	\$25,000	\$25,000	
Striping & Markings	1	LS	\$47,000	\$47,000	
Roadside Signs	1	LS	\$2,500	\$2,500	
Conc Barrier (With Dowels)		M	\$60	\$0	
Crash Cushion		EA	\$30,000	\$0	
			<u>Total Traffic Items</u>		<u>\$226,500</u>
SUBTOTAL SECTIONS 1 - 5:					<u>\$710,450</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SBt-25
 KP: 83.55/85.16
 EA: 05-0K520K
 PP No. : 0

	<u>Unit Cost</u>		<u>Section Cost</u>
Section 6 - Minor Items			
Subtotal Sections 1 - 5	<u>\$710,450</u>	X <u>5%</u>	<u>\$35,522.50</u>
		TOTAL MINOR ITEMS:	<u>\$36,000</u>

Section 7 - Roadway Mobilization			
Subtotal Sections 1 - 5	<u>\$710,450</u>		
Minor Items	<u>\$36,000</u>		
Sum	<u>\$746,450</u>	X <u>10%</u>	<u>\$74,645.00</u>
		TOTAL ROADWAY MOBILIZATION	<u>\$75,000</u>

Section 8 - Roadway Additions			
Supplemental			
Subtotal Sections 1 - 5	<u>\$710,450</u>		
Minor Items	<u>\$36,000</u>		
Sum	<u>\$746,450</u>	X <u>5%</u>	<u>\$37,322.50</u>
Contingencies			
Subtotal Sections 1 - 5	<u>\$710,450</u>		
Minor Items	<u>\$36,000</u>		
Sum	<u>\$746,450</u>	X <u>15%</u>	<u>\$111,967.50</u>
		TOTAL ROADWAY ADDITIONS	<u>\$149,000</u>
		TOTAL ROADWAY ITEMS	<u>\$970,000</u>
(Total of Sections 1 - 8)			

Estimate			
Prepared By:	David Williams	(408)-297-9585	15-Oct-04
	(Print Name)	(Phone)	(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SBt-25

KP: 83.55/85.16

EA: 05-0K520K

PP No. : 0

II. STRUCTURES ITEMS

#1

#2

#3

Bridge Name

Structure Type

Width (M) - out to out

Span Lengths (M)

Total Area (M2)

Footing Type (pile/spread)

Cost per M2.

Including:

Mobilization: 10%

Contingency: 15%

Other

Total Cost For Structure

\$0

\$0

\$0

SUBTOTAL THIS PAGE

\$0

TOTAL STRUCTURES ITEMS

\$0

Railroad Related Costs

Estimate Prepared By: David Williams

(Print Name)

(408)-453-5373

(Phone)

15-Oct-04

(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SBt-25

KP: 83.55/85.16

EA: 05-0K520K

PP No. : 0

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the

iii. 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	\$19,000		\$0
Utility Relocation (50% Local Share)	\$45,000		\$0
Temp/Perm Construction Easements	\$1,000		\$0
R/W Services - Title and Escrow Fees	\$15,000		\$0
CONSTRUCTION CONTRACT WORK			\$0
(CURRENT VALUE) TOTAL RIGHT OF WAY **	\$80,000	TOTAL ESCALATED RIGHT OF WAY	\$0

* - Escalated to assumed year of advertising:

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

Estimate prepared by: David Williams (408)-297-9585 15-Oct-04
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE 05-SBt-25
 Type of Estimate (Pre-PSR,
 PSR, PR, etc.): PSR/PR
 Program Code: _____
 KP: 83.55/85.16
 EA: 05-0K520K
 PP No. : 0

Project Description:

Limits: Highway 25 Safety and Operational Enhancements Project

Proposed Improvement: Phase 3 Proposed Improvements - Wright Road to Flynn Road

(Scope) (a) Concrete median barrier and pavement widening

(b) Park and Ride Facility Improvements

(c) Intersection improvements at Flynn Road

Preliminary Cost Estimate for PSR/PR

(1) SUPPLEMENTAL PROJECT REPORT/ ENVIRONMENTAL REPORT PHASE @	2.5%	\$46,000
(2) FINAL PS&E PHASE @	10%	\$184,000
(3) RIGHT OF WAY & UTILITY		\$68,500
(4) CONSTRUCTION PHASE		
ROADWAY ITEMS		\$1,767,000
STRUCTURE ITEMS		\$0
CONSTRUCTION ADMINISTRATION @	7.5%	\$138,000
SUBTOTAL CONSTRUCTION PHASE		\$1,905,000

TOTAL ESTIMATED COST \$2,203,500

Reviewed by	<u>Tim Lee</u>	<u>(408)-297-9585</u>	<u>15-Oct-04</u>
Project Engineer			
Approved by	<u>William Hadaya</u>	<u>(408)-297-9585</u>	<u>15-Oct-04</u>
Project Manager		<u>(Phone)</u>	<u>(Date)</u>

Sheet: 1 of 6

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SBt-25

KP: 83.55/85.16

EA: 05-0K520K

PP No. : _____

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	7,070	M3	\$17	\$120,190	
Roadway Excavation (Type Y)	1	LS	\$20,000	\$20,000	
Clearing & Grubbing	1	LS	\$10,000	\$10,000	
Develop Water Supply	1	LS	\$2,000	\$2,000	
Water Pollution Control	1	LS	\$30,000	\$30,000	
				<u>Total Earthwork</u>	<u>\$182,190</u>

Section 2 - Structural Section *

Asphalt Concrete (Type A)	5,850	TONNE	\$58	\$339,300	
Pavement Overlay		M2	\$10	\$0	
Aggregate Base (CI 2)	5,240	M3	\$38	\$199,120	
New Driveway	1	LS	\$10,000	\$10,000	
Pavement Reinforcing Fabric		M2	\$1	\$0	
Cold Plane Asphalt Concrete		M2	\$10	\$0	
Subgrade Preparation		M2		\$0	
Permeable Material					
Blanket & Edge Drains		LS	\$0	\$0	
				<u>Total Structural Section</u>	<u>\$548,420</u>

Section 3 - Drainage

Sanitary Sewer Pipe		M	\$460	\$0	
Sanitary Sewer Manhole		EA	\$7,000	\$0	
Modify SS Manhole		EA	\$2,000	\$0	
Minor Concrete (Pipe Encasement)		M3	\$250	\$0	
Abandon Sanitary Sewer		LS	\$4,000	\$0	
Extend Culvert	50	M	\$250	\$12,500	
Headwall/Flared End Section	12	M3	\$2,000	\$24,000	
Remove Culvert	20	M	\$100	\$2,000	
Remove Headwall	12	EA	\$1,500	\$18,000	
				<u>Total Drainage</u>	<u>\$56,500</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SBt-25
KP: 83.55/85.16
EA: 05-0K520K
PP No. : 0

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
<u>Section 4 - Specialty Items</u>					
Prepare SWPPP	1	LS	\$5,000	\$5,000	
Temp Erosion Control	18,000	M2	\$0.5	\$9,000	
Temp Silt Fence	3,000	M	\$10	\$30,000	
Driveway Closure		EA	\$2,000	\$0	
Lead Compliance Plan	1	LS	\$3,000	\$3,000	
Perm Erosion Control	1	LS	\$25,000	\$25,000	
Highway Planting	1	LS	\$5,000	\$5,000	
Fiber Rolls	500	M	\$15	\$7,500	
Permanent Treatment BMP	1	LS	\$18,000	\$18,000	
Finishing Roadway	1	LS	\$7,000	\$7,000	
Lighting	1	LS	\$20,000	\$20,000	
Total Specialty Items					\$129,500

