06-Ker-58, PM T31.7/R55.4
06-Ker-99, PM 21.2/23.8
Program Code 20.10.400.200
EA 06-48460
December 2011

PROJECT STUDY REPORT

to

Request for Conceptual Approval for
a Project-Funded-By-Others:
Segment 1 of Centennial Corridor

On Route 58 in Bakersfield

Between Interstate 5

And Cottonwood Road

APPROVAL RECOMMENDED:

Steven Milton, P.E. – *Project Manager*

APPROVED:

Sharri Bender Ehlert – *Interim District 6 Director* *Date* 1/4/2012

06-Ker-58, PM T31.7/R55.4
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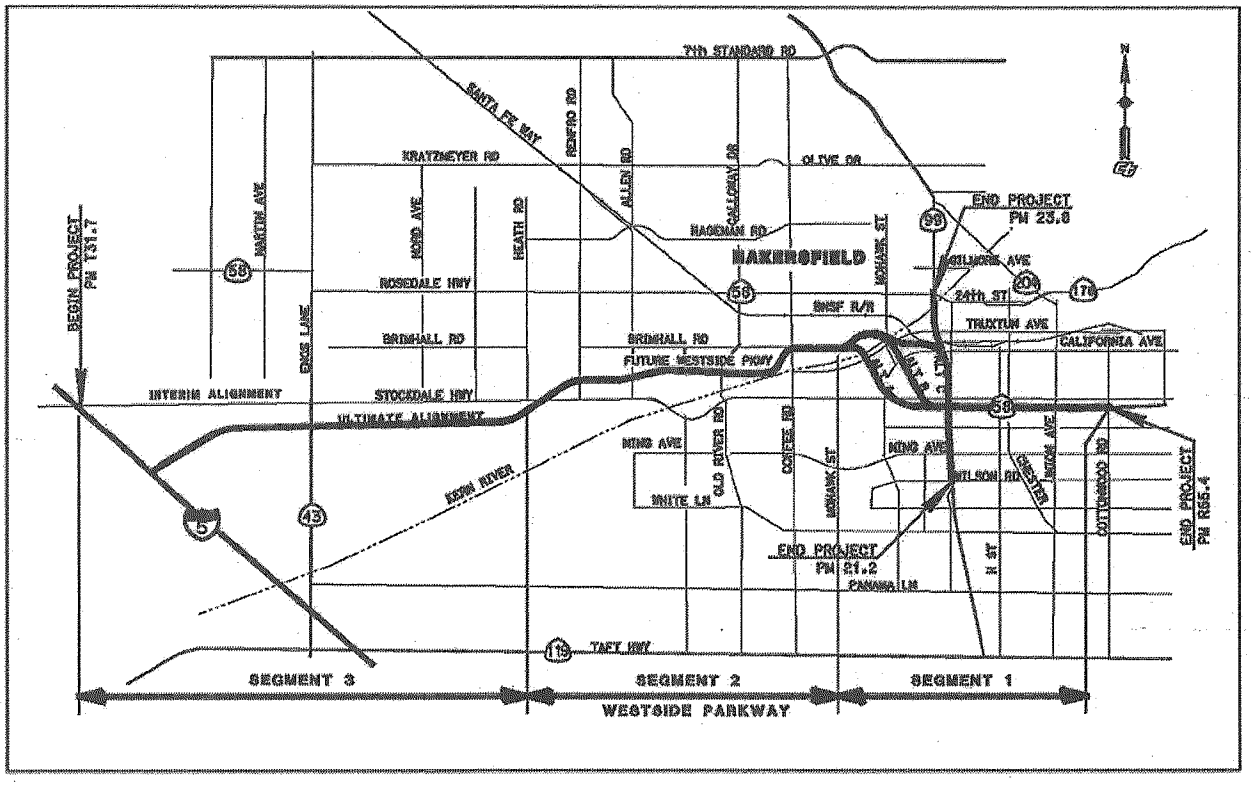
VICINITY MAP



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

REGISTERED CIVIL ENGINEER

12/16/11
Date

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1. INTRODUCTION

The California Department of Transportation (Caltrans), in cooperation with the City of Bakersfield and the County of Kern, proposes to provide a continuous route along State Route (SR) 58 from Interstate 5 (I-5) to Cottonwood Road on existing SR 58, east of SR 99. The proposed continuous route has been divided into three distinct segments. Together, these three segments make up the project, locally described as the Centennial Corridor (hereafter called the "Project" or the "Centennial Corridor"). Segment 1 is the furthest eastern segment that would connect the Westside Parkway (Segment 2) to the existing SR 58 (East) freeway. Segment 2 is composed of what is locally known as the Westside Parkway (WSP) and extends from Heath Road to Mohawk Street. Segment 3 extends from I-5 to Heath Road. The Project's segments are shown on Figure 1 and in Attachment A.

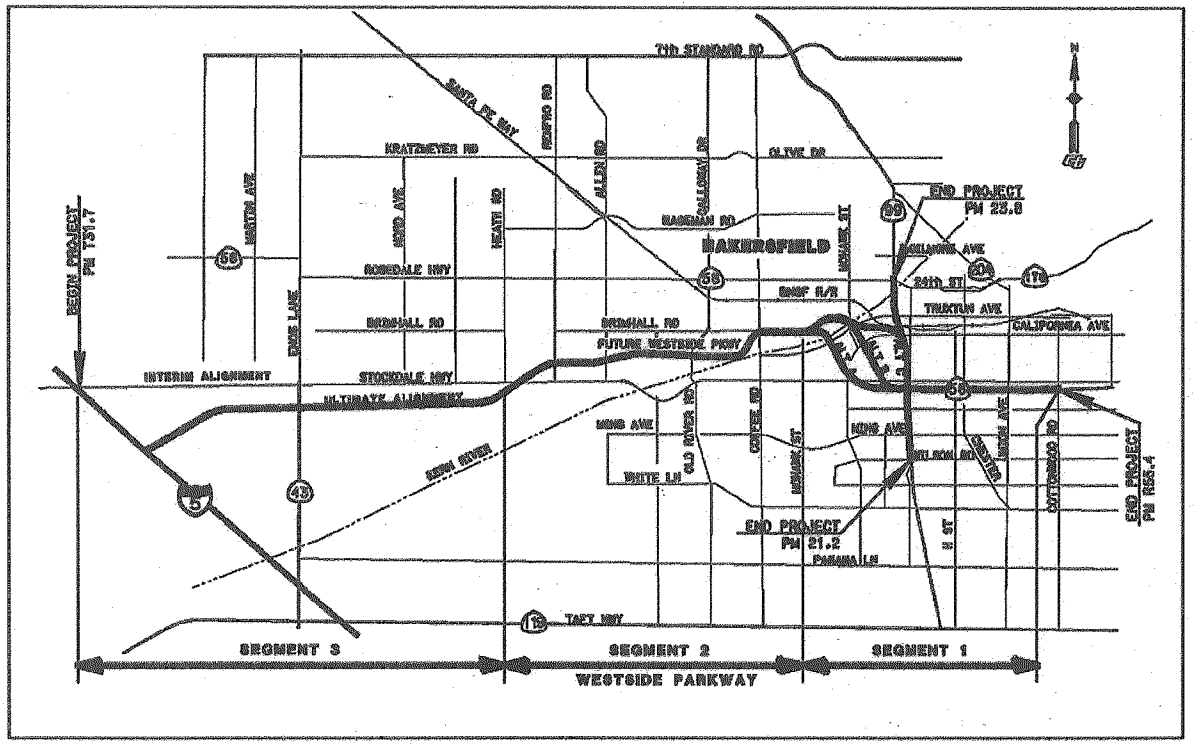


Figure 1 – Segments of the Centennial Corridor

Segment 1

Segment 1, as shown in Figure 2, extends from the eastern terminus of Segment 2 near Mohawk Street to the existing SR 58 (East) freeway near Cottonwood Road. It is the only segment for which construction alternatives are being considered: three build alternatives, the Transportation Systems Management (TSM)/Transit Alternative, and the No Build Alternative. Segment 1 is proposed to be developed as a highway project under the assumption that WSP and a portion of Stockdale Highway will be successfully adopted as SR 58 and transferred into the State Highway System following the

procedures for transfer of highway location described in Chapter 23 of the *Project Development Procedures Manual* (PDPM).

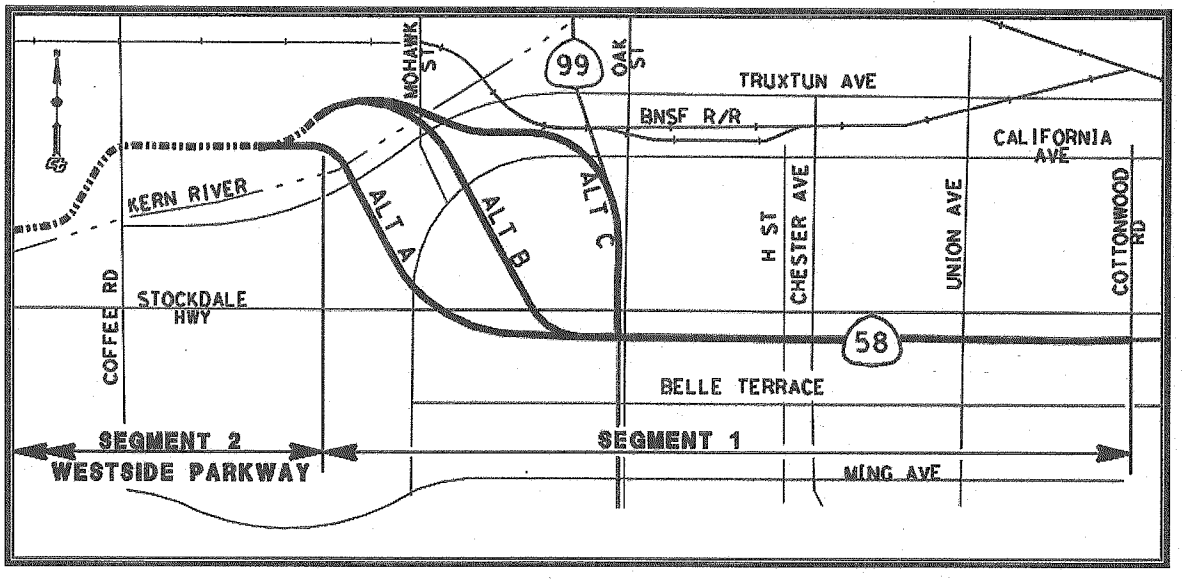


Figure 2 – Segment 1 of Centennial Corridor

- *Alternative A* is the westernmost alignment and would connect the eastern terminus of Segment 2 to the existing SR 58 (East) freeway.
- *Alternative B* is aligned to the west of SR 99 and would connect the eastern terminus of Segment 2 to the existing SR 58 (East) freeway.
- *Alternative C* is aligned parallel to SR 99 and would connect the eastern terminus of Segment 2 to the existing SR 58 (East) freeway.
- *Alternative M* is the TSM/Transit Alternative that would use mass transit systems and would improve the local street network system.

The preferred alternative for Segment 1 will be identified after completion of the public review period of the draft environmental document.

Segment 2

Segment 2, as shown on Figure 3, incorporates a local freeway (the WSP) that is currently under construction, with completion expected in late 2012. Conceptual approval is not being sought for Segment 2 because as part of the Project, it is anticipated that the WSP would be successfully adopted as SR 58 and transferred into the State Highway System following the procedures for transfer of highway location described in Chapter 23 of the PDPM after the project approval and environmental document (PA&ED) phase. This local, access-controlled, multilane freeway extends from its western terminus near the intersection of Stockdale Highway and Heath Road to its eastern terminus near Mohawk Street, Truxtun Avenue, and the Kern River. The environmental impacts associated with this local project have been addressed in the *Westside Parkway Environmental Assessment / Final Environmental Impact Report*

approved in January 2007. The environmental document for this project would evaluate the impacts to the WSP resulting from the change in use from a local facility to a state highway and its connection to I-5, SR 58, and SR 99.

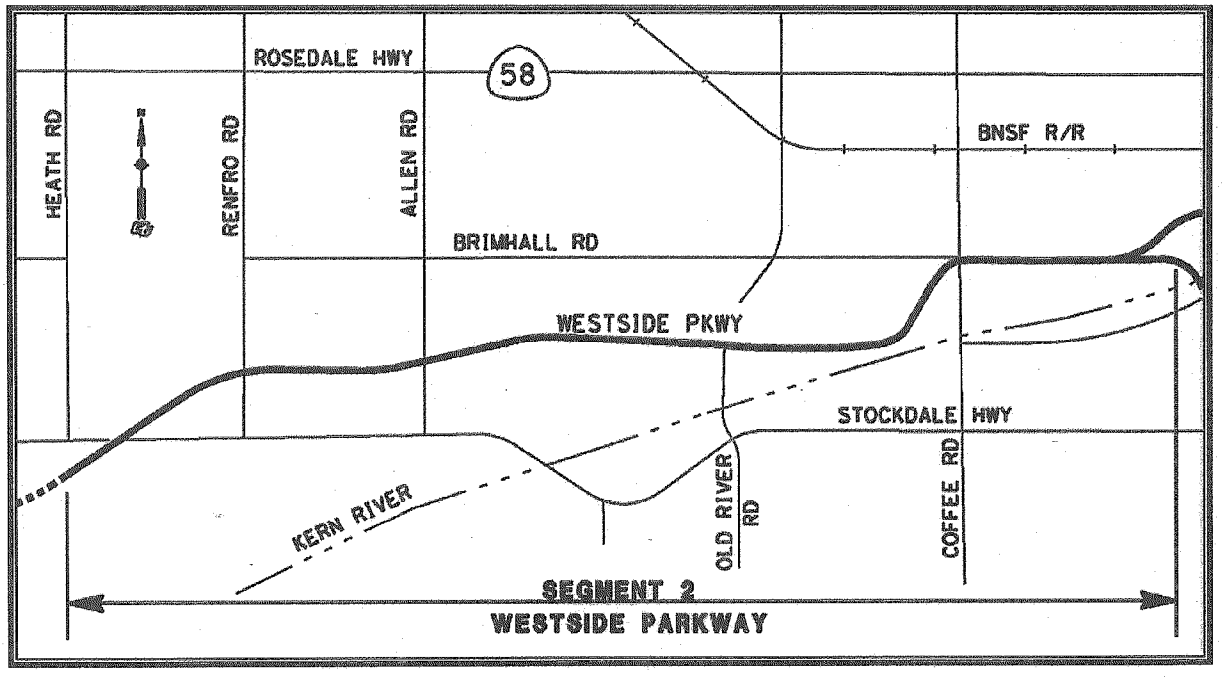


Figure 3 – Segment 2 of Centennial Corridor

Segment 3

Segment 3, as shown on Figure 4, extends from I-5, approximately 2 miles south of the existing Stockdale Highway / I-5 interchange, to the intersection of Heath Road and Stockdale Highway. Because Segment 3 is a future phase, the Project proposes an interim connection to I-5 via Stockdale Highway from the end of Segment 2 near Heath Road. As part of this project, Stockdale Highway within the limits of Segment 3 would be transferred into the State Highway System after the PA&ED phase for this project, following the procedures for transfer of highway location described in Chapter 23 of the PDPM. For planning and coordination with the *Metropolitan Bakersfield General Plan*, the Project proposes to adopt Stockdale Highway as the interim SR 58. Necessary improvements needed to transfer Stockdale Highway into the state system will be identified during the PA&ED phase for this project. In addition, the Project proposes to adopt the ultimate alignment in order to provide right-of-way protection; implementation of the ultimate alignment will be a future project. Environmental impacts for Segment 3 have been addressed in the *Route 58 Route Adoption: A Tier 1 Final Environmental Impact Statement / Environmental Impact Report* approved in 2001. An environmental revalidation of the Tier 1 document would be included in the environmental document for this project. Construction of the Segment 3 ultimate alignment is more than 20 years out. Conceptual approval from the Federal Highway Administration (FHWA) for the ultimate connection to I-5 will be sought in the future because FHWA conceptual approval is only valid for eight years.

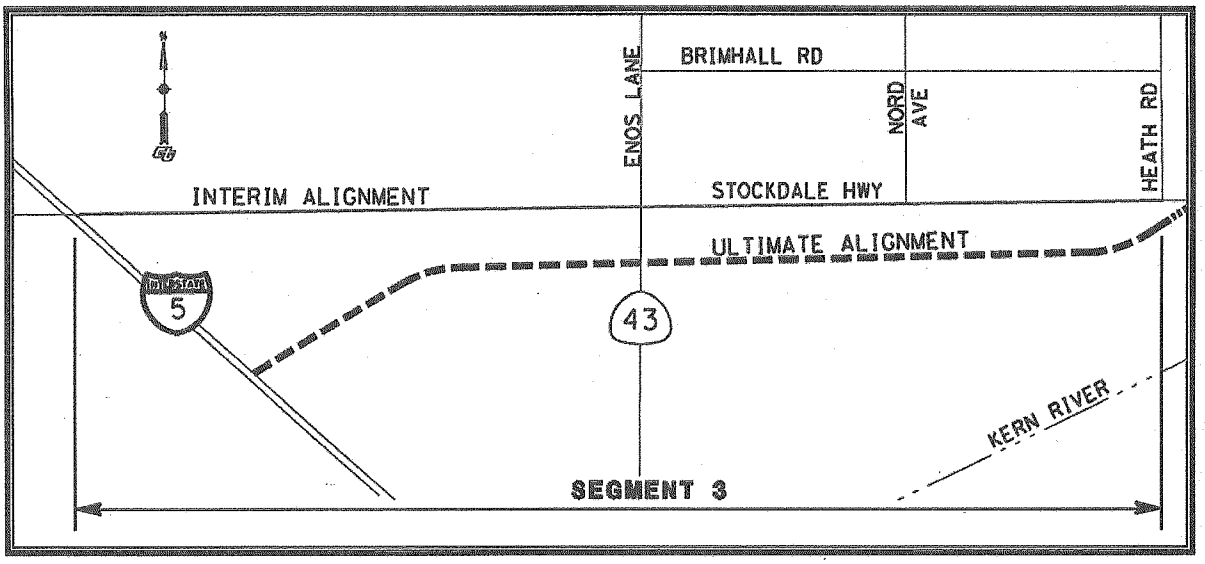


Figure 4 – Segment 3 of Centennial Corridor

The Table 1 provides key information about the proposed project:

TABLE 1 – PROJECT INFORMATION (for Segment 1)	
Project category	1
Project limits	06-Ker-58, PM T31.7/R55.4 06-Ker-99, PM 21.2/23.8
Applicant	City of Bakersfield
Funding Source	Federal, State and Local Funds
Range of proposed capital construction cost for all alternatives (includes right of way)	$252 million to $633 million
Number of build alternatives	Four: Alternatives A, B, C, M
Type of facility	Freeway
Anticipated environmental determination/document	Environmental impact report / environmental impact statement
Legal description	I-5 to existing SR 58 east of SR 58/Cottonwood Road– Construct new freeway and/or operational improvements.

2. BACKGROUND

The metropolitan Bakersfield area has experienced significant growth in the last few decades. Along with population growth, the region's role as a hub for goods movement and interregional travel has resulted in increased demand. Greater congestion of the area's transportation system is expected if no improvements are made.

The need for an east-west transportation corridor through Bakersfield has been recognized and studied by local agencies, Caltrans, and the FHWA. Early planning efforts were at the local and regional levels. In 1973, the Kern Council of Governments (Kern COG) prepared the *1990 Transportation Plan and Program*, and later Kern County in the *Rosedale General Plan* identified the "Westside Freeway" as a major circulation element.

In the 1980s, planning efforts continued for this transportation corridor, including the following studies and plans:

- *Analysis of the Westside Highway / State Highway 99 Interchange* (Kern COG, 1982).
- *Kern COG 1984 Regional Transportation Plan*, in which Caltrans was requested to conduct a special study of SR 58.
- *Preliminary Route Adoption Analysis for Route 58 from Interstate 5 to Route 99*, as requested by the California Transportation Commission (CTC), was completed in 1985. This study did not identify a preferred alternative or recommend a route adoption.
- *Final Environmental Impact Report for Proposed General Plan Amendment to the Circulation Element of the Kern County and Rosedale General Plans (Westside Thoroughfare)* (Kern County, 1986).
- *Metropolitan Bakersfield 2010 General Plan* (Kern County, 1987).
- *Westside Corridor Study* (Caltrans and Kern COG, 1988).

Scoping for the route adoption of this corridor began when a Tier 1 environmental impact statement (EIS) / environmental impact report (EIR) began in 1992.[1] Caltrans, as the California Environmental Quality Act (CEQA) lead agency, and the FHWA, as the National Environmental Policy Act (NEPA) lead agency, approved the environmental document in 2001, known as *Final Route 58 Route Adoption Project: A Tier 1 Environmental Impact Statement / Environmental Impact Report*. This document evaluated two corridor alignments and a no build alternative. The build alternatives extended from I-5 to SR 99. One alternative was aligned along the Kern River, and the other was aligned along the Cross Valley Canal. The environmental document selected the Cross Valley Canal alignment as the preferred alternative.

A multijurisdictional planning effort was undertaken in 1995 to identify a total transportation system. The study involved the Golden Empire Transit District, City of Bakersfield, Kern County, Kern COG, and the San Joaquin Valley Unified Air Pollution

[1] A Tier 1 environmental document is prepared for route adoption. The project analysis is at a broader level of detail and based on limited engineering concepts. This level of documentation allows preservation and acquisition of right-of-way. A Tier 1 document is appropriate when construction of the project is not anticipated in the near future. A Tier 2 document evaluates the potential impacts at a level of detail that would allow construction of the project and is prepared with the development of preliminary engineering plans. When a Tier 1 document is prepared, subsequent Tier 2 analysis is required before moving forward with project construction.

Control District. The study, titled the *Metropolitan Bakersfield Transportation Investment Strategy*, served as a major investment study, pursuant to the Intermodal Surface Transportation Efficiency Act (ISTEA). The major investment study, completed in 1999, evaluated provisions for highway and transit projects for the metropolitan Bakersfield area. The strategy identified a freeway on the Kern River alignment from SR 99 to Renfro Road as a fundable project (see Figure 1). However, due to financial constraints, the CTC was forced to withdraw some of the funding for right-of-way acquisition as part of the 1996 State Transportation Improvement Program (STIP).

In July 2000, the Bakersfield System Study was jointly commissioned by the Kern COG, the City of Bakersfield, the County of Kern, and Caltrans to evaluate the regional roadway network. This study was a planning-level document that theorized a wide array of potential transportation solutions to address the mobility issues in metropolitan Bakersfield. More than 20 different combinations of improvements were studied, and "Alternative 15" was selected as the preferred alternative in July 2001.

Due to the high cost of acquiring right-of-way and the negative impacts to developed areas in the City of Bakersfield, no agreeable alternative for connection to SR 99 was established. On April 4, 2002, the California Transportation Commission authorized replacing the project with the WSP project, a local route between Mohawk Street and Heath Road. The WSP is a portion of the Tier 1 alignment, meeting the Tier 1 purpose and need of improving east-west circulation in west Bakersfield. Construction of the local roadway project started in April 2009 and is scheduled to finish in late 2012.

The Centennial Corridor, North Beltway, West Beltway, and South Beltway are planned freeways and expressways that make up the Bakersfield Beltway System. The North Beltway will provide another east-west freeway in the northern region of Bakersfield. The West Beltway is a currently deferred project that will provide a north-south freeway on the western portion of Bakersfield. The South Beltway is planned to extend from SR 178, south across SR 58, around the southeastern portion of Bakersfield, and west to I-5, south of Taft Highway. The Centennial Corridor initially serves the same purpose and need as the South Beltway but at a lower cost. Therefore, in the current planning horizon, the Centennial Corridor replaces the need for the South Beltway project.

In 2005, the Centennial Corridor project was earmarked for federal funds in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) under Section 1301 – Projects of National and Regional Significance and Section 1302 – National Corridor Infrastructure Improvement Program. Section 1301 funds previously considered for the West Beltway are also planned to be applied to the Centennial Corridor project. Additionally, the Centennial Corridor project has secured funding from the City of Bakersfield, the County of Kern, and other state and federal sources. The availability of federal funding for the project offered an opportunity to achieve regional connectivity that had not previously existed.

The above background leads to this *Project Study Report* (PSR), which scopes the Project for conceptual approval for Segment 1 of the Centennial Corridor.

3. NEED AND PURPOSE

The purpose of this project is to construct and ultimately adopt an alignment for SR 58 that will meet the following criteria:

- Provide interregional and regional connectivity for east-west traffic traveling within metropolitan Bakersfield and Kern County
- Provide continuity for SR 58 in Kern County
- Promote economic growth and international/interregional trade by improving linkages between existing segments of the interstate system
- Reduce commercial and regional commute time through a major freight corridor
- Improve local east-west circulation and reduce congestion to accommodate existing and planned land uses in accordance with adopted growth projections
- Improve operations and reduce congestion on the shared portion of SR 58 and SR 99

SR 58 is a high-volume, east-west, interregional route in Bakersfield and is critical to the economic vitality of the region and the state. It provides significant goods and freight movement connections between I-5 and SR 99 in the Central Valley. SR 58 also links to other important goods movement corridors nationwide such as SR 14, Interstate 15 (I-15), Interstate 40 (I-40) and United States 395 (US 395).

Within the project area, SR 58 lacks continuity. The route is offset at two locations within the project study area: approximately 1 mile at SR 43 and approximately 2 miles at SR 99. Because SR 99 is a major state highway in the Central Valley and is the only north-south freeway in Bakersfield, it carries large volumes of traffic. Regional and interregional traffic using SR 58 contributes to the already considerable volumes of traffic on SR 99 along the segment shared by these two highways.

Metropolitan Bakersfield is rapidly growing. In the area east of SR 99, three highways (SR 204, SR 178, and SR 58) provide a well-developed freeway system to handle large volumes of local traffic movement. There are no freeways in the metropolitan area west of SR 99 to support growth. The stop- and signal-controlled local highways and streets west of SR 99 add to commute times and provide lower levels of service (LOS), indicating the need for a freeway in this area. The proposed project would provide the additional capacity to accommodate this growth by means of a multilane freeway.

The metropolitan Bakersfield area is also bifurcated by the Kern River. This natural waterway creates a barrier to traffic movement because there are few routes (such as Olive Drive, Stockdale Highway, and 24th Street) that span the river and carry east-west traffic. This results in additional traffic on the routes that cross the river. SR 99 also attracts local north-south movements because it provides a convenient river crossing. The project would provide a high-speed, east-west connection and help reduce congestion on routes crossing the Kern River.

This project would also reduce congestion on SR 99 between SR 58 (East) and the Rosedale Highway interchange (SR 58 West]). The Centennial Corridor would improve east-west connectivity and local circulation. Regional and commercial commute times would be reduced because vehicles would not need to use stop- and signal-controlled arterials such as Rosedale Highway or Stockdale Highway for east-west connectivity.

Without an adequate transportation corridor, future development in the metropolitan Bakersfield area could result in additional right-of-way acquisition costs, unnecessary environmental impacts, and unnecessary relocations of residents and businesses.

4. DEFICIENCIES

4.1 CURRENT FACILITY

SR 99 and SR 58 are affected by this project.

SR 99 is a north-south state freeway that is heavily used by trucks because it is a major route for goods movement. Within Bakersfield, it is an eight-lane, access controlled freeway that connects the north and south parts of Bakersfield and facilitates goods movement in and out of the Central Valley.

SR 58 is an east-west facility that begins at its junction with SR 101 near Santa Margarita in San Luis Obispo County, traverses Kern County, and terminates at I-15 near Barstow, in San Bernardino County. SR 58 is the most significant east-west interregional route between I-5 and eastern Bakersfield. It is heavily traveled by commercial trucks, local delivery trucks, and commuters because of its direct access to many commercial and industrial communities.

Starting at I-5, SR 58 is currently a conventional highway, locally identified as Rosedale Highway. Between I-5 and Allen Road, the corridor is a two-lane facility surrounded by agricultural land with some recently developed residential areas. From Allen Road to the northern SR 58 / SR 99 interchange, SR 58 is a four-lane, divided conventional highway, surrounded by a significant amount of residential, commercial, and industrial development. SR 58 continues south as a shared route with SR 99 for about 2 miles until it reaches the southern SR 99 / SR 58 interchange. Between the two SR 58 interchanges, SR 99 is an eight-lane, access-controlled freeway. East of SR 99, SR 58 is a four-lane, access-controlled freeway that continues through the metropolitan Bakersfield area toward Tehachapi (see Figure 5).

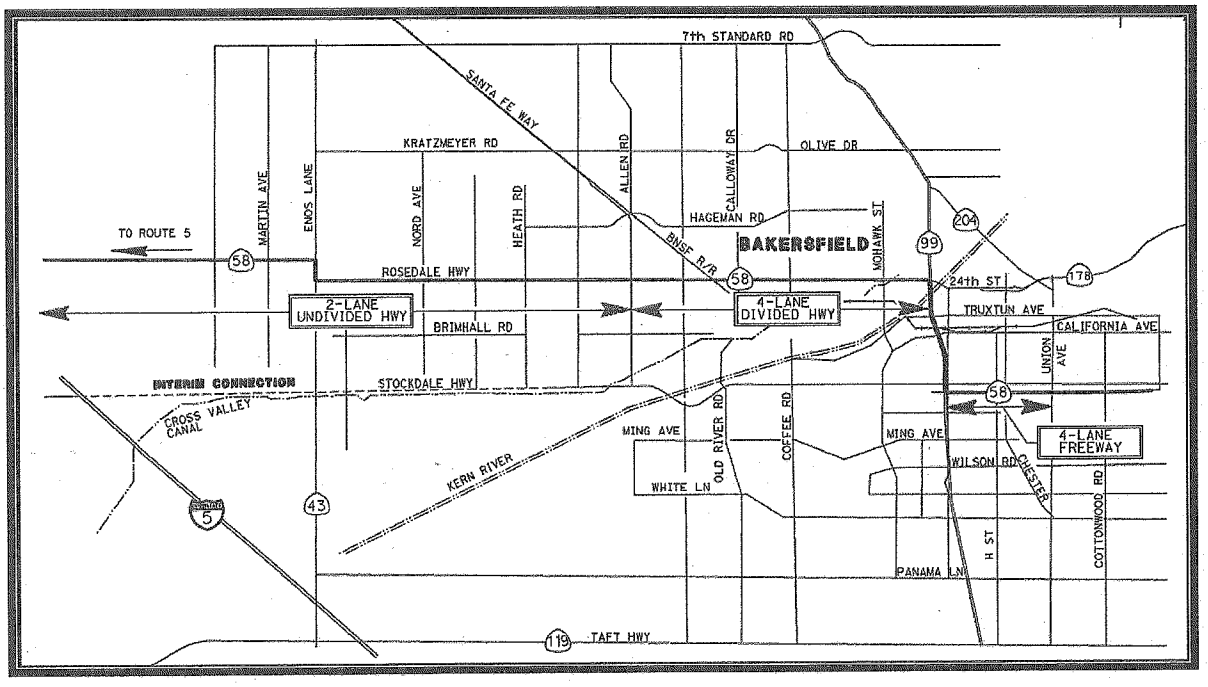


Figure 5 – Existing State Route 58

4.2 EXISTING TRAFFIC

Table 2 shows the existing daily volumes on SR 99 and SR 58 within the study area. The existing volume data comes from the 2007 traffic volumes on the California State Highway System. The volumes were converted from vehicles to equivalent passenger cars based on the daily truck percentages reported in the 2007 annual average daily truck traffic on the California State Highway System, which are 15 percent for SR 58 and vary from 21 percent to 30 percent for SR 99.

Based on segment analysis, all freeway study segments have LOS D or better on SR 99 and SR 58. Field observations of the peak hour are consistent with the conditions reported in Table 2. However, during field observations, lane utilizations of some segments were operating below LOS D. The ramp-diverge areas at the southbound (SB) and northbound (NB) SR 99 connectors to eastbound (EB) SR 58 have lower-than-free-flowing speeds during the peak 15 minutes of the morning and afternoon peak hours. During the peak 15 minutes of the morning peak period, traffic queues back up onto the mainline at the NB SR 99 off-ramps to California Avenue and Rosedale Highway, but the mainline through-traffic in the left three lanes is not affected. For the afternoon peak hour, traffic on the SB SR 99 off-ramp to White Lane queues into the auxiliary lane, and average speed is less than free flowing at the diverge area for the SB SR 99 connector to EB SR 58 and for the EB SR 58 mainline from SR 99 to H Street.

TABLE 2 – FREEWAY SEGMENT EVALUATION FOR EXISTING CONDITIONS						
Freeway	**Segment**		**Lanes**	**ADT**	**DHV**	**LOS**
SR 58	SR 99 to H Street	EB	2	79,000	3,553	D
		WB	2		3,291	C
	H Street to Union Avenue	EB	2	80,000	3,618	D
		WB	2		3,218	C
	Union Avenue to Cottonwood Road	EB	2	81,000	3,469	D
		WB	2		3,168	C
SR 99	White Lane to Ming Avenue	SB	3	116,000	4,928	C
		NB	3		5,608	D
	Ming Avenue to SR 58	SB	4	133,000	6,027	C
		NB	4		6,576	C
	SR 58 to California Avenue	SB	4	148,000	6,518	C
		NB	4		6,386	C
	California Avenue to Rosedale Hwy	SB	4	148,000	6,700	C
		NB	4		5,939	C
	Rosedale Hwy to Airport Drive	SB	4	116,000	4,875	C
		NB	4		3,693	B

Notes: Average daily traffic (ADT) volume is reported in vehicles per day (vpd). Design hourly volume (DHV) is reported for the highest peak hour volume in the peak direction in equivalent passenger cars per hour per lane (pcphpl).

Source: Fehr & Peers, 2009

4.3 ACCIDENT ANALYSIS

Tables 3A and 3B summarize the traffic accident data (from April 2007 to March 2010) compiled by the Caltrans Traffic Accident Surveillance and Analysis System (TASAS) for SR 58 and SR 99, respectively.

TABLE 3A – ACCIDENT HISTORY FOR SR 58								
Location (study area)	Total Accidents	Total Fatalities	Actual Accident Rate[1]			Average Accident Rate[1]		
			Fatal	F+I	Total	Fatal	F+I	Total
SR 58 (PM T52.13 to PM R55.40)	373	2	0.008	**0.41**	**1.46**	0.010	0.28	0.86

Notes: Bold and underline font indicates actual accident rates that are greater than the statewide average for similar facilities.
1. The accident rate is accidents per million vehicle-miles. The fatal, fatal plus injury, and total accident rates are listed.

Source: Caltrans District 6, 2011

On SR 58 between Real Road and Cottonwood Road, there were 373 accidents (two involving fatalities). This segment of the freeway has higher than average total accident rates compared to similar California freeways. Approximately 64% of the accidents were in the WB direction, with a higher percentage of the accidents between 3 p.m. and 5 p.m. The peak accident day of the week was Thursday, with 18%. The three highest collision types were rear end (57%), hit object (20%), and sideswipe (13%). Speeding (60%) was the highest primary collision factor, followed by improper turn (15%) and other violations (14%).

TABLE 3B – ACCIDENT HISTORY FOR SR 99								
Location (Study Area)	Total Accidents	Total Fatalities	Actual Accident Rate[1]			Average Accident Rate[1]		
			Fatal	F+I	Total	Fatal	F+I	Total
SR 99 (PM 22.10 to PM 24.60)	533	3	0.008	**0.41**	**1.50**	0.011	0.33	1.07

Notes: Bold and underline font indicates actual accident rates that are greater than the statewide average for similar facilities.
1. The accident rate is accidents per million vehicle-miles. The fatal, fatal plus injury, and total accident rates are listed.

Source: Caltrans District 6, 2011

On SR 99 between Wilson Road and California Avenue, there were 533 accidents (three involving fatalities). This segment of SR 99 has higher than average total accident rates when compared to similar California freeways. There were more SB collisions (53%), than NB (47%). Approximately 43% of accidents occurred between 3 p.m. and 5 p.m. The day of the week that had the most accidents was Friday, with 22%. The three highest collision types were rear end (60%), sideswipe (19%), and hit object (15%). Speeding (57%) was the highest primary collision factor, followed by other violations (25%) and improper turn (10%).

5. CORRIDOR AND SYSTEM COORDINATION

Transportation Concept Reports/Route Concept Reports

The proposed Centennial Corridor project complements the District 6 *SR 58 Transportation Concept Report* (TCR) approved in December 2004. District 6 Planning is in the process of updating the TCR. The current TCR forecast that by year 2030, SR 58 would operate at LOS F in the urban areas due to regional and interregional travel growth if no improvements are made. This route would require more capacity and operational improvements to accommodate projected growth. The ultimate transportation corridor for SR 58, within the project limits, would be a four- to eight-lane freeway.

District System Management Plan

Per the December 2004 SR 58 TCR, the 1992 District System Management Plan (DSMP) addresses pertinent transportation issues on SR 58. Specific DSMP issues include the following:

1. Financing of transportation improvements
2. Environmental impacts of transportation activities
3. Goods movement
4. Lack of adequate east-west travel corridors
5. Incorporating advanced technologies in implementation of strategies

The Centennial Corridor proposed improvements are consistent with the DSMP for SR-58.

Regional Transportation Plans

Segment 1 of the Centennial Corridor Project is included in the 2011 regional transportation plan (RTP), and the 2011 regional/federal transportation improvement plan (RTIP/FTIP) developed by the Kern COG. The Centennial Corridor Project is also a candidate for the STIP.

The Kern COG, FHWA, the City of Bakersfield, the County of Kern, and Caltrans are collectively addressing the congestion and transportation deficiencies through several transportation improvement projects in and around Bakersfield. Interim improvements to SR 58 include the widening of Rosedale Highway between Allen Road and SR 99 from four to six lanes. The ultimate solution includes connectivity of SR 99 with WSP; adopting WSP, which is currently under construction, as the new SR 58; and providing connectivity to I-5. The Centennial Corridor will require route adoption, route transfer, modified and new freeway agreements for the new alignment on SR 58, and a temporary connection to I-5. It would be proposed that the CTC relinquish to the City of Bakersfield and the County of Kern the redundant portions of SR 58 within the respective agency limits upon the execution of the agreement. The relinquished portion

of SR 58 would cease to be a state highway or a part of the National Highway System (NHS). Along with the route transfer of SR 58, the designated NHS route would also need to be transferred onto the new alignment.

Coordination with FHWA would be required for the development of the ultimate connection of the Centennial Corridor to I-5. FHWA approval would be sought on the proposed interchange location for the ultimate connection at I-5.

Congestion Management Program

SR 58 is identified as a focus route in the Kern County congestion management program (CMP). Congestion relief projects for SR 58 are included in the RTP.

State Implementation Plan

The Centennial Corridor is listed in Kern COG FY 2009 FTIP and 2007 RTP which is required by the Environmental Protection Agency's (EPA) Transportation Conformity Rule, 40 CFR Parts 51 and 93, and the FHWA/FTA Metropolitan Planning Regulations, 23 CFR Part 450. Approval of amendments that included this project in the FTIP and RTP was coordinated with EPA Region 9 in accordance with the procedures outlined in the National Memorandum of Understanding between the U.S. Department of Transportation (DOT) and EPA on Transportation Conformity, dated April 25, 2000. Therefore, Kern COG's 2009 FTIP through Amendment No. 2 and 2007 RTP through Amendment No. 1 conform to the state implementation plan (SIP).

Bicycle Routes

Bicycle routes along SR 58 currently extend from the San Luis Obispo County line to its junction with SR 99 in Bakersfield. With exception of the freeway portion from the junction of SR 58 / SR 99 to the junction of SR 58 / SR 223, all segments of the route are open to bicycle travel. Existing alternative bicycle routes are available from the junctions of SR 58 / SR 99 and SR 58 / SR 223.

Interregional Transportation Strategic Plan

The Interregional Transportation Strategic Plan (ITSP) was developed by Caltrans to consolidate and communicate key elements of its ongoing long- and short-range planning for the state highway, interregional road system, and intercity rail system. It serves as a counterpart to the RTPs. The ITSP identifies the interregional mobility goal for SR 58 as a high-capacity, high level of service, east-west facility that provides significant goods and freight movement connections between I-5 and SR 99 in the Central Valley. It connects to other regions in Central and Northern California via SR 99 and I-5, to the Eastern Sierra region and the US 395 Gateway via SR 14 and US 395, to urban Southern California via SR 14 and I-15, and with Nevada, Arizona, and the southern United States via I-15 and I-40. The Centennial Corridor proposed improvements are consistent with the interregional mobility goal for SR 58.

Goods Movement Action Plan

The Goods Movement Action Plan is intended to improve and expand California's goods movement industry and infrastructure in a manner that will:

- Generate jobs;
- Increase mobility and relieve traffic congestion;
- Improve air quality and protect public health;
- Enhance public and port safety; and
- Improve California's quality of life.