<u>Section 5 - Traffic Items</u>					
Temp Traffic Stripe	3,000	M	\$2.5	\$7,500	
Temp Railing (Type K)	2,550	M	\$30	\$76,500	
Temp Crash Cushion Module	22	EA	\$200	\$4,400	
Port Changeable Message	2	EA	\$10,000	\$20,000	
Construction Area Signs	1	LS	\$6,000	\$6,000	
Traffic Control Systems	1	LS	\$50,000	\$50,000	
Traffic Management Plan	1	LS	\$20,000	\$20,000	
Remove Striping & Markings	1	LS	\$30,000	\$30,000	
Striping & Markings	1	LS	\$20,000	\$20,000	
Roadside Signs	1	LS	\$2,500	\$2,500	
Conc Barrier (With Dowels)	1,335	M	\$60	\$80,100	
Crash Cushion	2	EA	\$30,000	\$60,000	
Total Traffic Items					\$377,000

SUBTOTAL SECTIONS 1 - 5: \$1,293,610

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SBt-25
KP: 83.55/85.16
EA: 05-0K520K
PP No. : 0

			<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$1,293,610</u>	X	5% <u>\$64,680.50</u>	
			TOTAL MINOR ITEMS:	<u>\$65,000</u>
<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$1,293,610</u>			
Minor Items	<u>\$65,000</u>			
Sum	<u>\$1,358,610</u>	X	10% <u>\$135,861.00</u>	
			TOTAL ROADWAY MOBILIZATION	<u>\$136,000</u>
<u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$1,293,610</u>			
Minor Items	<u>\$65,000</u>			
Sum	<u>\$1,358,610</u>	X	5% <u>\$67,930.50</u>	
Contingencies				
Subtotal Sections 1 - 5	<u>\$1,293,610</u>			
Minor Items	<u>\$65,000</u>			
Sum	<u>\$1,358,610</u>	X	15% <u>\$203,791.50</u>	
			TOTAL ROADWAY ADDITIONS	<u>\$272,000</u>
			TOTAL ROADWAY ITEMS	<u>\$1,767,000</u>
			(Total of Sections 1 - 8)	

Estimate
Prepared By: David Williams (408)-297-9585 15-Oct-04
(Print Name) (Phone) (Date)
Sheet: 4 of 6

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SBt-25

KP: 83.55/85.16

EA: 05-0K520K

PP No. : 0

II. STRUCTURES ITEMS

#1

#2

#3

Bridge Name

Structure Type

Width (M) - out to out

Span Lengths (M)

Total Area (M2)

Footing Type (pile/spread)

Cost per M2.

Including:

Mobilization: 10%

Contingency: 15%

Other

Total Cost For Structure

\$0

\$0

\$0

SUBTOTAL THIS PAGE

\$0

TOTAL STRUCTURES ITEMS

\$0

Railroad Related Costs

Estimate Prepared By: David Williams

(Print Name)

(408)-453-5373

(Phone)

15-Oct-04

(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SBt-25
KP: 83.55/85.16
EA: 05-0K520K
PP No. : 0

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the

iii. 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	\$27,000		\$0
Utility Relocation (50% Local Share)	\$30,000		\$0
Temp/Perm Construction Easements	\$1,500		\$0
R/W Services - Title and Escrow Fees	\$10,000		\$0
CONSTRUCTION CONTRACT WORK			\$0
(CURRENT VALUE)			
TOTAL RIGHT OF WAY **	\$68,500	TOTAL ESCALATED RIGHT OF WAY	\$0

* - Escalated to assumed year of advertising: _____

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

Estimate prepared by: David Williams (408)-297-9585 15-Oct-04
(Print Name) (Phone) (Date)

SAFETY AND OPERATIONAL IMPROVEMENTS

SR 25 (SANTA CLARA COUNTY)

PRELIMINARY COST ESTIMATE

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE 05-SCI-25

Type of Estimate (Pre-PSR,
PSR, PR, etc.): PSR/PR

Program Code:

KP: 1.03/3.41

EA: 05-0K520K

Project Description:

PP No. : 0

Limits: Highway 25 Safety and Operational Enhancements Project

Proposed Improvement: Phase 4 Proposed Improvements - Bolsa Road to UPRR
(Scope) (a) Intersection improvements at Bolsa Road
(b) Intersection improvements at Christopher Ranch
(c) Consolidate private driveways and construct access roads

Preliminary Cost Estimate for PSR/PR

(1) SUPPLEMENTAL PROJECT REPORT/ ENVIRONMENTAL REPORT PHASE	\$0
(2) FINAL PS&E PHASE	\$377,000
(3) RIGHT OF WAY & UTILITY	\$78,000
(4) CONSTRUCTION PHASE	
ROADWAY ITEMS	\$1,745,000
STRUCTURE ITEMS	\$0
CONSTRUCTION ADMINISTRATION	\$250,000
SUBTOTAL CONSTRUCTION PHASE	\$1,995,000

TOTAL ESTIMATED COST \$2,450,000

Reviewed by	Tim Lee	(408)-297-9585	15-Oct-04
Project Engineer			
Approved by	William Hadaya	(408)-297-9585	15-Oct-04
Project Manager		(Phone)	(Date)

Sheet: 1 of 6

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
 05-SCI-25
 KP: 1.03/3.41
 EA: 05-0K520K
 PP No. :

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	9,000	M3	\$17	\$153,000	
Roadway Excavation (Type Y)	1	LS	\$15,000	\$15,000	
Clearing & Grubbing	1	LS	\$10,000	\$10,000	
Develop Water Supply	1	LS	\$2,000	\$2,000	
Water Pollution Control	1	LS	\$20,000	\$20,000	
				<u>Total Earthwork</u>	<u>\$200,000</u>
<u>Section 2 - Structural Section *</u>					
Asphalt Concrete (Type A)	3,200	TONNE	\$58	\$185,600	
Pavement Overlay		M2	\$10	\$0	
Aggregate Base (CI 2)	4,100	M3	\$38	\$155,800	
New Driveway	4	LS	\$20,000	\$80,000	
Pavement Reinforcing Fabric		M2	\$1	\$0	
Cold Plane Asphalt Concrete		M2	\$10	\$0	
Subgrade Preparation		M2		\$0	
Permeable Material					
Blanket & Edge Drains		LS	\$0	\$0	
				<u>Total Structural Section</u>	<u>\$421,400</u>
<u>Section 3 - Drainage</u>					
Sanitary Sewer Pipe		M	\$460	\$0	
Sanitary Sewer Manhole		EA	\$7,000	\$0	
Modify SS Manhole		EA	\$2,000	\$0	
Minor Concrete (Pipe Encasement)		M3	\$250	\$0	
Abandon Sanitary Sewer		LS	\$4,000	\$0	
Extend Culvert	250	M	\$250	\$62,500	
Headwall/Flared End Section	5	M3	\$2,000	\$10,000	
Remove Culvert	30	M	\$100	\$3,000	
Remove Headwall	4	EA	\$1,500	\$6,000	
				<u>Total Drainage</u>	<u>\$81,500</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SCI-25
KP: 1.03/3.41
EA: 05-0K520K
PP No. : 0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Prepare SWPPP	1	LS	\$4,000	\$4,000	
Temp Erosion Control	5,000	M2	\$0.5	\$2,500	
Temp Silt Fence	2,500	M	\$10	\$25,000	
Driveway Closure	4	EA	\$2,000	\$8,000	
Lead Compliance Plan	1	LS	\$3,000	\$3,000	
Perm Erosion Control	1	LS	\$8,000	\$8,000	
Highway Planting	1	LS	\$2,000	\$2,000	
Fiber Rolls	100	M	\$15	\$1,500	
Permanent Treatment BMP	1	LS	\$18,000	\$18,000	
Finishing Roadway	1	LS	\$5,000	\$5,000	
Lighting	1	LS	\$40,000	\$40,000	
			<u>Total Specialty Items</u>		<u>\$117,000</u>
<u>Section 5 - Traffic Items</u>					
Temp Traffic Stripe	2,000	M	\$2.5	\$5,000	
Temp Railing (Type K)	1,750	M	\$30	\$52,500	
Temp Crash Cushion Module	44	EA	\$200	\$8,800	
Port Changeable Message	2	EA	\$10,000	\$20,000	
Construction Area Signs	1	LS	\$6,000	\$6,000	
Traffic Control Systems	1	LS	\$190,000	\$190,000	
Traffic Management Plan	1	LS	\$27,000	\$27,000	
Remove Striping & Markings	1	LS	\$30,000	\$30,000	
Striping & Markings	1	LS	\$25,000	\$25,000	
Roadside Signs	1	LS	\$2,500	\$2,500	
Conc Barrier (With Dowels)		M	\$60	\$0	
Crash Cushion		EA	\$30,000	\$0	
			<u>Total Traffic Items</u>		<u>\$366,800</u>
SUBTOTAL SECTIONS 1 - 5:					<u>\$1,186,700</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
05-SCI-25
KP: 1.03/3.41
EA: 05-0K520K
PP No. : 0