The Centennial Corridor proposed improvements are consistent with the intentions of the goods movement action plan for SR 58.

Roadway Network: To address concerns of increasing traffic congestion and future population growth, the City of Bakersfield and the County of Kern have identified additional regional roadway improvement projects needed to keep pace with current and future planned growth. The following major roadway improvements would directly affect travel patterns on SR 58 in the project study area:

- **Westside Parkway**: The project consists of a new east-west six- to eight-lane freeway from Truxtun Avenue to Heath Road. Interchanges are proposed at Mohawk Street, Coffee Road, Calloway Drive, and Allen Road. WSP is a part of this project and is described in further detail in Section 6.2 of this report. This project began construction in April 2009, and the expected completion date is late 2012.
- **North Beltway / Seventh Standard Road Widening**: The project consists of widening Seventh Standard Road to four lanes from Santa Fe Way to Coffee Road, constructing a grade separation at the Burlington Northern Santa Fe (BNSF) Railroad, and new bridges over three canals. Construction began in June 2009. The project was completed in 2011.
- **SR 58 / Rosedale Highway Widening (EA 06-0F360)**: The project consists of widening a 5.5-mile segment of SR 58 from Allen Road to SR 99 by constructing two additional lanes (one in each direction) and a grade separation at the San Joaquin Valley Railroad crossing. The project is undergoing conceptual engineering, which will be followed by environmental clearance by late 2012. The projected construction start date for the widening of SR 58 is in early 2014. The projected construction start date for the grade separation is in 2025.
- **24th Street Improvement Project (EA 06-48470)**: The project consists of improvements to the Oak Street / 24th Street intersection and widening of 24th and 23rd Street from SR 99 to east of M Street. Currently, the project is in environmental clearance. The projected construction start is in 2013.
- **SR 99 / Ming Avenue Auxiliary Lane Project (EA 06-46011)**: This project consists of constructing an NB auxiliary lane between the Ming Avenue on-ramp and the NB SR 99 to EB SR 58 connector ramp. This project is in the project initiation phase.

- **SR 99 / California Avenue Auxiliary Lane Project (EA 06-46012)**: This project consists of constructing an SB auxiliary lane between the California Avenue on-ramp and the SB SR 99 to EB SR 58 connector ramp. This project is in the PID phase.
- **SR 99 / SB California Avenue On-Ramp Improvements (EA 06-0L390)**: This project consists of relocating the right turn lane of the California Avenue on-ramp to SB SR 99. This project is in the PA&ED phase.

6. PROJECT ALTERNATIVES

6.1 SEGMENT 1 – SR 58 (EAST) TO THE WESTSIDE PARKWAY

Segment 1 includes three build alternatives, TSM/Transit Alternative, and a No Build Alternative. The three build alternatives (Alternatives A, B, and C) propose new alignments that connect to the east end of the WSP and extend to existing SR 58 (East). Alternatives A and B would be west of SR 99, and Alternative C would parallel SR 99. The TSM/Transit Alternative (Alternative M) proposes grade separation improvements along Rosedale Highway, auxiliary lanes on SR 99, several traffic operational improvements, intersection improvements, and increased transit service.

Under Alternative A, the eastern end of the WSP mainline (starting at 0.5 mile east of the Coffee Road interchange) is realigned to conform to the Alternative A alignment, and ramp connections are provided to the Mohawk Street interchange. Under Alternatives B and C, the alignments connect to the mainline lanes constructed as a part of the WSP project.

Alternatives A, B and C also propose to improve Rosedale Highway and Mohawk Street to service regional traffic travelling from SB SR 99 to WB SR 58 and from EB SR 58 to NB SR 99. The project will add an auxiliary lane, a two-lane exit to the SB SR 99 Rosedale Highway off-ramp and dual right turn lanes to accommodate the forecast SB SR 99 to WB SR 58 traffic. In addition, triple left turn lanes will be provided for the WB to SB movement at the intersection of Rosedale Highway and Mohawk Street as part of another project called the Rosedale Highway widening project.

The cut slopes would be a standard 2 (horizontal) to 1 (vertical), and fill slopes would be a standard 4 (horizontal) to 1 (vertical), where possible. Retaining walls would be proposed in areas requiring steeper slopes, where right of way acquisition would be an issue at locations identified through the environmental process. Sound walls would be proposed in residential areas at locations identified through the environmental process to reduce the noise from the freeway. Adequate drainage facilities would be designed and studied as further information is obtained on the existing topography and the existing drainage system in the City of Bakersfield.

Typical sections and layout sheets for alternatives A, B, and C are included in Attachment B. Descriptions of the proposed alternatives are provided in the following discussion.

No Build Alternative

The No Build Alternative proposes not to construct any improvements. The WSP would be constructed as a local freeway facility but would not connect to SR 58, SR 99, or I-5. SR 58 (West) / Rosedale Highway would continue to end at SR 99, where it jogs to the south approximately 2 miles to tie into the SR 58 (East) freeway. Under this alternative, both existing and future traffic levels would exceed freeway capacity during peak hours. Commuters would have to use stop-controlled and signalized local streets to get to their destinations, resulting in greater congestion and increased travel time. Due to inadequate east-west corridors, west Bakersfield would continue to have poor circulation. There would be inadequate regional mobility, insufficient interregional connectivity, and poor downtown access.

The No Build Alternative as well as the three build alternatives and the TSM/Transit Alternative are evaluated according to the proposed number of mainline lanes and forecasted year 2037 traffic volumes. A planning-level approach was used for the this traffic analysis. The volumes are converted to passenger cars per hour using the daily heavy vehicle (truck) percentages, as discussed previously.

Table 4 shows the design year (2037) evaluation of freeway segments under the No Build Alternative. Two segments on SR 99 and all segments on SR 58 would have LOS E or worse. Without a direct connection to the other freeways, the WSP segments would have lower demand volumes, all of which would be lower than the design volume.

TABLE 4 – 2037 FREEWAY SEGMENT EVALUATION FOR THE NO BUILD ALTERNATIVE

Freeway	Segment	Direction	Lanes	ADT	DHV	LOS
WSP	Allen Road to Calloway Drive	EB	3	97541	4,146	C
		WB	3		4,360	C
	Calloway Drive to Coffee Road	EB	3	101,615	3,983	C
		WB	4		4,739	C
	Coffee Road to Mohawk Street	EB	4	97,171	3,225	B
		WB	5		4,442	B
SR 58	SR 99 to H Street	EB	2	120,853	4,732	F
		WB	2		4,624	E
	H Street to Union Avenue	EB	2	125,726	4,521	E
		WB	2		4,947	F
	Union Avenue to Cottonwood Road	EB	2	121,734	4,738	F
		WB	2		5,203	F

TABLE 4 (CONTINUED) – 2037 FREEWAY SEGMENT EVALUATION FOR THE NO BUILD ALTERNATIVE						
Freeway	**Segment**	**Direction**	**Lanes**	**ADT**	**DHV**	**LOS**
SR 99	White Lane to Ming Avenue	SB	4	203,949	7,002	D
		NB	4		7,846	D
	Ming Avenue to SR 58	SB	4	217,487	7,926	D
		NB	4		8,635	E
	SR 58 to California Avenue	SB	4	220,696	8,276	D
		NB	4		8,580	E
	California Avenue to Rosedale Hwy	SB	4	226,500	8,316	D
		NB	4		7,928	D
	Rosedale Hwy to Airport Drive	SB	4	172,332	6,815	D
		NB	4		5,134	C

Alternative A

Alternative A proposes to connect the WSP to SR 58 (East) by means of a new freeway. Alternative A would begin at the WSP between the Mohawk Street interchange and the Coffee Road interchange and would turn in a southeasterly direction. It would then span the Kern River, Truxtun Avenue, Carrier Canal, and Stockdale Highway before joining existing SR 58 (East). SR 58 from SR 99 to Cottonwood Road would be widened from a four-lane freeway to a six-lane freeway with auxiliary lanes.

SR 58 would maintain its existing connections to SR 99 by means of freeway-to-freeway connectors. The existing WB SR 58 to NB SR 99 connector, SB SR 99 to EB SR 58 connector, and NB SR 99 to EB SR 58 would be preserved with modifications. New branch connectors would be constructed for the EB SR 58 to SB SR 99 and NB SR 99 to WB SR 58 movements.

Auxiliary lanes would be provided on SR 99 to accommodate additional traffic from the branch connectors. The limits of improvements on SR 99 would extend from the interchange at SR 58 to the Wilson Road overcrossing (OC). All ramps in this vicinity would need to be realigned to provide for the additional lanes. The Wible Road on- and off-ramps would be removed to accommodate the NB SR 99 on-ramp from Ming Avenue. The Stockdale Avenue off-ramp from the SB SR 99 to the EB SR 58 connector would be removed. Local access from Real Road to SR 58 and to SB SR 99 would also be removed. Additionally, this alternative would include adding an auxiliary lane and a two-lane exit to the SB SR 99 Rosedale Highway off-ramp to improve traffic operational conditions.

The following are locations where new structures would be required for this alternative:

- Coffee Road on-ramp to EB SR 58
- Coffee Road off-ramp from WB SR 58
- Mohawk Street off-ramp from EB WSP
- Kern River Bridge
- Truxtun Avenue (undercrossing [UC])
- Lennox Avenue & California Avenue (UC)
- Business Center Drive (UC)
- Stockdale Highway and Montclair Street (UC)
- Stine Road (UC)
- South Real Road (UC)
- Ming Avenue off-ramp from SB SR 99
- NB SR 99 to WB SR 58 connector
- WB SR 58 (widening over SR 99)
- WB SR 58 to SB SR 99 connector (tunnel)
- NB SR 99 to EB SR 58 connector
- H Street off-ramp from EB SR 58
- P Street (UC)
- Madison Street (UC)
- Bakersfield Corral (overhead [OH])
- Cottonwood Road (UC)
- Belle Terrace overcrossing (OC)

The potential closure of Frazier Avenue, Westwood Way, McDonald Way, Curran Street, Griffith Street, Jones Street, and Williamson Way would modify existing circulation. Pedestrian and bicycle crossing would be limited to the proposed UCs, increasing neighborhood travel distances. No Golden Empire Transit District (GET) routes use the roads that would potentially be closed. Therefore, Alternative A would not directly affect the transit service.

Table 5 shows the design year (2037) planning-level evaluation of freeway segments under Alternative A. Based on the *Highway Capacity Manual 2000*, LOS criteria for basic freeway segments (Exhibit 23-2), the majority of the WSP segments would operate at LOS D or better. Only one segment, from Calloway Drive to Coffee Road, is expected to operate at LOS E. On SR 58, only one segment, Union Avenue to Cottonwood Road, would operate at LOS E. All segments on SR 99 would operate at LOS E or worse. The volumes provided in the table below are unconstrained.

Table 5 – 2037 Freeway Segment Evaluation for Alternative A

Freeway	Segment	Direction	Lanes	ADT	DHV	LOS
WSP	Allen Road to Calloway Drive	EB	3	120,198	4,794	C
		WB	3		5,550	D
	Calloway Drive to Coffee Road	EB	3	151,294	5,842	D
		WB	3		6,741	E
	Coffee Road to SR 58	EB	2+2	129,768	4,913	D
		WB	4		5,736	C
	SR 58 to Mohawk Street	EB	2	61,464	2,481	C
		WB	2		3,439	D
	Mohawk Street to Truxtun Avenue	EB	2	26,116	1,193	A
		WB	2		1,284	A
SR 58	WSP to SR 99	EB	3	115,509	4,671	D
		WB	3		4,343	C
	SR 99 to H Street	EB	3+2	122,526	4,645	D
		WB	3+1		5,492	C
	H Street to Union Avenue	EB	3+1	141,912	5,820	C
		WB	3+1		5,965	D
	Union Avenue to Cottonwood Road	EB	3	144,615	5,355	E
		WB	3		6,127	D
SR 99	White Lane to Ming Avenue	SB	4	213,269	8,472	F
		NB	4+2		8,195	E
	Ming Avenue to SR 58	SB	4+2	146,205	6,320	E
		NB	4+1		5,260	C
	SR 58 to California Avenue	SB	4	192,086	7,889	D
		NB	4		7,755	E
	California Avenue to Rosedale Hwy	SB	4	204,529	8,041	E
		NB	4		7,300	D

Notes: Average daily traffic (ADT) volume is reported in vehicles per day (vpd). Design hourly volume (DHV) is reported for the highest peak hour volume in the peak direction in equivalent passenger cars per hour per lane (pcphpl).

Source: Parsons Transportation Group, 2011

Alternative B

Alternative B proposes to connect the east end of the WSP to SR 58 (East) by means of a new freeway. This proposed alternative would begin at the Mohawk Street interchange and turn in a southeasterly direction. It would span the Kern River, Truxtun Avenue, Carrier Canal, California Avenue, and Stockdale Highway before joining existing SR 58 (East). SR 58 from SR 99 to Cottonwood Road would be widened from a four-lane freeway to a six-lane freeway with auxiliary lanes.

Alternative B proposes SR 58 to be depressed between California Avenue and Ford Avenue, minimizing visual impacts to the neighborhood and reducing the quantity and cost of import fill needed for this alternative. Overcrossings are proposed on Marella Way and La Mirada Drive to facilitate traffic circulation.

Alternative B proposes the same connections to SR 99 as Alternative A and would require similar improvements on SR 99 and existing SR 58.

The following are locations where new structures would be required for this alternative:

- Mohawk Street off-ramp from WB SR 58
- Kern River Bridge
- Truxtun Avenue (UC)
- Commerce Drive (UC)
- California Avenue (UC)
- Marella Way OC
- La Mirada Drive OC
- Stockdale Highway and Stine Road (UC)
- South Real Road UC
- Ming Avenue off-ramp from SB SR 99
- NB SR 99 to WB SR 58 connector
- WB SR 58 (widening over SR 99)
- WB SR 58 to SB SR 99 connector (tunnel)
- NB SR 99 to EB SR 58 connector
- H Street off-ramp from EB SR 58
- P Street (UC)
- Madison Street (UC)
- Bakersfield Corral (OH)
- Cottonwood Road (UC)
- Belle Terrace overcrossing (OC)

The potential closure of Montclair Street, Woodlake Drive, Kensington Avenue, Hillsborough Drive, Kentfield Drive, Joseph Drive, Dunlap Street, Ford Avenue, and Williamson Way would modify existing circulation. Pedestrian and bicycle crossing would be limited to the proposed UCs or OCs, increasing neighborhood travel

distances. No GET routes use the roads that would potentially be closed. Therefore, Alternative B would not directly affect the transit service.

Table 6 shows the design year (2037) planning-level evaluation of freeway segments under Alternative B. Two of the three segments on WSP would operate at LOS E or worse. Only one segment on SR 58, Union Avenue to Cottonwood Road, would operate at worse than LOS E. On SR 99, the majority of the segments would operate at LOS E or worse. As in Alternative A, the volumes provided in the table below are unconstrained.

TABLE 6 – 2037 FREEWAY SEGMENT EVALUATION FOR ALTERNATIVE B

Freeway	Segment	Direction	Lanes	ADT	DHV	LOS
WSP	Allen Road to Calloway Drive	EB	3	120,198	4,794	C
		WB	3		5,550	D
	Calloway Drive to Coffee Road	EB	3	151,294	5,842	D
		WB	3		6,741	E
	Coffee Road to Mohawk Street	EB	2+2	181,504	6,865	E
		WB	4		7,877	D
SR 58	Mohawk Street to SR 99	EB	3	125,081	5,246	D
		WB	2+1		4,544	D
	SR 99 to H Street	EB	3+2	125,338	4,812	D
		WB	3+1		5,441	C
	H Street to Union Avenue	EB	3+1	144,728	5,996	C
		WB	3+1		5,938	D
	Union Avenue to Cottonwood Road	EB	3	144,153	6,248	F
		WB	3		5,327	D
SR 99	White Lane to Ming Avenue	SB	4	215,694	8,614	F
		NB	4+2		8,187	E
	Ming Avenue to SR 58	SB	4+2	147,050	6,453	D
		NB	4+1		5,099	C
	SR 58 to California Avenue	SB	4	187,315	7,571	E
		NB	4		7,501	E
	California Avenue to Rosedale Hwy	SB	4	201,097	7,762	E
		NB	4		7184	C

Notes: Average daily traffic (ADT) volume is reported in vehicles per day (vpd). Design hourly volume (DHV) is reported for the highest peak hour volume in the peak direction in equivalent passenger cars per hour per lane (pcphpl).

Source: Parsons Transportation Group, 2011

Alternative C

Alternative C proposes to connect the east end of the WSP to SR 58 (East) by means of a new freeway. Starting at the Mohawk Street interchange, this alternative would traverse easterly, spanning the Kern River and Truxtun Avenue, and continue parallel to and south of the BNSF railroad tracks. It would then turn south and continue parallel to and west of SR 99 for approximately 1 mile and connect with SR 58 near the existing SR 58 / SR 99 interchange. SR 58, from SR 99 to Cottonwood Road, would be widened from a four-lane freeway to a six-lane freeway with auxiliary lanes. This alternative proposes UCs at California Avenue, Palm Avenue, SR 99, Oak Street, and Brundage Lane.

New branch connectors would be constructed for the EB SR 58 to SB SR 99 and the NB SR 99 to WB SR 58 movements. Auxiliary lanes would be provided on SR 99 to accommodate the additional traffic from SR 58. Improvements on SR 99 would extend from the Wilson Road OC to the Gilmore Avenue OC. A collector-distributor (C-D) road system would provide access from WB SR 58 to NB SR 99 as well as from NB SR 99 to WB SR 58. The Wible Road on- and off-ramps would be removed to accommodate the NB SR 99 auxiliary lane. The Stockdale Avenue off-ramp from the SB SR 99 would also be removed, along with local access from Real Road to SB SR 99. Additionally, this alternative would include adding an auxiliary lane and a two-lane exit to the SB SR 99 Rosedale Highway off-ramp to improve traffic operational conditions.

The following are locations where new structures would be required for this alternative:

- Mohawk Street off-ramp from WB SR 58
- Mohawk Street on-ramp to EB SR 58
- Kern River Bridge
- Truxtun Avenue UC
- California Avenue UC
- NB SR 99 to WB SR 58 connector
- Palm Street UC
- Palm Street OC
- SR 58 / SR 99 grade separation
- Brundage Lane OC
- Stockdale Highway UC
- EB SR 58 to SB SR 99 connector
- WB SR 58 to SB and NB SR 99 connectors (tunnel)
- H Street off-ramp from EB SR 58
- P Street (UC)
- Madison Street (UC)
- Bakersfield Corral (OH)
- Cottonwood Road (UC)
- Ming Avenue off-ramp from SB SR 99

- Belle Terrace OC
- WB SR 58 to NB SR 99 connector
- California Avenue on-ramps to NB SR 99
- Truxtun Avenue UC (at SR 99)

No GET routes use Easton Drive. Therefore, Alternative C would not directly affect the transit service.

The proposed Alternative C alignment is close to the proposed high-speed train (HST) alignment through downtown Bakersfield. The Merced-to-Bakersfield HST project EIR /EIS is currently underway. This would provide opportunities for integrating the design of Alternative C and the HST project alternatives. Refinements of Alternative C would be made in coordination with the California High Speed Rail Authority.

Table 7 shows the design year (2037) evaluation of freeway segments under Alternative C. Two of the three segments on WSP would operate worse than LOS D. On SR 58, the two segments east of H Street also would operate worse than LOS D. The majority of the segments on SR 99 within the project study area would operate worse than LOS D. The volumes provided below are also unconstrained.

TABLE 7 – 2037 FREEWAY SEGMENT EVALUATION FOR ALTERNATIVE C

Freeway	Segment	Direction	Lanes	ADT	DHV	LOS
WSP	Allen Road to Calloway Drive	EB	3	120,198	4,794	C
		WB	3		5,550	D
	Calloway Drive to Coffee Road	EB	3	151,294	5,842	D
		WB	3		6,741	E
	Coffee Rd to Mohawk Street	EB	2+2	99,034	6,844	E
		WB	4		7,843	D
SR 58	Mohawk Street to SR 99	EB	3	121,092	5,005	C
		WB	3		4,483	C
	SR 99 S to H Street	EB	2+2	65,037	2,955	B
		WB	2		2,683	C
	H Street to Union Avenue	EB	3+1	154,441	6,470	D
		WB	3		6,352	F
	Union Avenue to Cottonwood Road	EB	3	146,496	6,370	F
		WB	3		5,622	E

TABLE 7 (CONTINUED) – 2037 FREEWAY SEGMENT EVALUATION FOR ALTERNATIVE C						
Freeway	**Segment**	**Direction**	**Lanes**	**ADT**	**DHV**	**LOS**
SR 99	White Lane to Ming Avenue	SB	4	212,072	8,651	F
		NB	4		8,141	E
	Ming Avenue to SR 58	SB	4+1	242,356	9,525	F
		NB	4		9,679	F
	SR 58 to California Avenue	SB	4+1	165,785	7,582	D
		NB	4+1		5,134	C
	California Avenue to Rosedale Hwy	SB	4	201,074	7,747	E
		NB	4+1		7,161	C
Notes: Average daily traffic (ADT) volume is reported in vehicles per day (vpd). Design hourly volume (DHV) is reported for the highest peak hour volume in the peak direction in equivalent passenger cars per hour per lane (pcphpl).						
Source: Parsons Transportation Group, 2011						

Alternative M

Alternative M proposes to use TSM/transit strategies to improve capacity and potentially reduce demand on the east-west arterial links and selected north-south connections to facilitate regional and local east-west traffic.

Low-cost improvements include traffic signal optimization (ensuring maximum green-light times for the heaviest traffic flows and adjusting signal cycle time based on changing demands during peak times), intersection improvements, and bus turnouts to reduce delay and increase the capacity along the following corridors:

- Hageman Road from Calloway Drive to SR 99
- Rosedale Highway from Enos Lane (SR 43) to SR 99
- Truxtun Avenue from the WSP to Oak Street
- Stockdale Highway from Old River Road to Oak Street / Wible Road
- Ming Avenue from Old River Road to SR 99
- Coffee Road from Stockdale Highway to WSP
- California Avenue from Stockdale Highway to Mohawk Street
- Mohawk Street from California Avenue to the WSP

These low-cost improvements are included in the regional transportation plan and are therefore not specifically studied as a new component of the transportation system for Alternative M.

To further increase capacity, higher-cost improvements are proposed for Rosedale Highway. These include widening Rosedale Highway from Enos Lane (SR 43) to SR 99

and constructing grade separations at the following intersections along Rosedale Highway:

- Rosedale Highway / Allen Road
- Rosedale Highway / Coffee Road
- Rosedale Highway / Calloway Drive
- Rosedale Highway / Mohawk Street
- Rosedale Highway / San Joaquin Valley Railroad (SJVR) crossing

Additionally, improvements on SR 99 to be considered include adding auxiliary lanes between SR 58 and California Avenue or providing an additional (fifth) mainline lane to accommodate the increased north-south traffic demand.

Roadway operation improvements would include deploying Intelligent Transportation Systems to improve mobility and reduce fuel consumption and greenhouse gas emissions.

This alternative would also include increasing transit service along Rosedale Highway and Stockdale Highway to reduce the overall vehicular demand in these east-west corridors and other potential travel demand management (TDM) techniques. The transit improvements would primarily focus on increasing frequency of service to potentially reduce auto usage. Finally, area-wide transportation demand management strategies would be considered to reduce travel demand by establishing parking fees, encouraging carpool formation, and encouraging flextime for employees. These improvements to transit service and implementation of travel demand management techniques are included in the regional transportation plan and therefore are not specifically studied as a new component for Alternative M.

For the design year (2037) planning-level evaluation of freeway segments, daily volumes for Alternative M are anticipated to be similar to the No Build Alternative. The combination of TDM and TSM improvements would reduce the demand and increase the capacity of the roadway segments. As a result, an analysis of the daily volumes would not be consistent with the other alternatives. The intersections and freeway segments will be analyzed for this alternative in the PA&ED phase.

The intersection improvements to provide turn lanes at selected intersections would increase crossing distances for pedestrians and bicycles at the affected intersections. The arterial grade separations may increase pedestrian travel distances, although the ramp terminal intersections would likely have shorter crossing distances. Bicycles may have improved travel time on the uncontrolled arterial street, but conflicts with higher-speed vehicles would increase with the ramp junctions.

Alternative M would increase service frequency on selected routes operated by GET to encourage further transit use. The implementation of parking fees in the downtown and other high-activity centers would be considered to encourage transit and carpool use rather than manage the parking demand.

6.2 SEGMENT 2 – WESTSIDE PARKWAY

Segment 2 is known locally as the WSP. The WSP is a local freeway running east-west from Heath Road Truxtun Avenue. The WSP begins at the intersection of Heath Road and Stockdale Highway and extends east as an accessed controlled freeway, crossing under Renfro Road, Allen Road, Jewetta Avenue, and Calloway Drive. East of Calloway Drive, WSP crosses over Coffee Road, the Cross Valley Canal, and the Friant-Kern Canal and then under Mohawk Street. It then spans the Kern River and ties into Truxtun Avenue. Full-service interchanges are provided at Allen Road, Calloway Drive, Coffee Road, and Mohawk Street. A partial interchange is provided at Truxtun Avenue.

A Tier 1 environmental document, completed and approved in May 2001, studied the adoption of a transportation corridor alignment and purchase of right-of-way for SR 58 from I-5 to SR 99. This allowed the City of Bakersfield to acquire right of way for the WSP and provided a base from which a construction-level environmental document was developed. The City of Bakersfield, Caltrans, and the FHWA have completed and approved a Tier 2 environmental document pursuant to NEPA and CEQA for the WSP. Though no additional work is anticipated on this segment, with the exception of possible mitigation for environmental purposes, any necessary improvements needed to transfer the WSP into the state system will be identified during the PA&ED phase of this Project. Environmental analysis will include impacts from any upgrades that are identified and changes in traffic patterns resulting from the connection to SR 58.

A right-of-way width of 210 feet has been acquired for the WSP to accommodate an ultimate eight-lane facility. From Mohawk Street to Allen Road (4.25 miles), this freeway consists of two to four 12-foot lanes in each direction with 10-foot left and right shoulders, separated by a median barrier with a median width varying from 36 feet to 72 feet.

6.3 SEGMENT 3 – WESTSIDE PARKWAY TO I-5

Tier 1 environmental compliance documents were previously prepared for Segment 3. A Tier 1 final EIS/EIR was prepared pursuant to the CEQA and the NEPA as part of a previous route adoption study conducted by Caltrans and the FHWA for the SR 58 route adoption. This Tier 1 study considered alternative corridors and identified a preferred corridor alignment that could be used for right of way acquisition and corridor protection. The report addressed a 16.9-mile section of highway from I-5 to SR 99 (milepost 35.4 to milepost 52.3). The intent of the study was to adopt an alignment and allow the purchase of right-of-way.

The preliminary alternatives evaluation conducted as part of the final EIS/EIR considered diverse options, including:

- Expansion of capacity on existing SR 58
- Adoption of a multimodal transportation corridor on one of the two different alignments
- Mass transit

- TSM
- No Action Alternative

All alternatives except the adoption of a transportation corridor on either the Kern River or Cross Valley Canal alignments and the No Action Alternative were withdrawn from further consideration because they either did not meet the purpose and need or because the magnitude of the environmental impacts were determined to be unacceptable. The Kern River and Cross Valley Canal alignments proposed different connections to I-5. East of SR 43, these two alternatives assumed the same alignment, which is consistent with the WSP alignment that is currently under construction.

The Cross Valley Canal Alternative was identified in the Tier 1 final EIS/EIR as the least damaging practicable alternative. This alignment alternative, which is reflected as Segment 3, assumes an east-west alignment parallel to the Cross Valley Canal, approximately 2 miles south of Stockdale Highway, from Heath Road to approximately 1.2 miles west of SR 43. The alignment continues to follow the canal, but at this point it assumes a southwest direction and connects to I-5 north of the Cross Valley Canal. The Kern River alignment would have the same alignment west of SR 43, but rather than following the canal in a southwest direction, it would assume a northwest direction and connect with I-5 approximately 1.3 miles north of the Stockdale Highway interchange.

The Cross Valley Canal alignment was found to have less impact on jurisdictional waters of the United States, providing greater protection of threatened and endangered species and their habitat. This alternative also would have less impact on agricultural land. This alternative would have an impact on recharge ponds operated by the Kern Water Bank Authority. The Cross Valley Canal alignment was also approximately 3 miles shorter than the Kern River alignment. This alignment would meet the FHWA interchange spacing for interchanges on I-5, whereas a design exception would have been required for the Kern River alignment because of the proximity to the Stockdale Highway interchange.

Consultation with local, regional, state, and federal agencies, as well as coordination with the public, was conducted with the preparation of the environmental document. Three public open houses and numerous public presentations were held to gain input from the public. As a result of the consultation/coordination process, the following major areas of concern were identified; however, many of these topical areas apply to the portion of the study area east of SR 43:

- Community character and quality of life
- Impacts to residential and community properties
- Property values
- Land use and growth
- Noise
- Air quality
- Hazardous waste

- Circulation and access
- Water quality and supply
- Safety
- Recreation and open space
- Biological resources
- Mass transit

Permits from United States Army Corps of Engineers (Section 404), the California Department of Fish and Game (Section 1600), and the Regional Water Quality Control Board (Section 401 certification) would be required.

FHWA coordination would be required for this segment. FHWA operation and engineering acceptability would be obtained for the new connection with I-5.

Due to funding limitations, implementation of the ultimate connection to I-5 is not anticipated in the project's 20-year design period. An interim connection from I-5 to the western end of the WSP is being proposed as a part of the Project. The Project proposes Stockdale Highway to serve as a temporary connection from the western end of the WSP to I-5. Pending a successful route adoption, the Project proposes a route transfer of Stockdale Highway between I-5 and Heath Road, to the state from the County of Kern. Necessary improvements needed to transfer Stockdale Highway into the state system will be identified during the PA&ED phase.

6.4 COST ESTIMATES

Preliminary capital construction costs were estimated for Alternatives A, B, C, and M. These cost estimates include the roadway construction cost, structures cost, and right of way costs for Segment 1. Itemized cost details are presented in Attachment C. Summaries of the escalated construction estimates are tabulated below.

TABLE 8 – CAPITAL COST SUMMARY (Year 2016)

Category	Alternative A	Alternative B	Alternative C	Alternative M
Roadway items	$230,000,000	$208,000,000	$223,000,000	$99,000,000
Structures	$193,000,000	$155,000,000	$200,000,000	$53,000,000
Environmental	$ 16,000,000	$ 31,000,000	$ 13,000,000	0
Right of way	$194,000,000	$162,000,000	$152,000,000	$100,000,000
Total	**$633,000,000**	**$556,000,000**	**$588,000,000**	**$252,000,000**

A summary of the anticipated project support cost is provided in Table 9.

TABLE 9 – PROJECT SUPPORT COST (Year 2009-2017)				
Category	**Alternative A**	**Alternative B**	**Alternative C**	**Alternative M**
PA&ED	$17,000,000	$14,000,000	$17,000,000	$17,000,000
Plans, specifications, and estimates (PS&E)	$25,000,000	$22,000,000	$25,000,000	$8,000,000
Right of way	$6,000,000	$5,000,000	$5,000,000	$4,000,000
Construction management	$38,000,000	$33,000,000	$38,000,000	$13,000,000
Total	**$86,000,000**	**$74,000,000**	**$85,000,000**	**$42,000,000**

6.5 EXCEPTIONS TO DESIGN STANDARDS (SEGMENT 1)

With the assumption of state highway status for the Centennial Corridor, *Caltrans Highway Design Manual* (HDM) standards have been used as a guideline to develop these alternatives. Fact sheets have been developed for design exceptions for the various alternatives. Caltrans' conceptual approval of design exception features will be sought as a part of this project.

The following are the mandatory design exceptions for Alternatives A, B, and C:

Alternative A

- *Nonstandard feature 1*: Interchange spacing of 0.9 mile is proposed on SR 99 between SR 58 and Ming Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 2*: Interchange spacing of 1.1 miles is proposed on SR 58 between SR 99 and H Street / Chester Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 3*: A left shoulder width of 8 feet on NB SR 99 and a 2 foot and 4 foot left and right shoulder on SB SR 99 is proposed under the Ming Avenue OC (HDM standard: 10 feet). A median width of 16 feet is proposed at the Ming Avenue OC (HDM standard: 22 feet).
- *Nonstandard feature 4*: The existing vertical clearance of 15 feet 7 inches is maintained on the NB SR 99 and 15 feet 7 inches is maintained on SB SR 99 at the Ming Avenue OC (HDM standard: 16 feet 6 inches).
- *Nonstandard feature 5*: Interchange spacing of 0.9 mile is proposed on SR 58 between H Street / Chester Avenue and Union Avenue interchanges (HDM standard: 1 mile).

Alternative B

- *Nonstandard feature 1*: Interchange spacing of 0.45 mile is proposed on WSP between Mohawk Street and Truxtun Avenue interchanges (HDM standard: 1 mile).

- *Nonstandard feature 2*: Interchange spacing of 0.9 mile is proposed on SR 99 between SR 58 and Ming Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 3*: Interchange spacing of 1.1 miles is proposed on SR 58 between SR 99 and H Street/Chester Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 4*: A left shoulder width of 8 feet on NB SR 99 and a 2 foot and 4 foot left and right shoulder on SB SR 99 is proposed under the Ming Avenue OC (HDM standard: 10 feet). A median width of 16 feet is proposed at the Ming Avenue OC (HDM standard: 22 feet).
- *Nonstandard feature 5*: The existing vertical clearance of 15 feet 7 inches is maintained on the NB SR 99 and 15 feet 7 inches is maintained on SB SR 99 at the Ming Avenue OC (HDM standard: 16 feet 6 inches).
- *Nonstandard feature 6*: Interchange spacing of 0.9 mile is proposed on SR 58 between H Street / Chester Avenue and Union Avenue interchanges (HDM standard: 1 mile).
- *Nonstandard feature 7*: Interchange spacing of 1.8 miles is proposed on SR 58 between SR 99 and Truxtun Avenue interchanges (HDM standard: 2 mile).

Alternative C

- *Nonstandard feature 1*: Interchange spacing of 0.5 mile is proposed between WSP / Mohawk Street and WSP / Truxtun Avenue interchanges (HDM standard: 1 mile).
- *Nonstandard feature 2*: Interchange spacing of 0.9 mile is proposed between SR 99 / SR 58 and SR 99 / Ming Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 3*: Interchange spacing of 1.1 miles is proposed between SR 99 / SR 58 and SR 99 / California Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 4*: Interchange spacing of 1.1 miles is proposed between SR 99 / SR 58 and SR 58 / H Street / Chester Avenue interchanges (HDM standard: 2 miles).
- *Nonstandard feature 5*: Interchange spacing of 2.7 miles is proposed on SR 58 between SR 99 and existing WSP / Mohawk Street interchanges. A nonstandard weaving length of 3,380 feet is proposed between the two interchanges (Design Information Bulletin (DIB) 77 standard: 5,000 feet).
- *Nonstandard feature 6*: Interchange Spacing of 3.0 miles is proposed on SR 99 between California Avenue and Rosedale Highway interchange. A nonstandard weaving length of 1,680 feet is proposed between the two interchanges on NB SR 99 (Design Information Bulletin (DIB) 77 Standard: 2,000 feet).
- *Nonstandard feature 7*: A left shoulder width of 8 feet on NB SR 99 and a 2 foot and 4 foot left and right shoulder on SB SR 99 is proposed under the Ming Avenue OC

(HDM standard: 10 feet). A median width of 16 feet is proposed at the Ming Avenue OC (HDM standard: 22 feet).

- *Nonstandard feature 8*: Existing vertical clearance of 15 feet 7 inches is maintained on the NB SR 99 and 15 feet 7 inches is proposed on SB SR 99 at the Ming Avenue OC (HDM standard: 16 feet 6 inches). Existing vertical clearance of 15 feet 2 inches on NB SR 99 and 15 feet 3 inches on SB SR 99 is maintained under the SR 99 / Brundage Lane overcrossing (HDM standard: 16 feet 6 inches).
- *Nonstandard feature 9*: Interchange spacing of 0.9 mile is proposed on SR 58 between H Street / Chester Avenue and Union Avenue interchanges (HDM standard: 1 mile).

The following are the advisory design exceptions for Alternatives A, B, and C:

Alternative A

- *Nonstandard feature 1*: An auxiliary lane of 750 feet is provided in advance of the two-lane Rosedale Highway off-ramp on SB SR 99 (HDM standard: 1,300 feet).
- *Nonstandard feature 2*: A partial interchange is proposed at the existing WSP/Mohawk Street and Proposed SR-58 interchange (HDM standard: partial interchanges should be avoided).
- *Nonstandard feature 3*: A lane is dropped on EB SR 58 at the Mohawk Street off-ramp, and the mainline is reduced from three lanes to two lanes (HDM standard: basic number of main line lanes should not be dropped through a local service interchange).
- *Nonstandard feature 4*: A lane is dropped on WB SR 58 at the Coffee Road off-ramp, and the mainline is reduced from three lanes to two lanes (HDM standard: basic number of main line lanes should not be dropped through a local service interchange).
- *Nonstandard feature 5*: A design speed of 24 mph is proposed on WB SR 58 to SB SR 99 connector loop ramp (HDM standard: design speed for single-lane connector should be 50 mph).
- *Nonstandard feature 6*: No passing lane is provided on EB SR 58 / H Street off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).
- *Nonstandard feature 7*: No passing lane is provided on NB SR 99 / Ming Avenue on-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).
- *Nonstandard feature 8*: At the branch merge of SR 58 connectors with SB SR 99, a 2,010-foot-long auxiliary lane is provided beyond the convergence point and a

1,600-foot-long auxiliary lane is provided beyond the merge of the first lane (HDM standard: at a branch merge, a 2,500-foot-long auxiliary lane should be provided beyond the merge of one lane of the inlet).

- *Nonstandard feature 9*: The EB SR 58 to SB SR 99 diverging branch connection is not designed per HDM figure 504.4 (HDM standard: design should be in accordance with Figure 504.4, Case 2 for turning traffic less than 50%).

- *Nonstandard feature 10*: The WB SR 58 to SB SR 99 diverging branch connection is not designed per HDM figure 504.4 (HDM standard: design should be in accordance with Figure 504.4, Case 1 for turning traffic less than 35%).

- *Nonstandard feature 11*: The NB SR 99 to EB SR 58 diverging branch connection is not designed per HDM figure 504.4. The length of the auxiliary lane in advance of the two-lane exit is 1,740 feet (HDM standard: design should be in accordance with Figure 504.4, Case 1 for turning traffic less than 35%).

- *Nonstandard feature 12*: A decision sight distance of 886 feet is provided at the SB SR 99 / Ming Avenue off-ramp (HDM standard: decision sight distance should be 1,105 feet).

- *Nonstandard feature 13*: No passing lane is provided on SB SR 99 / Ming Avenue off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

- **Alternative B**

- *Nonstandard feature 1*: An auxiliary lane of 750 feet is provided in advance of the two-lane Rosedale Highway off-ramp on SB SR 99 (HDM standard: auxiliary lane length should be 1,300 feet).

- *Nonstandard feature 2*: A partial interchange is proposed at SR 58 / Truxtun Avenue interchange (HDM standard: partial interchanges should be avoided).

- *Nonstandard feature 3*: A lane is dropped on WB SR 58 at the Mohawk Street off-ramp, and the mainline is reduced from three lanes to two lanes (HDM standard: basic number of main line lanes should not be dropped through a local service interchange).

- *Nonstandard feature 4*: A design speed of 24 mph is proposed on WB SR 58 to SB SR 99 connector loop ramp (HDM standard: design speed for single-lane connector should be 50 mph).

- *Nonstandard feature 5*: No passing lane is provided on EB SR 58 / H Street off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: Single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

- *Nonstandard feature 6*: No passing lane is provided on NB SR 99 / Ming Avenue on-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

- *Nonstandard feature 7*: At the branch merge of SR 58 connectors with SB 99, a 2,010-foot-long auxiliary lane is provided beyond the convergence point and a 1,600-foot-long auxiliary lane is provided beyond the merge of the first lane (HDM standard: at a branch merge, a 2,500-foot length of auxiliary lane should be provided beyond the merge of one lane of the inlet).

- *Nonstandard feature 8*: The EB SR 58 to SB SR 99 diverging branch connection is not designed per HDM figure 504.4 (HDM standard: design should be in accordance with Figure 504.4, Case 2 for turning traffic less than 50%).

- *Nonstandard feature 9*: The WB SR 58 to SB SR 99 diverging branch connection is not designed per HDM figure 504.4 (HDM standard: design should be in accordance with Figure 504.4, Case 1 for turning traffic less than 35%).

- *Nonstandard feature 10*: The NB SR 99 to EB SR 58 diverging branch connection is not designed per HDM figure 504.4. The length of the auxiliary lane beyond the merge of one lane of the inlet is 1,740 feet (HDM standard: design should be in accordance with Figure 504.4, Case 1 for turning traffic less than 35%).

- *Nonstandard feature 11*: A decision sight distance of 886 feet is provided at the SB SR 99 / Ming Avenue off-ramp (HDM standard: decision sight distance should be 1,105 feet).

- *Nonstandard feature 12*: No passing lane is provided on SB SR 99 / Ming Avenue off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

Alternative C

- *Nonstandard feature 1*: An auxiliary lane of 750 feet is provided in advance of the two-lane Rosedale off-ramp on SB SR 99 (HDM standard: auxiliary lane length should be 1,300 feet).
- *Nonstandard feature 2*: A partial interchange is proposed at SR 58 / Truxtun Avenue interchange (HDM standard: partial interchanges should be avoided).

- *Nonstandard feature 3*: A lane drop is proposed on SB SR 99 through the Ming Avenue interchange. The mainline is reduced from four lanes to three lanes (HDM standard: basic number of main line lanes should not be dropped through a local service interchange).

- *Nonstandard feature 4*: A design speed of 21 mph is maintained on WB SR 58 to SB SR 99 connector loop ramp (HDM standard: design speed for single-lane connector should be 50 mph).

- *Nonstandard feature 5*: No passing lane is provided on WB SR 58 to SB SR 99 connector loop ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane connectors more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

- *Nonstandard feature 6*: No passing lane is provided on EB SR 58 / H Street off-ramp and SB SR 99 / Ming Avenue off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

- *Nonstandard feature 7*: No passing lane is provided on SB SR 99 / Ming Avenue off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

- *Nonstandard feature 8*: The EB SR 58 to SB SR 99 diverging branch connection is not designed per HDM figure 504.4 (HDM standard: design should be in accordance with Figure 504.4, Case 2 for turning traffic less than 50%).

- *Nonstandard feature 9*: A decision sight distance of 810 feet is provided at the SB SR 99 / Ming Avenue off-ramp (HDM standard: decision sight distance should be 1,105 feet).

- *Nonstandard feature 10*: A median width of 22 feet is proposed on SR 58 between SR 99 interchange and H Street interchange (HDM standard: minimum median width should be 36 feet).

- *Nonstandard feature 11*: The existing median width of 22 feet is maintained on SR 99 between Brundage Lane and Palm Street (HDM standard: minimum median width should be 36 feet).

- *Nonstandard feature 12*: No passing lane is provided on SB SR 99 / Ming Avenue off-ramp. The length of the ramp is more than a 1,000 feet (HDM standard: single-lane ramps more than 1,000 feet long should be widened to two lanes to provide for passing maneuvers).

6.6 COMMON FEATURES FOR ALTERNATIVES

Direct Connectors – SB SR 99 to WB SR 58 and EB SR 58 to NB SR 99

The project will not include direct connectors from SB SR 99 to WB SR 58 and from EB SR 58 to NB SR 99 because the forecast volumes would be nominal and, therefore be under utilized. Under Alternative A and B the forecast average daily traffic for each

connector is approximately 8,000 vehicles. Similarly, under Alternative C the forecast average daily traffic for each connector is 10,000 vehicles.

The direct connectors would primarily service regional traffic while interregional traffic passing through the triangle area formed by SR 99, I-5 and SR 58 would use shorter and more direct routes instead of the connectors. For example, the traffic from the south would directly access SR 99 at the SR 99/I-5 interchange located south of Bakersfield. Also, traffic going between I-5 and SR 99 north of Bakersfield would continue to use SR 46 due to more efficient travel times. Even upon completion of the ultimate alignment in Segment 3, the backward freeway to freeway connectivity between SR 99 and I-5 would primarily service the regional traffic.

The project would not preclude the construction of the connectors in the future when it is demonstrated that the traffic service will justify the cost. Under Alternatives A and B, the future direct connectors would be located within the vicinity of the existing SR 58/SR 99 interchange. Under Alternative C, the future direct connectors would be located east of the Mohawk Street interchange, skewing across the BNSF rail yard, and tying into SR 99 near the Rosedale highway interchange. The connectors would require right of way, structures, C-D systems, and braided ramps to maintain acceptable operational service for mainline SR 99 and the existing interchanges at California Avenue and Rosedale Highway. The estimated cost for the connectors is $275 million under Alternative C and $210 million under Alternatives A and B.

An alternate route would be provided for the connector movements using Mohawk Street and Rosedale Highway. Traffic on SR 99 would exit at Rosedale Highway, travel west to Mohawk Street and then south on Mohawk Street to join the WSP (Segment 2 of the Centennial Corridor). Traffic traveling east on WSP would use the same route in the reverse direction. Advance signing would be provided and improvements would be made to the SR 99 SB Off Ramp at Rosedale Highway and the intersection of Rosedale Highway at Mohawk Street to facilitate the forecasted volume of turning movements.

Construction Staging

All mainline lanes on SR 99 and the WSP are anticipated to be operational during peak hours. Temporary ramp closures are anticipated on SR 99. Various ramp closures would be required for reconstruction of bridge abutments, grading work, and ramp realignment construction. For prolonged ramp closures, detours would be available. A transportation management plan (TMP) would be developed along with a comprehensive stage construction plan.

The anticipated construction staging sequence is as follows:

1. Mobilization
2. Clearing and grubbing, existing features removal and salvage
3. Implement TMP
4. Re-delineate the WSP and SR 99 within project limits
5. Slope excavation and embankment establishment

6. Grading and paving of new alignment
7. Structures construction
8. Shift traffic onto the new construction

A detailed stage construction plan would be developed during the plans, specifications, and estimates (PS&E) stage.

NPDES Permit Compliance

A National Pollutant Discharge Elimination System (NPDES) permit is required on all construction projects. The storm water pollution control provisions provided in the *Storm Water Quality Handbooks: Project Planning and Design Guide* would be used for storm water quality considerations during project planning. Best management practices will be employed at each stage of the project with increasing detail. A storm water data report (SWDR) will be prepared for all phases of project development. The cover page of the SWDR is included as Attachment E.

Value Analysis

A value analysis (VA) was performed on this project because the project cost is greater than $25 million. Value engineering has been applied throughout this phase of the Project. The study will be initiated during the PA&ED phase.

FHWA

FHWA Joint Stewardship Agreement

Under the FHWA joint stewardship agreement entered into with the state, this project is deemed a "high-profile" project because it meets the criterion of a "major project," which is greater than $500 million in cost. A major project agreement with FHWA will be required.

Modification of Interstate Access Control

FHWA has access modification authority for interstate facilities that use federal funds for construction. The FHWA "engineering and operational acceptability" determination would be obtained for the temporary connection at I-5.

A request for "engineering and operational acceptability" determination has been submitted by Caltrans to FHWA. A detailed study would be carried out to analyze the effect of this modified access on the operations and safety of I-5. Mitigation measures would be adopted based on the outcome of the study. The modified access report (MAR) would be initiated and an approval would be obtained from FHWA in the PA&ED stage.

Route Adoption / Freeway Agreement

The Project will require route adoption, route transfer, a modified freeway agreement, and new freeway agreements for the new alignment of SR 58 and a temporary connection to I-5. Route adoptions would require CTC approval. Freeway agreements would be executed by the local agencies (both the City of Bakersfield and County of Kern) and Caltrans. This will be initiated during the PA&ED phase of the Project and finalized after the environmental document is approved.

Transportation Management Plan

A preliminary TMP has been prepared for the Project. The objective of the TMP is to minimize project-related traffic impacts and delays associated with the construction of the Project. The plan outlines the implementation of traffic control strategies and timely distribution of traffic-related information to emergency services, local citizens, and businesses. The following strategies are recommended:

- *Public awareness campaign* (PAC) before and during construction to provide information on various measures the traveling public may use to avoid anticipated traffic delays caused by construction. PAC elements include brochures and mailers, press releases/media alerts, public information meetings, planned lane closure website, government relations and community outreach, and telephone hotline.

- *Motorist information strategies* provide advance notice regarding potential delays and/or available alternate routes during construction. These strategies include changeable message signs (portable and fixed), ground mounted signs, highway advisory radio, and Caltrans Highway Information Network.

- *Incident management* such as construction zone enhanced enforcement program (COZEEP) enables Caltrans to hire California Highway Patrol (CHP) officers and vehicles to patrol project construction zones. A transportation management team would help expedite the removal of minor and major incidents and manage traffic by providing traffic information to the media.

- *Construction strategies* such as a lane requirements chart in the special provisions to be enforced in order to minimize traffic impact.

- *Demand management strategies* such as temporary ramp metering and rideshare incentives that are aimed to reduce vehicular traffic demand on facilities.

- *Alternative route strategies* such as signed detour, adjusting signals along detour routes, parking restrictions, and traffic control officers to reduce traffic through the construction zone by diverting traffic to feasible alternative routes.

6.7 ALTERNATIVES WITHDRAWN FROM FURTHER EVALUATION

A subcommittee of the Centennial Corridor Project Development Team (PDT) held a meeting on August 12, 2008, to conduct a preliminary screening of alternatives for the Centennial Corridor. The subcommittee included representatives from Caltrans, the City of Bakersfield, the County of Kern, Parsons Transportation Group (the program management consultant), HNTB Corporation (the project initiation document and project approval / environmental document consultant), and BonTerra Consulting (environmental subconsultant to HNTB). The initial screening, conducted early in the PSR process, identified those alternatives that are reasonable and feasible to be carried forward into the PSR.

The screening criteria were developed through an iterative process by the PDT members through incorporation of criteria from Caltrans' PDPM and review of the requirements of Section 1302 of the SAFETEA-LU. Once a comprehensive list of potential screening criteria was developed, the PDT refined the list, and the outcome resulted in the following eight criteria:

- *Criterion 1*: Does this alternative satisfy the legislative mandate for the Project, as outlined in the SAFETEA-LU, Section 1302?
- *Criterion 2*: Does this alternative satisfy the purpose and need for the Project?
- *Criterion 3*: Does this alternative avoid severe operational and safety problems?
- *Criterion 4*: Can this alternative be completed within funding reasonably available to the Project?
- *Criterion 5*: Does this alternative avoid unacceptable adverse social, economic, or environmental impacts that would cause it to be rejected without further environmental evaluation?
- *Criterion 6*: Is this the first time this alternative has been considered in a screening process? If no, did it successfully pass through the prior screening process?
- *Criterion 7*: If any one of the above criteria were answered with a "no," Does this alternative warrant further studies to determine whether the criteria failure ("no") results in a fatal flaw to the Project?
- *Criterion 8*: If two or more criteria were answered with a "no," does this alternative warrant further studies to determine whether the combination of criteria failures ("noes") result in a fatal flaw to the Project?

In the interest of all-inclusiveness, 18 alternatives were evaluated through a preliminary screening process. The 18 alternatives included Alternatives A through L, TSM/Transit Alternative (Alternative M), Alternative 15, Alternatives PA-1 through PA-3, and the No Build Alternative.

The initial screening process determined that Alternatives A, B, C, and D; the No Build Alternative; and the TSM/Transit Alternative (Alternative M) warrant further study. Alternatives E, F, G, H, I, J, K, L, 15, and PA-1 through PA-3 were rejected because they were deemed not to be reasonable and/or feasible alternatives.

Since 2008, more-detailed engineering design and preliminary technical studies have been conducted that provide more-detailed information for evaluating the merits of each alternative carried forward after the initial screening. The more-detailed engineering design and evaluation of Alternative D identified issues that indicate that this alternative should be withdrawn from further evaluation in the PSR. Therefore, a re-screening process was conducted for Alternative D, using the same criteria as above.

The following sections discuss (by alternative) each "no" response given for any screening criteria:

- *Alternative D*: Alternative D proposes to construct a new freeway that would connect the WSP to SR 58 near the Union Avenue interchange by means of a six-lane freeway. Starting at the Mohawk Street interchange on the WSP, this alternative would extend east and parallel the BNSF railroad tracks for approximately 3 miles. It would then turn south and run parallel to Union Avenue for approximately 1 mile before joining SR 58 via freeway-to-freeway connectors near the existing Union Avenue / SR 58 interchange. Alternative D would be a parallel, duplicate facility of the existing designated SR 58 facility for approximately 1.25 miles.

  Alternative D did not meet Criterion 3. Although safety problems could be avoided, existing operational deficiencies at the SR 58 / SR 99 interchange could not be prevented with this alternative.

  To provide connectivity to downtown Bakersfield, a modified tight diamond interchange is proposed along the new segment of SR 58 at Chester Avenue. Major roadway improvements on Chester Avenue between Truxtun Avenue and California Avenue would be required to accommodate the projected heavy volumes to and from the SR 58 on- and off-ramps. In order to meet acceptable level of service conditions, Chester Avenue would need to be widened to include the following improvements, in each direction: dual left turn lanes, two through lanes and a right turn lane. The improvements also include replacing the existing structure at the BNSF Grade Separation in order to accommodate the widening of Chester Avenue.

  Under this alternative, the SR 58 mainline is proposed to cross under SR 99. New direct connections to SR 99 were considered for this alternative. However, due to the proximity of adjacent interchanges, major local streets (such as California Avenue and Oak Street), the BNSF rail yard, the Carrier Canal, and the Kern River, new freeway-to-freeway connections to SR 99 were determined to be infeasible to construct. Connectivity to and from SR 99 would continue to be achieved via the existing segment of SR 58 between Union Avenue and SR 99. No improvements would be made to SR 99 under this alternative.

  The mainline geometrics of Alternative D would result in displacement of parking lots for Mercy Hospital, Bakersfield City Hall, and for public use in downtown Bakersfield. Although parking displacements would not be considered a fatal flaw for Alternative D, new parking structures would be required to replace the eliminated parking spaces, for an estimated cost of $54 million.

Additionally, Alternative D would require the relocation of Bakersfield Fire Department Fire Station #6, located at the northwestern corner of SR 58 and Union Avenue. The fire station would need to be relocated prior to construction of the roadway to ensure that emergency response times are not impacted by Centennial Corridor.

Construction of Alternative D would require the closure of 11th Street, Pershing Street, 10th Street, and 9th Street. The elimination of these through facilities would modify circulation. Access would be limited to the proposed UCs at California Avenue and 8th Street.

The more detailed engineering design of Alternative D has further identified that the geometry required to make the alternative function from a design perspective is extremely complex. Alternative D proposes only one new local service interchange at Chester Avenue in downtown Bakersfield, and no new connections to SR 99. Due to its limited connectivity to other local/State facilities, there are no elements of this alternative that can be phased without affecting its function.

Under existing conditions, the H Street / Chester Avenue interchange is approximately 1 mile east of the existing SR 58 / SR 99 freeway-to-freeway interchange, the Union Avenue interchange is 1 mile east of the H Street / Chester Avenue interchange, and the Cottonwood Road interchange is approximately 1 mile east of the Union Avenue interchange. The standard distance between a freeway-to-freeway interchange and a local street interchange is 2 miles, and the standard distance between two successive local street interchanges is 1 mile.

The proposed geometric design of Alternative D would require a new freeway-to-freeway connection near the Union Avenue / SR 58 interchange, referred to herein as the Existing SR 58 / future SR 58 interchange. The Union Avenue / SR 58 interchange would be maintained and would be within the Existing SR 58 / future SR 58 interchange footprint. As a result, the proposed location of the Existing SR 58 / future SR 58 interchange would result in nonstandard interchange spacing (1 mile) in both directions between this new freeway-to-freeway interchange and the H Street / Chester Avenue and Cottonwood Road interchanges, resulting in safety consideration due to deficient weaving distances between successive on- and off-ramps.

To provide standard interchange spacing, both the H Street / Chester Avenue and Cottonwood Road interchanges would need to be closed. However, closure of any of the local street interchanges along SR 58 is not considered an option because it would significantly impact current local traffic circulation patterns. Closure of these interchanges would result in considerable out-of-direction travel for commuters accessing adjacent shopping centers, industrial facilities, neighborhoods, the Kern County Fairground, and the Bakersfield Municipal Airport. The out-of-direction travel and lack of direct access would also result in longer commute times and longer travel distances to reach these destinations. Additionally, as a result of any one interchange being closed, extensive improvements to adjacent interchanges and

surrounding roadways would be required to accommodate the additional traffic volumes that would be redirected to the surrounding facilities.

To avoid potential safety issues with maintaining the interchanges at their current spacing, the connector ramps to and from the new segment of SR 58 would be braided with the ramps from the H Street / Chester Avenue interchange as well as the ramps from the Cottonwood Road interchange. At the Union Avenue interchange, standard spacing of 1,000 feet is proposed between successive on- and off-ramps, with no potential for weaving movements.

Alternative D proposed the connection of the new segment of SR 58 to the existing facility near the existing Union Avenue / SR 58 interchange. Therefore, improvements to the existing SR 58 / SR 99 interchange were not proposed under this alternative. Therefore, future deficiencies at the SR 58 / SR 99 interchange would not be corrected with this alternative and would need to be addressed as a separate project in the future.

Regionally, the projected Design Year 2037 traffic volumes from the regional Kern COG travel demand forecasting model indicate the freeway mainline for Alternative D would be underused, primarily because regional SR 99 traffic would need take a circuitous travel route to access the Centennial Corridor Project and to connect to the WSP and, ultimately, to I-5. The circuitous travel route results because no new freeway-to-freeway connection at SR 99 can be accommodated (see previous discussion provided in the Alternative D description). In this alternative, the interregional traffic coming from/to I-5 would use Mohawk Street and Rosedale Highway to access SR 99. The local traffic would continue to use the existing local transportation system (Rosedale Highway and Stockdale Highway), which would serve as the primary east-west connections between SR 99 and I-5. Therefore, the Rosedale Highway / SR 99 interchange, Stockdale Highway / SR 99 interchange, Real Road / SR 58 interchange, and the level of service on these local transportation facilities would deteriorate without additional improvements to these facilities.

Alternative D did not meet Criterion 4. The original estimated capital cost for Alternative D was $797 million. Based on further refinement of the engineering, Alternative D's estimated capital cost is $1.1 billion. This exceeds the available funding by more than 150 percent, and no other sources of funding have been identified that could bridge the funding gap. The cost estimate is as follows:

Roadway	$ 387,000,000
Structures	$ 417,000,000
Environmental Mitigation	$ 23,000,000
Right-of-way and Utility Relocation	$ 273,000,000
Total Capital Cost	$1,100,000,000

Furthermore, based on the Surface Transportation Efficiency Analysis Model (STEAM), the approximate life cycle benefit was calculated to be $658 million. In comparison to the capital outlay costs for Alternative D, the benefit would only be 60 percent of the capital costs, primarily because of the high cost associated with

Alternative D, which is tied to the construction of a parallel facility that results in a circuitous travel route to and from SR 99.

Upon re-evaluation of Alternative D, Criterion 6 also received a "no" response (Alternative D was evaluated and passed the initial 2008 screening process). As part of the initial screening, this alternative was recommended for further evaluation. Based on more detailed engineering, subsequent screening of Alternative D was recommended.

Because there were multiple "no" responses to the other criteria, Criterion 8 was applicable. It was determined that the combination of "no" responses shows Alternative D is not a reasonable and feasible alternative.

- *Alternative E – Washington Avenue*: Alternative E proposed to construct a freeway near Washington Avenue extending north from SR 58 for approximately 1 mile, at which point it would turn to the west and run parallel to the BNSF railroad tracks. Alternative E would connect to the WSP alignment at the new interchange at Mohawk Street. The total length of the project from SR 58 at Washington Avenue to I-5 would be approximately 20.5 miles.

  Preliminary detailed cost estimates for Alternative E identified the cost to construct this alternative as approximately $1.08 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative E would be cost prohibitive and would not meet the requirements of Criterion 4.

  Because there was one "no" response for Criterion 4, Criterion 7 was applicable. The evaluation under Criterion 7 determined that because Alternative E exceeds the available funding, it is an unreasonable alternative.

  Alternative E was not carried forward for further evaluation.

- *Alternative F – South Beltway*: Alternative F proposed to construct a freeway in the southern and eastern portion of Bakersfield. The freeway would begin at I-5 approximately 3.5 miles south of SR 119 and would extend in a northeasterly direction for approximately 7.6 miles to a location approximately 1.2 miles southwest of the SR 119 and SR 99 intersection. At this location, the freeway would run in a southeasterly and easterly direction, crossing SR 99, for approximately 4.2 miles. The freeway would turn to the northeast and cross SR 119 in a northerly direction until crossing SR 184, approximately 2.6 miles south of SR 58. At this point, the freeway would continue for approximately 3.6 miles in a northeasterly direction to a location approximately 1.0 mile south of SR 58. The freeway would turn to the north and terminate at its intersection with SR 58. The total length of the project from SR 58 to I-5 would be approximately 23.9 miles.

  Alternative F did not meet the requirements of Criterion 2 because the alternative failed to meet the project's purpose of providing regional connectivity for east-west traffic traveling within metropolitan Bakersfield and Kern County. Alternative F's route is not within metropolitan Bakersfield.

Preliminary detailed cost estimates for Alternative F identified the cost to construct this alternative as approximately $1.29 billion, exceeding the maximum threshold established for the Centennial Corridor Project. The requirements of Criterion 4 were not met because construction of Alternative F would be cost prohibitive.

The South Beltway is a part of the Bakersfield Beltway System, as is the Centennial Corridor. The Centennial Corridor, however, also satisfies the purpose and need of the South Beltway at a considerably lower cost.

This alternative was previously identified in two previous studies (Criterion 6). In the *Final Tier 1 Environmental Impact Report Amendment No. 1 for the South Beltway Transportation Corridor,* it was included as a segment of one of the alternatives. It passed the screening and moved forward for further evaluation. Alternative F was also identified in the *Bakersfield Systems Study* as a segment of one of the alternatives; however, it did not pass the screening and did not receive further evaluation.

Because there were multiple "no" responses to the screening criteria, Criterion 8 was applicable. It was determined that the combination of "no" responses showed Alternative F is not a reasonable and feasible alternative.

Alternative F was not carried forward for further evaluation.

- *Alternative G – Hageman Road*: Alternative G proposed to construct a freeway near Hageman Road. The roadway would begin at I-5 and would parallel Rosedale Highway, approximately 1 mile to the south, for about 4 miles. At this point, it would turn northeast and follow Meacham Road between Rosedale Highway and Hageman Road, turning northeast again before crossing Renfro Road. It would then parallel Hageman Road about 500 feet to the north to Calloway Drive. After crossing Calloway, it would turn southeast, following the Friant-Kern Canal for about 0.5 mile, crossing the canal and extending about 1.0 mile before turning northeast and terminating at SR 99 at the existing SR 99 / SR 204 interchange. The total length of the project from SR 99 at Hageman Road to I-5 would be approximately 19.8 miles.

  Alternative G would result in severe operational and safety problems associated with the proximity of the connection to SR 99 and Olive Drive, which is approximately 0.5 mile north of the proposed freeway-to-freeway interchange. Therefore, this alternative did not meet Criterion 3.

  Preliminary detailed cost estimates for Alternative G identified the cost to construct this alternative as approximately $1.05 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative G would be cost prohibitive and did not meet the requirements of Criterion 4.

  This alternative was previously identified in the Tier 1 EIS/EIR; however, it did not pass the screening and did not receive further evaluation (Criterion 6).

Criterion 8 was applicable because there were two "no" answers to the criteria. Because there would not be sufficient funds to implement this alternative (Criterion 4), it would not be considered a reasonable alternative.

Alternative G was not carried forward for further evaluation.

- *Alternative H – Rosedale Highway (elevated alignment)*: Alternative H proposed to construct an elevated freeway near Rosedale Highway. This freeway would begin at a future connection with the Hageman Road alternative (Alternative G), approximately 0.7 mile east of Enos Lane (SR 43). The alignment would extend in a southeast direction for approximately 0.3 mile and then would proceed east to SR 99. The total length of Alternative H from SR 99 to I-5 would be approximately 11.0 miles.

  Preliminary detailed cost estimates for Alternative H identified the cost to construct this alternative as approximately $2.85 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative H would be cost prohibitive and did not meet the requirements of Criterion 4.

  With the exception of Criterion 4, all other criteria (i.e., Criteria 1–5) were met by this alternative. Therefore, Criterion 7 was applicable. The evaluation under Criterion 7 determined that because Alternative H exceeds the available funding, it is an unreasonable alternative.

  Alternative H was not carried forward for further evaluation.

- *Alternative I – Widen SR 58 (existing Rosedale Highway)*: Alternative I proposed to construct a freeway along the existing alignment of SR 58. This freeway would begin at its intersection with SR 99 and proceed west along existing SR 58 to its terminus at I-5. The total length of the project would be approximately 18.7 miles.

  Preliminary detailed cost estimates for Alternative I identified the cost to construct this alternative as approximately $1.09 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative I would be cost prohibitive and did not meet the requirements of Criterion 4.

  This alternative was previously identified in the Tier 1 EIS/EIR; however, it did not pass the screening and did not receive further evaluation (Criterion 6).

  Criterion 8 was applicable because there are two "no" answers to the criterion. Because there would not be sufficient funds to implement this alternative (Criterion 4), it would not be considered a reasonable alternative.

  Alternative I was not carried forward for further evaluation.

- *Alternative J – Southern Alignment (connection between SR 99 and I-5, just north of SR 119)*: Alternative J proposed to construct a freeway near SR 119. The freeway would begin at I-5 at the SR 119 interchange. The alignment proceeds east,

terminating at SR 99 and Hosking Road, approximately 1.0 mile north of SR 119. The total length of the project from SR 99 at Hosking Avenue to I-5 would be approximately 11.0 miles.

Alternative J failed to meet the project's purpose of providing interregional and regional connectivity for east-west traffic traveling within metropolitan Bakersfield and Kern County (Criterion 2) because its route is not within metropolitan Bakersfield.

This alternative received initial review as part of a previous screening process; however, it was not moved forward for further evaluation (Criterion 6). The traffic studies done as part of the initial screening for the Tier 1 EIS/EIR showed that in the year 2020[2], virtually no interregional traffic would use a freeway on the southern alignment, and local traffic use would be low.

Because there were multiple "no" responses to previous criteria, Criterion 8 was applicable. It was determined that the combination of "no" responses showed Alternative J is not a reasonable and feasible alternative.

Alternative J was not moved forward for further evaluation.

- *Alternative K – Brimhall Alignment*: Alternative K proposed to construct a freeway near Brimhall Road. The freeway would begin at I-5 approximately 0.5 mile north of the Brimhall Road alignment and would parallel the alignment of that road east to Heath Road. At this point, the alignment turns southeasterly and continues east to Coffee Road. The total length of the project from Coffee Road to I-5 using the Brimhall Road alignment would be approximately 14.7 miles.

  Alternative K did not pass Criterion 1 because it did not meet the intent of the legislative mandate. Alternative K could not effectively promote economic growth and international and interregional trade because the alternative did not connect to two existing segments of the state freeway and expressway system. This alternative would not serve interregional trips.

  Similarly, it did not meet the project's purpose as outlined in Criterion 2: it did not effectively meet any of the bullet items identified in the purpose and need statement.

  Preliminary detailed cost estimates for Alternative K identified the cost to construct this alternative as approximately $821 million, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative K would be cost prohibitive and did not meet the requirements of Criterion 4.

2 As part of the EIS/EIR long-range traffic conditions are evaluated. Typically, a horizon year 20 years in the future is used. For the Tier 1 EIS/EIR, a year 2020 horizon year was used.

This alternative has received initial review as part of a previous screening process (Tier 1 EIS/EIR); however, it was not moved forward for further evaluation (Criterion 6).

Because there were multiple "no" responses to previous criteria, Criterion 8 was applicable. It was determined that the combination of "no" responses showed Alternative K is not a reasonable and feasible alternative.

Alternative K was not carried forward for further evaluation.

- *Alternative L – Stockdale Alignment*: Alternative L proposed to construct a freeway near Stockdale Highway. The roadway would begin at I-5 and would proceed east along Stockdale Highway, terminating at SR 99. The total length of the project from SR 99 to I-5 would be approximately 16.9 miles.

  Preliminary detailed cost estimates for Alternative L identified the cost to construct this alternative as approximately $1.20 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative K would be cost prohibitive and did not meet the requirements of Criterion 4.

  With the exception of Criterion 4, all other criteria (i.e., Criteria 1–5) were met by this alternative. Therefore, Criterion 7 was applicable. The evaluation under Criterion 7 determined that because Alternative L exceeds the available funding, it is an unreasonable alternative.

  Alternative L was not carried forward for further evaluation.

- *Alternative 15 – Alternative from the Bakersfield Systems Study*: Alternative 15 proposed a four- to eight-lane freeway connecting SR 58 at Union Avenue (SR 204) to I-5, passing through the downtown area via a parallel route to the SR 204 corridor and continuing west via the Seventh Standard Road Corridor. The total length of the project from SR 58 to I-5 would be approximately 28.3 miles.

  Preliminary detailed cost estimates for Alternative 15 identified the cost to construct this alternative as approximately $2.23 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative 15 would be cost prohibitive and did not meet the requirements of Criterion 4.

  This alternative has been considered as part of a previous screening process for the Bakersfield Systems Study and was successfully moved forward (Criterion 6).

  Because this alternative received one "no" response, Criterion 7 was applicable. Criterion 7 evaluates whether not meeting Criterion 4 would warrant eliminating Alternative 15 from further consideration. It was determined that the cost would be prohibitive and that this alternative could not be built.

  Alternative 15 was not carried forward for further evaluation.

- *Alternative PA-1 – Alternative Submitted by the Public (between Alternative B and Alternative C)*: Alternative PA-1 proposed to construct a new freeway west of the SR 58 / SR 99 interchange. The alignment would extend west on the south side of Stockdale Highway and immediately turn north for approximately 1.5 mile, then turn to the northwest spanning the Carrier Canal, Truxtun Avenue, and the Kern River. Alternative PA-1 would connect to the WSP alignment at the Mohawk Street interchange. The total length of the project from the existing SR 99 / SR 58 interchange to I-5 using Alternative PA-1 would be approximately 18.9 miles.

  Alternative PA-1 would result in severe operational and safety problems because it could not meet Caltrans geometric standards and would not meet design speed standards for a freeway. Preliminary engineering conducted for Alternative PA-1 demonstrated that, with application of Caltrans standards and proper geometrics, this alternative would result in an alignment similar to Alternative B.

  Since there was one "no" response, Criterion 7 was applicable. This evaluation determined that Alternative PA-1 was not viable because Caltrans would not construct a facility that would pose severe operational and safety problems.

  Alternative PA-1 was not carried forward for further evaluation.

- *Alternative PA-2 – Alternative Submitted by the Public (Southern limits of City of Bakersfield)*: Alternative PA-2 proposed to construct a new freeway in southern Bakersfield. The alignment would begin just north of the I-5 / SR 43 interchange. Traveling in an easterly direction for approximately 12.8 miles, the freeway would cross SR 99 approximately 1.0 mile north of SR 119, cross SR 184 approximately 1.6 miles north of SR 119, and connect to SR 58 approximately 4.0 miles east of SR 184. The total length of the project from I-5 to SR 58 using Alternative PA-2 would be approximately 24.0 miles.

  Alternative PA-2 did not meet the project's purpose of providing interregional and regional connectivity for east-west traffic traveling within metropolitan Bakersfield and Kern County (Criterion 2). The route for Alternative PA-2 is not within metropolitan Bakersfield.

  Preliminary detailed cost estimates for Alternative PA-2 identified the cost to construct this alternative as approximately $1.24 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative PA-2 would be cost prohibitive and did not meet the requirements of Criterion 4.

  Since there were multiple "no" responses to previous criteria, Criterion 8 was applicable. It was determined that the combination of "no" responses showed Alternative PA-2 is not a reasonable and feasible alternative.

  Alternative PA-2 was not carried forward for further evaluation.

- *Alternative PA-3 – Alternative Submitted by the Public (just north of and parallel to SR 223)*: Alternative PA-3 proposed to construct a new freeway along existing SR 223. The roadway would begin at the intersection of I-5 and SR 223, proceed east along the same alignment as SR 223, and terminate at SR 58. The total length of the project from I-5 to SR 58 using Alternative PA-3 would be approximately 34.6 miles.

  Alternative PA-3 did not meet the project's purpose of providing interregional and regional connectivity for east-west traffic traveling within metropolitan Bakersfield and Kern County (Criterion 2) since the route for Alternative PA-3 is not within metropolitan Bakersfield.

  Preliminary detailed cost estimates for Alternative PA-3 identified the cost to construct this alternative as approximately $1.72 billion, exceeding the maximum threshold established for the Centennial Corridor Project. Therefore, construction of Alternative PA-3 would be cost prohibitive and did not meet the requirements of Criterion 4.

  Because there were multiple "no" responses to previous criteria, Criterion 8 was applicable. It was determined that the combination of "no" responses showed Alternative PA-3 is not a reasonable and feasible alternative.

  Alternative PA-3 was not carried forward for further evaluation.

7. COMMUNITY INVOLVEMENT

Caltrans has implemented a public involvement plan that proactively seeks input from the public, resource agencies, local agencies, and environmental services during the process of identifying and evaluating alternatives. Several public meetings have been held to introduce the public to the alternatives that were initially identified, seek public input on those alternatives, and seek public suggestions on additional alternatives to consider. Multiple agencies were involved in developing the purpose and need, alternatives, and methods for environmental analyses. Other open houses have been held to keep citizens informed about the progress of the Project. In addition to open houses, focused meetings have been held to identify specific concerns of citizen groups. Additionally, the Citizens' Advisory Group, composed of members from each of the communities that could be impacted by those alternatives that will be studied, interacts with Caltrans, the City of Bakersfield, and the County of Kern staff to give input, represent their community interests, and act as liaisons to their neighborhoods.

There will be numerous opportunities for public involvement during the environmental process. The draft environmental document is scheduled to be circulated in December 2012. Public information meetings will be held for the draft environmental document to solicit public comments. Caltrans will respond to these comments and finalize the environmental document by fall 2014.

8. ENVIRONMENTAL DETERMINATION/DOCUMENTATION

The proposed project would require an EIR under the CEQA. NEPA compliance would be satisfied with an EIS. The environmental document is projected to be completed by fall 2014. Caltrans would act as lead agency under the CEQA and the NEPA, as assigned by the FHWA.

Two special considerations that could influence the ability to complete the environmental document in the proposed time frame are the biological surveys and the memorandum of agreement for the Section 106 evaluation. Biological surveys are time-sensitive items because they must be conducted during the spring. Negotiating the memorandum of agreement with the State Historic Preservation Office for Section 106 (architectural history) is considered a critical-path item for the final environmental document.

9. FUNDING

The current funding plan for the Centennial / SR 58 connector is as follows:

- SAFETEA-LU Section 1301 = $71.9 million
- SAFETEA-LU Section 1302 = $284.9 million
- Other federal = $13.0 million
- State = $53 million
- Bakersfield Impact Fees = $110.6 million
- City, County, local, other = $76.7 million

Tables 10, 11 & 12 provide the Project capital cost, Project support cost, and Project support Person Year (PY) tables for all alternatives.

A Cooperative Agreement 08-055 (District Agreement 06-1386) has been entered into between the City of Bakersfield and the State of California to construct a new freeway between SR 58 and I-5 for the PA&ED phase of the project (see Attachment H).

TABLE 10 – CAPITAL COST SUMMARY (Year 2016)

Category	Alternative A	Alternative B	Alternative C	Alternative M
Roadway items	$230,000,000	$208,000,000	$223,000,000	$99,000,000
Structures	$193,000,000	$155,000,000	$200,000,000	$53,000,000
Environmental	$ 16,000,000	$ 31,000,000	$ 13,000,000	0
Right of way	$194,000,000	$162,000,000	$152,000,000	$100,000,000
Total	**$633,000,000**	**$556,000,000**	**$588,000,000**	**$252,000,000**

TABLE 11 – PROJECT SUPPORT COST (Year 2009-2017)				
Category	**Alternative A**	**Alternative B**	**Alternative C**	**Alternative M**
PA&ED	$17,000,000	$14,000,000	$17,000,000	$17,000,000
Plans, specifications, and estimates (PS&E)	$25,000,000	$22,000,000	$25,000,000	$8,000,000
Right of way	$6,000,000	$5,000,000	$5,000,000	$4,000,000
Construction management	$38,000,000	$33,000,000	$38,000,000	$13,000,000
Total	**$86,000,000**	**$74,000,000**	**$85,000,000**	**$42,000,000**

TABLE 12 - CAPITAL SUPPORT ESTIMATE FOR CALTRANS RESOURCES					
	PA&ED	**PS&E**	**Right of Way**	**Construction**	**Total**
Estimated PY's	**41.0**	**19.1**	**1.4**	**19.2**	**80.7**
Total	**41.0**	**19.1**	**1.4**	**19.2**	**80.7**

10. ANTICIPATED SCHEDULE

Milestones	**Delivery Date (Month, Year)**
Conceptual engineering and preliminary studies	In progress
Prepare draft environmental document	In progress
Circulate draft environmental document	July 2012
PA&ED	July 2013
Project PS&E	January 2016
Right of way certification	January 2016
Ready to list	April 2016
Begin construction	June 2016
End construction	December 2018

11. FHWA COORDINATION

Effective July 1, 2007, under the NEPA Delegation Pilot Program Memorandum of Understanding (MOU), Caltrans has assumed the FHWA's responsibilities under NEPA as well as the FHWA's consultation and coordination responsibilities under other federal environmental laws for most highway projects in California. Caltrans, in essence, is now the lead federal agency for the Centennial Corridor Project where it has assumed the FHWA's responsibilities.

This report has been reviewed by Sheila Masters, FHWA Liaison Engineer. Conceptual approval from FHWA for the connection at I-5, as it relates to the ultimate alignment of Segment 3, will be sought in the future since the ultimate alignment is greater than 20 years out for construction. FHWA conceptual approval is valid for only eight years.

This project is eligible for federal-aid funding and is considered to be a STATE AUTHORIZED or FULL OVERSIGHT project under current FHWA stewardship agreements.

Under the FHWA joint stewardship agreement entered into with the State of California, the Project is deemed a "high-profile" project because it meets the criteria for a "major project" (greater than $500 million in cost). This project requires a financial plan and a project management plan.

12. DISTRICT CONTACTS

Principal contacts for the Project are as follows:

City of Bakersfield		
Ted Wright	twright@bakersfieldfreeways.us	661-326-3475
Kris Budak	kbudak@bakersfieldfreeways.us	661-326-3483
Girair Kotchian, Parsons	girair.kotchian@parsons.com	661-326-3472
David Clark, Parsons	david.d.clark@parsons.com	661-326-3496
Chris Clark, Parsons	cclark@bakersfieldfreeways.us	661-326-3471
Kern County		
Lynn Brooks	brooksl@co.kern.ca.us	661-326-3700
California Department of Transportation District 6		
Steven Milton, PPM	steven.milton@dot.ca.gov	559-243-3456
Terry Ogle, Design	terry.ogle@dot.ca.gov	559-230-3101
Richard Helgeson, Design	richard.helgeson@dot.ca.gov	559-230-3110
Bryan Apper, Environmental	bryan.apper@dot.ca.gov	559-445-6282
Steve McDonald, Planning	steven.j.mcdonald@dot.ca.gov	559-488-4334
John Liu, Maintenance	john.liu@dot.ca.gov	559-488-4144
Albert Lee, Traffic Ops	albert.lee@dot.ca.gov	559-488-4331
BonTerra Consulting (Environmental)		
Kathleen Brady	kbrady@bonterraconsulting.com	714-460-1604

13. PROJECT REVIEWS

Review of *Project Study Report* and the project quality review were completed in the district as follows:

Field Review: Project Development Team Date 02/04/09

District Maintenance:	John Liu	Date	06/28/09
District Safety Review:	Safety Review Committee	Date	05/07/09
Constructability Review:	Constructability Review Committee	Date	05/07/09
HQ Design Coordinator:	Mike Janzen	Date	03/16/09

Christine Inouye, HQ Design Coordinator, has concurred that Alternatives A, B, and C, as presented in this PSR, may be considered geometrically feasible, and that approval of fact sheets is not necessary at this time.