			<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$1,186,700</u>	X	5% <u>\$59,335.00</u>	
			TOTAL MINOR ITEMS:	<u>\$59,000</u>
<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$1,186,700</u>			
Minor Items	<u>\$59,000</u>			
Sum	<u>\$1,245,700</u>	X	10% <u>\$124,570.00</u>	
			TOTAL ROADWAY MOBILIZATION	<u>\$125,000</u>
<u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$1,186,700</u>			
Minor Items	<u>\$59,000</u>			
Sum	<u>\$1,245,700</u>	X	5% <u>\$62,285.00</u>	
Contingencies				
Subtotal Sections 1 - 5	<u>\$1,186,700</u>			
Minor Items	<u>\$59,000</u>			
Sum	<u>\$1,245,700</u>	X	25% <u>\$311,425.00</u>	
			TOTAL ROADWAY ADDITIONS	<u>\$374,000</u>
			TOTAL ROADWAY ITEMS	<u>\$1,745,000</u>
			(Total of Sections 1 - 8)	

Estimate
Prepared By: David Williams (408)-297-9585 15-Oct-04
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SCI-25

KP: 1.03/3.41

EA: 05-OK520K

PP No. : 0

II. STRUCTURES ITEMS

#1

#2

#3

Bridge Name

Structure Type

Width (M) - out to out

Span Lengths (M)

Total Area (M2)

Footing Type (pile/spread)

Cost per M2.

Including:

Mobilization: 10%

Contingency: 15%

Other

Total Cost For Structure

\$0

\$0

\$0

SUBTOTAL THIS PAGE \$0

TOTAL STRUCTURES ITEMS \$0

Railroad Related Costs

Estimate Prepared By: David Williams (408)-453-5373 15-Oct-04
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

05-SCI-25

KP: 1.03/3.41

EA: 05-0K520K

PP No. : 0

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the

II. 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	\$39,000		\$0
Utility Relocation	\$18,000		\$0
Temp/Perm Construction Easements	\$1,000		\$0
R/W Services - Title and Escrow Fees	\$20,000		\$0
CONSTRUCTION CONTRACT WORK			\$0
(CURRENT VALUE)			
TOTAL RIGHT OF WAY **	\$78,000	TOTAL ESCALATED RIGHT OF WAY	\$0

* - Escalated to assumed year of advertising:

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

Estimate prepared by:	David Williams	(408)-297-9585	15-Oct-04
	(Print Name)	(Phone)	(Date)

SAFETY AND OPERATIONAL IMPROVEMENTS

SB US 101 AUX LANE

PRELIMINARY COST ESTIMATE

District-County-Route: 04-SCL-101
 Type of Estimate: Pre-PID
 EA:
 PM:

Project Description: SB US 101 Auxiliary Lane
 (Install auxiliary lane for SR 25 off-ramp, 1800' in length)
Limits: Castro Valley Road to SR25
Proposed Improvements:
 Project Length 0.3 Miles
 Work done in 1 or both directions? One
 Access (Right-in/Right-out) 0 Access Points

SUMMARY OF PROJECT COST ESTIMATE

(1) Project Report and Environmental Report	3%	\$57,150
(2) Final Design Phase (PS&E)	12%	\$228,600
SUBTOTAL DESIGN		\$285,750
 (3) CONSTRUCTION PHASE		
ROADWAY ITEMS		\$1,931,000
STRUCTURE ITEMS		\$0
SUBTOTAL CONSTRUCTION		\$1,931,000
CONSTRUCTION ADMINISTRATION	15%	\$285,750
SUBTOTAL CONSTRUCTION PHASE		\$2,216,750
 RIGHT OF WAY & UTILITY RELOCATION		 \$0
 TOTAL PROJECT COST (MARCH 2016)		 \$2,502,500

Approved by Tim Lee, WMH Corporation (408) 971-7300 29-Mar-16
 Project Manager (Print Name) (Phone) (Date)

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	2,000	CY	\$12.00	\$24,000	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	1,200	CY	\$18.00	\$21,600	
Clearing & Grubbing	1	Acres	\$3,000	\$3,000	
Develop Water Supply	1	LS	\$20,000	\$20,000	
				Total Earthwork	\$68,600

<u>Section 2 - Structural Section</u>					
JPCP	0	CY	\$160	\$0	
HMA	1,663	Ton	\$100	\$166,320	
Lean Concrete Base	0	CY	\$260	\$0	
Class 3 Aggregate Base	2,167	CY	\$45	\$97,500	
Class 4 Aggregate Subbase	0	CY	\$35	\$0	
Local Street Improvements	1	LS	\$60,000	\$60,000	
				Total Structural Section	\$323,820

<u>Section 3 - Drainage</u>					
Roadway Drainage	1	LS	\$68,182	\$68,182	
Cross-Culverts	1	LS	\$2,800	\$2,800	
				Total Drainage	\$70,982

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	2,900	SF	\$120	\$348,000	
Highway Planting (w/3yr PEP)	1	AC	\$30,000	\$30,000	
R/W Fence	1,800	LF	\$8	\$14,400	
Construction Site BMP's	1	LS	\$90,000	\$90,000	
Environmental Mitigation	0	AC	\$0	\$0	
Concrete Barrier	1,800	LF	\$60	\$108,000	
MBGR	0	LF	\$40	\$0	
				<u>Total Specialty Items</u>	<u>\$590,400</u>

<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$30,000	\$30,000	
Traffic Signals (Incl. Interconnect)	1	LS	\$100,000	\$100,000	
Roadside Sign	1	LS	\$750	\$750	
Overhead Sign	0	EA	\$0	\$0	
Traffic Control System	1	LS	\$10,000	\$10,000	
Traffic Management Plan	1	LS	\$15,000	\$15,000	
Pavement Delineation	3,600	LF	\$0.30	\$1,080	
Traffic Operating Systems	1	LS	\$0	\$0	
				<u>Total Traffic Items</u>	<u>\$156,830</u>
				SUBTOTAL SECTIONS 1 - 5:	\$1,210,632

EA:	\$0
PM:	0
	0
	0

<u>Unit Cost</u>	<u>Section Cost</u>
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Section 6 - Minor Items

Subtotal Sections 1 - 5	<u>\$1,210,632</u>	X	<u>10%</u>	<u>\$121,063</u>
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TOTAL MINOR ITEMS:	<u>\$121,000</u>
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Section 7 - Roadway Mobilization

Subtotal Sections 1 - 6	<u>\$1,331,632</u>	X	<u>10%</u>	<u>\$133,163</u>
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TOTAL ROADWAY MOBILIZATION	<u>\$133,000</u>
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Section 8 - Roadway Additions

Subtotal Sections 1 - 6	<u>\$1,331,632</u>	X	<u>10%</u>	<u>\$133,163</u>
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Contingencies

Subtotal Sections 1 - 6	<u>\$1,331,632</u>	X	<u>25%</u>	<u>\$332,908</u>
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TOTAL ROADWAY ADDITIONS	<u>\$466,000</u>
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TOTAL ROADWAY ITEMS	<u>\$1,931,000</u>
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(Total of Sections 1 - 8)

Estimate			
Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

Estimate Prepared By: Tim Lee, WMH Corporation (408) 971-7300 29-Mar-16
(Print Name) (Phone) (Date)

EA:	\$0
PM:	0
	0
	0

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 relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value
Acquisition (Fee & TCE), including excess lands and damages to remainders	\$0	100.00%	\$0
Utility Relocation (State share)	\$0	100.00%	\$0
Relocation Assistance	\$0	100.00%	\$0
Clearance / Demolition		100.00%	\$0
R/W Services - Title and Escrow Fees		100.00%	\$0
Easement (Utility Corridor)		100.00%	\$0
TOTAL RIGHT OF WAY ITEMS	\$0		\$0

Estimate prepared by:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

SAFETY AND OPERATIONAL IMPROVEMENTS

EXTEND MERGE LANES

PRELIMINARY COST ESTIMATE

District-County-Route: 05-SBT-25
 Type of Estimate: Pre-PID
 EA:
 PM:

Project Description: SR 25 / SR 156 Intersection
 (Extend Merge Lanes to 1500' in length from stop bar)
 Limits: Each exit leg of the intersection
 Proposed Improvements:

Project Length	1.4	Miles
Work done in 1 or both directions?	None	
Access (Right-in/Right-out)	3	Access Points

SUMMARY OF PROJECT COST ESTIMATE

(1) Project Report and Environ. Report	3%	\$110,130
(2) Final Design Phase (PS&E)	12%	\$440,520
SUBTOTAL DESIGN		\$550,650
(3) CONSTRUCTION PHASE		
ROADWAY ITEMS		\$3,671,000
STRUCTURE ITEMS		\$0
SUBTOTAL CONSTRUCTION		\$3,671,000
CONSTRUCTION ADMINISTRATION	15%	\$550,650
SUBTOTAL CONSTRUCTION PHASE		\$4,221,650
RIGHT OF WAY & UTILITY RELOCATION		\$0
TOTAL PROJECT COST (MARCH 2016)		\$4,772,300

Approved by	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
Project Manager	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	0	CY	\$12.00	\$0	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	20,500	CY	\$18.00	\$369,000	
Clearing & Grubbing	2	Acres	\$3,000	\$6,000	
Develop Water Supply	1	LS	\$20,000	\$20,000	
				Total Earthwork	\$395,000

<u>Section 2 - Structural Section</u>					
JPCP	0	CY	\$160	\$0	
HMA	6,216	Ton	\$100	\$621,600	
Lean Concrete Base	0	CY	\$260	\$0	
Class 3 Aggregate Base	7,726	CY	\$45	\$347,667	
Class 4 Aggregate Subbase	0	CY	\$35	\$0	
Local Street Improvements	1	LS	\$60,000	\$60,000	
				Total Structural Section	\$1,029,267

<u>Section 3 - Drainage</u>					
Roadway Drainage	1	LS	\$287,879	\$287,879	
Cross-Culverts	1	LS	\$16,000	\$16,000	
				Total Drainage	\$303,879

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	0	SF	\$100	\$0	
Highway Planting (w/3yr PEP)	1	AC	\$30,000	\$30,000	
R/W Fence	7,600	LF	\$8	\$60,800	
Construction Site BMP's	1	LS	\$100,000	\$100,000	
Environmental Mitigation	0	AC	\$0	\$0	
Concrete Barrier	0	LF	\$60	\$0	
MBGR	0	LF	\$40	\$0	
				<u>Total Specialty Items</u>	<u>\$190,800</u>

<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$100,000	\$100,000	
Traffic Signals (Incl. Interconnect)	1	LS	\$200,000	\$200,000	
Roadside Sign	1	LS	\$4,000	\$4,000	
Overhead Sign	0	EA	\$0	\$0	
Traffic Control System	1	LS	\$60,000	\$60,000	
Traffic Management Plan	1	LS	\$15,000	\$15,000	
Pavement Delineation	12,000	LF	\$0.30	\$3,600	
Traffic Operating Systems	1	LS	\$0	\$0	
				<u>Total Traffic Items</u>	<u>\$382,600</u>
				SUBTOTAL SECTIONS 1 - 5:	\$2,301,545

<u>Unit Cost</u>	<u>Section Cost</u>
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TOTAL MINOR ITEMS: \$230,000

TOTAL ROADWAY MOBILIZATION	<u>\$253,000</u>
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(Total of Sections 1 - 8)

Estimate			
Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

II. STRUCTURES ITEMS	#1	#2	#3	#4	#5	#6	#7
Bridge Name	xxx	xxx	xxx				
Structure Type	OC	OC	IC				
New Width (Ft)	0.00	0.00	0.00				
Widening Width (Ft)							
Retrofit Width (Ft)							
Span Lengths (Ft)	0.0	0.0	0.0				
Total New Area (SQ Ft)	0	0	0	0	0	0	0
Total Widening Area (SQ Ft)	0	0	0	0	0	0	0
Total Retrofit Area (SQ.Ft)	0	0	0	0	0	0	0
Footing Type (pile/spread)							
Cost per Sq. ft of New	\$200	\$200	\$200	\$200	\$200	\$200	\$200
Cost per Sq. ft of Widening	\$300	\$300	\$300	\$300	\$300	\$300	\$300
Cost per Sq. ft of Retrofit	\$25	\$25	\$25	\$25	\$25	\$25	\$25
Including:							
Mobilization: 10%							
Contingency: 25%							
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Retrofit	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Structures	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Railroad Related Costs							
TOTAL STRUCTURE ITEMS							\$0

Estimate Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

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 relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value
Acquisition (Fee & TCE), including excess lands and damages to remainders	\$0	100.00%	\$0
Utility Relocation (State share)	\$0	100.00%	\$0
Relocation Assistance	\$0	100.00%	\$0
Clearance / Demolition		100.00%	\$0
R/W Services - Title and Escrow Fees		100.00%	\$0
Easement (Utility Corridor)		100.00%	\$0
TOTAL RIGHT OF WAY ITEMS	\$0		\$0

Estimate prepared by:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

SAFETY AND OPERATIONAL IMPROVEMENTS

PASSING LANES

PRELIMINARY COST ESTIMATE

District-County-Route: 05-SBT-25
Type of Estimate: Pre-PID
EA:
PM:

Project Description: Passing Lanes

Limits: Between Hudner Ln and Shore Rd

Proposed Improvements:

Project Length 2.0 Miles
Work done in 1 or both directions? Both

SUMMARY OF PROJECT COST ESTIMATE

(1) Project Report and Environ. Report	3%	\$740,700
(2) Final Design Phase (PS&E)	12%	\$2,962,800
SUBTOTAL DESIGN		\$3,703,500