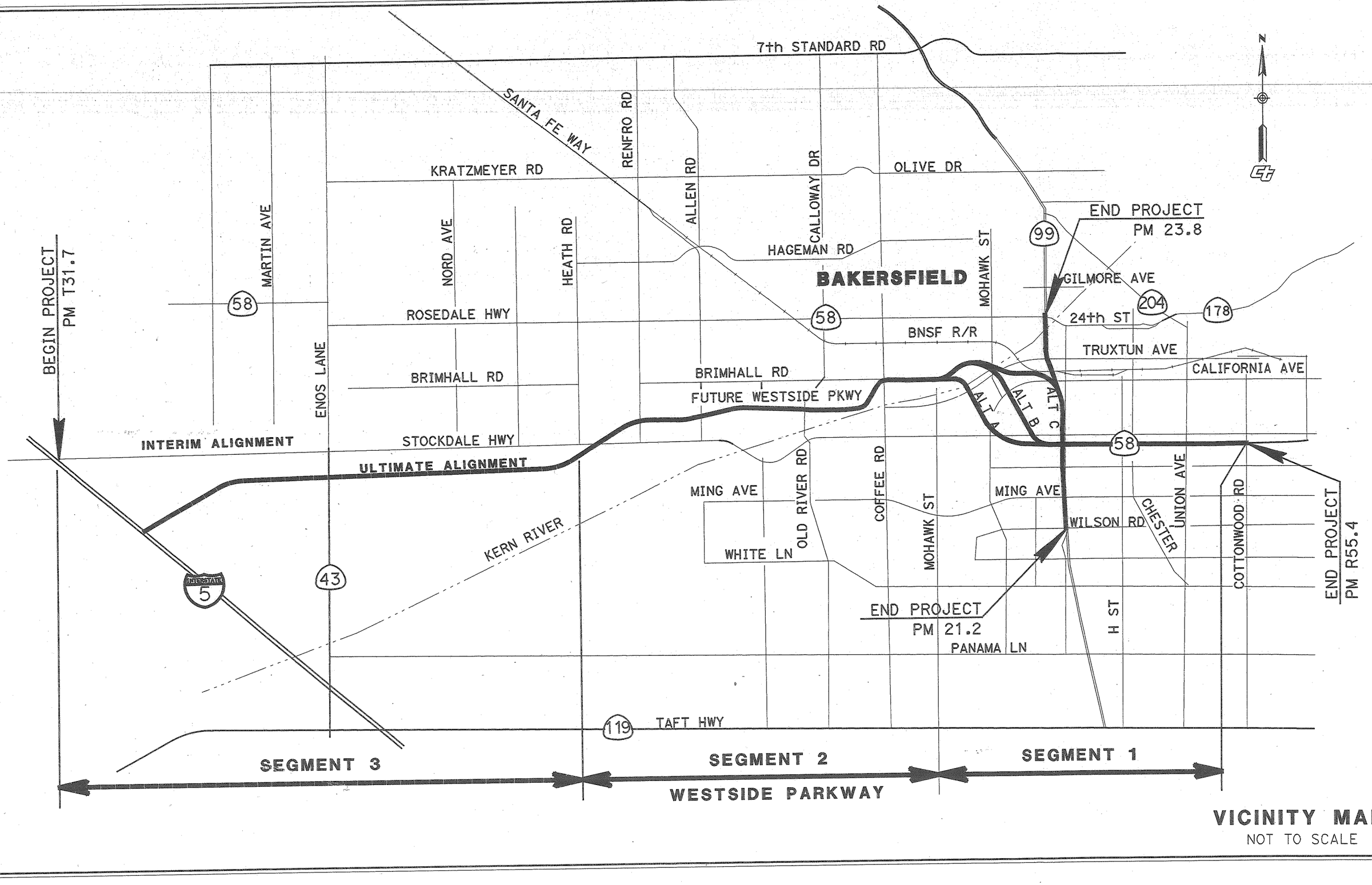
14. ATTACHMENTS

ATTACHMENT A.	PROJECT VICINITY AND LOCATION MAP
ATTACHMENT B.	TYPICAL SECTIONS AND LAYOUTS
ATTACHMENT C.	PRELIMINARY CONSTRUCTION COST ESTIMATES
ATTACHMENT D.	PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)
ATTACHMENT E.	PRELIMINARY STORM WATER DATA REPORT
ATTACHMENT F.	RIGHT-OF-WAY DATA SHEETS
ATTACHMENT G.	UTILITY CONFLICTS MATRIX
ATTACHMENT H.	COOPERATIVE AGREEMENT

cc:
FHWA - Dominic Hoang
HQ Division of Design
HQ Division of Engineering Services (5)
HQ Transportation Programming – Kurt Scherzinger
HQ Environmental – Bob Pavlik
HQ Maintenance – Patti-Jo Dickinsen
Project Manager – Steven Milton
Design Manager – Richard Helgeson (Original + 2)
Resident Engineer (Held by Design Manager)
District Maintenance – John Liu
District Traffic Management – Benjamin C. Camarena
Region Traffic Design – Mohammed Qatami
District Traffic Operations – Albert Lee
Region Materials – Ted Mooradian
Region Environmental – David Hyatt
Region Right of Way – Nick Dumas
District Planning – Steve Curti
PPM – Andrea Schmuki
Surveys – Hanna Kassis (electronic copy only)
HQ DES/OPPM – Peggy Lim
District Records – Beverly Connolly (electronic copy only)

ATTACHMENT A

PROJECT VICINITY AND LOCATION MAP



VICINITY MAP

NOT TO SCALE

ATTACHMENT B
TYPICAL SECTIONS AND LAYOUTS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

EXISTING STRUCTURAL SECTIONS:

[A] Exist
0.75' PCC
0.33' RMCTB
0.33' AB

[B] Exist
0.25' AC
0.50' AB

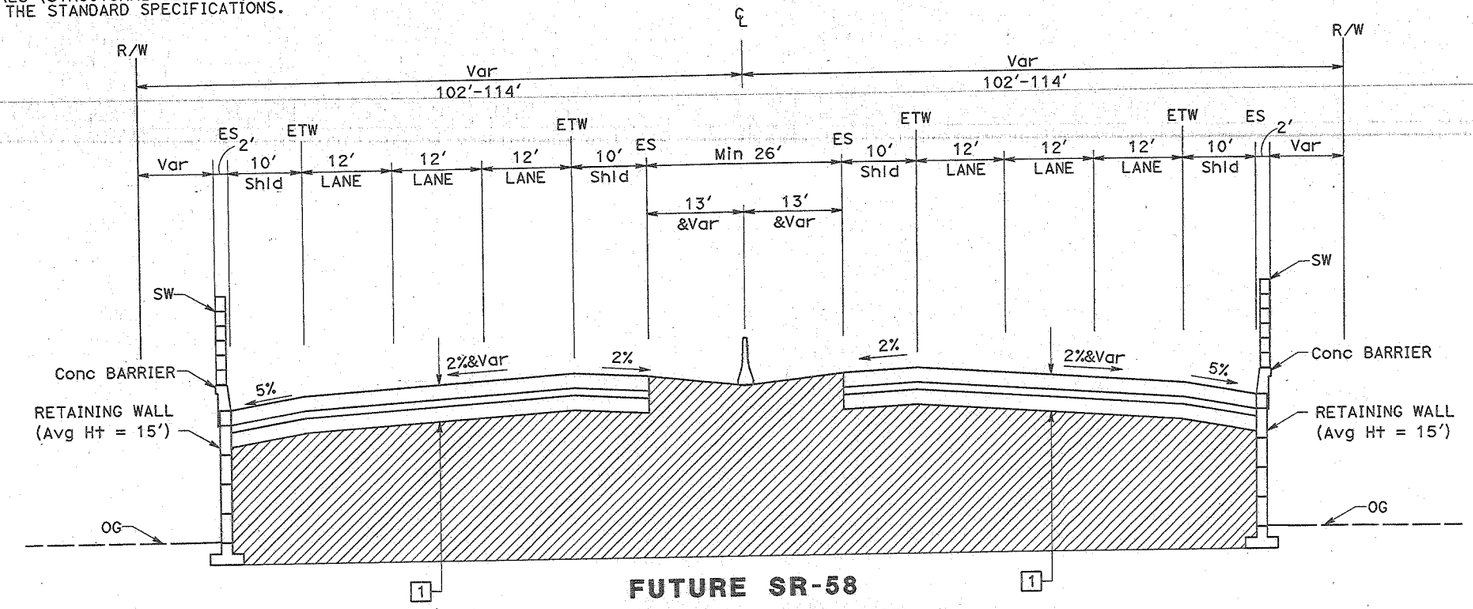
TYPICAL STRUCTURAL SECTIONS:

[1] 0.75' PCC
0.50' LCB
0.90' AS (CL 2)

[2] 0.40' HMA (TYPE A)
0.50' AB (CL 2)
0.60' AS (CL 2)

ADT (2009) = -
ADT (2037) = 115,500
DHV = 4,671
ESAL = 91 450 000

D = 52%
T = 15%
V = 70 mph



FUTURE SR-58
PROPOSED MAINLINE
ELEVATED SECTION
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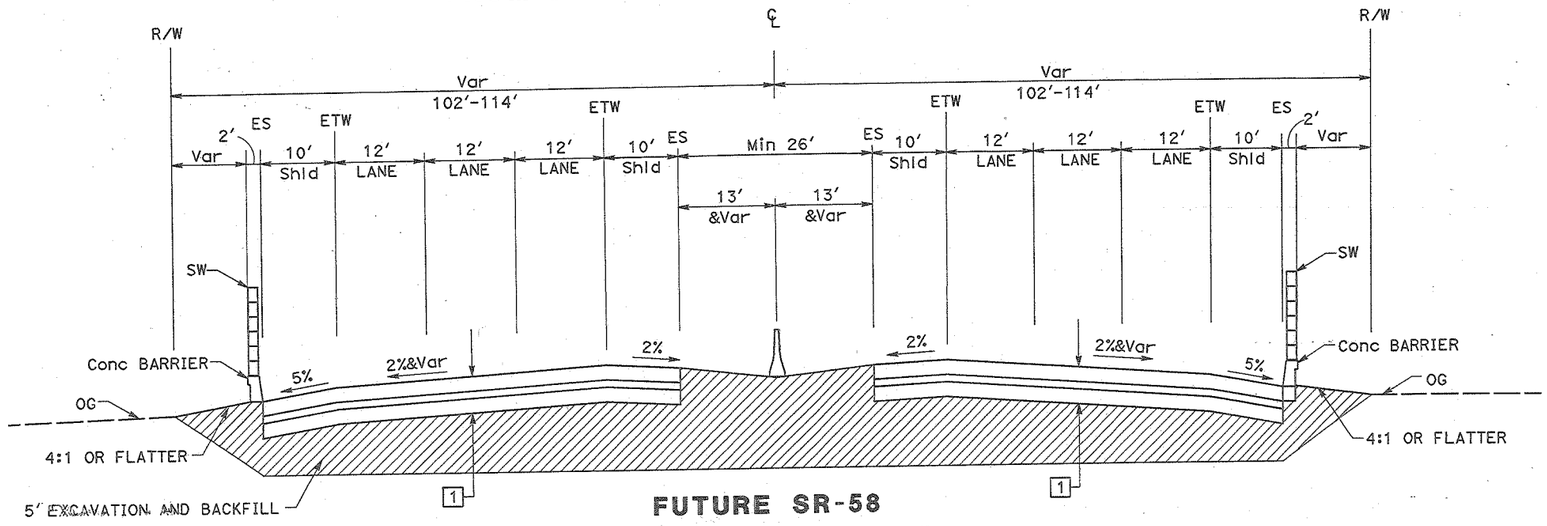
FROM LENNOX Ave TO MONTCLAIR St



FUTURE SR-58
PROPOSED MAINLINE
AT-GRADE SECTION
FROM WESTSIDE Pkwy TO KERN RIVER
FROM CARRIER CANAL TO LENNOX Ave
FROM MONTCLAIR St TO WEST OF SR-99

ALTERNATIVE "A"
TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

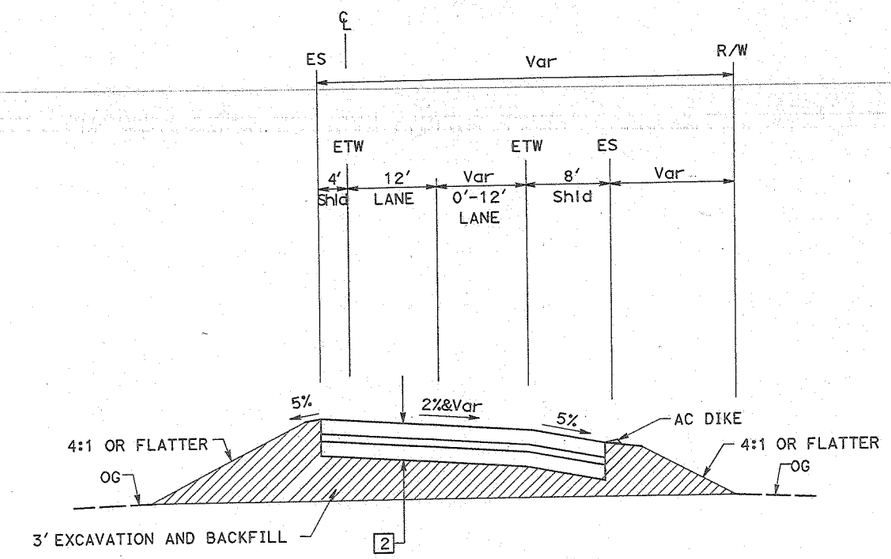
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

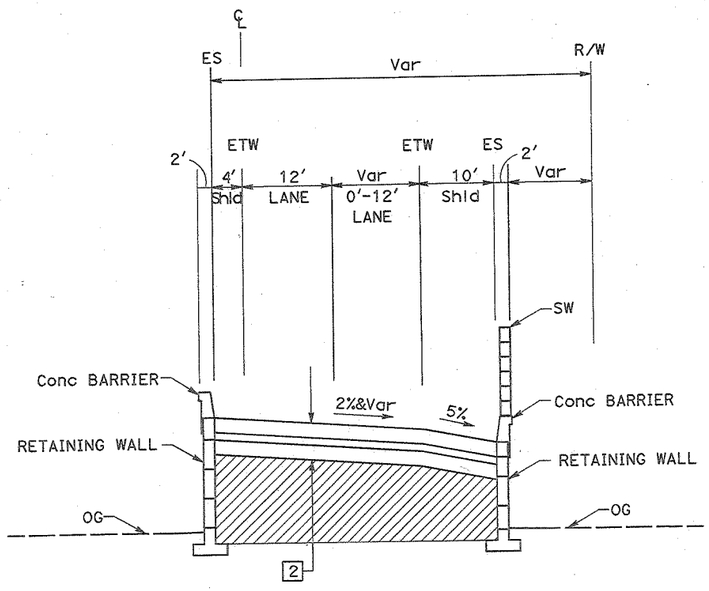
HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

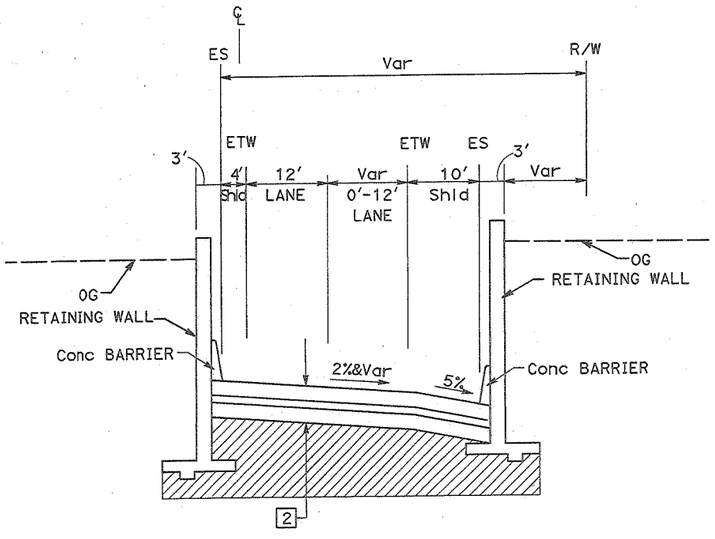
DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.



PROPOSED RAMPS AT-GRADE SECTION



PROPOSED RAMPS ELEVATED SECTION



PROPOSED RAMPS DEPRESSED SECTION

ALTERNATIVE "A" TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

CHECKED BY

REVISED BY	DATE REVISED

LAST REVISION 00-00-00

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UNIT 0000

PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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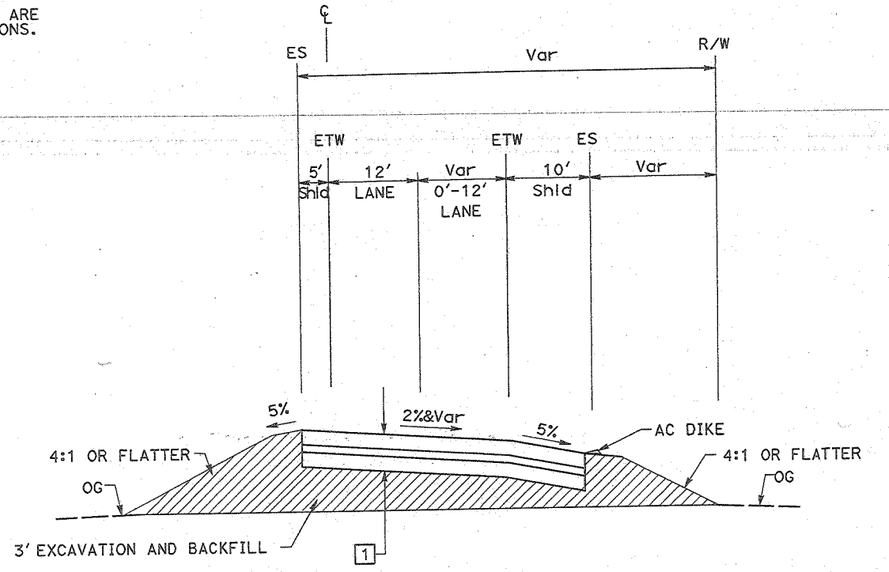
THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

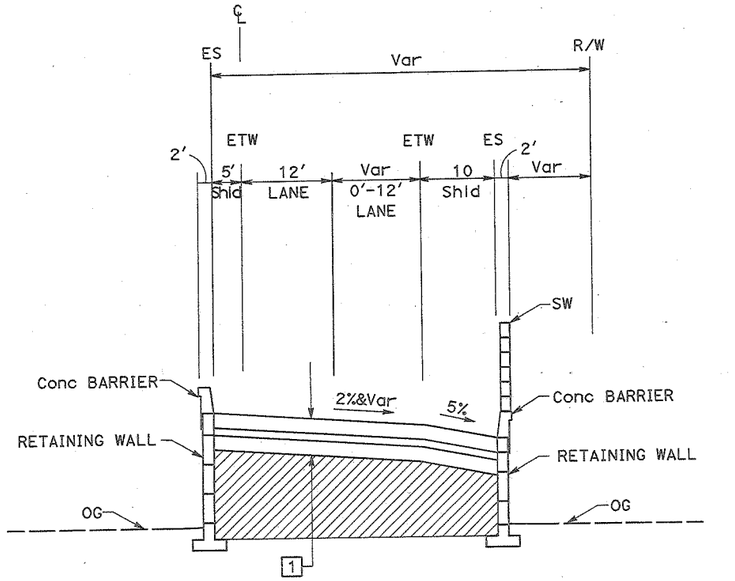
HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

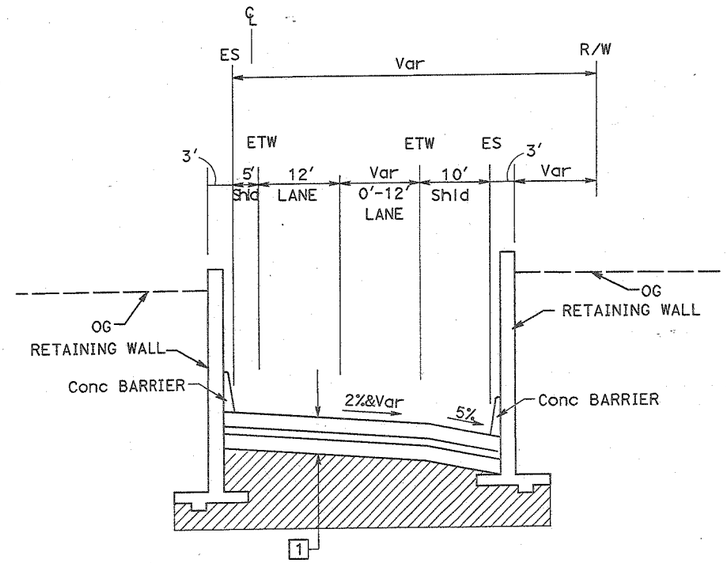
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.



PROPOSED SR-58/SR-99 BRANCH CONNECTORS AT-GRADE SECTION



PROPOSED SR-58/SR-99 BRANCH CONNECTORS ELEVATED SECTION



PROPOSED SR-58/SR-99 BRANCH CONNECTORS DEPRESSED SECTION

ALTERNATIVE "A" TYPICAL CROSS SECTIONS

NO SCALE

X-3

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BORDER LAST REVISED 7/2/2010

USERNAME => p0038175
DGN FILE => Typical Sections.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

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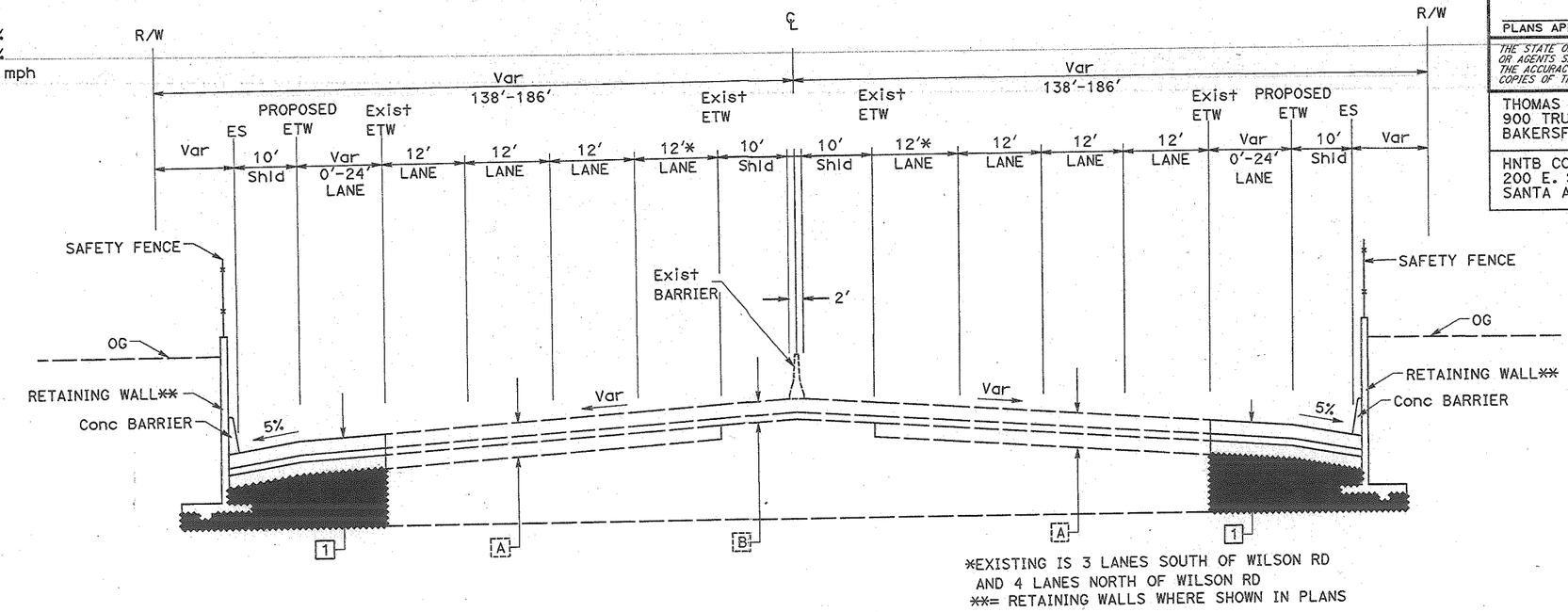
ADT (2009) = 116,000 D = 51%
ADT (2037) = 213,300 T = 15%
DHV = 8,472 V = 70 mph
ESAL = 91 450 000



*EXISTING IS 3 LANES SOUTH OF WILSON RD
AND 4 LANES NORTH OF WILSON RD
**= RETAINING WALLS WHERE SHOWN IN PLANS

SR-99 ALIGNMENT
FROM WILSON Rd TO BELLE TERRACE Ave

ALTERNATIVE "A"
TYPICAL CROSS SECTIONS

NO SCALE

X-4

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LAST REVISION 00-00-00 | DATE PLOTTED => 8/8/2011 | TIME PLOTTED => 9:21:13 AM

BORDER LAST REVISED 7/2/2010

USERNAME => p0038175
DGN FILE => Typical_Sections.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

EXISTING STRUCTURAL SECTIONS:

[A] Exist
0..75 PCC
0.33 RMCTB
0.33 AB

[B] Exist
0.25' AC
0.50 AB

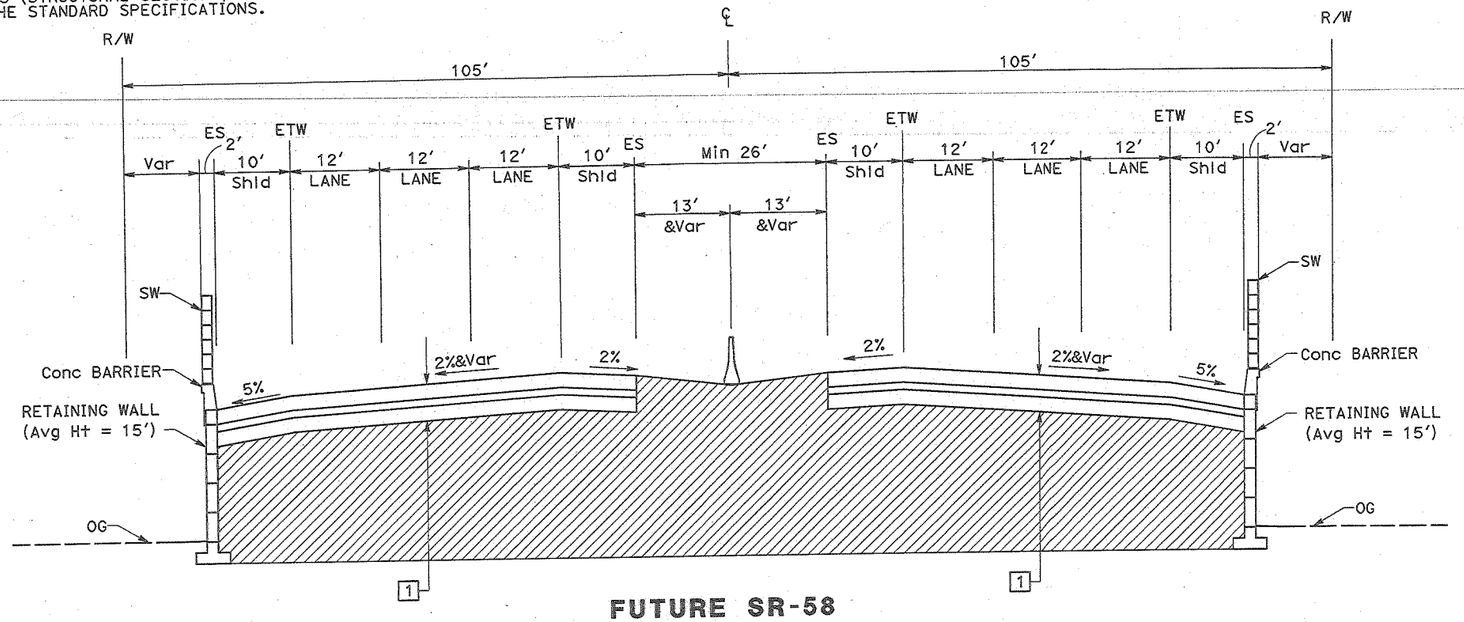
TYPICAL STRUCTURAL SECTIONS:

[1] 0.75' PCC
0.50' LCB
0.90' AS (CL 2)

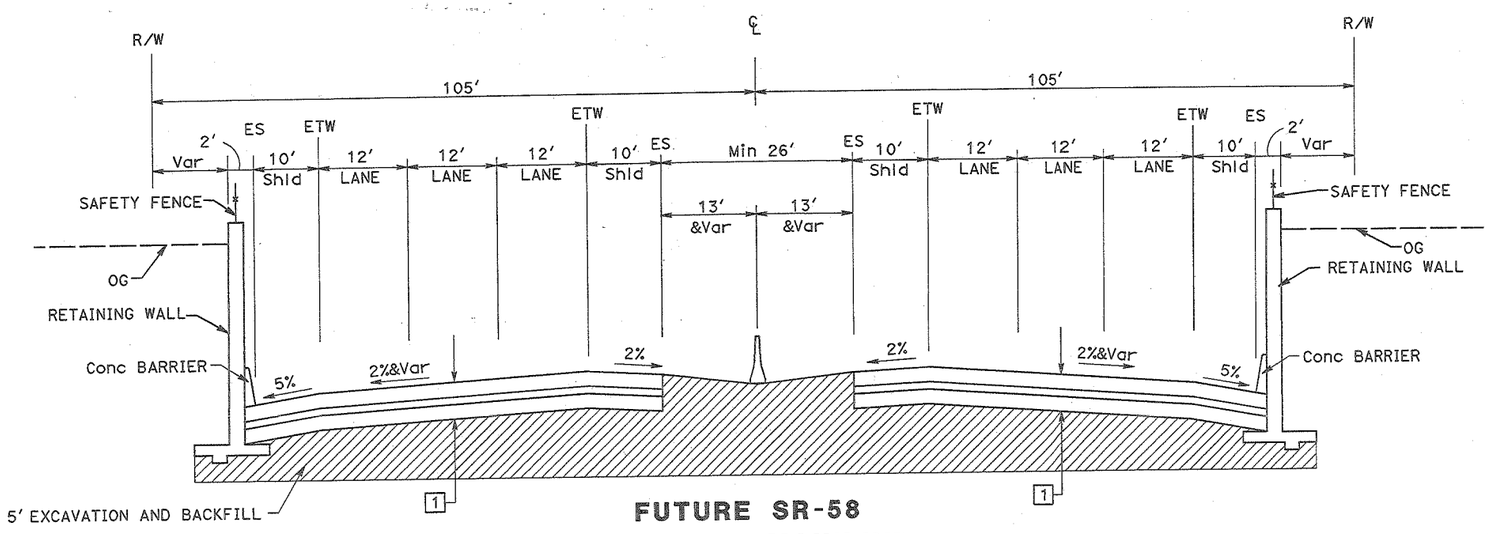
[2] 0.40' HMA (TYPE A)
0.50' AB (CL 2)
0.60' AS (CL 2)

ADT (2009) = -
ADT (2037) = 125,000
DHV = 5,246
ESAL = 91 450 000

D = 54%
T = 15%
V = 70 mph



FUTURE SR-58
PROPOSED MAINLINE
ELEVATED SECTION
FROM TRUXTUN TO CALIFORNIA Ave
FROM STOCKDALE Hwy TO WEST OF SR-99



FUTURE SR-58
PROPOSED MAINLINE
DEPRESSED SECTION
FROM MONTCLAIR St TO FORD Ave

ALTERNATIVE "B"
TYPICAL CROSS SECTIONS

NO SCALE

X-1

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BORDER LAST REVISED 7/2/2010

USERNAME => p0038175
DGN FILE => Typical Sections.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE.	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

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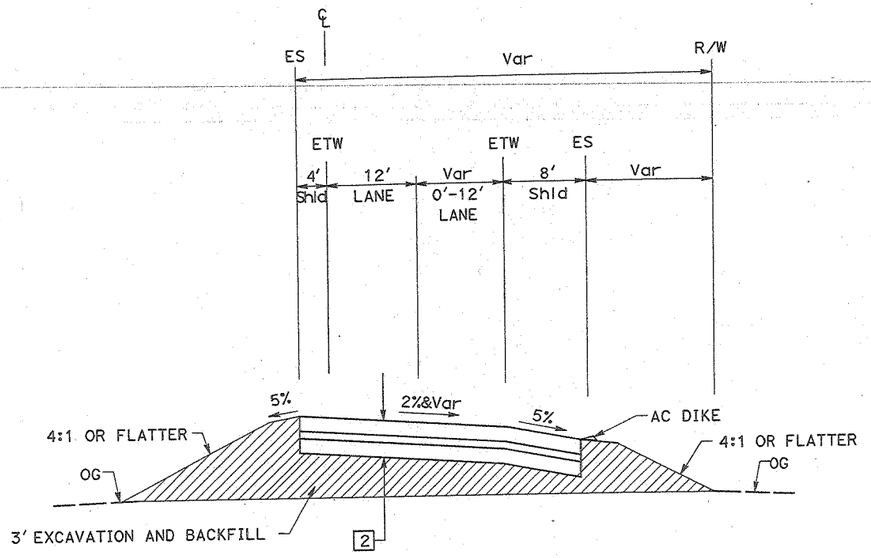
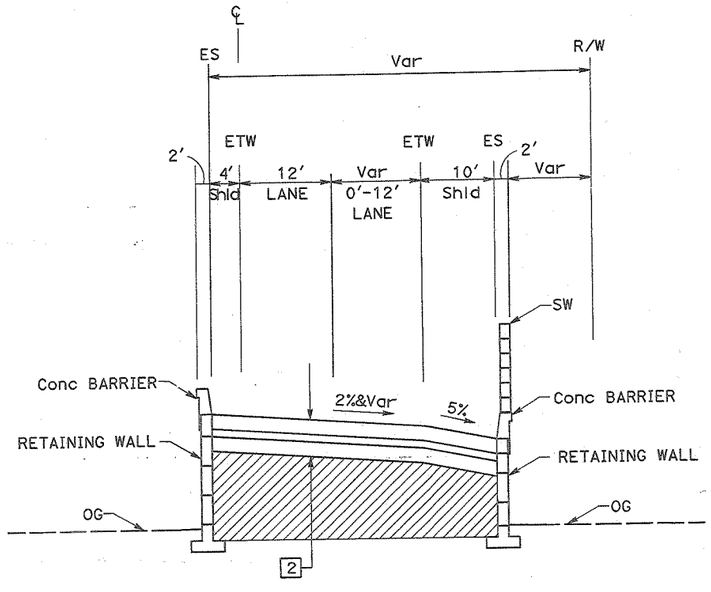
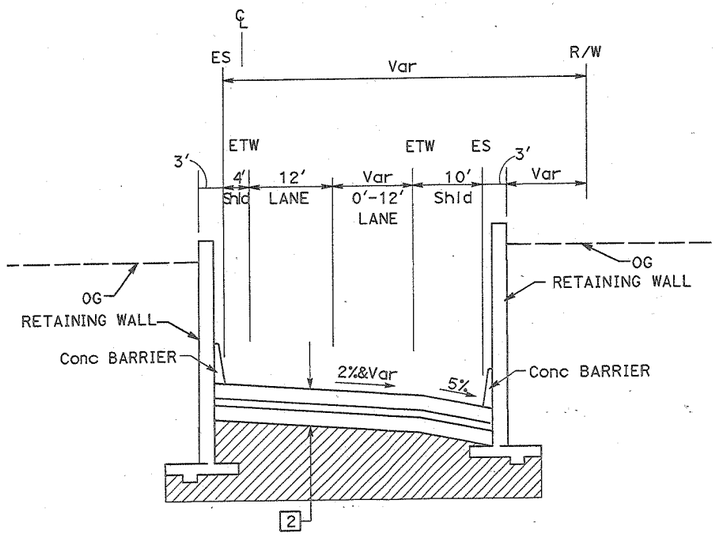


PROPOSED RAMPS AT-GRADE SECTION



PROPOSED RAMPS ELEVATED SECTION



PROPOSED RAMPS DEPRESSED SECTION

ALTERNATIVE "B" TYPICAL CROSS SECTIONS

NO SCALE

X-2

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Caltrans

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LAST REVISION 00-00-00 DATE PLOTTED => 8/8/2011 TIME PLOTTED => 8:59:05 AM

BORDER LAST REVISED 7/2/2010

USERNAME => p0038175
DGN FILE => Typical Sections.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

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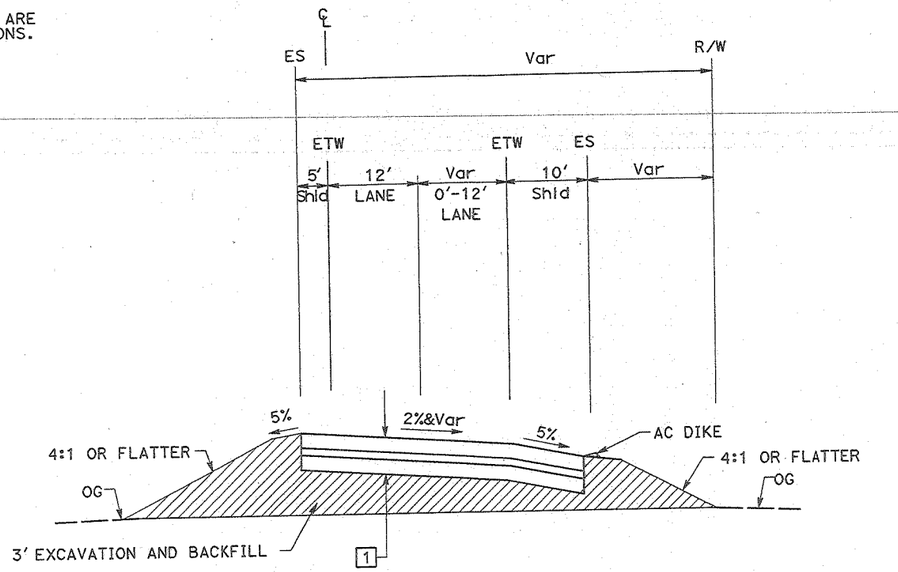
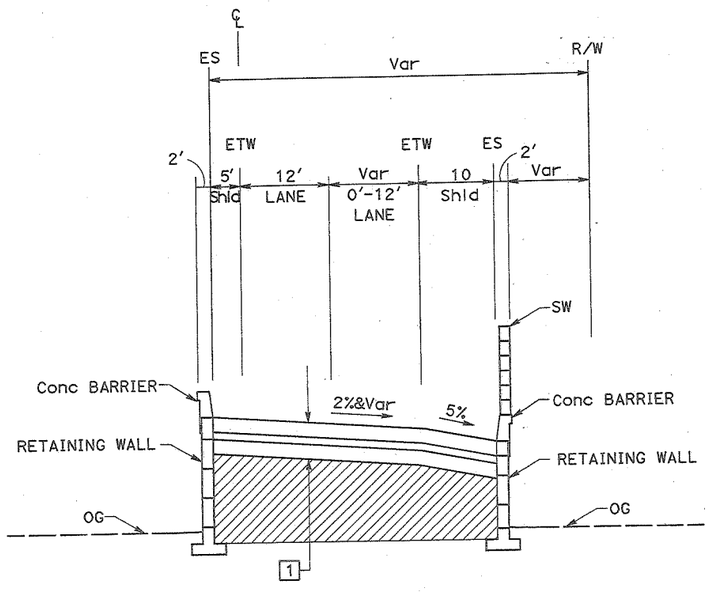
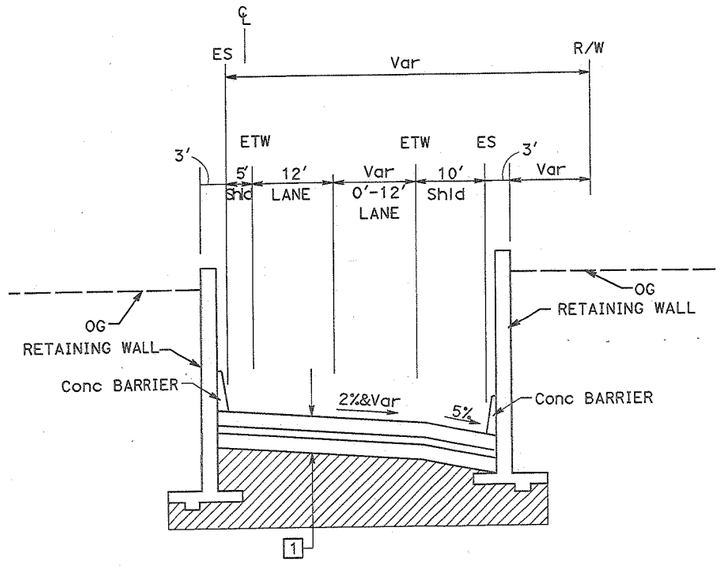