(3) CONSTRUCTION PHASE

ROADWAY ITEMS	\$24,690,000
STRUCTURE ITEMS	\$0
SUBTOTAL CONSTRUCTION	\$24,690,000

CONSTRUCTION ADMINISTRATION	15%	\$3,703,500
SUBTOTAL CONSTRUCTION PHASE		\$28,393,500

RIGHT OF WAY & UTILITY RELOCATION	\$2,864,000
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TOTAL PROJECT COST (MARCH 2016)	\$34,961,000
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Approved by	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
Project Manager	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	6,000	CY	\$12.00	\$72,000	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	162,000	CY	\$18.00	\$2,916,000	
Clearing & Grubbing	15	Acres	\$1,000	\$15,000	
Develop Water Supply	1	LS	\$20,000	\$20,000	
				Total Earthwork	\$3,023,000

<u>Section 2 - Structural Section</u>					
JPCP	26,790	CY	\$160	\$4,286,400	
HMA	12,703	Ton	\$100	\$1,270,269	
Lean Concrete Base	14,100	CY	\$260	\$3,666,000	
Class 3 Aggregate Base	0	CY	\$45	\$0	
Class 4 Aggregate Subbase	0	CY	\$35	\$0	
Other Street Improvements	1	LS	\$100,000	\$100,000	
				Total Structural Section	\$9,322,669

<u>Section 3 - Drainage</u>					
Roadway Drainage	1	LS	\$120,000	\$120,000	
Cross-Culverts	1	LS	\$100,000	\$100,000	
				Total Drainage	\$220,000

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	0	SF	\$100	\$0	
Highway Planting (w/3yr PEP)	1	LS	\$300,000	\$300,000	
R/W Fence	28,200	LF	\$8	\$225,600	
Construction Site BMP's	1	LS	\$800,000	\$800,000	
Environmental Mitigation	3	AC	\$75,000	\$225,000	
Concrete Barrier	14,100	LF	\$60	\$846,000	
MBGR	500	LF	\$40	\$20,000	
				<u>Total Specialty Items</u>	<u>\$2,416,600</u>

<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$80,000	\$80,000	
Traffic Signals (Incl. Interconnect)	0	LS	\$175,000	\$0	
Roadside Sign	1	LS	\$20,000	\$20,000	
Overhead Sign	0	EA	\$250,000	\$0	
Traffic Control System	1	LS	\$300,000	\$300,000	
Traffic Management Plan	1	LS	\$50,000	\$50,000	
Pavement Delineation	56,400	LF	\$0.30	\$16,920	
Traffic Operating Systems	1	LS	\$30,000	\$30,000	
				<u>Total Traffic Items</u>	<u>\$496,920</u>

SUBTOTAL SECTIONS 1 - 5: \$15,479,189

EA:	\$0
PM:	0
	0
	0

<u>Unit Cost</u>	<u>Section Cost</u>
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Section 6 - Minor Items

Subtotal Sections 1 - 5	<u>\$15,479,189</u>	X	<u>10%</u>	<u>\$1,547,919</u>
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TOTAL MINOR ITEMS: \$1,548,000

Section 7 - Roadway Mobilization

Subtotal Sections 1 - 6	<u>\$17,027,189</u>	X	<u>10%</u>	<u>\$1,702,719</u>
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TOTAL ROADWAY MOBILIZATION \$1,703,000

Section 8 - Roadway Additions

Subtotal Sections 1 - 6	<u>\$17,027,189</u>	X	<u>10%</u>	<u>\$1,702,719</u>
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Contingencies

Subtotal Sections 1 - 6	<u>\$17,027,189</u>	X	<u>25%</u>	<u>\$4,256,797</u>
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TOTAL ROADWAY ADDITIONS \$5,960,000

TOTAL ROADWAY ITEMS **\$24,690,000**
(Total of Sections 1 - 8)

Estimate			
Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

II. STRUCTURES ITEMS	#1	#2	#3	#4	#5	#6	#7
Bridge Name			xxx				
Structure Type			x				
New Width (Ft)			0.00				
Widening Width (Ft)							
Retrofit Width (Ft)							
Span Lengths (Ft)			0.0				
Total New Area (SQ Ft)	0	0	0	0	0	0	0
Total Widening Area (SQ Ft)	0	0	0	0	0	0	0
Total Retrofit Area (SQ.Ft)	0	0	0	0	0	0	0
Footing Type (pile/spread)							
Cost per Sq. ft of New	\$275	\$200	\$200	\$200	\$200	\$200	\$200
Cost per Sq. ft of Widening	\$300	\$300	\$300	\$300	\$300	\$300	\$300
Cost per Sq. ft of Retrofit	\$25	\$25	\$25	\$25	\$25	\$25	\$25
Including:							
Mobilization: 10%							
Contingency: 25%							
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Retrofit	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Structures	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Railroad Related Costs							
TOTAL STRUCTURE ITEMS							\$0

Estimate Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

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 relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value (3 yrs)
Acquisition (Fee & TCE), including excess lands and damages to remainders	\$825,000	5.00%	\$955,041
Utility Relocation (State share)	\$1,248,750	5.00%	\$1,445,584
Relocation Assistance	\$0	100.00%	\$0
Clearance / Demolition	\$0	100.00%	\$0
R/W Services - Title and Escrow Fees	\$400,000	5.00%	\$463,050
Easement (Utility Corridor)	\$0	5.00%	\$0
TOTAL RIGHT OF WAY ITEMS	\$2,473,750		\$2,864,000

Estimate prepared by:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

SAFETY AND OPERATIONAL IMPROVEMENTS

SR 25/SR 156 INTERCHANGE (SPREAD DIAMOND)

PRELIMINARY COST ESTIMATE

District-County-Route: 05-SBT-25
 Type of Estimate: Pre-PID
 EA:
 PM:

Project Description: SR 25 / SR 156 Diamond Interchange

Limits:

Proposed Improvements:

Project Length	0.0	Miles
Work done in 1 or both directions?	Both	
Access (Right-in/Right-out)	3	Access Points

SUMMARY OF PROJECT COST ESTIMATE

(1) Project Report and Environ. Report	3%	\$948,570
(2) Final Design Phase (PS&E)	12%	\$3,794,280
SUBTOTAL DESIGN		\$4,742,850
 (3) CONSTRUCTION PHASE		
ROADWAY ITEMS		\$28,323,000
STRUCTURE ITEMS		\$3,296,000
SUBTOTAL CONSTRUCTION		\$31,619,000
CONSTRUCTION ADMINISTRATION	15%	\$4,742,850
SUBTOTAL CONSTRUCTION PHASE		\$36,361,850
 RIGHT OF WAY & UTILITY RELOCATION		 \$4,818,000
 TOTAL PROJECT COST (MARCH 2016)		 \$45,922,700

Approved by	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
Project Manager	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	0	CY	\$12.00	\$0	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	283,000	CY	\$18.00	\$5,094,000	
Clearing & Grubbing	60	Acres	\$1,000	\$60,000	
Develop Water Supply	1	LS	\$20,000	\$20,000	
				Total Earthwork	\$5,174,000

<u>Section 2 - Structural Section</u>					
JPCP	18,219	CY	\$160	\$2,915,022	
HMA	9,728	Ton	\$100	\$972,776	
Lean Concrete Base	9,589	CY	\$260	\$2,493,111	
Class 3 Aggregate Base	10,642	CY	\$45	\$478,880	
Class 4 Aggregate Subbase	0	CY	\$35	\$0	
Local Street Improvements	1	LS	\$60,000	\$60,000	
				Total Structural Section	\$6,919,789

<u>Section 3 - Drainage</u>					
Roadway Drainage	1	LS	\$602,273	\$602,273	
Cross-Culverts	1	LS	\$28,000	\$28,000	
				Total Drainage	\$630,273

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	9,760	SF	\$120	\$1,171,200	
Highway Planting (w/3yr PEP)	1	AC	\$250,000	\$250,000	
R/W Fence	17,000	LF	\$8	\$136,000	
Construction Site BMP's	1	LS	\$650,000	\$650,000	
Environmental Mitigation	5	AC	\$75,000	\$375,000	
Concrete Barrier	2,800	LF	\$60	\$168,000	
MBGR	400	LF	\$40	\$16,000	
				<u>Total Specialty Items</u>	<u>\$2,766,200</u>

<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$100,000	\$100,000	
Traffic Signals (Incl. Interconnect)	1	LS	\$600,000	\$600,000	
Roadside Sign	1	LS	\$5,000	\$5,000	
Overhead Sign	4	EA	\$250,000	\$1,000,000	
Traffic Control System	1	LS	\$300,000	\$300,000	
Traffic Management Plan	1	LS	\$50,000	\$50,000	
Pavement Delineation	40,300	LF	\$0.30	\$12,090	
Traffic Operating Systems	1	LS	\$200,000	\$200,000	
				<u>Total Traffic Items</u>	<u>\$2,267,090</u>
				SUBTOTAL SECTIONS 1 - 5:	\$17,757,352

EA:	\$0
PM:	0
	0
	0

<u>Unit Cost</u>	<u>Section Cost</u>
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Section 6 - Minor Items

Subtotal Sections 1 - 5 \$17,757,352

X 10% \$1,775,735

TOTAL MINOR ITEMS: \$1,776,000

Section 7 - Roadway Mobilization

Subtotal Sections 1 - 6 \$19,533,352

X 10% \$1,953,335

TOTAL ROADWAY MOBILIZATION \$1,953,000

Section 8 - Roadway Additions

Subtotal Sections 1 - 6 \$19,533,352

X 10% \$1,953,335

Contingencies

Subtotal Sections 1 - 6 \$19,533,352

X 25% \$4,883,338

TOTAL ROADWAY ADDITIONS \$6,837,000

TOTAL ROADWAY ITEMS \$28,323,000

(Total of Sections 1 - 8)

Estimate			
Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

II. STRUCTURES ITEMS

II. STRUCTURES ITEMS				#1	#2	#3	#4	#5	#6	#7
Bridge Name		SR25/156	xxx	xxx						
Structure Type		Sep	x	x						
New Width (Ft)		56.00	0.00	0.00						
Widening Width (Ft)										
Retrofit Width (Ft)										
Span Lengths (Ft)		214.0	0.0	0.0						
Total New Area (SQ Ft)		11,984	0	0	0	0	0	0	0	0
Total Widening Area (SQ Ft)		0	0	0	0	0	0	0	0	0
Total Retrofit Area (SQ.Ft)		0	0	0	0	0	0	0	0	0
Footing Type (pile/spread)										
Cost per Sq. ft of New		\$275	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200
Cost per Sq. ft of Widening		\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300
Cost per Sq. ft of Retrofit		\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25
Including:										
Mobilization: 10%										
Contingency: 25%										
Total Cost for Widening		\$3,296,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Widening		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Retrofit		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Structures		\$3,296,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Railroad Related Costs										
TOTAL STRUCTURE ITEMS										\$3,296,000

Estimate Prepared By: Tim Lee, WMH Corporation (408) 971-7300 29-Mar-16
(Print Name) (Phone) (Date)

EA:	\$0
PM:	0
	0
	0

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 relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value (3 yrs)
Acquisition (Fee & TCE), including excess lands and damages to remainders	\$3,687,500	5.00%	\$4,268,742
Utility Relocation (State share)	\$312,500	5.00%	\$361,758
Relocation Assistance	\$0	100.00%	\$0
Clearance / Demolition		100.00%	\$0
R/W Services - Title and Escrow Fees	\$150,000	5.00%	\$173,644
Easement (Utility Corridor)	\$12,339	5.00%	\$14,284
TOTAL RIGHT OF WAY ITEMS	\$4,162,339		\$4,818,000

Estimate prepared by:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

SR 25 WIDENING IMPROVEMENTS

WIDEN ALONG EXISTING ROUTE

PRELIMINARY COST ESTIMATE

District-County-Route: 05-SBT-25
 Type of Estimate: Pre-PID
 EA:
 PM:

Project Description: SR 25 Widening (existing route)

Limits: San Felipe Rd. to Hudner Ln

Proposed Improvements:

Project Length 3.7 **Miles**
Work done in 1 or both directions? Both

SUMMARY OF PROJECT COST ESTIMATE

(1) Project Report and Environ. Report	3%	\$1,658,250
(2) Final Design Phase (PS&E)	12%	\$6,633,000
SUBTOTAL DESIGN		\$8,291,250
(3) CONSTRUCTION PHASE		
ROADWAY ITEMS		\$50,438,000
STRUCTURE ITEMS		\$4,837,000
SUBTOTAL CONSTRUCTION		\$55,275,000
CONSTRUCTION ADMINISTRATION	15%	\$8,291,250
SUBTOTAL CONSTRUCTION PHASE		\$63,566,250
RIGHT OF WAY & UTILITY RELOCATION		\$12,896,000
TOTAL PROJECT COST (MARCH 2016)		\$84,753,500

Approved by	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
Project Manager	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	16,000	CY	\$12.00	\$192,000	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	336,000	CY	\$18.00	\$6,048,000	
Clearing & Grubbing	100	Acres	\$1,000	\$100,000	
Develop Water Supply	1	LS	\$30,000	\$30,000	
				Total Earthwork	\$6,370,000

<u>Section 2 - Structural Section</u>					
JPCP	40,638	CY	\$160	\$6,502,025	
HMA	34,607	Ton	\$100	\$3,460,674	
Lean Concrete Base	21,388	CY	\$260	\$5,560,943	
Class 3 Aggregate Base	21,174	CY	\$45	\$952,840	
Class 4 Aggregate Subbase	0	CY	\$35	\$0	
Other Street Improvements	1	LS	\$200,000	\$200,000	
				Total Structural Section	\$16,676,481

<u>Section 3 - Drainage</u>					
Roadway Drainage	1	LS	\$250,000	\$250,000	
Cross-Culverts	1	LS	\$100,000	\$100,000	
				Total Drainage	\$350,000

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	9,760	SF	\$120	\$1,171,200	
Highway Planting (w/3yr PEP)	1	LS	\$300,000	\$300,000	
R/W Fence	70,000	LF	\$8	\$560,000	
Construction Site BMP's	1	LS	\$1,600,000	\$1,600,000	
Environmental Mitigation	15	AC	\$75,000	\$1,125,000	
Concrete Barrier	4,000	LF	\$60	\$240,000	
MBGR	2,000	LF	\$40	\$80,000	
				<u>Total Specialty Items</u>	<u>\$5,076,200</u>

<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$100,000	\$100,000	
Traffic Signals (Incl. Interconnect)	1	LS	\$175,000	\$175,000	
Roadside Sign	1	LS	\$40,000	\$40,000	
Overhead Sign	8	EA	\$250,000	\$2,000,000	
Traffic Control System	1	LS	\$500,000	\$500,000	
Traffic Management Plan	1	LS	\$75,000	\$75,000	
Pavement Delineation	200,000	LF	\$0.30	\$60,000	
Traffic Operating Systems	1	LS	\$200,000	\$200,000	
				<u>Total Traffic Items</u>	<u>\$3,150,000</u>

SUBTOTAL SECTIONS 1 - 5: \$31,622,681

[illegible]

TOTAL MINOR ITEMS: \$3,162,000

TOTAL ROADWAY MOBILIZATION \$3,478,000

(Total of Sections 1 - 8)