PROPOSED SR-58/SR-99 BRANCH CONNECTORS AT-GRADE SECTION



PROPOSED SR-58/SR-99 BRANCH CONNECTORS ELEVATED SECTION



PROPOSED SR-58/SR-99 BRANCH CONNECTORS DEPRESSED SECTION

ALTERNATIVE "B" TYPICAL CROSS SECTIONS

NO SCALE

X-3

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

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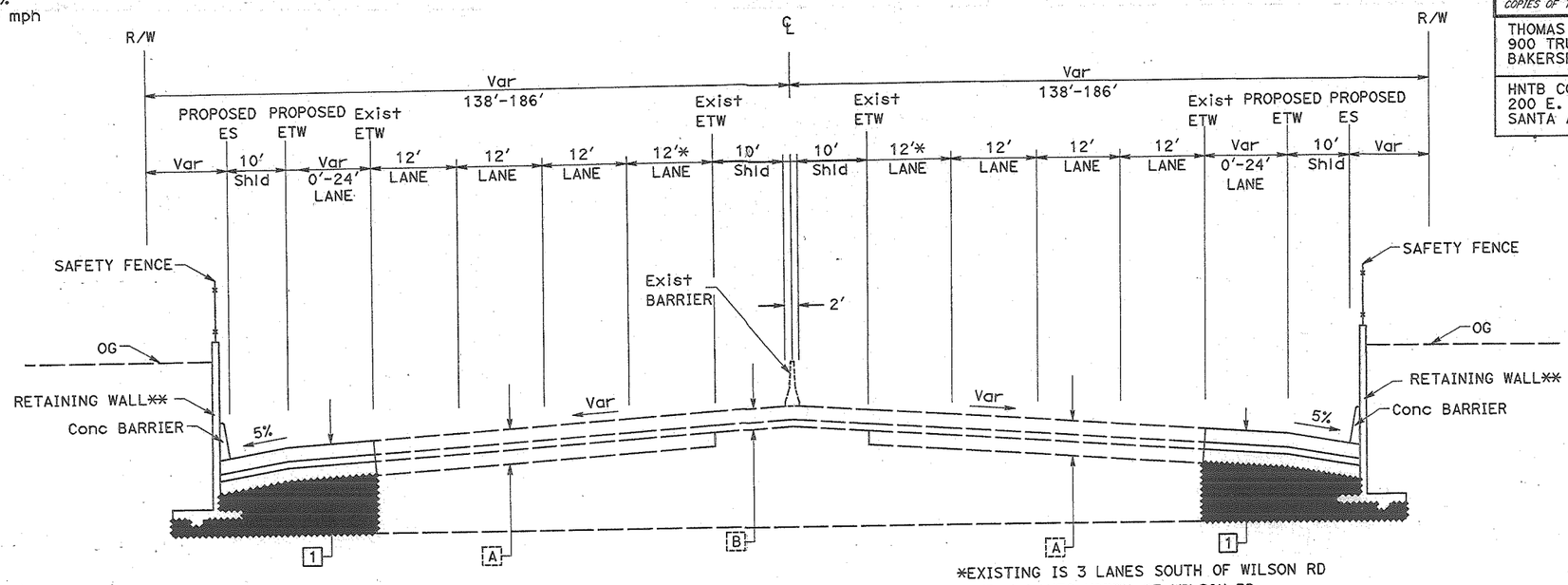
ADT (2009) = 116,000 D = 51%
ADT (2037) = 215,700 T = 15%
DHV = 8,614 V = 70 mph
ESAL = 91 450 000



*EXISTING IS 3 LANES SOUTH OF WILSON RD AND 4 LANES NORTH OF WILSON RD
**= RETAINING WALLS WHERE SHOWN IN PLANS

SR-99 ALIGNMENT
FROM WILSON Rd TO BELLE TERRACE Ave

ALTERNATIVE "B"
TYPICAL CROSS SECTIONS

NO SCALE **X-4**

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BORDER LAST REVISED 7/2/2010

USERNAME => p0038175

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

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EXISTING STRUCTURAL SECTIONS:

[A] Exist
0.75' PCC
0.33' RMCTB
0.33' AB

[B] Exist
0.25' AC
0.50' AB

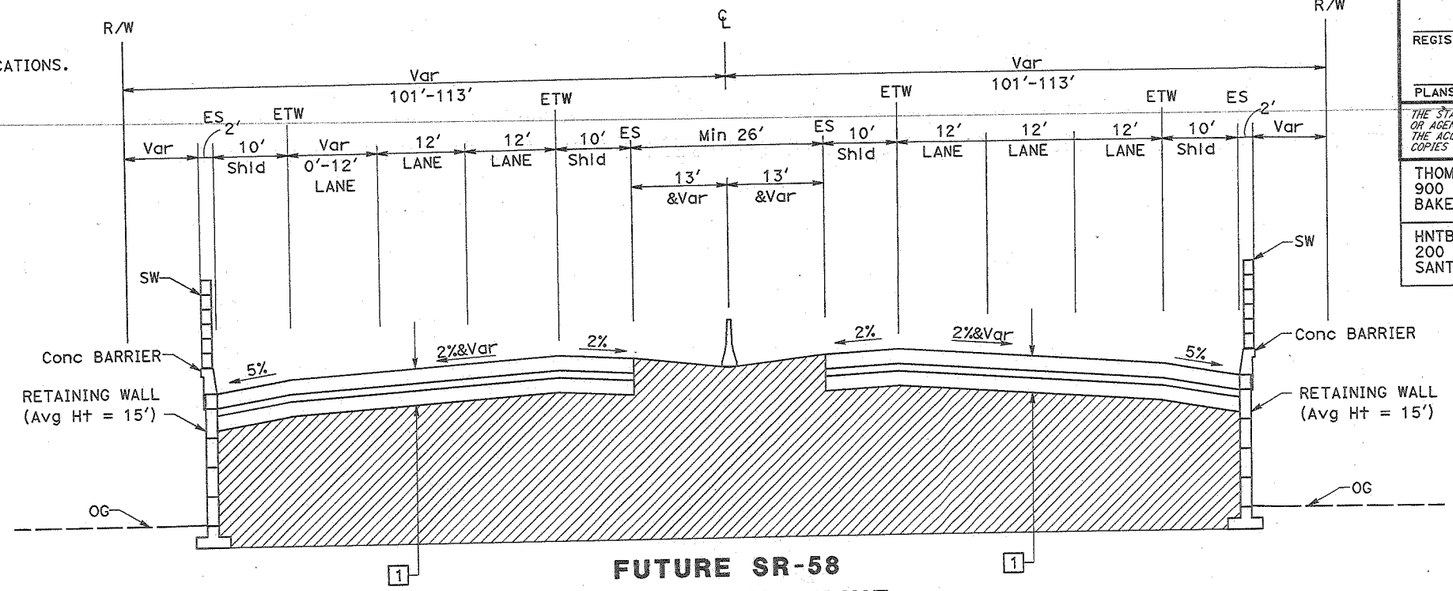
TYPICAL STRUCTURAL SECTIONS:

[1]
0.75' PCC
0.50' LCB
0.90' AS (CL 2)

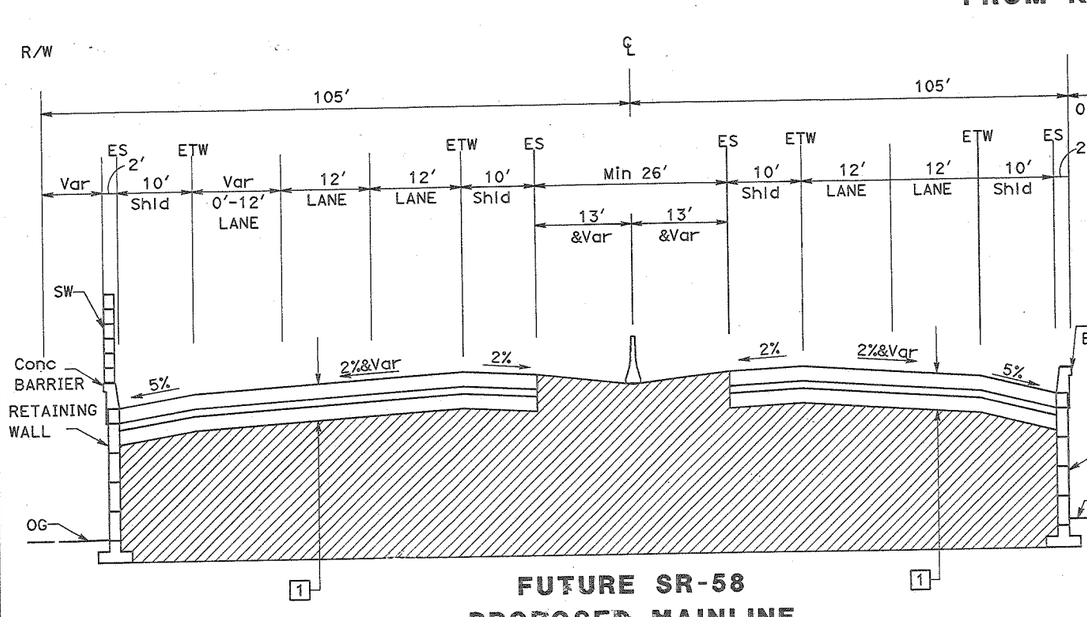
[2]
0.40' HMA (TYPE A)
0.50' AB (CL 2)
0.60' AS (CL 2)

ADT (2009) = -
ADT (2037) = 121,000
DHV = 5,005
ESAL = 91 450 000

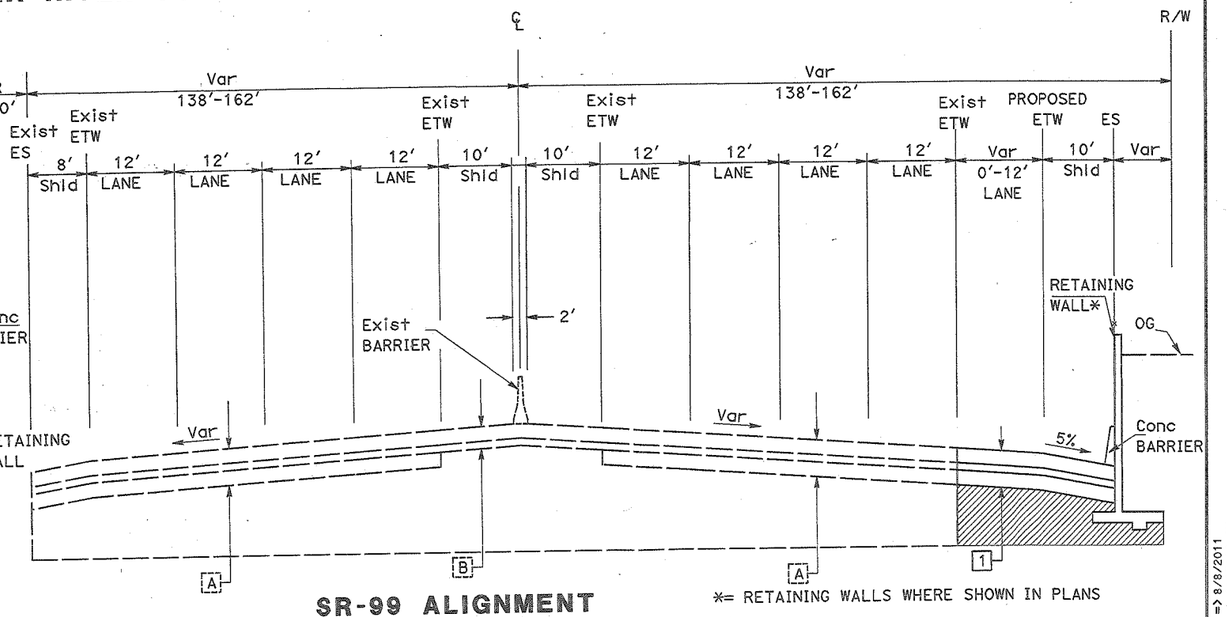
D = 53%
T = 15%
V = 70 mph



FUTURE SR-58
PROPOSED MAINLINE
ELEVATED SECTION
FROM KERN RIVER TO BSNF R/R



FUTURE SR-58
PROPOSED MAINLINE
ELEVATED SECTION
FROM BSNF R/R TO EAST SR-99



SR-99 ALIGNMENT
FROM EXISTING SR-58 TO BSNF R/R

*= RETAINING WALLS WHERE SHOWN IN PLANS

ALTERNATIVE "C"
TYPICAL CROSS SECTIONS

NO SCALE

X-1

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

NOTES:

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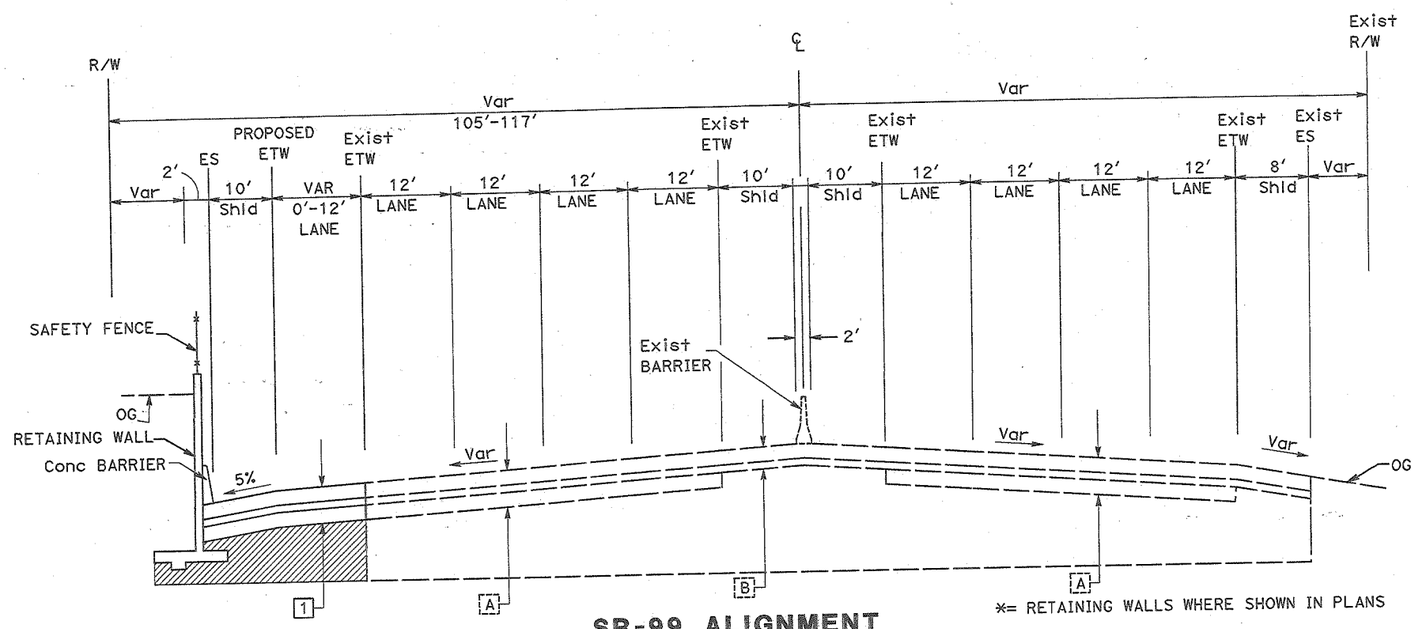
ADT (2009) = 116,000 D = 52%
ADT (2037) = 212,000 T = 15%
DHV = 8,651 V = 70 mph
ESAL = 91 450 000



*= RETAINING WALLS WHERE SHOWN IN PLANS

SR-99 ALIGNMENT

FROM MING Ave TO EXISTING SR-58

ALTERNATIVE "C"
TYPICAL CROSS SECTIONS

NO SCALE

X-2

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LAST REVISION 00-00-00 | DATE PLOTTED => 8/8/2011 | TIME PLOTTED => 9:03:35 AM

USERNAME => p0038175

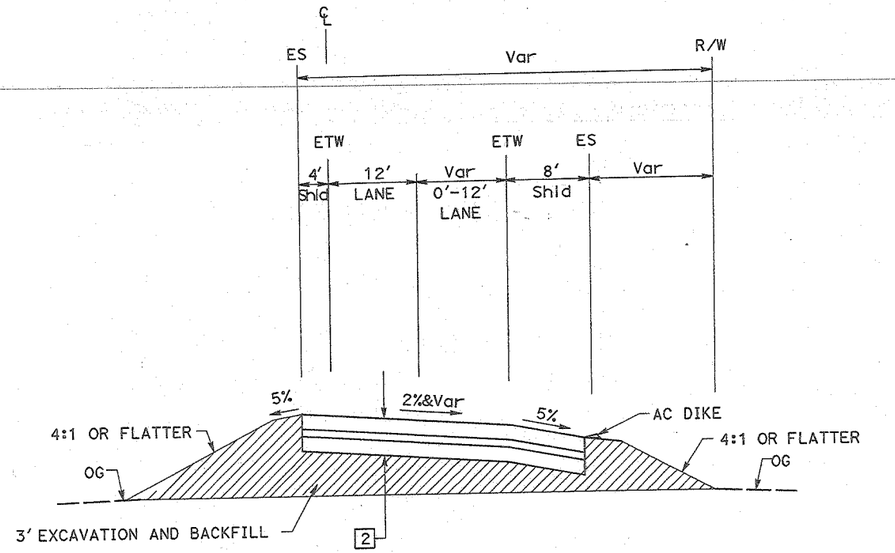
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

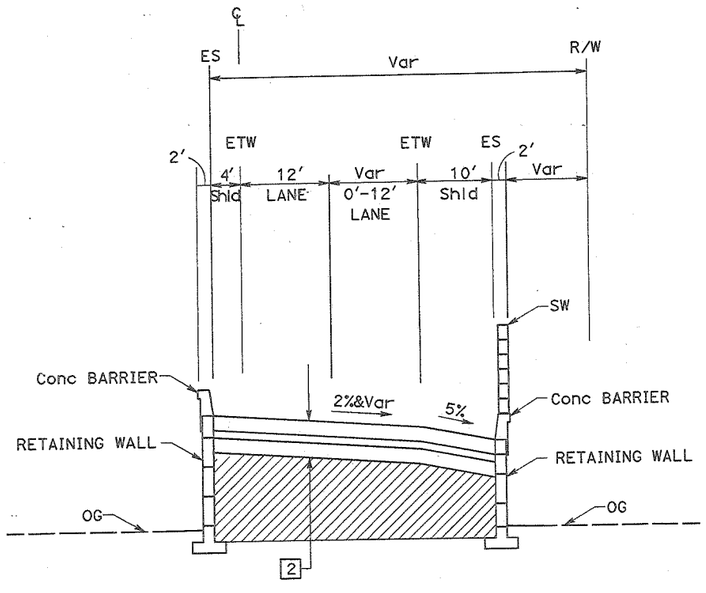
PROJECT NUMBER & PHASE 0000000000K

NOTES:

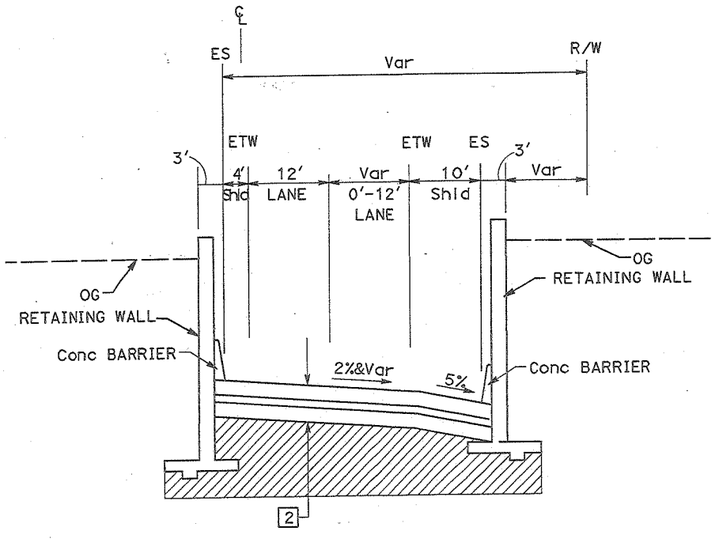
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.



PROPOSED RAMPS
AT-GRADE SECTION



PROPOSED RAMPS
ELEVATED SECTION



PROPOSED RAMPS
DEPRESSED SECTION

ALTERNATIVE "C"
TYPICAL CROSS SECTIONS

NO SCALE

X-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

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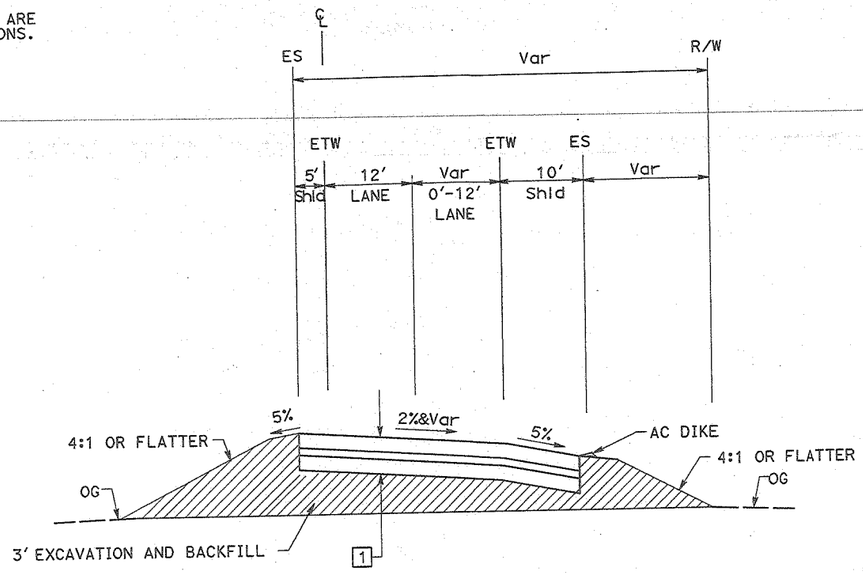
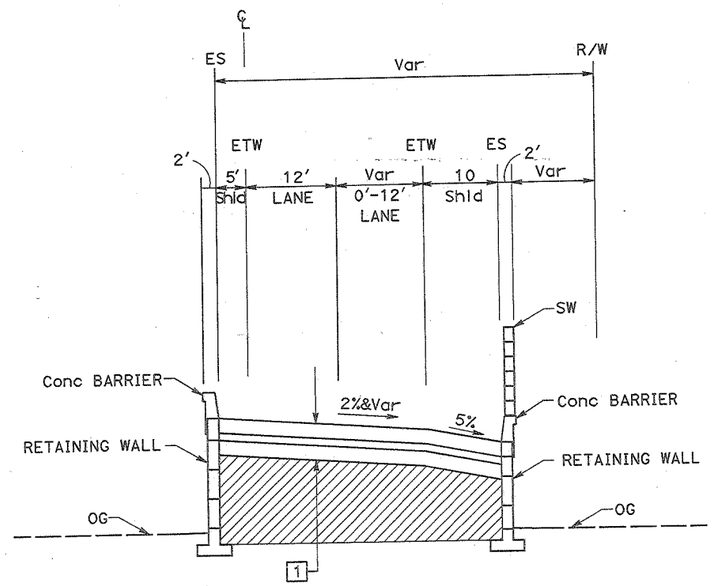
NOTES:

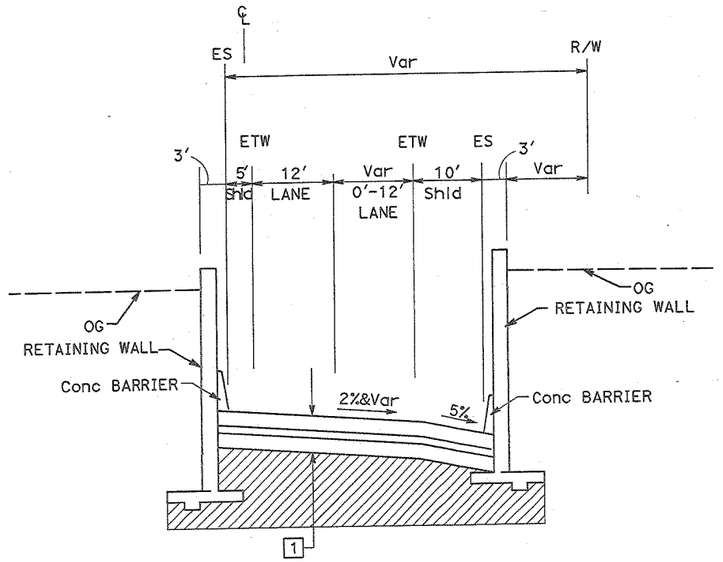
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.



PROPOSED SR-58/SR-99 BRANCH CONNECTORS AT-GRADE SECTION



PROPOSED SR-58/SR-99 BRANCH CONNECTORS ELEVATED SECTION



PROPOSED SR-58/SR-99 BRANCH CONNECTORS DEPRESSED SECTION

ALTERNATIVE "C" TYPICAL CROSS SECTIONS

NO SCALE

X-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

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THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

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USERNAME => p0038175

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000 | PROJECT NUMBER & PHASE 0000000000K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

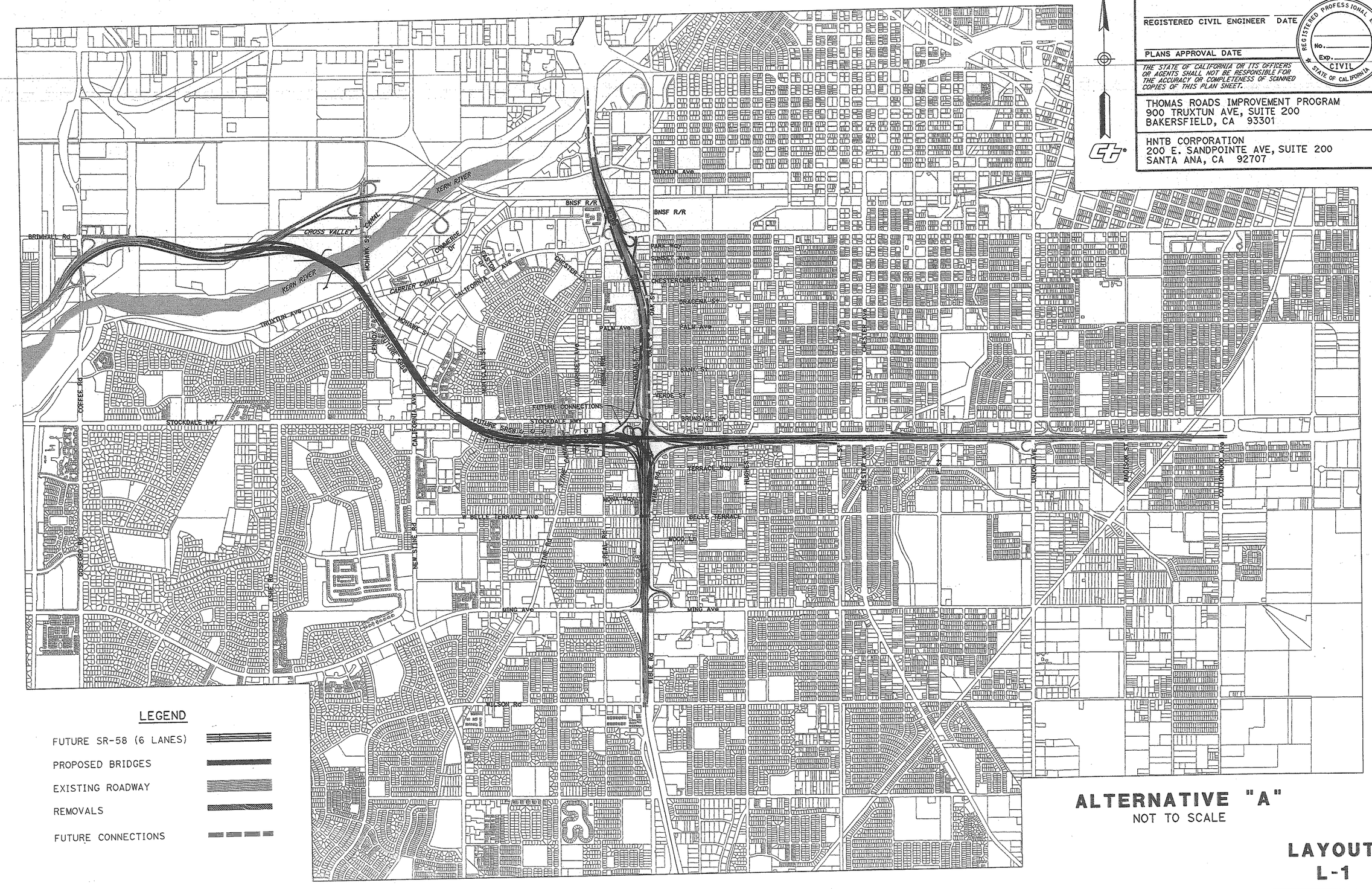
REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

N



LEGEND

- FUTURE SR-58 (6 LANES)
- PROPOSED BRIDGES
- EXISTING ROADWAY
- REMOVALS
- FUTURE CONNECTIONS

ALTERNATIVE "A"
NOT TO SCALE

LAYOUT L-1

FOR DETAILED DRAWINGS, SEE LAYOUT SHEETS SUBMITTED 6/25/11.

REVISED BY	DATE REVISED

CALCULATED-
DESIGNED BY

CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 00-00-00

DATE PLOTTED => 8/8/2011
TIME PLOTTED => 11:06:42 AM

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => p0038175
DGN FILE => PSR layout.dgn

CU 00000

EA 000000

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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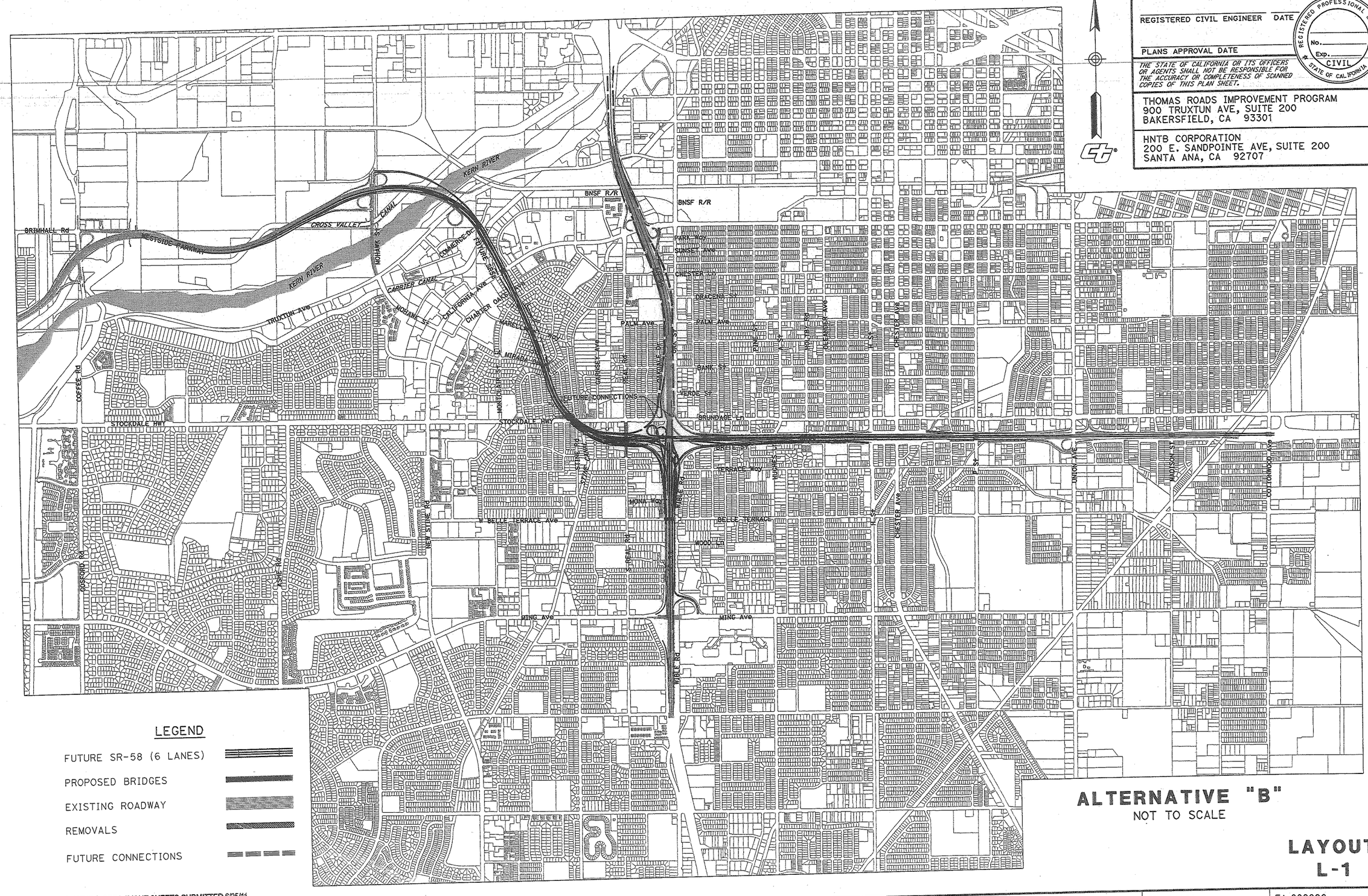
THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707



ALTERNATIVE "B"
NOT TO SCALE

LAYOUT
L-1

FOR DETAILED DRAWINGS, SEE LAYOUT SHEETS SUBMITTED 6/25/11.

REVISED BY	DATE REVISED

CALCULATED-
DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 8/8/2011
TIME PLOTTED => 11:07:59 AM

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => p0038175
DGN FILE => PSR layout.dgn

CU 00000

EA 000000

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	58 99	T39.1/R55.4 21.2/23.8		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THOMAS ROADS IMPROVEMENT PROGRAM
900 TRUXTUN AVE, SUITE 200
BAKERSFIELD, CA 93301

HNTB CORPORATION
200 E. SANDPOINTE AVE, SUITE 200
SANTA ANA, CA 92707

N

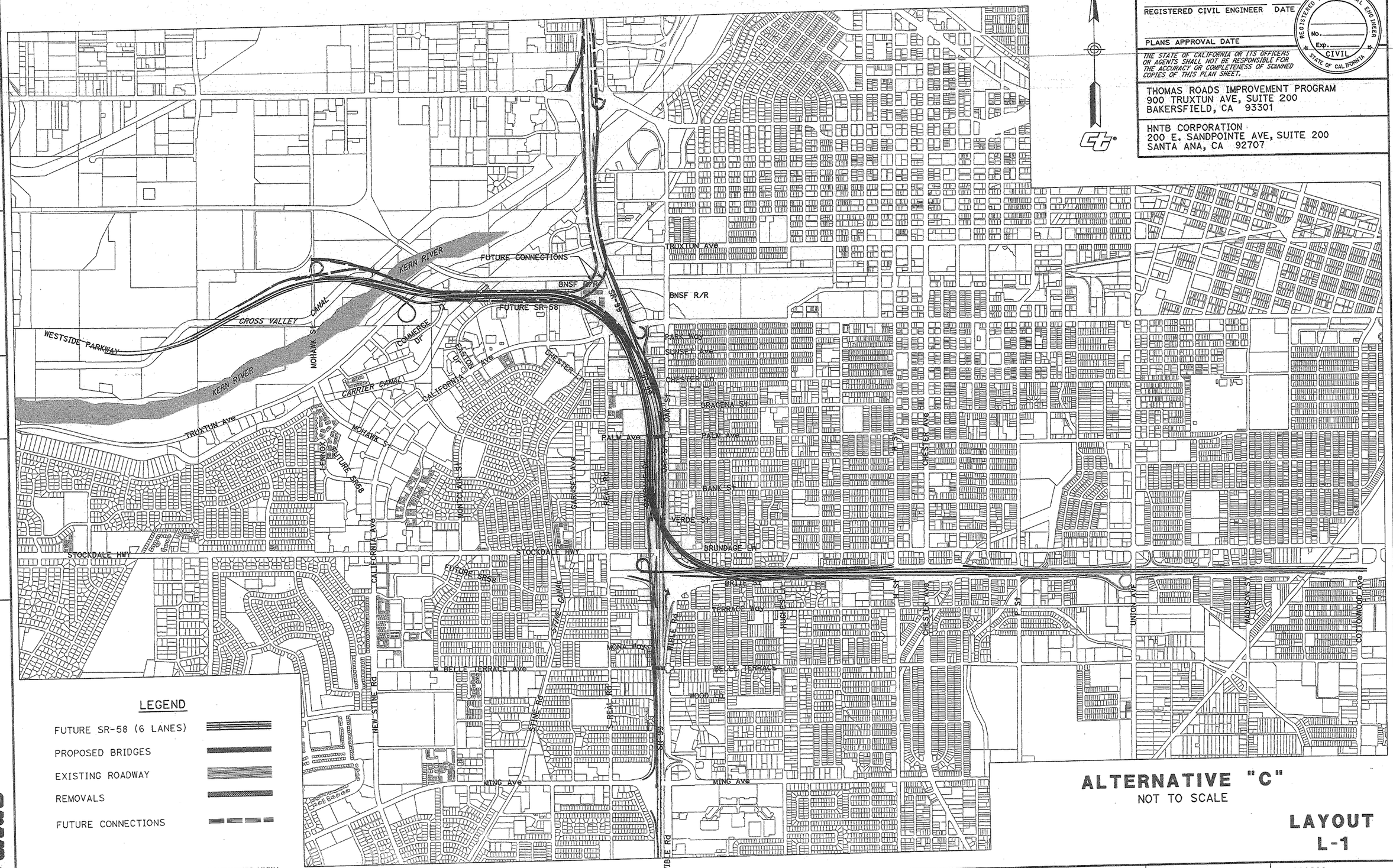
REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



LEGEND

- FUTURE SR-58 (6 LANES)
- PROPOSED BRIDGES
- EXISTING ROADWAY
- REMOVALS
- FUTURE CONNECTIONS

FOR DETAILED DRAWINGS, SEE LAYOUT SHEETS SUBMITTED 6/25/11.

ALTERNATIVE "C"

NOT TO SCALE

LAYOUT L-1

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => p0038175
DGN FILE => PSR layout.dgn

CU 00000	EA 000000

LAST REVISION 00-00-00 | DATE PLOTTED => 8/8/2011 | TIME PLOTTED => 11:08:45 AM

BORDER LAST REVISED 4/11/2008

ATTACHMENT C

PRELIMINARY CONSTRUCTION COST ESTIMATES

(Project Study Report Cost Estimate)

Alternative A

District-County-Route 06-Ker-58

PM T31.7 - R55.4

EA 06-48460

Program Code 20.10.400.010

PROJECT DESCRIPTION:

Limits: I-5 at Stockdale Highway to the SR58/Cottonwood Rd. interchange

Proposed Improvement (Scope): To join I-5 to SR58E, route adopt Stockdale Highway & Westside Pkwy to become SR 58, & provide future right of way protection for the ultimate SR-58 alignment

Alternate Alternative-A At Grade and Elevated Alignment on Fill (West of SR 99)

SUMMARY OF PROJECT COST ESTIMATE (2016)

TOTAL ROADWAY ITEMS	$230,000,000
TOTAL STRUCTURE ITEMS	$193,000,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$16,000,000
SUBTOTAL CONSTRUCTION COSTS	$439,000,000
TOTAL RIGHT OF WAY ITEMS	$194,000,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	$633,000,000
TOTAL PROJECT SUPPORT COSTS	$86,000,000
TOTAL PROJECT COSTS	**$719,000,000**

Reviewed by City Program Manager _____ (Signature)

Approved by Project Manager _____ (Signature) Date 12/12/11

Phone No. 661 326 3700

[1] Escalation rates used on this estimate are 2.4% for Highway Construction Capital Costs compounded annually to Construction year.