Estimate			
Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

II. STRUCTURES ITEMS

II. STRUCTURES ITEMS				#1	#2	#3	#4	#5	#6	#7
Bridge Name		SR25/156	Wright Rd	xxx						
Structure Type		Sep	OC	x						
New Width (Ft)		56.00	36.00	0.00						
Widening Width (Ft)										
Retrofit Width (Ft)										
Span Lengths (Ft)		214.0	214.0	0.0						
Total New Area (SQ Ft)		11,984	7,704	0	0	0	0	0	0	0
Total Widening Area (SQ Ft)		0	0	0	0	0	0	0	0	0
Total Retrofit Area (SQ.Ft)		0	0	0	0	0	0	0	0	0
Footing Type (pile/spread)										
Cost per Sq. ft of New		\$275	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200
Cost per Sq. ft of Widening		\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300
Cost per Sq. ft of Retrofit		\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25
Including:										
Mobilization: 10%										
Contingency: 25%										
Total Cost for Widening		\$3,296,000	\$1,541,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Widening		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Retrofit		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Structures		\$3,296,000	\$1,541,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Railroad Related Costs										
TOTAL STRUCTURE ITEMS										\$4,837,000

Estimate Prepared By: Tim Lee, WMH Corporation (408) 971-7300 29-Mar-16
(Print Name) (Phone) (Date)

EA:	\$0
PM:	0
	0
	0

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 relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value (3 yrs)
Acquisition (Fee & TCE), including excess lands and damages to remainders	\$7,875,000	5.00%	\$9,116,297
Utility Relocation (State share)	\$2,357,500	5.00%	\$2,729,101
Relocation Assistance	\$100,000	100.00%	\$100,000
Clearance / Demolition	\$25,000	100.00%	\$25,000
R/W Services - Title and Escrow Fees	\$800,000	5.00%	\$926,100
Easement (Utility Corridor)	\$0	5.00%	\$0
TOTAL RIGHT OF WAY ITEMS	\$11,157,500		\$12,896,000

Estimate prepared by:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

District-County-Route: 05-SBT-25
 Type of Estimate: Pre-PID
 EA:
 PM:

Project Description: SR 25 Widening (existing route)
 Limits: Hudner Ln to north of Shore Rd
 Proposed Improvements:
 Project Length 4.3 Miles
 Work done in 1 or both directions? Both

SUMMARY OF PROJECT COST ESTIMATE

(1) Project Report and Environmental Report	3%	\$997,050
(2) Final Design Phase (PS&E)	12%	\$3,988,200
SUBTOTAL DESIGN		\$4,985,250
(3) CONSTRUCTION PHASE		
ROADWAY ITEMS		\$33,235,000
STRUCTURE ITEMS		\$0
SUBTOTAL CONSTRUCTION		\$33,235,000
CONSTRUCTION ADMINISTRATION	15%	\$4,985,250
SUBTOTAL CONSTRUCTION PHASE		\$38,220,250
RIGHT OF WAY & UTILITY RELOCATION		\$10,217,000
TOTAL PROJECT COST (MARCH 2016)		\$53,422,500

Approved by	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
Project Manager	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	10,000	CY	\$12.00	\$120,000	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	348,000	CY	\$18.00	\$6,264,000	
Clearing & Grubbing	85	Acres	\$1,000	\$85,000	
Develop Water Supply	1	LS	\$20,000	\$20,000	
				Total Earthwork	\$6,489,000

<u>Section 2 - Structural Section</u>					
JPCP	31,012	CY	\$160	\$4,961,956	
HMA	20,865	Ton	\$100	\$2,086,490	
Lean Concrete Base	16,322	CY	\$260	\$4,243,778	
Class 3 Aggregate Base	400	CY	\$45	\$18,020	
Class 4 Aggregate Subbase	0	CY	\$35	\$0	
Other Street Improvements	1	LS	\$100,000	\$100,000	
				Total Structural Section	\$11,410,243

<u>Section 3 - Drainage</u>					
Roadway Drainage	1	LS	\$280,000	\$280,000	
Cross-Culverts	1	LS	\$120,000	\$120,000	
				Total Drainage	\$400,000

EA:	\$0
PM:	0
	0
	0

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	0	SF	\$100	\$0	
Highway Planting (w/3yr PEP)	1	LS	\$300,000	\$300,000	
R/W Fence	45,200	LF	\$8	\$361,600	
Construction Site BMP's	1	LS	\$800,000	\$800,000	
Environmental Mitigation	7	AC	\$75,000	\$525,000	
Concrete Barrier	1,500	LF	\$60	\$90,000	
MBGR	0	LF	\$40	\$0	
				<u>Total Specialty Items</u>	<u>\$2,076,600</u>

<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$100,000	\$100,000	
Traffic Signals (Incl. Interconnect)	1	LS	\$175,000	\$175,000	
Roadside Sign	1	LS	\$40,000	\$40,000	
Overhead Sign	0	EA	\$250,000	\$0	
Traffic Control System	1	LS	\$300	\$300	
Traffic Management Plan	1	LS	\$75,000	\$75,000	
Pavement Delineation	135,600	LF	\$0.30	\$40,680	
Traffic Operating Systems	1	LS	\$30,000	\$30,000	
				<u>Total Traffic Items</u>	<u>\$460,980</u>

SUBTOTAL SECTIONS 1 - 5: \$20,836,823

[illegible]

TOTAL MINOR ITEMS: \$2,084,000

TOTAL ROADWAY MOBILIZATION \$2,292,000

(Total of Sections 1 - 8)

Estimate			
Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

II. STRUCTURES ITEMS	#1	#2	#3	#4	#5	#6	#7
Bridge Name			xxx				
Structure Type			x				
New Width (Ft)			0.00				
Widening Width (Ft)							
Retrofit Width (Ft)							
Span Lengths (Ft)			0.0				
Total New Area (SQ Ft)	0	0	0	0	0	0	0
Total Widening Area (SQ Ft)	0	0	0	0	0	0	0
Total Retrofit Area (SQ.Ft)	0	0	0	0	0	0	0
Footing Type (pile/spread)							
Cost per Sq. ft of New	\$275	\$200	\$200	\$200	\$200	\$200	\$200
Cost per Sq. ft of Widening	\$300	\$300	\$300	\$300	\$300	\$300	\$300
Cost per Sq. ft of Retrofit	\$25	\$25	\$25	\$25	\$25	\$25	\$25
Including:							
Mobilization: 10%							
Contingency: 25%							
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Retrofit	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost for Structures	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Railroad Related Costs							
TOTAL STRUCTURE ITEMS							\$0

Estimate Prepared By:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

EA:	\$0
PM:	0
	0
	0

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 relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value (3 yrs)
Acquisition (Fee & TCE), including excess lands and damages to remainders	\$5,843,750	5.00%	\$6,764,871
Utility Relocation (State share)	\$2,462,500	5.00%	\$2,850,652
Relocation Assistance	\$0	100.00%	\$0
Clearance / Demolition	\$0	100.00%	\$0
R/W Services - Title and Escrow Fees	\$400,000	5.00%	\$463,050
Easement (Utility Corridor)	\$120,000	5.00%	\$138,915
TOTAL RIGHT OF WAY ITEMS	\$8,826,250		\$10,217,000

Estimate prepared by:	Tim Lee, WMH Corporation	(408) 971-7300	29-Mar-16
	(Print Name)	(Phone)	(Date)

SR 25 WIDENING IMPROVEMENTS

ADOPTED ALIGNMENT (NEW SR 152 TO UPRR)

PRELIMINARY COST ESTIMATE

Distict-County-Route:	04-SCL-152
Type of Estimate:	PSR-PDS
EA:	04-0G2300
PM:	04-SCL-152, PM 9.91/35.16
	10-MER-152, PM 0.00/15.00