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	900,000	CY	$6	$5,400,000	
Imported Borrow	2,000,000	CY	$10	$20,000,000	
Clearing & Grubbing	1	LS	$400,000	$400,000	
Develop Water Supply	1	LS	$50,000	$50,000	
				Subtotal Earthwork	$25,850,000

Section 2 Pavement Structural Section*	Quantity	Unit	Unit Price	Item Cost	Section Cost
Joint Plain Concrete Pavement	100,000	CY	$105	$10,500,000	
Hot Mix Asphalt (Type A)	90,000	Ton	$75	$6,750,000	
Lean Concrete Base	50,000	CY	$70	$3,500,000	
Aggregate Base, Class 2	45,000	CY	$30	$1,350,000	
Aggregate Subbase, Class 2	85,000	CY	$25	$2,125,000	
Treated Permeable Base	0	CY	$0	$0	
Cold Plane	0	SQYD	$0	$0	
Seal Longitudinal Iso Joint	0	LF	$0	$0	
Seal Pavement Joint	0	LF	$0	$0	
				Subtotal Pavement Structural Section	$24,225,000

Section 3 Drainage	Quantity	Unit	Unit Price	Item Cost	Section Cost
18" Reinforced Concrete Pipe	12,200	LF	$90	$1,098,000	
24" Reinforced Concrete Pipe	6,400	LF	$105	$672,000	
30" Reinforced Concrete Pipe	4,300	LF	$115	$494,500	
36" Reinforced Concrete Pipe	3,600	LF	$145	$522,000	
42" Reinforced Concrete Pipe	2,900	LF	$185	$536,500	
48" Reinforced Concrete Pipe	2,200	LF	$200	$440,000	
Remove Inlet	0	EA	$0	$0	
Drainage Inlet (Type G1)	280	EA	$5,000	$1,400,000	
Pump Station	0	LS	$1,800,000	$0	
SD Manholes	28	EA	$8,000	$224,000	
Additional Drainage	1	LS	$5,000,000	$5,000,000	
				Subtotal Drainage	$10,387,000

Section 4: Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Structural Conc (Retaining Wall)	1	LS	$45,000,000	$45,000,000	
Minor Concrete (Sound Wall)	1	LS	$3,000,000	$3,000,000	
Concrete Barrier (Type 60)	15,000	LF	$35	$525,000	
Progress Schedule (Crit. Path Method	1	LS	$10,000	$10,000	
Prepared SWPPP	1	LS	$5,000	$5,000	
Water Pollution Control	1	LS	$6,000,000	$6,000,000	
Resident Engineer Office	1	LS	$200,000	$200,000	
				Subtotal Specialty Items	$54,740,000

Section5: Traffic Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Lighting & Sign Illumination	1	LS	$1,500,000	$1,500,000	
Signals & Lighting	1	LS	$1,500,000	$1,500,000	
Furnish Sign Structure (Tubular)	349,000	LB	$7	$2,443,000	
Install Sign Structure (Tubular)	349,000	LB	$1	$174,500	
Relocate Sign Structure	6	EA	$6,000	$36,000	
Remove Sign Structure	14	EA	$7,000	$98,000	
Traffic Control System	850	WD	$1,500	$1,275,000	
Traffic Management Plan	1	LS	$2,000,000	$2,000,000	
Stage Construction	1	LS	$3,000,000	$3,000,000	
Traffic Stripe	365,340	LF	$0.40	$146,136	
Pavement Markers	18,481	EA	$4	$73,924	
Construction Area Signs	1	LS	$40,000	$40,000	
Remove Pavement Marker	0	EA	$0	$0	
Remove Stripe	0	LF	$0	$0	
Remove Yellow Stripe	0	LF	$0	$0	
				Subtotal Traffic Items	$12,286,560
				TOTAL SECTIONS: 1 thru 5	$127,488,560

II. ROADSIDE ITEMS

Section 6 Planting and Irrigation	Quantity	Unit	Unit Price	Item Cost	Section Cost
Highway Planting	1	LS	$1,500,000	$1,500,000	
Irrigation System	1	LS	$1,000,000	$1,000,000	
Plant Establishment Work	1	LS	$150,000	$150,000	
Irrigation Modification	0	LS	$0	$0	
ESA Fencing	1	LS	$10,000	$10,000	
			Subtotal Planting and Irrigation Section		$2,660,000

Section 7: Roadside Management and Safety Section	Quantity	Unit	Unit Price	Item Cost	Section Cost
Portable Changeable Message Signs	8	EA	$6,000	$48,000	
Erosion Control	35	Ac	$15,000	$525,000	
Move In/Move Out	0	EA	$0	$0	
Maintenance Vehicle Pullouts	0	LS	$0	$0	
Off-freeway Access (gates, stairways, etc.)	0	LS	$0	$0	
Roadside Facilities (Vista Points, Transit, Park & Ride)	0	LS	$0	$0	
Relocating roadside facilities/features	0	LS	$0	$0	
Miscellaneous Paving	0	LS	$0	$0	
			Subtotal Roadside Management and Safety Section		$573,000

Section 8: Minor Items

			Item Cost	Section Cost
$130,721,560 (Subtotal Sections 1 thru 7)	X	10% (5% - 10%)	$13,072,156	
		TOTAL MINOR ITEMS		$13,072,156

Section 9: Roadway Mobilization

$143,793,716 (Subtotal Sections 1 thru 8)	X	10% 10%	$14,379,372	
		TOTAL ROADWAY MOBILIZATION		$14,379,372

Section 10: Roadway Additions

Supplemental Work

$143,793,716 (Subtotal Sections 1 thru 8)	X	10% 10%	$14,379,372

Contingency

$143,793,716 (Subtotal Sections 1 thru 8)	X	25% 25%	$35,948,429

TOTAL ROADWAY ADDITIONS	$50,327,801
TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 10)	$208,500,888
TOTAL ROADWAY ITEMS (YR 2016) (Subtotal Sections 1 thru 10)	**$229,249,151**

II. STRUCTURE ITEMS

	Structure 1	Structure 1A	Structure 2	Structure 3	Structure 3a	Structure 3b	Structure 3c	Structure 4	Structure 4a	Structure 5	Structure 6	Structure 7	Structure 8	Structure 9	Structure 10	Structure 11	Structure 12	Structure 13	Structure 14	Structure 15	Structure 16	Structure 17	Structure 18	Structure 19
Bridge Name	EB Westside Pkwy On-Ramp Gr Sep	WB SR-58 Coffee Rd Off-Ramp Gr Sep	Kern River Bridge	Truxtun Avenue UC	Carrier Canal Bridge	EB 58/ Coffee Rd On-Ramp Gr Sep	EB 58/ Coffee Rd UC Widen	Lennox & California Avenue UC	Business Center UC	Stockdale Hwy & Montclair St UC	Stine Road UC	Stine Canal Bridge	S Real Road UC	WB SR-58 over SR-99 (Widen)	P St Widening	Madison St Widening	Bakersfield Coral RR Crossing	Cottonwood Rd UC (Widen)	NB SR-99 to WB SR-58 Connector	WB SR-58 to SB SR-99 Connector	Belle Terrace Ave OC (Replace)	EB SR-58/ H St Off-Ramp Gr Sep	SB 99/ Ming CD Off-Ramp Gr Sep	NB SR-99 to EB SR-58 Connector
Structure Type	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	Box Culvert	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	Box Culvert	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	Conc Deck/Steel Plate Girder	CIP/PS Box Girder	CIP/PS Box Girder	Cut/Cover Tunnel	PC/PS I-Girder	Cut/Cover Tunnel	Cut/Cover Tunnel	CIP/PS Box Girder
Total Area - (ft^2)	27,643	37,255	133,778	32,005	7,200	9,150	3,580	77,691	31,380	113,231	16,295	12,831	28,823	13,443	12,055	7,000	7,000	7,000	65,172	5,091	25,000	13,325	10,710	12,345
Footing Type (pile/spread)	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Spread Footing	Spread Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Spread Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing
Level	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2/outriggers	Tunnel	1	Tunnel	Tunnel	1
Cost per ft^2 (incl. 10% Mobilization and 25% Contingencie)	$215	$235	$290	$215	$180	$210	$260	$220	$215	$215	$210	$180	$210	$260	$260	$260	$450	$260	$250	$425	$215	$425	$425	$215
Existing Bridge Removal														$24,000							$356,000			$100,000
Total Cost for Structure	$5,943,000	$8,755,000	$38,796,000	$6,881,000	$1,296,000	$1,922,000	$931,000	$17,092,000	$6,747,000	$24,345,000	$3,422,000	$2,310,000	$6,053,000	$3,519,000	$3,134,000	$1,820,000	$3,150,000	$1,820,000	$16,293,000	$2,164,000	$5,731,000	$5,663,000	$4,552,000	$2,754,000

SUBTOTAL STRUCTURES ITEMS $175,093,000
(Sum of Total Cost for Structures)

Railroad Related Costs _____ _____ _____ $_____
_____ _____ _____ $_____
_____ _____ _____ $_____

SUBTOTAL RAILROAD ITEMS $_____

TOTAL STRUCTURE ITEMS $175,093,000
Sum of Structures Items plus Railroad Items)

TOTAL STRUCTURE ITEMS (YR 2016) **$192,516,789**

Environmental Mitigation	Quantity	Unit	Unit Price	Item Cost	Section Cost
* Archaeological	1	LS	$180,000	$180,000	
* Historical	1	LS	$80,000	$80,000	
* Paleontolgical	1	LS	$40,000	$40,000	
* Hazardous Materials	1	LS	$5,100,000	$5,100,000	
* Air Emissions	1	LS	$50,000	$50,000	
* Biological	1	LS	$300,000	$300,000	
* Permits	1	LS	$200,000	$200,000	
Aethetic Treatment	670,000	sf	$6	$4,020,000	
Pedestrian/Utility Bridge	0	LS	$0	$0	
Trails	1	LS	$500,000	$500,000	
Park Relocation or Extension	1	LS	$1,500,000	$1,500,000	

* Based on PEAR

Subtotal Environmental Mitigation Items	$11,970,000
20% Contingency	$2,394,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$14,364,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS (YR 2016)	$15,794,000

III. RIGHT OF WAY ITEMS	CURRENT VALUE
A. Acquisition, inlcuding excess land, damages to remainder(s) and Goodwill	$134,362,424
B. Utility Relocation (State share)	$14,800,000
C. Relocation Assistance	$16,280,000
D. Clearance/Demolition	$8,512,984
E. Title and Escrow Fees	$470,000
TOTAL RIGHT OF WAY ITEMS (2010 Value)	$174,500,000
TOTAL RIGHT OF WAY ITEMS (2013 Value)	**$194,000,000**

F. Construction Contract Work

Brief Description of Work

_____

_____

_____

_____

Right of Way Branch Cost Estimate for Work * $_____

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

District-County-Route 06-KERN-58
PM T31.753 - R54.419
EA 06-48460
Program Code 20.10.400.010

IV. SUPPORT COST ESTIMATE SUMMARY

SB-45 CATEGORY SUPPORT COST	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	P3 Total	Support Ratio
PR/ED (PD,PE,PM)									4,217,659	4,217,700	1%
PS&E (PS)										0	
R/W (RW)										0	
CONSTRUCTION (CM)										0	
Total Support Cost:	0	0	0	0	0	0	0	0	4,217,659	4,217,700	

SB-45 CATEGORY SUPPORT COST	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	P3 Total	Support Ratio
PR/ED (PD,PE,PM)	8,435,319	4,217,659								12,653,000	2%
PS&E (PS)			8,435,319	12,652,978	4,217,659					25,306,000	4%
R/W (RW)		970,000	970,000	1,940,000	1,940,000					5,820,000	1%
CONSTRUCTION (CM)						16,870,638	16,870,638	4,217,659		37,959,000	6%
Total Support Cost:	8,435,319	5,187,659	9,405,319	14,592,978	6,157,659	16,870,638	16,870,638	4,217,659	0	**85,955,700**	

Total Capital Cost:	$615,765,940
Overall Percent Support Cost:	14%

(Project Study Report Cost Estimate)

Alternative B

District-County-Route 06-Ker-58

PM T31.7 - R55.4

EA 06-48460

Program Code 20.10.400.010

PROJECT DESCRIPTION:

Limits: I-5 at Stockdale Highway to the SR58/Cottonwood Rd. interchange

Proposed Improvement (Scope): To join I-5 to SR58E, route adopt Stockdale Highway & Westside Pkwy to become SR 58, & provide future right of way protection for the ultimate SR-58 alignment

Alternate Alternative-B Depressed Alignment (West of SR 99)

SUMMARY OF PROJECT COST ESTIMATE (2016)

TOTAL ROADWAY ITEMS	$208,000,000
TOTAL STRUCTURE ITEMS	$155,000,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$31,000,000
SUBTOTAL CONSTRUCTION COSTS	$394,000,000
TOTAL RIGHT OF WAY ITEMS	$162,000,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	$556,000,000
TOTAL PROJECT SUPPORT COSTS	$74,000,000
TOTAL PROJECT COSTS	**$630,000,000**

Reviewed by City Program Manager _____ (Signature)

Approved by Project Manager _____ (Signature) Date 12/12/11

Phone No. 661 326 3700

[1] Escalation rates used on this estimate are 2.4% for Highway Construction Capital Costs compounded annually to Construction year.

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	1,500,000	CY	$6	$9,000,000	
Imported Borrow	700,000	CY	$10	$7,000,000	
Clearing & Grubbing	1	LS	$400,000	$400,000	
Develop Water Supply	1	LS	$50,000	$50,000	
				Subtotal Earthwork	$16,450,000

Section 2 Pavement Structural Section*	Quantity	Unit	Unit Price	Item Cost	Section Cost
Joint Plain Concrete Pavement	93,000	CY	$105	$9,765,000	
Hot Mix Asphalt (Type A)	85,000	Ton	$75	$6,375,000	
Lean Concrete Base	45,000	CY	$70	$3,150,000	
Aggregate Base, Class 2	40,000	CY	$30	$1,200,000	
Aggregate Subbase, Class 2	75,000	CY	$25	$1,875,000	
Treated Permeable Base	0	CY	$0	$0	
Cold Plane	0	SQYD	$0	$0	
Seal Longitudinal Iso Joint	0	LF	$0	$0	
Seal Pavement Joint	0	LF	$0	$0	
				Subtotal Pavement Structural Section	$22,365,000

Section 3 Drainage	Quantity	Unit	Unit Price	Item Cost	Section Cost
18" Reinforced Concrete Pipe	13,900	LF	$90	$1,251,000	
24" Reinforced Concrete Pipe	7,300	LF	$105	$766,500	
30" Reinforced Concrete Pipe	4,900	LF	$115	$563,500	
36" Reinforced Concrete Pipe	4,100	LF	$145	$594,500	
42" Reinforced Concrete Pipe	3,300	LF	$185	$610,500	
48" Reinforced Concrete Pipe	2,500	LF	$200	$500,000	
Remove Inlet	0	EA	$0	$0	
Drainage Inlet (Type G1)	320	EA	$5,000	$1,600,000	
Pump Station	3	LS	$240,000	$720,000	
SD Manholes	32	EA	$8,000	$256,000	
Additional Drainage	1	LS	$2,500,000	$2,500,000	
				Subtotal Drainage	$9,362,000

Section 4: Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Structural Conc (Retaining Wall)	1	LS	$45,000,000	$45,000,000	
Minor Concrete (Sound Wall)	1	LS	$4,000,000	$4,000,000	
Concrete Barrier (Type 60)	8,000	LF	$35	$280,000	
Progress Schedule (Crit. Path Method)	1	LS	$10,000	$10,000	
Prepared SWPPP	1	LS	$5,000	$5,000	
Water Pollution Control	1	LS	$5,000,000	$5,000,000	
Resident Engineer Office	1	LS	$200,000	$200,000	
				Subtotal Specialty Items	$54,495,000

Section5: Traffic Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Lighting & Sign Illumination	1	LS	$1,500,000	$1,500,000	
Signals & Lighting	1	LS	$1,500,000	$1,500,000	
Furnish Sign Structure (Tubular)	349,000	LB	$7	$2,443,000	
Install Sign Structure (Tubular)	349,000	LB	$1	$174,500	
Relocate Sign Structure	6	EA	$6,000	$36,000	
Remove Sign Structure	14	EA	$7,000	$98,000	
Traffic Control System	850	WD	$1,500	$1,275,000	
Traffic Management Plan	1	LS	$2,000,000	$2,000,000	
Stage Construction	1	LS	$3,000,000	$3,000,000	
Traffic Stripe	365,340	LF	$0.40	$146,136	
Pavement Markers	18,481	EA	$4	$73,924	
Construction Area Signs	1	LS	$40,000	$40,000	
Remove Pavement Marker	0	EA	$0	$0	
Remove Stripe	0	LF	$0	$0	
Remove Yellow Stripe	0	LF	$0	$0	
				Subtotal Traffic Items	$12,286,560
				TOTAL SECTIONS: 1thru 5	$114,958,560

II. ROADSIDE ITEMS

Section 6 Planting and Irrigation	Quantity	Unit	Unit Price	Item Cost	Section Cost
Highway Planting	1	LS	$2,000,000	$2,000,000	
Irrigation System	1	LS	$1,000,000	$1,000,000	
Plant Establishment Work	1	LS	$150,000	$150,000	
Irrigation Modification	0	LS	$0	$0	
ESA Fencing	1	LS	$10,000	$10,000	
			Subtotal Planting and Irrigation Section		$3,160,000

Section 7: Roadside Management and Safety Section	Quantity	Unit	Unit Price	Item Cost	Section Cost
Portable Changeable Message Signs	4	EA	$6,000	$24,000	
Erosion Control	25	Ac	$15,000	$375,000	
Move In/Move Out	0	EA	$0	$0	
Maintenance Vehicle Pullouts	0	LS	$0	$0	
Off-freeway Access (gates, stairways, etc.)	0	LS	$0	$0	
Roadside Facilities (Vista Points, Transit, Park & Ride)	0	LS	$0	$0	
Relocating roadside facilities/features	0	LS	$0	$0	
Miscellaneous Paving	0	LS	$0	$0	
			Subtotal Roadside Management and Safety Section		$399,000

Section 8: Minor Items

			Item Cost	Section Cost
$118,517,560 (Subtotal Sections 1 thru 7)	X	10% (5% - 10%)	$11,851,756	
		TOTAL MINOR ITEMS		$11,851,756

Section 9: Roadway Mobilization

$130,369,316 (Subtotal Sections 1 thru 8)	X	10% 10%	$13,036,932	
		TOTAL ROADWAY MOBILIZATION		$13,036,932

Section 10: Roadway Additions

$130,369,316 (Subtotal Sections 1 thru 8)	X	10% 10%	$13,036,932	
Contingency				
$130,369,316 (Subtotal Sections 1 thru 8)	X	25% 25%	$32,592,329	
		TOTAL ROADWAY ADDITIONS		$45,629,261
		TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 10)		$189,035,508
		TOTAL ROADWAY ITEMS (YR 2016) (Subtotal Sections 1 thru 10)		**$207,846,739**

II. STRUCTURE ITEMS

	Structure 1	Structure 2	Structure 3	Structure 4	Structure 6	Structure 7	Structure 8	Structure 9	Structure 10	Structure 11	Structure 13	Structure 14	Structure 15	Structure 16	Structure 17	Structure 18	Structure 19	Structure 20	Structure 21	Structure 22	Structure 23	Structure 24	Structure 25
Bridge Name	Kern River Bridge	Truxtun Ave UC	Carrier Canal Bridge	California Ave UC	Marella Way OC	La Mirada Dr OC	Stockdale Hwy UC	Stockdale Hwy UC Box Extension	S Real Road UC	WB SR-58 over SR-99 Gr Sep (Widen)	Commerce Dr UC	WB SR-58 Off Ramp (Mohawk St) Br	EB SR-58 P St Widening	WB SR-58 P St Widening	Madison St Widening	Bakersfield Coral RR Crossing	Cottonwood Rd UC (Widen)	EB SR-58 Off-Ramp Gr Sep	NB SR-99 to WB SR-58 Connector	WB SR-58 to SB SR-99 Connector	Belle Terrace Ave OC (Replace)	SB 99/ Ming CD Off-Ramp Gr Sep	NB SR-99 to EB SR-58 Connector
Structure Type	CIP/PS Box Girder	CIP/PS Box Girder	Box Culvert	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	Box Culvert	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	Conc Deck/Steel Plate Girder	CIP/PS Box Girder	Cut/Cover Tunnel	CIP/PS Box Girder	Cut/Cover Tunnel	PC/PS I-Girder	Cut/Cover Tunnel	CIP/PS Box Girder
Total Area - (ft^2)	92,431	27,651	16,484	21,119	15,601	9,931	110,267	4,244	27,064	13,443	19,623	27,172	5,935	6,121	7,000	7,000	7,000	13,324	59,746	5091	25,000	10,710	12,345
Level	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	Tunnel	2/outriggers	1	1	1	1
Footing Type (pile/spread)	Piled Footing	Piled Footing	Spread Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Spread Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing
Cost per ft^2 (incl. 10% Mobilization and 25% Contingencies)	$290	$215	$180	$215	$210	$210	$215	$180	$210	$260	$210	$260	$260	$260	$260	$450	$260	$425	$250	$425	$215	$425	$260
Existing Bridge Removal										$24,000											$356,000		$100,000
Total Cost for Structure	$26,805,000	$5,945,000	$2,967,000	$4,541,000	$3,276,000	$2,086,000	$23,707,000	$764,000	$5,683,000	$3,519,000	$4,121,000	$7,065,000	$1,543,000	$1,591,000	$1,820,000	$3,150,000	$1,820,000	$5,663,000	$14,937,000	$2,164,000	$5,731,000	$4,552,000	$3,310,000

SUBTOTAL STRUCTURES ITEMS (Sum of Total Cost for Structures) $140,260,000

Railroad Related Costs

_____ _____ _____ $_____
_____ _____ _____ $_____
_____ _____ _____ $_____

SUBTOTAL RAILROAD ITEMS $_____

TOTAL STRUCTURE ITEMS (Sum of Structures Items plus Railroad Items) $140,260,000

TOTAL STRUCTURE ITEMS (YR 2016) **$154,217,501**

Environmental Mitigation	Quantity	Unit	Unit Price	Item Cost	Section Cost
* Archaeological	1	LS	$140,000	$140,000	
* Historical	1	LS	$100,000	$100,000	
* Paleontolgical	1	LS	$20,000	$20,000	
* Hazardous Materials	1	LS	$2,700,000	$2,700,000	
* Air Emissions	1	LS	$40,000	$40,000	
* Biological	1	LS	$120,000	$120,000	
* Permits	1	LS	$200,000	$200,000	
Aethetic Treatment	1,170,000	sf	$6	$7,020,000	
Pedestrian/Utility Bridge	2	LS	$6,000,000	$12,000,000	
Trails	1	LS	$1,000,000	$1,000,000	
Park Relocation or Extension	0	LS	$1,500,000	$0	

* Based on PEAR

Subtotal Environmental Mitigation Items	$23,340,000
20% Contingency	$4,668,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$28,008,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS (YR 2016)	$30,796,000

III. RIGHT OF WAY ITEMS	CURRENT VALUE
A. Acquisition, inlcuding excess land, damages to remainder(s) and Goodwill	$112,669,192
B. Utility Relocation (State share)	$14,800,000
C. Relocation Assistance	$10,965,000
D. Clearance/Demolition	$6,446,544
E. Title and Escrow Fees	$492,000
TOTAL RIGHT OF WAY ITEMS (2011 Value)	$146,000,000
TOTAL RIGHT OF WAY ITEMS (2014 Value)	**$162,000,000**

F. Construction Contract Work

Brief Description of Work

_____

_____

_____

_____

Right of Way Branch Cost Estimate for Work * $_____

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

IV. SUPPORT COST ESTIMATE SUMMARY

SB-45 CATEGORY SUPPORT COST	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	P3 Total	Support Ratio
PR/ED (PD,PE,PM)									3,620,642	3,620,700	1%
PS&E (PS)										0	
R/W (RW)										0	
CONSTRUCTION (CM)										0	
Total Support Cost:	0	0	0	0	0	0	0	0	0	3,620,700	

SB-45 CATEGORY SUPPORT COST	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	P3 Total	Support Ratio
PR/ED (PD,PE,PM)	7,241,285	3,620,642								10,862,000	2%
PS&E (PS)			7,241,285	10,861,927	3,620,642					21,723,900	4%
R/W (RW)		810,000	810,000	1,620,000	1,620,000					4,860,000	1%
CONSTRUCTION (CM)						14,482,570	14,482,570	3,620,642		32,585,800	6%
Total Support Cost:	7,241,285	4,430,642	8,051,285	12,481,927	5,240,642	14,482,570	14,482,570	3,620,642	0	73,652,400	

Total Capital Cost:	$524,064,240
Overall Percent Support Cost:	14%

(Project Study Report Cost Estimate)

Alternative C

District-County-Route 06-Ker-58

PM T31.7 - R55.4

EA 06-48460

Program Code 20.10.400.010

PROJECT DESCRIPTION:

Limits: I-5 at Stockdale Highway to the SR58/Cottonwood Rd. interchange

Proposed Improvement (Scope): To join I-5 to SR58E, route adopt Stockdale Highway & Westside Pkwy to become SR 58, & provide future right of way protection for the ultimate SR-58 alignment

SUMMARY OF PROJECT COST ESTIMATE (2016)

TOTAL ROADWAY ITEMS	$223,000,000
TOTAL STRUCTURE ITEMS	$200,000,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$13,000,000
SUBTOTAL CONSTRUCTION COSTS	$436,000,000
TOTAL RIGHT OF WAY ITEMS	$152,000,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	$588,000,000
TOTAL PROJECT SUPPORT COSTS	$84,625,000
TOTAL PROJECT COSTS	**$672,625,000**

Reviewed by City Program Manager _____ (Signature)

Approved by Project Manager _____ (Signature) Date 12/12/11

Phone No. 661 326 3700

[1] Escalation rates used on this estimate are 2.4% for Highway Construction Capital Costs compounded annually to Construction year.

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	1,000,000	CY	$6	$6,000,000	
Imported Borrow	2,100,000	CY	$10	$21,000,000	
Clearing & Grubbing	1	LS	$400,000	$400,000	
Develop Water Supply	1	LS	$50,000	$50,000	
				Subtotal Earthwork	$27,450,000

Section 2 Pavement Structural Section*	Quantity	Unit	Unit Price	Item Cost	Section Cost
Joint Plain Concrete Pavement	100,000	CY	$105	$10,500,000	
Hot Mix Asphalt (Type A)	90,000	Ton	$75	$6,750,000	
Lean Concrete Base	50,000	CY	$70	$3,500,000	
Aggregate Base, Class 2	40,000	CY	$30	$1,200,000	
Aggregate Subbase, Class 2	85,000	CY	$25	$2,125,000	
Treated Permeable Base	0	CY	$0	$0	
Cold Plane	0	SQYD	$0	$0	
Seal Longitudinal Iso Joint	0	LF	$0	$0	
Seal Pavement Joint	0	LF	$0	$0	
				Subtotal Pavement Structural Section	$24,075,000

Section 3 Drainage	Quantity	Unit	Unit Price	Item Cost	Section Cost
18" Reinforced Concrete Pipe	13,100	LF	$90	$1,179,000	
24" Reinforced Concrete Pipe	6,900	LF	$105	$724,500	
30" Reinforced Concrete Pipe	4,600	LF	$115	$529,000	
36" Reinforced Concrete Pipe	3,800	LF	$145	$551,000	
42" Reinforced Concrete Pipe	3,100	LF	$185	$573,500	
48" Reinforced Concrete Pipe	2,300	LF	$200	$460,000	
Remove Inlet	0	EA	$0	$0	
Drainage Inlet (Type G1)	300	EA	$5,000	$1,500,000	
Pump Station	5	LS	$80,000	$400,000	
SD Manholes	30	EA	$8,000	$240,000	
Additional Drainage	1	LS	$2,500,000	$2,500,000	
				Subtotal Drainage	$8,657,000

Section 4: Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Structural Conc (Retaining Wall)	1	LS	$44,000,000	$44,000,000	
Minor Concrete (Sound Wall)	1	LS	$2,000,000	$2,000,000	
Concrete Barrier (Type 60)	10,000	LF	$35	$350,000	
Progress Schedule (Crit. Path Method)	1	LS	$10,000	$10,000	
Prepared SWPPP	1	LS	$5,000	$5,000	
Water Pollution Control	1	LS	$5,000,000	$5,000,000	
Resident Engineer Office	1	LS	$200,000	$200,000	
				Subtotal Specialty Items	$51,565,000

Section5: Traffic Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Lighting & Sign Illumination	1	LS	$1,000,000	$1,000,000	
Signals & Lighting	1	LS	$1,000,000	$1,000,000	
Furnish Sign Structure (Tubular)	350,000	LB	$7	$2,450,000	
Install Sign Structure (Tubular)	350,000	LB	$1	$175,000	
Relocate Sign Structure	6	EA	$6,000	$36,000	
Remove Sign Structure	14	EA	$7,000	$98,000	
Traffic Control System	850	WD	$1,500	$1,275,000	
Traffic Management Plan	1	LS	$2,000,000	$2,000,000	
Stage Construction	1	LS	$4,000,000	$4,000,000	
Traffic Stripe	400,000	LF	$0.40	$160,000	
Pavement Markers	20,000	EA	$4	$80,000	
Construction Area Signs	1	LS	$40,000	$40,000	
Remove Pavement Marker	0	EA	$0	$0	
Remove Stripe	0	LF	$0	$0	
Remove Yellow Stripe	0	LF	$0	$0	
				Subtotal Traffic Items	$12,314,000

II. ROADSIDE ITEMS

Section 6 Planting and Irrigation	Quantity	Unit	Unit Price	Item Cost	Section Cost
Highway Planting	1	LS	$1,000,000	$1,000,000	
Irrigation System	1	LS	$1,000,000	$1,000,000	
Plant Establishment Work	1	LS	$150,000	$150,000	
Irrigation Modification	0	LS	$0	$0	
ESA Fencing	1	LS	$10,000	$10,000	
			Subtotal Planting and Irrigation Section		$2,160,000

Section 7: Roadside Management and Safety Section	Quantity	Unit	Unit Price	Item Cost	Section Cost
Portable Changeable Message Signs	4	EA	$6,000	$24,000	
Erosion Control	35	Ac	$15,000	$525,000	
Move In/Move Out	0	EA	$0	$0	
Maintenance Vehicle Pullouts	0	LS	$0	$0	
Off-freeway Access (gates, stairways, etc.)	0	LS	$0	$0	
Roadside Facilities (Vista Points, Transit, Park & Ride)	0	LS	$0	$0	
Relocating roadside facilities/features	0	LS	$0	$0	
Miscellaneous Paving	0	LS	$0	$0	
			Subtotal Roadside Management and Safety Section		$549,000

Section 8: Minor Items

			Item Cost	Section Cost
$126,770,000 (Subtotal Sections 1 thru 7)	X	10% (5% - 10%)	$12,677,000	
		TOTAL MINOR ITEMS		$12,677,000

Section 9: Roadway Mobilization

$139,447,000 (Subtotal Sections 1 thru 8)	X	10% 10%	$13,944,700	
		TOTAL ROADWAY MOBILIZATION		$13,944,700

Section 10: Roadway Additions

Contingency $139,447,000 (Subtotal Sections 1 thru 8)	X	10% 10%	$13,944,700	
Contingency $139,447,000 (Subtotal Sections 1 thru 8)	X	25% 25%	$34,861,750	
		TOTAL ROADWAY ADDITIONS		$48,806,450
		TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 10)		$202,198,150
		TOTAL ROADWAY ITEMS (YR 2016) (Subtotal Sections 1 thru 10)		**$222,319,217**

II. STRUCTURE ITEMS

	Structure 1	Structure 2	Structure 3	Structure 4	Structure 5	Structure 6	Structure 7	Structure 8	Structure 9	Structure 10	Structure 11	Structure 12	Structure 13	Structure 14	Structure 15	Structure 16	Structure 17	Structure 18	Structure 19	Structure 20	Structure 21	Structure 22
Bridge Name	Kern River Bridge	Truxtun Ave UC	WB SR-58 Off-Ramp (Mohawk St) Br	California Ave UC	California Ave UC Box Extension	Palm St UC	Palm St OC	SR-58/SR-99 Grade Separation	E Brundage Ln OC	WB SR-58 / SR-99 Off-Ramp Gr Sep	NB SR-99 to WB SR-58 Connector	EB SR-58 /SB 99 Off-Ramp Gr Sep	SB SR-99 - Ming Off Gr Sep	Belle Terrace Ave OC (Replace)	California Ave UC (Widen)	BNSF UC	Truxtun Ave UC (Widen)	P St (Widen)	Madison St Widening	Bakersfield Coral RR Crossing	Cottonwood Rd UC (Widen)	EB SR-58 / H St Off-Ramp Gr Sep
Structure Type	CIP P/S Box Girder, P/C P/S I-Girder, Steel Girder	CIP P/S Box Girder, P/C P/S I-Girder, Steel Girder	CIP P/S Box Girder	CIP P/S Box Girder	Box Culvert	CIP/PS Box Girder	CIP/PS Box Girder	CIP P/S Box Girder	CIP P/S Box Girder	Cut/Cover Tunnel	CIP/PS Box Girder	CIP/PS Box Girder	Cut/Cover Tunnel	PC/PS I-Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	CIP/PS Box Girder	Conc Deck/Steel Plate Girder	CIP/PS Box Girder	CIP/PS Box Girder
Total Area - (ft^2)	65,000	26,093	22,000	95,938	5,721	22,000	18,955	199,162	32,000	44,000	54,000	12,100	17,200	25,000	4,000	15,890	3,500	9,535	7,000	7,000	7,000	19,363
Level	1	1	2/outrigger	1	1	1	2	2/outrigger	1	Tunnel	1/outrigger	Tunnel	Tunnel	1	1	1	1	1	1	1	1	1
Footing Type (pile/spread)	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Spread Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing	Piled Footing
Cost per ft^2 (incl. 10% Mobilization and 25% Contingencies)	$290	$215	$290	$215	$180	$215	$215	$230	$210	$420	$220	$420	$420	$215	$260	$210	$260	$260	$260	$450	$260	$210
Existing Bridge Removal	25,000					$250,000								$300,000								
Total Cost for Structure	$18,875,000	$5,610,000	$6,380,000	$20,627,000	$1,030,000	$4,980,000	$4,075,000	$45,807,000	$6,720,000	$18,480,000	$11,880,000	$5,082,000	$7,224,000	$5,675,000	$1,040,000	$3,337,000	$910,000	$2,479,000	$1,820,000	$3,150,000	$1,820,000	$4,066,000

SUBTOTAL STRUCTURES ITEMS (Sum of Total Cost for Structures) $ $181,067,000

Railroad Related Costs

_____	_____	_____	$_____
_____	_____	_____	$_____
_____	_____	_____	$_____

SUBTOTAL RAILROAD ITEMS $_____

TOTAL STRUCTURE ITEMS (Sum of Structures Items plus Railroad Items) $181,067,000

TOTAL STRUCTURE ITEMS (YR 2016) **$199,085,272**

Environmental Mitigation	Quantity	Unit	Unit Price	Item Cost	Section Cost
* Archaeological	1	LS	$140,000	$140,000	
* Historical	1	LS	$80,000	$80,000	
* Paleontolgical	1	LS	$20,000	$20,000	
* Hazardous Materials	1	LS	$4,600,000	$4,600,000	
* Air Emissions	1	LS	$40,000	$40,000	
* Biological	1	LS	$120,000	$120,000	
* Permits	1	LS	$200,000	$200,000	
Aethetic Treatment	500,000	sf	$6	$3,000,000	
Pedestrian/Utility Bridge	0	LS	$0	$0	
Trails	0	LS	$0	$0	
Park Relocation or Extension	1	LS	$1,500,000	$1,500,000	

* Based on PEAR

Subtotal Environmental Mitigation Items	$9,700,000
20% Contingency	$1,940,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$11,640,000
TOTAL ENVIRONMENTAL MITIGATION ITEMS (YR 2016)	$12,799,000

III. RIGHT OF WAY ITEMS	CURRENT VALUE
A. Acquisition, inlcuding excess land, damages to remainder(s) and Goodwill	$113,694,047
B. Utility Relocation (State share)	$9,000,000
C. Relocation Assistance	$7,310,000
D. Clearance/Demolition	$6,583,504
E. Title and Escrow Fees	$380,000
TOTAL RIGHT OF WAY ITEMS (2011 Value)	$136,967,551
TOTAL RIGHT OF WAY ITEMS (2014 Value)	**$151,900,000**

F. Construction Contract Work

Brief Description of Work

_____

_____

_____

_____

Right of Way Branch Cost Estimate for Work * $_____

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

District-County-Route 06-KERN-58
PM T31.753 - R54.419
EA 06-48460
Program Code 20.10.400.010

IV. SUPPORT COST ESTIMATE SUMMARY

SB-45 CATEGORY SUPPORT COST	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	P3 Total	Support Ratio
PR/ED (PD,PE,PM)									4,214,045	4,214,100	1%
PS&E (PS)										0	
R/W (RW)										0	
CONSTRUCTION (CM)										0	
Total Support Cost:	0	0	0	0	0	0	0	0	0	4,214,100	

SB-45 CATEGORY SUPPORT COST	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	P3 Total	Support Ratio
PR/ED (PD,PE,PM)	8,428,090	4,214,045								12,642,200	2%
PS&E (PS)			8,428,090	12,642,135	4,214,045					25,284,300	4%
R/W (RW)		759,500	759,500	1,519,000	1,519,000					4,557,000	1%
CONSTRUCTION (CM)						16,856,180	16,856,180	4,214,045		37,926,500	7%
Total Support Cost:	8,428,090	4,973,545	9,187,590	14,161,135	5,733,045	16,856,180	16,856,180	4,214,045	0	84,624,100	

Total Capital Cost:	$573,304,489
Overall Percent Support Cost:	15%

ATTACHMENT D

PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)

FINAL

Preliminary Environmental Analysis Report

Project Information

District	6	County	Kern	Route	58	Post Mile	T31.70 to R55.4	EA	06-48460

Project Title: Centennial Corridor Project – Route 58 Route Adoption

Project Manager:	Steve Milton	Phone #:	(559) 243-3456
Design Manager:	Richard Helgeson	Phone #:	(559) 230-3110
Design Engineer:	Kevin Keister	Phone #:	(559) 243-3884
Environmental Manager:	Kirsten Helton	Phone #:	(559) 445-9275
Environmental Planner:	Richard Putler	Phone #:	(559) 455-6268

PSR Summary Statement

The proposed project would require an Environmental Impact Report under the California Environmental Quality Act. National Environmental Policy Act compliance would be satisfied with an Environmental Impact Statement. The processing of the environmental document is expected to take approximately 63 months to complete, with an estimated completion date of spring 2013. The California Department of Transportation (Caltrans) would act as lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), as assigned by the Federal Highway Administration.

A special consideration that could influence the ability to complete the environmental document in the proposed timeframe is the Memorandum of Agreement for the Section 106 requirements. Negotiating the Memorandum of Agreement with the State Historic Preservation Office for Section 106 (Architectural History) is considered a critical path item for the final environmental document.

Project Description

Caltrans is evaluating circulation improvements that would connect the existing freeway segment of State Route 58 to Interstate 5. The project will evaluate alternatives for a new limited access facility, as well as transportation systems management/transit options. The project is divided into three segments: Segment 1(State Route 58 Connector) extends from State Route 58 (East) to the Westside Parkway; Segment 2 (the Westside Parkway) extends from the connection with the State Route 58 Connector to Heath Road; and Segment 3 (Interstate 5 Connector) extends from Heath Road west to Interstate 5. Full technical studies will be done on Segment 1. Segments 2 and 3 have been the subject of previous CEQA/NEPA documents. Segment 2, which is a new roadway, is already under construction. Segment 3, also a new roadway that would connect the Centennial Corridor to Interstate 5, will be improved when funding is available.

Purpose and Need

The purpose of the proposed project is to adopt an alignment of State Route 58 that will:

- Provide interregional and regional connectivity for east-west traffic traveling within Metropolitan Bakersfield and Kern County;
- Provide continuity for State Route 58 in Kern County;

- Promote economic growth and international and interregional trade by improving linkages between existing segments of the Interstate system;
- Reduce commercial and regional commute time through a major freight corridor;
- Improve local east-west circulation and facilitate congestion management while accommodating existing and planned land uses in accordance with adopted growth projections; and
- Improve operations and facilitate congestion management on the shared portion of State Route 58 and State Route 99.

State Route 58 is a critical link in the State transportation network that is utilized by interstate travelers, commuters, and large numbers of trucks. State Route 58 lacks continuity in central Bakersfield, which results in severe traffic congestion and reduced levels of service on adjoining highways and local streets. This route is offset by about one mile at State Route 43 (Enos Lane) and by approximately two miles at State Route 99. The merging of two major State Routes (58 and 99) into one alignment between the eastern and western legs of State Route 58 degrades the traffic level of service on this segment of freeway. In addition, State Route 99's close spacing for its two interchanges with State Route 58 (east and west), in addition to an interchange at California Avenue results in conflicting weaving conditions that adds to congestion.

Description of Work

An Environmental Impact Report/Environmental Impact Statement (EIR/EIS) will address all three highway segments; however, the level of analysis will vary by segment. Segment 1 will be evaluated at a construction level. Segment 2 will be a revalidation of the previously approved Westside Parkway Environmental Assessment/EIR, and Segment 3 will be a revalidation of the previously approved State Route 58 Route Adoption Project Tier I EIS/EIR. Segment 3 will remain at the Tier I, route adoption level of evaluation. In addition, the document will evaluate the inclusion of Stockdale Highway from I-5 to Heath Road for inclusion in the State Highway System as an interim facility until Segment 3 is constructed in the ultimate alignment. Alternatives will be evaluated for Segment 1 only.

Alternatives

Segment 1: Eastern Connection

Segment 1 would connect State Route 58 to the eastern end of the Westside Parkway. The Westside Parkway is currently under construction. Various alternatives are under consideration, including those to the west of State Route 99 (Alternatives A and B), an alternative parallel to State Route 99 (Alternative C), a Transportation Systems Management/Transit/Transportation Demand Management Alternative (Alternative M); and a No Build alternative will be considered.

Alternative A: Alternative A proposes to connect the east end of the Westside Parkway to State Route 58 by a six-lane facility on the west side of the State Route 58/State Route 99 interchange. This alternative would run parallel to and south of Stockdale Highway for approximately one mile before turning north and connecting to the Westside Parkway between Mohawk Street and Coffee Road. There would also be linkage to the Mohawk Street Interchange providing additional connectivity with downtown Bakersfield.

Alternative B: Alternative B proposes to connect the east end of the Westside Parkway to State Route 58 by means of a six-lane facility on the west side of the State Route 58/State Route 99 Interchange. The alignment would travel in a westerly direction for approximately one-half mile on the south side of Stockdale Highway, at which point it would turn to the northwest and join the Westside Parkway just east of the Mohawk Street Interchange.

Alternative C: Alternative C proposes to connect the existing State Route 58 to the Westside Parkway by means of a six-lane facility that runs parallel to the existing State Route 99. Auxiliary lanes and ramp modifications on State Route 99 would be required to accommodate weaving movements associated with the new connections.

Alternative M: Alternative M, as the Transportation Systems Management/Transit/Transportation Demand Management Alternative, proposes local arterial improvements along several of the travel corridors and increased transit service to reduce delay and to increase the person-carrying capacity. This alternative assumes there is no new direct connection between the approved Westside Parkway and the existing State Route 58/State Route 99 Interchange.

No Build Alternative: The No Build Alternative would not construct any improvements. The Westside Parkway would be constructed as a local facility, but would not connect to State Route 58, State Route 99, or Interstate 5.

Segment 2 – Westside Parkway Connection

Segment 2 is known as the Westside Parkway. An Environmental Assessment/Environmental Impact Report (EA/EIR) was certified and the project approved by the City of Bakersfield and the Federal Highway Administration (FHWA) in 2006. The EA/EIR addressed construction-level impacts of a limited access facility from Heath Road to Mohawk Street. Construction of the Westside Parkway project has been initiated. The current analysis of Segment 2 would focus on improvements necessary to upgrade the approved local facility to State Highway Standards for inclusion in the State Highway System. No alternatives are proposed in Segment 2 because an alignment was selected as part of a previously approved environmental document and is now under construction.

Segment 3 – Heath Road to Interstate 5 Connection

Segment 3 would require a revalidation of the previous Tier I environmental document for route adoption of a new corridor to connect Segment 2 to Interstate 5. Funding for construction of a new alignment of Segment 3 is not currently available. Therefore, the level of analysis for this segment would remain at the route-location level of detail (Tier I). The EIR/EIS will also evaluate the impacts associated with an interim connection of State Route 58 to Interstate 5 along Stockdale Highway, which would be transferred into the State Highway System. No alternatives are proposed in Segment 3 because the alignment was selected as part of the previous Tier I State Route 58 Route Adoption Project EIS/EIR.

Funding

☒**State** ☒**Federal**

The current funding plan for the Centennial/SR 58 connector is as follows:

- SAFETEA-LU Section 1301 = $113.5 million
- SAFETEA-LU Section 1302 = $294.5 million
- Other Federal = $10.7 million
- State = $40 million
- City, Local Other = $133.3 million
- Kern County Bond = $60 million

Anticipated Environmental Approval

CEQA	NEPA
☐ Categorical Exemption/Statutory Exemption	☐ Categorical Exclusion (☐ 6004/☐ 6005)
☐ Negative Declaration/Mitigated ND(☐ Appendix G)	☐ Finding of No Significant Impact
☒ Environmental Impact Report	☒ Environmental Impact Statement

Anticipated Environmental Schedule

Total Time for Environmental Approval	81 months
Start Date	February 2008
Begin Environmental	March 2008
Draft Environmental Document	December 2012
Final Environmental Document	October 2014
PA&ED*	October 2014

**PA&ED is generally 1 month following the FED date*

Assumptions and Risks

Risks to the project have been defined in accordance with the Project Risk Management Handbook, May 2, 2007, Second Edition, Rev 0:

Assumptions

1. It is assumed that all build alternatives would require a Section 7 Consultation with the U.S. Fish and Wildlife Service due to the known presence of the San Joaquin kit fox in the proposed project study area. In addition, there would be impacts to other species covered by the Metropolitan Bakersfield Habitat Conservation Plan. It is assumed that the U.S. Fish and Wildlife Service would allow the payment of fees pursuant to the Metropolitan Bakersfield Habitat Conservation Plan as mitigation for loss of habitat and impacts to covered species.

2. It is assumed that focused surveys will be limited to den and sign surveys for the San Joaquin kit fox and spring surveys for burrowing owl, Swainson's hawk, and sensitive plant species.

3. It is assumed that the proposed project will conform to the 2011 Regional Transportation Plan and the 2011 Regional Transportation Implementation Plan.

4. It is assumed that the negotiation of the Memorandum of Agreement with the State Historic Preservation Officer can be completed within twelve months after the alignment is selected in order to allow the information to be incorporated into the Final Environmental Document.

5. It is assumed that only minor updating to the previously approved final environmental documents would be necessary to provide the necessary environmental documentation for Segments 2 and 3 of the proposed project.

6. It is assumed that a Section 4(f) Evaluation will be required to address recreational resources that may be affected by the proposed project. Historic resources that would qualify as Section 4(f) resources may also be affected by the proposed project.

7. It is assumed that there would be no groundwater contamination associated with the properties that would need to be acquired for the project.

8. It is assumed that the Paleontological Identification Report will identify the need for a Paleontological Evaluation Report and a Paleontological Mitigation Plan prior to the release of the Draft Environmental Document.

Risks

1. If, through the Section 7 Consultation process, the U.S. Fish and Wildlife Service requires mitigation other than the payment of fees pursuant to the Metropolitan Bakersfield Habitat Conservation Plan as mitigation for loss of habitat and impact to covered species, there would be cost and potential schedule implications associated with negotiation, development, and implementation of mitigation concepts. Probability of occurrence is a 4; the impact to the schedule would be moderate and the impact to the cost and scope would be high.

2. If additional focused surveys, beyond those identified in Assumption 2 above, are required prior to release of the Draft Environmental Document, there would be delays in the schedule for the Environmental Document. Probability of occurrence is a 2; the impact to the schedule would be high and the impact to cost and scope would be low.

3. If any components of the project or circulation network assumed for this project differ from the assumptions in the 2011 Regional Transportation Plan and the 2011 Regional Transportation Implementation Plan, then a need to amend the regional plans may occur leading to an impact on schedule, cost, and scope. Probability of occurrence is a 2; the impact to schedule, cost, and scope would be low.

4. The Section 106 process requires coordination with the State Historic Preservation Officer to develop a Memorandum of Agreement (MOA). If negotiation of the MOA does not occur in a timely manner, this could result in delays in approval of the Final Environmental Document. Probability of occurrence is a 4; the impact to the schedule would be moderate, and impact to cost and scope would be moderate.

5. The environmental approach for the proposed project assumes that the previously approved environmental documents prepared for Segments 2 and 3 are adequate and only minor updating

would be required to provide adequate environmental documentation for the route adoption study. Should substantial updating of the data be required, this could result in additional costs and schedule delays. Probability of occurrence is a 2; the impact to the schedule would be high, and the impact on cost and scope would be moderate.

6. A Section 4(f) Evaluation is required due to parkland impacts. There is also a potential that the Section 106 studies may identify cultural resources that would also qualify as a Section 4(f) resource. These resources would not be identified until a substantial portion of the Section 106 process is complete. The late identification of Section 4(f) resources could affect the schedule or potentially require modifications to the proposed project design. Probability of occurrence is a 4; the impact to the schedule would be moderate and the impact to cost and scope would be low.

7. An Initial Site Assessment will be prepared in conjunction with the preparation of the Draft Environmental Document (DED). A Preliminary Site Investigation will be required once a preferred alignment is selected (between the DED and Final Environmental document [FED]). Should contamination of groundwater be discovered, the clean-up would be regulated by the Regional Water Quality Control Board. The development of the remediation plan could affect the schedule and cost of the project. Probability of occurrence is a 1; the impact to the schedule, cost and scope would be high.

8. If the Paleontological Identification Report determines that the potential for encountering paleontological resources is low, there would not be the need for a Paleontological Evaluation Report and a Paleontological Mitigation Plan. Probability of occurrence is a 1; the impact to the schedule, cost and scope would be low.

Risk Probability Ranking	
Ranking	Probability of Risk Event
5	60-99%
4	40-59%
3	20-39%
2	10-19%
1	1-9%

Evaluating Impact of a Threat on Project Objectives						
Impact		Very Low	Low	Moderate	High	Very High
Objectives	Time	Insignificant Schedule Slippage	Delivery Plan Milestone Delay within quarter	Delivery Plan milestone delay of one quarter	Delivery Plan milestone delay of more than 1 quarter	Delivery Plan milestone delay outside fiscal year
	Cost	Insignificant Cost Increase	<5% Cost Increase	5-10% Cost Increase	10-20% Cost Increase	>20% Cost Increase
	Scope	Scope decrease is barely noticeable	Changes in project limits or features with <5% Cost Increase	Changes in project limits or features with 5-10% Cost Increase	Sponsor does not agree that Scope meets the purpose and need	Scope does not meet purpose and need

Mitigation

Known mitigation costs associated with Segment 1, which were estimated during the creation of this document, are listed in the respective categories below. Further studies may reveal the need for additional mitigation, which would be added to the cost of the project and included in an updated Mitigation Cost Compliance Estimate Form.

Right of Way Capital (050)

Biological Mitigation (MBHCP Fees)		$414,400
Permits (Section 404, 1600, 401, and SJVAPCD)		$63,000
	Total	**$477,400**

Construction Capital (042)

Biological Monitoring (260 days of construction)		$330,000
Archaeology (Phase III on 1 site/100 days of monitoring)		$180,000
Historic Architectural Resources (4 resources)		$750,000
Paleontology (Monitor for 40 days)		$60,000
Community Mitigation		4,500,000–6,000,000
Hazardous Materials (25% of total clean up)		$2,700,000–5,100,000
	Total	**$8,520,000–12,420,000**

Note: No alternative had the lowest mitigation cost in all categories. Therefore, the Capital Construction mitigation costs are never the sum of all the lowest or all the highest figures; the totals provided reflect the range of the mitigation cost estimate.

Disclaimer

This report is not an environmental document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Initiation Document. Changes in project scope, alternatives, or environmental laws will require a reevaluation of this report.

Approved by:

Environmental Manager — Date: 5/18/2011

Environmental Office Chief — Date: 5/24/2011

Project Manager — Date: 6/14/2011

Environmental Technical Reports or Studies Required

Required – requires analysis including field surveys, database searches, report, or memo to file and brief explanation in the environmental document.
Not Required – Issue is not applicable to the proposed project.
Possible Critical Path – Major issue that has the potential to drive the schedule and determine the length of time to reach PA&ED (can be more than one major issue).

	Required	Clearance Memo Received	Not Required	Possible Critical Path
Biology		☐		☒
Endangered Species (Federal)	☒		☐	
Endangered Species (State)	☒		☐	
Species of Concern (CNPS, USFS, BLM, S, F)	☒		☐	
Wetland Delineation	☒		☐	
Natural Environment Study	☒		☐	
Biological Assessment (USFWS, NMFS, State)	☒		☐	
Invasive Species	☒		☐	
Section 7 Consultation	☒			
Cultural Resources				☒
ASR	☒		☐	
HRER	☒		☐	
HPSR/HRCR	☒		☐	
Screening Memo	☐	☐	☒	
SHPO Concurrence	☒		☐	
Native American Coordination	☒		☐	
Finding of Effect Document	☒		☐	
Treatment Plan & MOA	☒			
Data Recovery Plan	☒		☐	
Hazardous Waste		☐		☐
ISA	☒		☐	
PSI	☒		☐	
ADL	☐		☒	
Air Quality Analysis		☐		☐
Hot Spot Analysis	☒		☐	
MSAT	☒		☐	
Noise Study	☒	☐	☐	☐
Water Quality	☒	☐	☐	☐
Community Impact Assessment				☐
Environmental Justice	☒		☐	
Growth Related Impacts	☒		☐	
Cumulative Impacts	☒		☐	☐
Farmland	☒		☐	☐
Visual Resources		☐		☐
Scenic Resource Evaluation	☐		☒	
Visual Impact Assessment	☒		☐	
Floodplain Evaluation	☒		☐	☐
Paleontology	☒		☐	☐
Section 4(f) Evaluation	☒		☐	☒
Wild and Scenic River Consistency	☐		☒	☐
Greenhouse Emissions	☒		☐	☐

Permits Anticipated for Construction

	Required	Not Required
401 Permit Coordination (discharge into navigable waters)	☒	☐
404 Permit Coordination (discharge into waters of the US including Wetlands)	☒	☐
☒ – Nationwide	☒	
☐ - Individual		
1600 Permit (Streambed Alteration)	☒	☐
City/County Coastal Permit Coordination	☐	☒
State Coastal Permit Coordination	☐	☒
NPDES Coordination	☒	☐
US Coast Guard (Section 10)	☐	☒
State 2081 Permit (State only incidental take of threatened or endangered species)	☒	☐

Discussion of Technical Review

Project Evaluation

Based on current alignment information, Segments 2 and 3 would be constructed within the right-of-way evaluated as part of the earlier environmental documents. At the time the Environmental Impact Report/Environmental Impact Statement is prepared for this proposed project, the adequacy of the earlier documents would need to be revalidated. The technical studies identified below would incorporate analysis of Segments 2 and 3, to the extent warranted.

Biology

The biological study area for the proposed project includes all areas that would be disturbed during construction and a buffer zone extending 500 feet on either side of the proposed project right-of-way. Walk-over surveys were conducted in 2007 and 2008 to map the vegetation for the entire biological community. Twenty-two special status plant species and 49 special status wildlife species are known to occur in the vicinity of the biological study area.

The San Joaquin kit fox was observed in the survey area during focused surveys.[1] The blunt-nosed leopard lizard, Swainson's hawk, American peregrine falcon, Nelson's antelope squirrel, giant kangaroo rat, and Tipton kangaroo rat have potential to occur, especially in the western portion of the biological study area. Surveys are expected to be required for the San Joaquin kit fox and Swainson's hawk. Given the fact that the Segment 3 evaluation will remain at the Tier I level of analysis, directed surveys for the other species are not expected to be required at this time. However, given the potential for Endangered species to exist within the vicinity of the proposed project site, a Section 7 Consultation will be required. As part of the Section 7 Consultation, a Biological Assessment will need to be prepared. Mitigation for any other listed species observed or expected to occur would be required.

Cultural Resources

The cultural resources studies will be undertaken in accordance with the "Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation regarding compliance with Section 106 of the National Historic Preservation Act, as it pertains to the Administration of the Federal-Aid Highway Program in California", effective January 1, 2004.

A preliminary review of the records search data, as conducted by the Thomas Roads Improvement Program, identified recorded prehistoric and historic resources within the vicinity of the proposed project. The location of known sites in relationship to the proposed project's Area of Potential Effect (APE) will be required to determine the potential impact on these resources. In addition, as part of the Section 106 process, a geoarchaeological assessment/sensitivity study is recommended to assist in assessing the proposed project's vertical APE and to evaluate specific areas' sensitivities for the presence of archaeological resources below ground surface. This will supplement a systematic pedestrian field survey of the proposed project area and will need to be conducted in an effort to identify previously unknown archaeological resources. Phase II archaeological studies will take place on any site that are discovered in the APE that cannot be avoided by design changes. These studies are needed to evaluate those resources for their eligibility to the National Register of Historic Places.

Tier I and II studies of Segment 2 (Westside Parkway) have been conducted as part of the previous environmental documents. Those studies concluded that the proposed project would have no adverse effects on historic properties. Because that project was completed within the last five years, no additional intensive study for architectural resources is required.

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[1] EDAW, Inc. *In Preparation. San Joaquin Kit Fox Requested Information for NES for Centennial Corridor, Bakersfield, California.* Sacramento, CA: EDAW, Inc.

Additionally, Caltrans completed a Tier I study for Segment 3 (Western Segment) as part of the 2001 EIR/EIS. Since this segment will remain at a Tier I level of analysis and conditions have not substantially changed, only an updated record search will be conducted for Segment 3.

Formal inventory and evaluation of properties within the proposed project limits would be conducted. Any identified historic era resources would be analyzed for potential impacts, and mitigation would be developed to address these impacts, as appropriate. As part of the Section 106 process, a Historic Property Survey Report (HPSR), Archaeological Survey Report (ASR), and Historic Resource Evaluation Report (HRER) will be required for this proposed project. It is estimated that about 75 to 250 buildings or structures will require inventory and evaluation. Effects and/or impacts analysis will be conducted if the HRER identifies historically significant resources and the State Historic Preservation Officer (SHPO) concurs with these findings. Mitigation will be developed to address any adverse effects/impacts identified and will be presented in a Memorandum of Agreement or Mitigation Monitoring Plan. There is the potential that the mitigation program would be extensive and may include relocation of resources.

Hazardous Waste

As mentioned above, the previous environmental documents will be relied upon as the basis for analysis of Segments 2 and 3. Because there are no previous environmental documents that address Segment 1, an Initial Site Assessment will be conducted that will cover Segment 1. Additionally, a record search of the entire alignment will be conducted to ensure that there are no new potential contamination areas that were not addressed in previous technical studies.

Based on preliminary information, there is potential for contaminated soil at a number of locations adjacent to the proposed project. Once an alignment is selected, additional due diligence will be conducted following the American Society for Testing Materials' Standard 1527-05 regarding "appropriate inquiry for innocent landowner defense" for those locations where acquisition would be necessary and where there is a potential for contamination.

Prior to demolition of structures impacted by the proposed project, an analysis for the presence of asbestos and lead-based paint would be conducted. Demolition permits will also be required prior to removal of any structures. Removal or relocation of service station tanks or product pipelines would require oversight and permitting from the local implementing agency. Further testing along the railroad lines and in the rail yard is recommended should an alternative be selected that affects these locations.

Due to the types of uses along the proposed alignment alternatives, a Preliminary Site Investigation (PSI) would be required. The study would be conducted for the selected alignment after the draft environmental document is circulated for public review and prior to the Final Environmental Document.

Air Quality Analysis

An Air Quality Technical Study for the proposed project will be prepared in accordance with Caltrans's guidelines. This study will evaluate the impacts associated with the proposed project as a whole. Potential air quality impacts generated from project construction and operation will be analyzed to determine any negative impacts that the proposed project may have on the surrounding environment. The analysis will include existing conditions, no build, and build scenarios for 2015 and 2035 horizon years. A conformity analysis at both the regional and local levels will be conducted. Greenhouse gas emissions will be analyzed following the latest available guidelines.

The potential effect of the proposed project's emissions on the Mobile Source Air Toxics emissions inventory will be conducted following the guidelines provided by the FHWA in their Interim guidance on Air Toxics Analysis in NEPA documents. It is anticipated that the proposed project would have few regional impacts and may relieve congestion by enhancing operations and improving travel time in congested areas. This, in turn, would lead to an overall reduction in greenhouse gases.

The proposed project is included in the California Federal Statewide Transportation Program. It is included in the Kern Council of Governments' 2011 Regional Transportation Plan. The proposed project is also included in the Kern Council of Governments' 2011 Federal Transportation Improvement Program. The Federal Highway Administration and Federal Transit Administration adopted the 2011 plans on December 14, 2010.

Noise Study

A Noise Study Report will be conducted to determine operational traffic noise impacts on sensitive receptors located within 500 feet of the proposed project. The focus of the study will be on Segment 1; however, the updated noise analysis will need to assess the adequacy of the previous studies conducted for Segments 2 and 3. The study will identify the locations and traffic noise levels associated with the proposed project, and it will analyze the feasibility of noise abatement measures to satisfy the requirements of NEPA, CEQA, the FHWA, and Section 216 of the *California Streets and Highways Code*. Mitigation measures will be identified as applicable.

Water Quality

A Water Quality Assessment Report that presents findings regarding the proposed project impacts on surface water quality and groundwater resources will be prepared. The analysis will evaluate impacts from roadway runoff to determine if the proposed project would result in exceedance of water quality parameters or adverse impacts to beneficial water resources identified by the Regional Water Quality Control Board.

Community Impact Assessment

Each of the build alternatives for Segment 1 would have impacts on the built environment. The extent of community disruption would vary by the alignment. Alternatives A through C would displace residential and commercial uses. A Draft Relocation Impact Report would be required to assess the impacts and availability of comparable housing and business opportunities in metropolitan Bakersfield.

A Community Impact Assessment (CIA) would be required to address potential impacts on land uses, policies, and community cohesion from the proposed project. This analysis would include a literature review to identify neighborhoods, parks and recreational areas, and other community facilities known to occur in the region. A general description of the types of housing and businesses to be relocated in the primary study area, in the city, and in the county will need to be provided. In conjunction with the CIA, a public information meeting, a business meeting, neighborhood surveys, and individual interviews will be conducted with residents in proximity to each of the four build alternatives. Based on preliminary field reviews, impacts associated with Environmental Justice may be an issue and would need to be evaluated in the CIA.

Cumulative Impacts

A cumulative impact analysis will look at the impacts of the proposed project in combination with the impacts of other past, present, and reasonably foreseeable projects identified within each resources study area.

Farmland

Segments 2 and 3 would have impacts on Important Farmland, as designated by the California Department of Conservation Farmland Mapping and Monitoring Program. These impacts were evaluated in previous environmental documents. Since there is no change in right-of-way requirements, no new impacts are anticipated. Segment 1, which has not been previously evaluated, would not have impacts on Important Farmland because it traverses the urbanized portion of metropolitan Bakersfield. The environmental document will provide documentation substantiating these findings.

Visual Resources

Alternatives A and B have the potential to impact visual resources at the Kern River Parkway and to introduce a new visual element to the neighborhoods adjacent to its alignment. Alternative C has the potential to impact visual resources at the Kern River and Saunders Park and to introduce new visual elements to the neighborhoods adjacent to its alignment. A Visual Impact Assessment will be required and will include potential effects of the proposed project and any appropriate mitigation consistent with the *Metropolitan Bakersfield Freeway Beautification Master Plan Design Guidelines.*

Floodplain Evaluation

Based on Flood Insurance Rating Maps (06029C2277E and 06029C2281), the proposed project would traverse a Special Flood Hazard Zone. Alternative A proposes a new crossing of the Kern River, whereas the other build alternatives would utilize the bridge evaluated as part of the Westside Parkway project. A Location Hydraulic Study and Floodplain Assessment Report will need to be prepared in order to analyze the effects of the alterations on the bridge footings in the 100-year and 500-year floodplains. The Report will identify whether the proposed project design would result in floodplain impacts that would require mitigation.

Paleontology

A Phase I Paleontological Resources Study was prepared for the Thomas Roads Improvement Program that included the proposed project. As part of the Phase I study, a records search, literature review, and field reconnaissance were performed to evaluate the sensitivity of substrate for the presence of fossil resources. The study established that three lithologic units that underlie the Thomas Roads Improvement Program projects have been mapped: Older Alluvium, Quaternary Alluvial Deposits, and Quaternary Stream Channel deposits. The Older Alluvium, Quaternary Alluvial Deposits, and Quaternary stream channel deposits are considered to have low paleontological sensitivity. However, fossils have been known to occur within these strata. A project-specific Paleontological Identification Report (PIR) will be prepared for the proposed project. The findings of the PIR will determine if a Paleontological Evaluation Report (PER) and Paleontological Mitigation Program (PMP) are required. Given the extent of the cut for this project, it is assumed that a PER and PMP will be required. In addition, for cost estimate purposes construction monitoring and some curation of resources is assumed.

Section 4(f) Evaluation

All the build alternatives have the potential to impact properties on or eligible for listing on the National Register of Historic Places. Research is ongoing to identify the location of historic properties, the presence of historic districts (if any) and any Section 4(f) impacts resulting from the proposed project. The Section 4(f) Evaluation for the Centennial Corridor Project will evaluate potential impacts on publicly owned parks and recreational areas and historic sites of national, State, or local significance that are listed or eligible for listing in the National Register of Historic Places. A Section 4(f) Evaluation will be required as part of the EIR/EIS.

Wild and Scenic River Consistency

N/A

Greenhouse Emissions

A quantitative analysis for carbon dioxide (CO_2) emissions and a review of the Regional Transportation Plan for discussion of climate change would be required.

Permits

The following permits and approvals would potentially be required for the build alternatives:

- A permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act may be required. If necessary, the proposed project would qualify for a Nationwide Permit.
- An agreement with the California Department of Fish and Game, pursuant to Section 1600 of the *California Fish and Game Code.*
- A Section 401 certification by the Regional Water Quality Control Board, pursuant to the Clean Water Act.
- Consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Federal Endangered Species Act would be required, thereby necessitating the preparation of a Biological Assessment.
- The proposed project would need to conform to Caltrans's Statewide National Pollutant Discharge Elimination System Storm Water Permits.

List of Preparers

Community Impact Review by Stacey Benningfield	Date: January 21, 2009
Relocation Review by Darryl Root	Date: January 21, 2009
Section 4(f) Review by Stacey Benningfield	Date: January 21, 2009
Visual Review by Stacey Benningfield	Date: January 21, 2009
Water Quality Review by Stacey Benningfield	Date: January 21, 2009
Floodplain Review by Stacey Benningfield	Date: January 21, 2009
Air Quality Review by Michelle Jones	Date: January 8, 2009
Noise Review by Stacey Benningfield	Date: January 26, 2009
Cultural Review (architectural) by Toni Webb	Date: January 26, 2009
Cultural Review (archaeological) by Pat Maxon, RPA	Date: January 26, 2009
Hazardous Waste Review by John Moe	Date: January 8, 2009
Biological Review by Allison Rudalevige	Date: January 7, 2009
Paleontology Review by Justin Partridge	Date: January 8, 2009

ATTACHMENT E

PRELIMINARY STORM WATER DATA REPORT

APPENDIX E

Long Form - Storm Water Data Report

Dist-County-Route: 6-KER-58

Post Mile Limits: PM T31.75-R55.40

Project Type: New Construction/Construct 6/8-Lane Freeway

Project ID (or EA): ID 0600000484 (EA 06-48460K)

Program Identification: 400.010

Phase: ☒ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Central Valley, Region 5, Fresno Office

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

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

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

Total Disturbed Soil Area: Alternative A = 121 acres
Alternative B = 81 acres
Alternative C = 128 acres Risk Level: 1

Estimated: Construction Start Date: April 1, 2015 Construction Completion Date: October 1, 2017

Notification of Construction (NOI) Date to be submitted: March 1, 2015

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

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

Bruce Schmith, Registered Project Engineer — 2/24/11 Date

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

Steven Milton, *Project Manager* — 2/25/11 Date

Bill Moses, *Designated Maintenance Representative* — 3/7/2011 Date

for Elbert Cox — Elbert Cox, *Designated Landscape Architect Representative* — 3/7/11 Date

[Stamp Required for PS&E only]

Marissa Nishikawa, *District/Regional Design SW Coordinator or Designee* — 3/7/11 Date

ATTACHMENT F

RIGHT-OF-WAY DATA SHEETS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET
(Form #)

EXHIBIT
4-EX-1
PAGE 1 OF 3

To: XXX

Attn.: XXX

Date 12/19/11
Dist 6 Co Ker Rte 58, P/M T31.7/R55.4

Project Description: Construct continuous SR-58 from I-5 to Cottonwood Road on existing SR 58(East)

Subject: Right of Way Data

Alternative No. A

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

1. Right of Way Cost Estimate:

		Current Value Future Use	Escalation Rate*	Escalated Value
A.	**Total Acquisition Cost** Acquisition, including Excess Lands, Damages, and Goodwill. Project Permit Fees.	$134,362,424	10.9 %	$149,007,928
B.	**Utility Relocation (State Share)**	$14,800,000	10.9 %	$16,413,200
C.	**Relocation Assistance**	$16,280,000	10.9 %	$18,054,520
D.	**Clearance/Demolition**	$8,512,984	10.9 %	$9,440,899
E.	**Title and Escrow**	$470,000	10.9 %	$521,230
F.	**Railroad Relocation**	$0	10.9 %	$0
G.	**Total Estimated Cost**	$174,425,408	10.9 %	$193,437,778
H.	**Construction Contract Work**	NONE		

Rounded Total $194,000,000

*Escalation Rate is 3.5% per year for 3 years (assumes acquisition will begin in 2014)

2. Current Date of Right of Way Certification: Current Date of Right of Way Certification is est. to be 01/ 2016

3. Parcel Data:

Type		Dual/Appr	Utilities	
X			U4-1	
A	7		-2	
B	237		-3	
C	50		-4	230
D	16		U5-7	15
E	XXXX		-8	30
F	XXXX		-9	200

RR Involvements	
None	
C&M Agrmt	X
Svc Contract	
Design	
Const.	
Lic/RE/Clauses	

Misc. R/W Work	
RAP Displ	460
Clear/Demo	260
Const Permits	
Condemnation	
Excess	

Total: 310
Areas: R/W 330 Ac No. Excess Parcels NONE
Entered PMCS Screens __/__/__ By _____

Entered AGRE Screen (Railroad data only) __/__/__ By _____

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

The construction contract will include the construction a new Freeway West of the State Route 58/99 Interchange. The alignment would travel in westerly direction for approximately one mile on the South Side of Stockdale Highway, at which point it would turn in a northwesterly direction and span the Carrier Canal, Truxtun Avenue, and the Kern River. Additional construction work will include revisions to signing, lighting, traffic signals, pavement delineation, and utility relocations.

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

The right-of-way required for this project lies within the City of Bakersfield and County of Kern. Right of way impacts for this alternative require full take of 287 properties and partial take of 23 properties.

6. **Is there an effect on assessed valuation?** Yes ____Not Significant ____ No __X__(If yes, explain.)

7. **Are utility facilities or rights of way affected?** Yes__X__No ____ (If yes, attach Utility Information Sheet Exhibit 4-EX-5.)

8. **Are Railroad facilities or rights of way affected?** Yes __X__ No ___ (If yes, attach Railroad Information Sheet Exhibit 4-EX-6.)

9. **Were any previously unidentified sites with hazardous waste and/or material found?** Yes _____ None Evident

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

No. of single family 252 No. of business/nonprofit 130

No. of multi-family 78 No. of farms ____

Based on Draft Relocation Impact Statement/Study dated 9/2009 , it is anticipated that sufficient replacement housing (will/~~will not~~) be available without Last Resort Housing.

11. **Are there material borrow and/or disposal sites required?** Yes X No ___ (If yes, explain.)
Borrow and/or disposal sites will be required.

12. **Are there potential relinquishments and/or abandonment's?** Yes X No ____ (If yes, explain.)
Potential relinquishment of portion of the existing street alignment.

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

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

Based upon the R/W requirements of Page 1 of this Data Sheet, it is anticipated that R/W will require a lead time of 30 months from the date regular appraisals begin to project certification.

15. **Is it anticipated that Caltrans staff will perform all Right of Way work?** Yes ____ No X (If no discuss.) Right of way work will be contracted by the City of Bakersfield.

Project Sponsor Consultant
Prepared by:

Glen Parker

Glen Parker, PE
Design Manager
Parsons

12-21-2011
Date

Project Sponsor
Reviewed and Approved by:

Don Anderson
Financial Services
City of Bakersfield

12-22-11
Date

Caltrans
Reviewed and approved based on information provided to date:

for Caltrans District Branch Chief
Division of Right of Way

1-3-12
Date

UTILITY INFORMATION SHEET | **EXHIBIT**

(Form #) | **Alternative A** | 4-EX-5 (REV 3/2004)

1. Name of utility companies involved in the project:

AT&T
MCI World
City of Bakersfield
Time Warner
Southern California Gas Co.
PG&E
Mobil Oil Co.
Bright House

2. Types of facilities and agreements required:

Telecom, fiber optic, potable water, gas, oil, cable TV, sewer, OH electric, street lighting, OH telecom, OH cable TV.

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

No longitudinal encroachments have been identified in the PID phase.

Disposition of longitudinal encroachment(s):

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

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

A number of commercial and residential services will be affected by the proposed project.

5. PMCS Input Information
Total estimated cost of State's obligation for utility relocation on this project:
$ 14,800,000

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

Utility Involvements

U4-1		U5-7	15
-2		-8	30
-3		-9	200
-4	230		

Prepared By:

Glen Parker

Right of Way Utility Estimator

12/21/2011
Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RAILROAD INFORMATION SHEET **Alternative A** EXHIBIT 4-EX-6

(Form #)

1. Describe railroad facilities or right of way affected.

   The Bakersfield Corral OH (L/R) over BNSF right of way is proposed to be widened by this project.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes _____ No _____ (If yes, explain)

   Not Applicable

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

   A C&M agreement will be required, there are no at-grade crossings affected by this Project.

4. Remarks (non-operating railroad right of way involved?):

5. PMCS Input Information

RR Involvements

None	
C&M Agreement	X
Service Contract	
Design	
Construction	
Lic/RE/Clauses	

Prepared By:

Glen Parker

Right of Way Railroad Coordinator

12/21/2011

Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET
(Form #)

EXHIBIT
4-EX-1
PAGE 1 OF 3

To: XXX

Attn.: XXX

Date 12/19/11
Dist 6 Co Ker Rte 58, P/M T31.7/R55.4

Project Description: Construct continuous SR-58 from I-5 to Cottonwood Road on existing SR 58(East)

Subject: Right of Way Data

Alternative No. C

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

1. Right of Way Cost Estimate:

		Current Value Future Use	Escalation Rate*	Escalated Value
A.	**Total Acquisition Cost** Acquisition, including Excess Lands, Damages, and Goodwill. Project Permit Fees.	$113,694,047	10.9 %	$126,086,698
B.	**Utility Relocation (State Share)**	$9,000,000	10.9 %	$9,981,000
C.	**Relocation Assistance**	$7,310,000	10.9 %	$8,106,790
D.	**Clearance/Demolition**	$6,583,504	10.9 %	$7,301,106
E.	**Title and Escrow**	$380,000	10.9 %	$421,420
F.	**Railroad Relocation**	$0	10.9 %	$0
G.	**Total Estimated Cost**	$136,967,551	10.9 %	$151,897,014
H.	**Construction Contract Work**	NONE		

Rounded Total $152,000,000
*Escalation Rate is 3.5% per year for 3 years (assumes acquisition will begin in 2014)

2. Current Date of Right of Way Certification: Current Date of Right of Way Certification is est. to be 01/ 2016

3. Parcel Data:

Type		Dual/Appr	Utilities	
X			U4-1	
A	10		-2	
B	117		-3	
C	110		-4	189
D	17		U5-7	19
E	XXXX		-8	40
F	XXXX		-9	150

RR Involvements	
None	
C&M Agrmt	X
Svc Contract	
Design	
Const.	
Lic/RE/Clauses	

Misc. R/W Work	
RAP Displ	191
Clear/Demo	210
Const Permits	
Condemnation	
Excess	

Total: 254
Areas: R/W 84.3 Ac
Entered PMCS Screens __/__/__

No. Excess Parcels NONE
By _____

Entered AGRE Screen (Railroad data only) __/__/__ By _____

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

The construction contract will include connecting existing State Route 58 to the Westside Parkway by means of routing new lanes adjacent and parallel to the existing State Route 99. Additional construction work will include revisions to signing, lighting, traffic signals, pavement delineation, and utility relocations.

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

The right-of-way required for this project lies within the City of Bakersfield and County of Kern. Right of way impacts for this alternative require full take of 237 properties and partial take of 17 properties.

6. **Is there an effect on assessed valuation?** Yes ____Not Significant ____ No _X_(If yes, explain.)

7. **Are utility facilities or rights of way affected?** Yes_X_No ____ (If yes, attach Utility Information Sheet Exhibit 4-EX-5.)

8. **Are Railroad facilities or rights of way affected?** Yes _X_ No ____ (If yes, attach Railroad Information Sheet Exhibit 4-EX-6.)

9. **Were any previously unidentified sites with hazardous waste and/or material found?** Yes _____ None Evident

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

No. of single family 224 No. of business/nonprofit 43

No. of multi-family 77 No. of farms ____

Based on Draft/Final Relocation Impact Statement/Study dated 9/2009, it is anticipated that sufficient replacement housing (will/~~will not~~) be available without Last Resort Housing.

11. Are there material borrow and/or disposal sites required? Yes X No ____ (If yes, explain.)
Borrow and/or disposal sites will be required.

12. Are there potential relinquishments and/or abandonment's? Yes ___ No X (If yes, explain.)
Potential relinquishment of a portion of the existing street alignment.

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

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

Based upon the R/W requirements of Page 1 of this Data Sheet, it is anticipated that R/W will require a lead time of 30 months from the date regular appraisals begin to project certification.

15. Is it anticipated that Caltrans staff will perform all Right of Way work? Yes ___ No X (If no discuss.) Right of way work will be contracted by the City of Bakersfield.

Project Sponsor Consultant
Prepared by:

Glen Parker

Glen Parker, PE
Design Manager
Parsons

12-21-2011
Date

Project Sponsor
Reviewed and Approved by:

Dan Anderson
Financial Services
City of Bakersfield

12-22-11
Date

Caltrans
Reviewed and approved based on information provided to date:

for Caltrans District Branch Chief
Division of Right of Way

1-3-12
Date

UTILITY INFORMATION SHEET
(Form #)

Alternative C

EXHIBIT
4-EX-5 (REV 3/2004)

1. Name of utility companies involved in the project:

AT&T
MCI World
City of Bakersfield
Time Warner
Southern California Gas Co.
PG&E
Mobil Oil Co.
Bright House
San Joaquin Facilities Mgmt.

2. Types of facilities and agreements required:

Telecom, fiber optic, potable water, gas, oil, cable TV, sewer, OH electric, street lighting, OH telecom, OH cable TV, petroleum wells.

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

No longitudinal encroachments have been identified in the PID phase.

Disposition of longitudinal encroachment(s):

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

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

A number of commercial and residential services will be affected by the proposed project.

5. PMCS Input Information
Total estimated cost of State's obligation for utility relocation on this project:
$ 9,000,000

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

Utility Involvements

U4-1		U5-7	19
-2		-8	40
-3		-9	150
-4	189		

Prepared By:

Glen Paulk
Right of Way Utility Estimator

12/21/2011
Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RAILROAD INFORMATION SHEET **Alternative C**

(Form #)

EXHIBIT 4-EX-6

1. Describe railroad facilities or right of way affected.

   The Bakersfield Corral OH (L/R) and the Bakersfield Yard OH over BNSF right of way is proposed to be widened by this project.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes _____ No _____ (If yes, explain)

   Not Applicable

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

   A C&M agreement will be required, there are no at-grade crossings affected by this Project.

4. Remarks (non-operating railroad right of way involved?):

5. PMCS Input Information

RR Involvements	
None	
C&M Agreement	X
Service Contract	
Design	
Construction	
Lic/RE/Clauses	

Prepared By:

Glen Parker

Right of Way Railroad Coordinator

12/21/2011

Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET
(Form #)

EXHIBIT
4-EX-1
PAGE 1 OF 3

To: XXX

Attn.: XXX

Date 12/19/11
Dist 6 Co Ker Rte 58, P/M T31.7/R55.4

Project Description: Construct continuous SR-58 from I-5 to Cottonwood Road on existing SR 58(East)

Subject: Right of Way Data

Alternative No. B

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

1. Right of Way Cost Estimate:

		Current Value Future Use	Escalation Rate*	Escalated Value
A.	**Total Acquisition Cost** Acquisition, including Excess Lands, Damages, and Goodwill. Project Permit Fees.	$112,669,192	10.9 %	$124,950,134
B.	**Utility Relocation (State Share)**	$14,800,000	10.9 %	$16,413,200
C.	**Relocation Assistance**	$10,965,000	10.9 %	$12,160,185
D.	**Clearance/Demolition**	$6,446,544	10.9 %	$7,149,217
E.	**Title and Escrow**	$492,000	10.9 %	$545,628
F.	**Railroad Relocation**	$0	10.9 %	$0
G.	**Total Estimated Cost**	$145,372,736	10.9 %	$161,218,364
H.	**Construction Contract Work**	NONE		

Rounded Total $162,000,000
*Escalation Rate is 3.5% per year for 3 years (assumes acquisition will begin in 2014)

2. Current Date of Right of Way Certification: Current Date of Right of Way Certification is est. to be 01/2016

3. Parcel Data:

Type		Dual/Appr	Utilities	
X			U4-1	
A	10		-2	
B	243		-3	
C	41		-4	233
D	5		U5-7	18
E	XXXX		-8	30
F	XXXX		-9	200

RR Involvements	
None	
C&M Agrmt	X
Svc Contract	
Design	
Const.	
Lic/RE/Clauses	

Misc. R/W Work	
RAP Displ	344
Clear/Demo	251
Const Permits	
Condemnation	
Excess	

Total: 299
Areas: R/W 86 Ac
Entered PMCS Screens __/__/__

No. Excess Parcels NONE
By _____

Entered AGRE Screen (Railroad data only) __/__/__ By _____

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

   The construction contract will include the construction a new Freeway West of the State Route 58/99 Interchange. The alignment would travel in westerly direction for approximately one-half mile on the South Side of Stockdale Highway, at which point it would turn to the northwest, span the Carrier Canal, Truxtun Avenue and the Kern River. Additional construction work will include revisions to signing, lighting, traffic signals, pavement delineation, and utility relocations.