Project Description: ROUTE 152 TRADE CORRIDOR PROJECT(US 101 TO SR 99)
SEGMENT A (Portion)

Limits: FROM UPRR (EAST OF 101/25 INTERCHANGE) TO NEW 152/25 INTERCHANGE

Proposed Improvements: NEW ROUTE 152 ALIGNMENT - ALTERNATIVE 1A
CONSTRUCT 6 LANE ACCESS CONTROLLED FACILITY
NEW INTERCHANGES AT ROUTE 25/152, BOLSA ROAD
NEW BRIDGES AT CARNADERO CK, UPRR, PAJARO RVR

Project Length	2.65	Miles
Frontage Road Length	0.13	Miles
Work done in 1 or both directions?	Both	

SUMMARY OF PROJECT COST ESTIMATE

	NOV 2012	Assumed Annual Escalation	JAN 2015
ROADWAY ITEMS	\$43,047,000	3%	\$45,820,000
STRUCTURE ITEMS	\$25,620,000	3%	\$27,270,000
SUBTOTAL CONSTRUCTION	\$68,667,000		
 RIGHT OF WAY & UTILITY RELOCATION	 \$8,500,000	 3%	 \$9,047,000
TOTAL PROJECT COST (NOV 2012)	\$77,167,000		
TOTAL ESCALATED COST (JAN 2015)	\$82,137,000		

Checked by	Tim Lee	(408) 971-7300	12-Feb-15
Project Manager		(Phone)	(Date)

EA:	04-0G2300
Distict-County-Route-PM:	04-SCL-152, PM 9.91/35.16
	10-MER-152, PM 0.00/15.00

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	200,000	CY	\$10.00	\$2,000,000	
Contaminated Soil Disposal	0	CY	\$60.00	\$0	
Imported Borrow	300,000	CY	\$18.00	\$5,400,000	
Clearing & Grubbing	140	Acres	\$6,000	\$840,000	
Develop Water Supply	1	LS	\$50,000	\$50,000	
				Total Earthwork	\$8,290,000

<u>Section 2 - Structural Section</u>					
JPCP	55,000	CY	\$135	\$7,425,000	
HMA	900	Ton	\$80	\$72,000	
Lean Concrete Base	29,000	CY	\$105	\$3,045,000	
Class 3 Aggregate Base	700	CY	\$45	\$31,500	
Class 4 Aggregate Subbase	41,000	CY	\$25	\$1,025,000	
Local Street Improvements	1	LS	\$0	\$0	
				Total Structural Section	\$11,598,500

<u>Section 3 - Drainage</u>					
AC Dike	24,000	LF	\$3	\$72,000	
Downdrain System	1	LS	\$25,000	\$25,000	
Hydro Modification	1	LS	\$350,000	\$350,000	
Culvert System	1	LS	\$2,500	\$2,500	
Floodplain Cross-Culverts	1	LS	\$250,000	\$250,000	
				Total Drainage	\$699,500

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	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls - Standard	0	SF	\$85	\$0	
Retaining Walls - Special	0	SF	\$190	\$0	
Highway Planting (w/3yr PEP)	2	AC	\$100,000	\$200,000	
R/W Fence	24,000	LF	\$8	\$192,000	
Construction Site BMP's	1	LS	\$700,000	\$700,000	
Permanent BMP's	1	LS	\$1,400,000	\$1,400,000	
Concrete Barrier	12,000	LF	\$60	\$720,000	
MBGR	3,600	LF	\$40	\$144,000	

Total Specialty Items	<u>\$3,356,000</u>
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<u>Section 5 - Traffic Items</u>					
Lighting (new & relocate)	1	LS	\$450,000	\$450,000	
Traffic Signals (Incl. Interconnect)	0	LS	\$0	\$0	
Roadside Sign	1	LS	\$45,000	\$45,000	
Overhead Sign	2	EA	\$200,000	\$400,000	
Traffic Control System	1	LS	\$500,000	\$500,000	
Traffic Management Plan	1	LS	\$200,000	\$200,000	
Pavement Delineation	100,000	LF	\$0.50	\$50,000	
Traffic Operating Systems	1	LS	\$500,000	\$500,000	
Total Traffic Items					<u>\$2,145,000</u>

SUBTOTAL SECTIONS 1 - 5:	<u>\$26,089,000</u>
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			<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$26,089,000</u>	X <u>10%</u>	<u>\$2,608,900</u>	
				<u>TOTAL MINOR ITEMS: \$2,609,000</u>
<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 6	<u>\$28,698,000</u>	X <u>10%</u>	<u>\$2,869,800</u>	
				<u>TOTAL ROADWAY MOBILIZATION \$2,870,000</u>
<u>Section 8 - Roadway Additions</u>				
Subtotal Sections 1 - 6	<u>\$28,698,000</u>	X <u>10%</u>	<u>\$2,869,800</u>	
Contingencies				
Subtotal Sections 1 - 6	<u>\$28,698,000</u>	X <u>30%</u>	<u>\$8,609,400</u>	
				<u>TOTAL ROADWAY ADDITIONS \$11,479,000</u>
				<u>TOTAL ROADWAY ITEMS \$43,047,000</u>
				(Total of Sections 1 - 8)

Estimate
Checked By: Tim Lee (408) 971-7300 12-Feb-15
(Print Name) (Phone) (Date)

EA: 04-0G2300
 Distict-County-Route-PM: 04-SCL-152, PM 9.91/35.16
10-MER-152, PM 0.00/15.00

II. STRUCTURES ITEMS	#1	#2	#3	#4	#5
Bridge Name	Carnadero Creek East	Bolsa Rd	UPRR	Pajaro River	SR25 O.C. SR 152
Structure Type					
New Width (Ft)	135.00	80.00	140.00	120.00	29.00
Widening Width (Ft)					
Retrofit Width (Ft)					
Span Lengths (Ft)	180.0	180.0	360.0	235	200
Total New Area (SQ Ft)	24,300	14,400	50,400	28,200	5,800
Total Widening Area (SQ Ft)	0	0	0	0	0
Total Retrofit Area (SQ.Ft)	0	0	0	0	0
Footing Type (pile/spread)					
Cost per Sq. ft of New	\$200	\$200	\$200	\$200	\$200
Cost per Sq. ft of Widening	\$300	\$300	\$300	\$300	\$300
Cost per Sq. ft of Retrofit	\$25	\$25	\$25	\$25	\$25
Including: Mobilization: 10% Contingency: 25%					
Total Cost for Widening	\$4,860,000	\$2,880,000	\$10,080,000	\$5,640,000	\$1,160,000
Total Cost for Widening	\$0	\$0	\$0	\$0	\$0
Total Cost for Retrofit	\$0	\$0	\$0	\$0	\$0
Total Cost for Structures	\$4,860,000	\$2,880,000	\$10,080,000	\$5,640,000	\$1,160,000
Railroad Related Costs			\$1,000,000		

TOTAL STRUCTURE ITEMS **\$25,620,000**

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 (Print Name) (Phone) (Date)

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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	\$2,000,000	100.00%	\$2,000,000
Utility Relocation (State share)	\$500,000	100.00%	\$500,000
Relocation Assistance	\$1,600,000	100.00%	\$1,600,000
Clearance / Demolition		100.00%	\$0
R/W Services - Title and Escrow Fees		100.00%	\$0
Easement (Utility Corridor and TCE)		100.00%	\$0
Environmental Mitigation	\$4,400,000	100.00%	\$4,400,000
TOTAL RIGHT OF WAY ITEMS	\$4,100,000	\$100	\$8,500,000

Estimate Checked by:	Tim Lee	(408) 971-7300	12-Feb-15
	(Print Name)	(Phone)	(Date)