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

   The right-of-way required for this project lies within the City of Bakersfield and County of Kern. Right of way impacts for this alternative require full take of 284 properties and partial take of 15 properties.

6. **Is there an effect on assessed valuation?** Yes ____ Not Significant ____ No __X__ (If yes, explain.)

7. **Are utility facilities or rights of way affected?** Yes __X__ No ____ (If yes, attach Utility Information Sheet Exhibit 4-EX-5.)

8. **Are Railroad facilities or rights of way affected?** Yes __X__ No ____ (If yes, attach Railroad Information Sheet Exhibit 4-EX-6.)

9. **Were any previously unidentified sites with hazardous waste and/or material found?** Yes ____ None Evident

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

No. of single family 63 No. of business/nonprofit 113

No. of multi-family 15 No. of farms ____

Based on Draft/Final Relocation Impact Statement/Study dated 9/2009, it is anticipated that sufficient replacement housing (will/~~will not~~) be available without Last Resort Housing.

11. **Are there material borrow and/or disposal sites required?** Yes X No ____ (If yes, explain.)
Borrow and/or disposal sites will be required.

12. **Are there potential relinquishments and/or abandonment's?** Yes ___ No X (If yes, explain.)

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

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

Based upon the R/W requirements of Page 1 of this Data Sheet, it is anticipated that R/W will require a lead time of 30 months from the date regular appraisals begin to project certification.

15. **Is it anticipated that Caltrans staff will perform all Right of Way work?** Yes ____ No X (If no discuss.) Right of way work will be contracted by the City of Bakersfield.

Project Sponsor Consultant
Prepared by:

Glen Parker

Glen Parker, PE
Design Manager
Parsons

12-21-2011
Date

Project Sponsor
Reviewed and Approved by:

Dan Anderson
Financial Services
City of Bakersfield
12-22-11
Date

Caltrans
Reviewed and approved based on information provided to date:

for Caltrans District Branch Chief
Division of Right of Way

1.3.11
Date

UTILITY INFORMATION SHEET EXHIBIT

(Form #) **Alternative B** 4-EX-5 (REV 3/2004)

1. Name of utility companies involved in the project:

AT&T
MCI World
City of Bakersfield
Time Warner
Southern California Gas Co.
PG&E
Mobil Oil Co.
Bright House
San Joaquin Facilities Mgmt.

2. Types of facilities and agreements required:

Telecom, fiber optic, potable water, gas, oil, cable TV, sewer, OH electric, street lighting, OH telecom, OH cable TV, petroleum wells.

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

No longitudinal encroachments have been identified in the PID phase.

Disposition of longitudinal encroachment(s):

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

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

A number of commercial and residential services will be affected by the proposed project.

5. PMCS Input Information
Total estimated cost of State's obligation for utility relocation on this project:
$ 14,800,000

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

Utility Involvements

U4-1		U5-7	18
-2		-8	30
-3		-9	200
-4	233		

Prepared By:

Glen Parker

Right of Way Utility Estimator

12/21/2011
Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RAILROAD INFORMATION SHEET **Alternative B** EXHIBIT 4-EX-6

(Form #)

1. Describe railroad facilities or right of way affected.

   The Bakersfield Corral OH (L/R) over BNSF right of way is proposed to be widened by this project.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes _____ No _____ (If yes, explain)

   Not Applicable

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

   A C&M agreement will be required, there are no at-grade crossings affected by this Project.

4. Remarks (non-operating railroad right of way involved?):

5. PMCS Input Information

RR Involvements	
None	
C&M Agreement	X
Service Contract	
Design	
Construction	
Lic/RE/Clauses	

Prepared By:

Glen Parker

Right of Way Railroad Coordinator

12/21/2011

Date

ATTACHMENT G

UTILITY CONFLICTS MATRIX

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-A

HNTB

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost	
			Approx Sta. Start	If parallel to SR 58 & SR-99				Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/ Center of Road				
001	AT&T	Abn Buried Tele. Comm.	459+28		C	Yes	214	0	0
002	MCI World	4" Fiber Optic	459+57		C		214	400	86
003	CITY OF BAKERSFIELD	16" Water Line	458+50	469+00	W		1050	280	294
004	TIME WARNER	Underground Tele. Comm.	459+67		C		214	100	21
005	CITY OF BAKERSFIELD	24" Storm Drain	460+40		C		214	180	39
006	CITY OF BAKERSFIELD	InterConnect	460+41		C		214		0
007	CITY OF BAKERSFIELD	16" Water Line	460+45		C		214	280	60
008	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	460+53		C		214	400	86
009	BRIGHT HOUSE	Underground Cable TV	460+54		C		214	50	11
010	AT&T	4-4" Conduits	460+64		C	Yes	214	0	0
011	AT&T	2700 Dist. Box	460+64		S	Yes	1	0	0
012	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	462+88		W		115	400	46
013	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	463+94	466+33	E		239	400	96
014	BRIGHT HOUSE	Underground Cable TV	464+24	466+43	E		219	50	11
015	AT&T	Underground Tele. Comm.	465+14		c	Yes	214	0	0
016	BRIGHT HOUSE	Underground Cable TV	465+34		C		484	50	24
017	CITY OF BAKERSFIELD	8" Water Line	465+39		C		214	140	30
018	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	465+47		C		533	400	213
019	CITY OF BAKERSFIELD	8" Sewer	465+56		C		168	50	8
020	CITY OF BAKERSFIELD	8" Sewer	467+04		C		271	50	14
021	PG&E	OH Electrical	467+02		C		367	50	18
022	CITY OF BAKERSFIELD	8" Water Line	467+02		W		102	140	14
023	CITY OF BAKERSFIELD	8" Water Line	469+00		C		102	140	14
024	CITY OF BAKERSFIELD	8" Sewer	469+00		C		92	50	5
025	BRIGHT HOUSE	Underground Cable TV	471+28		C		165	50	8
026	CITY OF BAKERSFIELD	8" Water Line	471+29		C		166	140	23
027	AT&T	Underground Tele. Comm.	471+29		C	Yes	223	0	0
028	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	471+39		C		229	400	92
029	CITY OF BAKERSFIELD	8" Sewer	471+46		C		509	50	25
030	CITY OF BAKERSFIELD	36" Storm Drain	471+86		C		223	280	62
031	AT&T	Underground Tele. Comm.	472+21		S	Yes	233	0	0
032	CITY OF BAKERSFIELD	8" Water Line	472+94		C		385	140	54
033	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	473+01		C		604	400	242
034	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	474+64		C		285	400	114
035	BRIGHT HOUSE	Underground Cable TV	476+00		C		282	50	14
036	BRIGHT HOUSE	Underground Cable TV	476+36		C		186	50	9
037	CITY OF BAKERSFIELD	8" Water Line	476+45		C		245	140	34
038	PG&E	OH Electrical	476+64		C		580	50	29
039	CITY OF BAKERSFIELD	8" Water Line	479+45		C		394	140	55
040	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	479+51		C		279	400	112
041	BRIGHT HOUSE	Underground Cable TV	479+54		C		279	50	14
042	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	481+79		C		247	400	99
043	PG&E	OH Electrical	483+40		C		396	50	20
044	BRIGHT HOUSE	Underground Cable TV	484+72		C		282	50	14
045	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	484+74		C		281	400	112
046	PG&E	OH Electrical	484+75		C		285	50	14
047	AT&T	Buried Tele. Comm.& Fiber	484+88		C	Yes	280	0	0
048	CITY OF BAKERSFIELD	10" Sewer	485+17		C		277	60	17
049	CITY OF BAKERSFIELD	Street Light	485+33		S		1		0

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-A

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost	
			Approx Sta. Start	If parallel to SR 58 & SR-99				Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/ Center of Road				
050	CITY OF BAKERSFIELD	12" Water Line	485+81		C		281	180	51
051	PG&E	OH Electrical	486+20		C		545	50	27
052	CITY OF BAKERSFIELD	Traffic Signal	486+84		N		1	20000	20
053	CITY OF BAKERSFIELD	Street Light	487+31		N		1		0
054	CITY OF BAKERSFIELD	10" Sewer	488+00		C		263	60	16
055	MCI World	4" Fiber Optic	488+15		C		345	90	31
056	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	488+18		C		359	400	144
057	CITY OF BAKERSFIELD	12" Water Line	488+32		C		348	180	63
058	AT&T	2-4" Conduits	488+65		C	Yes	352	0	0
059	CITY OF BAKERSFIELD	Street Light	489+79		N		1		0
060	AT&T	8-4" Conduits	488+92		C	Yes	361	0	0
061	PG&E	OH Electrical	489+93		C		361	50	18
062	CITY OF BAKERSFIELD	12" Water Line	489+99		C		361	180	65
063	CITY OF BAKERSFIELD	10" Sewer	490+01		C		364	60	22
064	PG&E	OH Electrical	490+56		C		188	50	9
065	CITY OF BAKERSFIELD	Street Light	492+69		N		1		0
066	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	493+30		C		316	400	126
067	BRIGHT HOUSE	Underground Cable TV	493+38		C		538	50	27
068	PG&E	OH Electrical	494+24		C		686	50	34
069	CITY OF BAKERSFIELD	10" Water Line	493+44		C		316	160	51
070	AT&T	2-4" Conduits	493+60		C	Yes	317	0	0
071	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	496+34		C		284	400	114
072	AT&T	Underground Tele. Comm.	486+85		C	Yes	287	0	0
073	CITY OF BAKERSFIELD	12" Water Line	496+92		C		288	180	52
074	MCI World	4" Fiber Optic	497+04		C		306	400	122
075	PG&E	OH Electrical	497+06		C		288	50	14
076	CITY OF BAKERSFIELD	Street Light	497+72		N		1		0
077	AT&T	Underground Tele. Comm.	497+25		S	Yes	180	0	0
078	CITY OF BAKERSFIELD	8" Sewer	498+74		C		246	50	12
079	PG&E	OH Electrical	500+56		C		232	50	12
080	AT&T	4" Ducts	503+16		C	Yes	511	0	0
081	AT&T	4" Ducts	504+07		C	Yes	486	0	0
082	PG&E	OH Electrical	507+75		C		335	50	17
083	BRIGHT HOUSE	Underground Cable TV	507+97		C		424	50	21
084	MCI World	4" Fiber Optic	508+02		C		425	90	38
85	CITY OF BAKERSFIELD	8" Water Line	508+06		C		234	140	33
086	PG&E	OH Electrical	508+12		C		428	50	21
087	CITY OF BAKERSFIELD	InterConnect	510+15		C		458		0
088	MCI World	4" Fiber Optic	510+26		C		451	90	41
089	AT&T	Underground Tele. Comm.	511+02		C	Yes	468	0	0
090	PG&E	OH Electrical	512+55		C		260	50	13
091	BRIGHT HOUSE	Underground Cable TV	513+78		C		208	50	10
092	MCI World	4" Fiber Optic	513+80		C		209	90	19
093	PG&E	OH Electrical	513+85		C		224	50	11
094	AT&T	OH Tele. Comm.	514+32		C	Yes	227	0	0
095	PG&E	OH Electrical	514+40		C		225	15	3
096	MCI World	4" Fiber Optic	514+45		C		226	15	3
097	PG&E	OH Electrical	515+92		C		356	15	5
098	BRIGHT HOUSE	OH Cable Television	516+00		C		364	15	5

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-A

HNTB

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost	
			Approx Sta. Start	If parallel to SR 58 & SR-99				Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/ Center of Road				
099	CITY OF BAKERSFIELD	6" Water Line	519+44		C		593	15	9
100	BRIGHT HOUSE	OH Cable Television	521+77		C		599	15	9
101	PG&E	OH Electrical	521+79		C		347	15	5
102	CITY OF BAKERSFIELD	6" Water Line	521+82		C		540	15	8
103	AT&T	OH Tele. Comm.	521+88		C	Yes	226	0	0
104	BRIGHT HOUSE	OH Cable Television	524+47		C		141	15	2
105	PG&E	OH Electrical	524+60		C		209	15	3
106	CITY OF BAKERSFIELD	6" Water Line	525+95		C		224	15	3
107	AT&T	OH Tele. Comm.	527+55		C	Yes	233	0	0
108	BRIGHT HOUSE	OH Cable Television	527+57		C		232	15	3
109	PG&E	OH Electrical	527+61		C		233	15	3
110	CITY OF BAKERSFIELD	4" Water Line	528+92		C		245	15	4
111	BRIGHT HOUSE	OH Cable Television	530+58		C		262	15	4
112	PG&E	OH Electrical	530+60		C		263	15	4
113	AT&T	OH Tele. Comm.	530+67		C	Yes	263	0	0
114	CITY OF BAKERSFIELD	4" Water Line	531+92		C		268	15	4
115	BRIGHT HOUSE	OH Cable Television	533+55		C		273	15	4
116	PG&E	OH Electrical	533+77		C		274	15	4
117	AT&T	OH Tele. Comm.	533+87		C	Yes	274	0	0
118	AT&T	OH Tele. Comm.	535+05		C	Yes	287	0	0
119	CITY OF BAKERSFIELD	8" Water Line	535+52		C		289	15	4
120	BRIGHT HOUSE	OH Cable Television	536+86		C		304	15	5
121	PG&E	OH Electrical	536+93		C		305	15	5
122	PG&E	OH Electrical	537+79		C		305	15	5
123	BRIGHT HOUSE	OH Cable Television	537+91		C		309	15	5
124	BRIGHT HOUSE	OH Cable Television	537+69	541+93	W		425	15	6
125	AT&T	OH Tele. Comm.	538+00		C	Yes	315	0	0
126	AT&T	OH Tele. Comm.	539+18		C	Yes	228	0	0
127	AT&T	OH Tele. Comm.	541+71		C	Yes	260	0	0
127	BRIGHT HOUSE	OH Cable Television	541+97		C		314	15	5
128	PG&E	OH Electrical	542+00		C		314	15	5
129	AT&T	OH Tele. Comm.	542+10		C	Yes	327	0	0
130	CITY OF BAKERSFIELD	8" Water Line	543+57		C		346	15	5
131	PG&E	OH Electrical	543+90		C	Yes	353	15	5
132	AT&T	OH Tele. Comm.	543+95		C	Yes	344	0	0
133	AT&T	OH Tele. Comm.	545+29		C	Yes	366	0	0
134	AT&T	OH Tele. Comm.	545+29		N	Yes	163	0	0
135	AT&T	OH Tele. Comm.	545+29		S	Yes	107	0	0
136	AT&T	OH Tele. Comm.	545+29		S	Yes	125	0	0
137	PG&E	OH Electrical	545+31		C		366	15	5
138	BRIGHT HOUSE	OH Cable Television	545+33		C		367	15	6
139	BRIGHT HOUSE	OH Cable Television	546+88		C		353	15	5
140	AT&T	OH Tele. Comm.	547+02	548+17	S	Yes	274	0	0
141	AT&T	OH Tele. Comm.	548+17		C	Yes	480	0	0
142	CITY OF BAKERSFIELD	8" Water Line	548+26		C		416	140	58
143	PG&E	OH Electrical	549+00		C		431	50	22
144	BRIGHT HOUSE	OH Cable Television	549+09		C		729	30	22
145	AT&T	1-4" Conduit	549+24		C	Yes	438	0	0
146	AT&T	Underground Tele. Comm.	549+88		C	Yes	358	0	0
147	AT&T	Quox Cable	550+24		C	Yes	378	0	0

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-A

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost	
			Approx Sta. Start	If parallel to SR 58 & SR-99				Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/ Center of Road				
148	CITY OF BAKERSFIELD	18" Storm Drain	552+39		C		182	140	25
149	CITY OF BAKERSFIELD	30" Storm Drain	555+22		C		2461	240	591
150	CITY OF BAKERSFIELD	36" Storm Drain	555+33		C		877	280	246
151	BRIGHT HOUSE	OH Cable Television	56+85		C		223	30	7
152	CITY OF BAKERSFIELD	4" Water Line	555+49	558+26	W		705	100	71
153	CITY OF BAKERSFIELD	Abn 2" Gasline	555+80	558+25	W		1033		0
154	CITY OF BAKERSFIELD	Remove 30" Storm Drain	558+42		C		1335		0
155	CITY OF BAKERSFIELD	24" Storm Drain	29+62		E		772	180	139
156	CITY OF BAKERSFIELD	24" Storm Drain	29+65		C		579	180	104
157	CITY OF BAKERSFIELD	24" Storm Drain	30+23		C		646	180	116
158	Mobil Oil Co.	10" Oil Line	30+63		C		2432		0
159	CITY OF BAKERSFIELD	8" Water Line	30+66		C		2069	140	290
160	CITY OF BAKERSFIELD	18" Storm Drain	35+92		C		181	140	25
163	AT&T	40-4" Conduit	585+77		C	Yes	240	0	0
164	AT&T	6- Conduit	585+78		C	Yes	240	0	0
165	CITY OF BAKERSFIELD	24" Storm Drain	634+00	649+50	C		1550	140	217
166	CITY OF BAKERSFIELD	18" Storm Drain	636+00		C		224	140	31
167	CITY OF BAKERSFIELD	18" Storm Drain	637+98		C		100	140	14
168	BRIGHT HOUSE	Underground Cable TV	638+04		C		248	50	12
169	AT&T	8-4" Conduits	638+11		C	Yes	248	0	0
170	CITY OF BAKERSFIELD	InterConnect	639+08		C		248		0
171	CITY OF BAKERSFIELD	18" Storm Drain	640+00		C		100	140	14
172	CITY OF BAKERSFIELD	18" Storm Drain	644+00		C		130	140	18
173	CITY OF BAKERSFIELD	18" Storm Drain	645+00		C		105	140	15
174	CITY OF BAKERSFIELD	Traffic Signal	647+80		E		1	20000	20
175	CITY OF BAKERSFIELD	Traffic Signal	648+35		E		1	20000	20
176	CITY OF BAKERSFIELD	18" Storm Drain	649+50		C		168	140	24
177	AT&T	Underground Tele. Comm.	654+20		C	Yes	319	0	0
178	CITY OF BAKERSFIELD	18" Storm Drain	660+51		C		130	140	18
179	CITY OF BAKERSFIELD	8" Water Line	663+06				2844	140	398
180	CITY OF BAKERSFIELD	Gas Line	663+06	67828	E		1760		0
181	CITY OF BAKERSFIELD	18" Storm Drain	664+29		C		80	140	11
182	BRIGHT HOUSE	Underground Cable TV	664+50		C		340	50	17
183	BRIGHT HOUSE	Underground Cable TV	664+51	672+00	S		760	50	38
184	CITY OF BAKERSFIELD	Underground Telephone Line	664+54		C		335		0
185	CITY OF BAKERSFIELD	6" Water Line	664+64		C		326	140	46
186	AT&T	6-4" Conduit	664+75		C	Yes	335	0	0
187	CITY OF BAKERSFIELD	24" Storm Drain	665+12		C		310	180	56
188	PG&E	OH Electrical	665+31	672+00	S		669	50	33
189	CITY OF BAKERSFIELD	24" Storm Drain	665+40		C		352	180	63
190	CITY OF BAKERSFIELD	30" Storm Drain	665+49		C		356	240	85
191	CITY OF BAKERSFIELD	Underground Telephone Line	665+70		C		357		0
192	CITY OF BAKERSFIELD	8" Water Line	666+10		C		327	140	46
193	CITY OF BAKERSFIELD	21" Storm Drain	669+51	673+00	C		433	160	69
194	CITY OF BAKERSFIELD	36" Storm Drain	672+00	684+88	W		1508	280	422
195	PG&E	OH Electrical	672+00	702+00	S		3353	50	168
196	BRIGHT HOUSE	Underground Cable TV	672+00	702+00	S		2275	50	114
197	CITY OF BAKERSFIELD	30" Storm Drain	673+39	683+18	C		990	240	238
198	BRIGHT HOUSE	Underground Cable TV	673+53		S		137	50	7
199	CITY OF BAKERSFIELD	18" Storm Drain	675+26		C		170	140	24

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-A

HNTB

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost		Total Cost ($1,000)
			Approx Sta. Start	If parallel to SR 58 & SR-99					Unit Cost	
				Approx Sta. End (parallel)	East/West/ North/South/ Center of Road					
200	CITY OF BAKERSFIELD	18" Storm Drain	678+61		C		127		140	18
201	CITY OF BAKERSFIELD	54"Storm Drain	679+83		C		306		440	135
202	BRIGHT HOUSE	Underground Cable TV	681+53		S		128		50	6
203	CITY OF BAKERSFIELD	18" Storm Drain	683+17		C		135		140	19
204	CITY OF BAKERSFIELD	27" Storm Drain	683+18	690+00	C		682		220	150
205	CITY OF BAKERSFIELD	18" Storm Drain	687+18		C		225		140	32
206	CITY OF BAKERSFIELD	18" Storm Drain	687+61		C		418		140	59
207	CITY OF BAKERSFIELD	18" Storm Drain	690+18		C		227		140	32
208	CITY OF BAKERSFIELD	24" Storm Drain	690+00	692+64	C		264		180	48
209	CITY OF BAKERSFIELD	2" Gas Line	690+40		C		800			0
210	CITY OF BAKERSFIELD	8" Water Line	690+65		C		805		140	113
211	CITY OF BAKERSFIELD	10" Storm Drain	690+88		C		709		80	57
212	CITY OF BAKERSFIELD	Gas Line	691+32		C		851			0
213	CITY OF BAKERSFIELD	InterConnect	691+41		C		862			0
214	CITY OF BAKERSFIELD	18" Storm Drain	691+49		C		719		140	101
215	CITY OF BAKERSFIELD	18" Storm Drain	691+52		C		832		140	116
216	CITY OF BAKERSFIELD	12" Water Line	691+61		C		380		180	68
217	CITY OF BAKERSFIELD	12" Water Line	691+61	692+34	S		329		180	59
218	CITY OF BAKERSFIELD	12" Water Line	691+68		C		785		180	141
219	CITY OF BAKERSFIELD	18" Storm Drain	691+80		C		285		140	40
220	CITY OF BAKERSFIELD	18" Storm Drain	692+64	697+60	C		496		140	69
221	CITY OF BAKERSFIELD	10" Sewer	691+90		C		823		60	49
222	CITY OF BAKERSFIELD	10" Sewer	691+90	694+91	S		230		60	14
223	CITY OF BAKERSFIELD	10" Sewer	691+90	695+49	S		358		60	21
224	CITY OF BAKERSFIELD	4" Water Line	692+33	695+65	S		335		100	34
225	CITY OF BAKERSFIELD	18" Storm Drain	697+60		C		130		140	18
226	CITY OF BAKERSFIELD	30" Storm Drain	693+50		C		156		230	36
227	CITY OF BAKERSFIELD	30" Storm Drain	699+83		C		156		230	36
228	CITY OF BAKERSFIELD	30" Storm Drain	702+00		C		1790		230	412
229	BRIGHT HOUSE	OH Cable Television	702+00	717+84	S		1615		30	48
230	PG&E	OH Electrical	702+00	717+84	S		1595		50	80
						TOTAL				$9,623,225
						CONTINGENCY			25%	$2,405,806
						GRAND TOTAL				**$12,029,031**

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-B

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Unit Cost	Total Cost ($1,000)
			Approx Sta. Start	If parallel to SR 58					
				Aprox Sta. End (parallel)	East/West/ North/South/ Center of Road				
001	SAN JOAQUIN FACILITIES Mgmt.	4" Group Line (Oil)	4718+33		C		551	0	0
002	SAN JOAQUIN FACILITIES Mgmt.	2" Gas Gathering Line	472+27		C		558	250	140
003	SOUTHERN CALIFORNIA GAS CO.	6" Group Line (Oil)	472+30		C		491	0	0
004	SAN JOAQUIN FACILITIES Mgmt.	Petroleum Well	472+65		S		1	15000	15
005	SAN JOAQUIN FACILITIES Mgmt.	Gas Gathering Line	477+13		C		410	250	103
006	SAN JOAQUIN FACILITIES Mgmt.	6" Group Line (Oil)	477+35		C		413	0	0
007	CITY OF BAKERSFIELD	16" Water Line	481+00		C		425	250	106
008	SAN JOAQUIN FACILITIES Mgmt.	Water Inj. Line	481+50		C		521	0	0
009	SAN JOAQUIN FACILITIES Mgmt.	Gas Gathering Line	481+60		C		540	250	135
010	SAN JOAQUIN FACILITIES Mgmt.	Flow Lines	482+26		C		793		0
011	SAN JOAQUIN FACILITIES Mgmt.	Petroleum Well	482+31		S		1	15000	15
012	SAN JOAQUIN FACILITIES Mgmt.	Flow Lines	482+36		C		822		
013	SAN JOAQUIN FACILITIES Mgmt.	Flow Lines	482+46		C		855		
014	SAN JOAQUIN FACILITIES Mgmt.	Flow Lines (Nickel Fee)	482+62		C		844		
015	SAN JOAQUIN FACILITIES Mgmt.	Petroleum Well	482+96		N		1	15000	15
016	MCI WORLD	4" Fiber optics	484+40		C		1105	400	442
017	SAN JOAQUIN FACILITIES Mgmt.	Petroleum Well	482+95		C		1	15000	15
018	MCI WORLD	4" Fiber optics	486+00		C		1107	400	443
019	SAN JOAQUIN FACILITIES Mgmt.	Flow Line	485+73		N		35		
020	SAN JOAQUIN FACILITIES Mgmt.	Gas Gathering Line	487+04		C		889	250	222
021	SAN JOAQUIN FACILITIES Mgmt.	Flow Line	487+17		C		938		
022	TIME WARNER	Underground Tele. Comm.	484+47		C		602	100	
023	AT&T	Underground Tele. Comm.	484+50		C	Yes	604		
024	AT&T	Underground Tele. Comm.	491+63		C	Yes	240		
025	CITY OF BAKERSFIELD	6" Water Line	492+16		C		240	160	38
026	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	492+21		C		238	250	60
027	AT&T	OH Tele. Comm.	493+39		C	Yes	230		
028	CITY OF BAKERSFIELD	42" Storm Drain	497+01		C		258	340	88
029	CITY OF BAKERSFIELD	8" Water Line	498+06		N		365	180	66
030	CITY OF BAKERSFIELD	Storm Drain Basin	497+01	501+38	C		1		
031	PG&E	OH Electrical	500+28		C		365	50	18
032	BRIGHT HOUSE	Underground Cable TV	501+28		S		27	50	1
033	CITY OF BAKERSFIELD	8" Water Line	503+36		C		289	180	52
034	CITY OF BAKERSFIELD	12" Water Line	505+26		C		111	220	24
035	PG&E	OH Electrical	503+43		N		210	50	11
036	AT&T	Underground Tele. Comm.	503+45		c	Yes	211		
037	BRIGHT HOUSE	Underground Cable TV	505+00		C		210	50	
038	PG&E	OH Electrical	505+02		C		210		
039	MCI WORLD	4" Fiber optics	505+06		C		211	400	
040	AT&T	Underground Tele. Comm.	505+08		C	Yes	211		
041	TIME WARNER	Underground Tele. Comm.	505+18		C		211	100	
042	CITY OF BAKERSFIELD	Interconnect	505+19		C		211		
043	AT&T	Underground Tele. Comm.	506+17		C	Yes	211		
044	CITY OF BAKERSFIELD	8" Sewer Line	506+45	511+27	C		1133	50	57
045	CITY OF BAKERSFIELD	Street Light	507+00		E		1		
046	CITY OF BAKERSFIELD	8" Water Line	505+25		E		400	180	72
047	CITY OF BAKERSFIELD	8" Water Line	507+17	511+48	S		431	180	78
048	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	507+17	511+48	N		431	250	108
049	CITY OF BAKERSFIELD	Street Light	509+36		C		1		
050	AT&T	Underground Tele. Comm.	509+52		C	Yes	210		
051	CITY OF BAKERSFIELD	8" Sewer Line	511+27		C		291	50	15

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-B

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Unit Cost	Total Cost ($1,000)
			Approx Sta. Start	If parallel to SR 58					
				Aprox Sta. End (parallel)	East/West/ North/South/ Center of Road				
052	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	511+48		W		210	250	53
053	CITY OF BAKERSFIELD	8" Water Line	511+48		W		210	180	38
054	CITY OF BAKERSFIELD	Street Light	511+51		W		1		
055	AT&T	Underground Tele. Comm.	512+61		C	Yes	210		
056	BRIGHT HOUSE	Underground Cable TV	512+66		C		210	50	11
057	CITY OF BAKERSFIELD	8" Water Line	513+81		C		213	180	38
058	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	513+81		C		213	250	53
059	CITY OF BAKERSFIELD	Street Light	513+95		C		1		
060	CITY OF BAKERSFIELD	8" Sewer Line	514+27		C		436	50	22
061	BRIGHT HOUSE	Underground Cable TV	515+55		C		214	50	11
062	CITY OF BAKERSFIELD	Street Light	516+61		W		1		
063	AT&T	Underground Tele. Comm.	515+65		C	Yes	214		
064	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	516+57		N		220	250	55
065	BRIGHT HOUSE	Underground Cable TV	516+57		N		220	50	11
066	CITY OF BAKERSFIELD	6" Water Line	516+57		N		220	160	35
067	CITY OF BAKERSFIELD	Street Light	516+60		W		1		
068	AT&T	Underground Tele. Comm.	516+75		C	Yes	220		
069	CITY OF BAKERSFIELD	8" Sewer Line	517+02		C		428	50	21
070	CITY OF BAKERSFIELD	6" Water Line	519+85		S		478	160	76
071	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	519+82		S		435	250	109
072	BRIGHT HOUSE	Underground Cable TV	518+92		S		436	50	22
073	CITY OF BAKERSFIELD	Street Light	520+06		W		1		
074	CITY OF BAKERSFIELD	8" Sewer Line	520+18		C		656	50	33
075	AT&T	Underground Tele. Comm.	520+65		C	Yes	565		
076	BRIGHT HOUSE	Underground Cable TV	520+80		C		323	50	16
077	AT&T	Underground Tele. Comm.	523+79		C	Yes	282		
078	BRIGHT HOUSE	Underground Cable TV	523+81		C		280	50	
079	CITY OF BAKERSFIELD	6" Water Line	523+95		C		285	160	46
080	CITY OF BAKERSFIELD	8" Sewer Line	524+33		C		274	50	14
081	CITY OF BAKERSFIELD	Street Light	524+42		C		1		
082	BRIGHT HOUSE	Underground Cable TV	525+93		C		214	50	11
083	AT&T	Underground Tele. Comm.	526+03		C	Yes	214		
084	CITY OF BAKERSFIELD	Street Light	527+10		C		1		
085	SOUTHERN CALIFORNIA GAS CO.	1" Gas Line	527+10	530+45	N/S		710	50	36
086	CITY OF BAKERSFIELD	8" Sewer Line	527+65	530+45	N/S		588	50	29
087	BRIGHT HOUSE	Underground Cable TV	529+13		C		247	50	12
088	AT&T	Underground Tele. Comm.	529+15		C	Yes	227		
089	CITY OF BAKERSFIELD	6" Water Line	529+33	530+26	N/S		450	160	72
090	CITY OF BAKERSFIELD	Street Light	530+84		W		1		
091	AT&T	Underground Tele. Comm.	532+15		C	Yes	237		
092	BRIGHT HOUSE	Underground Cable TV	532+23		C		236		
093	CITY OF BAKERSFIELD	Street Light	533+28		C		1		
094	CITY OF BAKERSFIELD	8" Sewer Line	533+48		C		235	50	12
095	CITY OF BAKERSFIELD	8" Water Line	533+50		N		230	180	41
096	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	533+50		C		230	250	58
097	CITY OF BAKERSFIELD	30" Storm Drain	534+79		C		246	280	69
098	BRIGHT HOUSE	Underground Cable TV	534+79		C		246	50	12
099	AT&T	Underground Tele. Comm.	535+31		C	Yes	245		
100	BRIGHT HOUSE	Underground Cable TV	536+61		C		246		
101	AT&T	Overhead Tele. Comm.	535+67		C	Yes	249		
102	CITY OF BAKERSFIELD	Street Light	536+17		E		1		

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-B

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Unit Cost	Total Cost ($1,000)
			Approx Sta. Start	If parallel to SR 58					
				Aprox Sta. End (parallel)	East/West/ North/South/ Center of Road				
103	CITY OF BAKERSFIELD	Street Light	536+53		W		1		
104	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	536+73		C		235	250	59
105	CITY OF BAKERSFIELD	8" Water Line	537+08		C		230	180	41
106	CITY OF BAKERSFIELD	8" Sewer Line	536+64	543+07	N/S		1238	50	62
107	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	536+38	543+07	N/S		705	250	176
108	CITY OF BAKERSFIELD	6" Water Line	536+38	543+07	N/S		570	160	91
109	PG&E	OH Electric	536+98	539+03	S		215	50	11
110	BRIGHT HOUSE	Underground Cable TV	536+98	539+03	S		215	50	11
111	AT&T	Underground Tele. Comm.	536+99		W	Yes	241		
112	PG&E	OH Electric	541+13	546+04	N/S		660	50	33
113	BRIGHT HOUSE	Underground Cable TV	541+13	546+04	N/S		540	50	27
114	AT&T	Underground Tele. Comm.	543+97		C	Yes	551		
115	AT&T	Overhead Tele. Comm.	544+06		C	Yes	249		
116	CITY OF BAKERSFIELD	6" Water Line	544+00	548+53	N/S		810	160	130
117	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	544+00	548+53	N/S		555	250	139
118	CITY OF BAKERSFIELD	8" Sewer Line	544+00	548+53	N/S		555	50	28
119	CITY OF BAKERSFIELD	Street Light	545+48		W		1		
120	BRIGHT HOUSE	Underground Cable TV	547+34	551+63	N/S		630	50	32
121	PG&E	OH Electrical	547+35		S		283	50	14
122	CITY OF BAKERSFIELD	Street Light	548+19		E		1		
123	AT&T	Underground Tele. Comm.	549+03		C	Yes	291		
124	CITY OF BAKERSFIELD	8" Water Line	549+20		S		814	180	147
125	CITY OF BAKERSFIELD	Street Light	549+32		W		1		
126	SOUTHERN CALIFORNIA GAS CO.	4" Gas Line	549+42		N		360	400	144
127	SOUTHERN CALIFORNIA GAS CO.	2" Gas Line	550+02		S		135	250	34
128	CITY OF BAKERSFIELD	Interconnect	550+26		C		348		
129	CITY OF BAKERSFIELD	Traffic Signal	550+68		W		1		
130	CITY OF BAKERSFIELD	Traffic Signal	551+31		W		1		
131	CITY OF BAKERSFIELD	Traffic Signal	551+41		E		1		
132	AT&T	Overhead Tele. Comm.	552+07		C	Yes	437		
133	CITY OF BAKERSFIELD	Traffic Signal	552+20		E		1		
134	PG&E	OH Electric	552+35		N		551	50	28
135	BRIGHT HOUSE	OH Cable Television	552+35		N		560	30	17
136	PG&E	OH Electric	559+25		C		202	50	10
137	BRIGHT HOUSE	OH Cable Television	555+60		C		750	30	23
138	AT&T	Underground Tele. Comm.	556+02		C	Yes	255		
139	AT&T	Underground Tele. Comm.	556+58		C	Yes	1032		
140	AT&T	Overhead Tele. Comm.	559+42		C	Yes	350		
141	CITY OF BAKERSFIELD	8" Water Line	560+27		C		384	180	69
142	PG&E	OH Electric	560+81		C		375	50	19
143	AT&T	Overhead Tele. Comm.	561+35		C	Yes	375		
144	BRIGHT HOUSE	OH Cable Television	562+34		C		775	30	23
145	PG&E	OH Electric	562+34		N		401	50	20
146	AT&T	Underground Tele. Comm.	562+72		C	Yes	750		
147	CITY OF BAKERSFIELD	8" Water Line	565+51		N		455	180	82
148	AT&T	Underground Tele. Comm.	565+62		C	Yes	761		
149	PG&E	OH Electric	566+41		N		470	50	24
150	BRIGHT HOUSE	OH Cable Television	566+41		N		202	30	6
151	AT&T	1-4" Conduit	566+69		C	Yes	474		
152	AT&T	Underground Tele. Comm.	567+37		C	Yes	358		
153	AT&T	Quox Cable	567+72		C	Yes	377		

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-C

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost	
			Approx Sta. Start	If parallel to SR 58				Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/C enter of Road				
051	City of Bakersfield	24" O.D. Stl Pipe SD	665+14		C		225		0
052	City of Bakersfield	24" Storm Drain	665+41		C		225		0
053	City of Bakersfield	30" Storm Drain	665+51		C		225	230	52
054		PT&T Conduit	665+70		C		225		0
055	Water Serv.	8" Stl Calif	666+10		C		229		0
056	City of Bakersfield	21" Storm Drain	665+71	675+26	N/S		987	160	158
057	City of Bakersfield	18" Storm Drain	669+51		N		65	140	9
058	City of Bakersfield	18" Storm Drain	673+01		N		254	140	36
059	City of Bakersfield	18" Storm Drain	673+04		N		69	140	10
060	City of Bakersfield	18" Storm Drain	673+03		S		48	140	7
061	City of Bakersfield	Pump House/ Storage Box	673+23		N/S				0
062		Existing Gas Line	672+37		N		453		0
063	Mobile Oil Co.	10" Oil M-52	672+52	684+02	N		844		0
064	City of Bakersfield	18" Storm Drain	672+77	691+92	N		1700	140	238
065	City of Bakersfield	18" Storm Drain	675+29		C		170	140	24
066	City of Bakersfield	30" Storm Drain	675+27	678+62	N/S		334	230	77
067	City of Bakersfield	18" Storm Drain	676+20		N		121	140	17
068	City of Bakersfield	24" Storm Drain	678+34	690+92	N		1955		0
069	City of Bakersfield	18" Storm Drain	678+61		C		127	140	18
070	City of Bakersfield	27" Storm Drain	678+61	685+60	N/S		700		0
071	City of Bakersfield	54" Storm Drain	679+43	684+12	C		1265	440	557
072	City of Bakersfield	18" Storm Drain	683+18		S		95	140	13
073	City of Bakersfield	18" Storm Drain	683+51		C		95	140	13
074	City of Bakersfield	24" Storm Drain	684+15	690+57	N		646		0
075	City of Bakersfield	27" Storm Drain	685+60	687+62	S		216		0
076	Mobile Oil Co.	10" Oil M-52	686+04	695+08	N		988		0
077	City of Bakersfield	18" Storm Drain	687+19		C		418	140	59
078		Existing Gas Line	688+62	691+63			1420		0
079	City of Bakersfield	18" Storm Drain	690+18		C		90	140	13
080	City of Bakersfield	12" Water Line	690+66		C		361		0
081	City of Bakersfield	10" Sewer System Pipe	690+90		C		660		0
082	City of Bakersfield	Traffic Signal	691+43		N		1	20000	20
083	City of Bakersfield	Traffic Signal	691+44		N		1	20000	20
084	City of Bakersfield	Inter Connect	691+44		C		371		0
085	City of Bakersfield	30" Storm Drain	691+50		C		491	230	113
086	Water Serv.	12" Stl. Ca.	691+69		C		386		0
087	City of Bakersfield	10" Sewer System Pipe	691+91	692+56	C		620		0
088	City of Bakersfield	18" Storm Drain	692+65		C		134	140	19
089	City of Bakersfield	Traffic Signal	693+33		N		1	20000	20
090	City of Bakersfield	Traffic Signal	693+34		N		1	20000	20
091	City of Bakersfield	18" Storm Drain	697+61		C		128	140	18
092	PG&E	12 KV Overhead	698+54	717+82	S		2231		0
093	BRIGHT HOUSE	Overhead Cable TV	694+04	700+03	N		1010	30	30
094	AT&T	Overhead Tele. Comm.	694+00	698+63	N	Y	783	0	0
095	AT&T	Overhead Tele. Comm.	698+65		N	Y	467	0	0
096	AT&T	Overhead Tele. Comm.	699+26	701+17	N	Y	196	0	0
097	City of Bakersfield	12"C.S.P. Storm Drain	700+03		S		99		0
098	BRIGHT HOUSE	Overhead Cable TV	701+66	717+86	S		1968	30	59
099	AT&T	Overhead Tele. Comm.	706+38	717+61	S	Y	1363	0	0
100	City of Bakersfield	18" Storm Drain	708+02		C		130	140	18
101	City of Bakersfield	18" C.P. Storm Drain	708+02	711+98	N/S		400	140	56
102	City of Bakersfield	18" Storm Drain	711+98	720+00	S		987	140	138

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-C

HNTB

Thomas Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location			Franchise (YES/NO)	Length	Cost	
			Approx Sta. Start	If parallel to SR 58				Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/C enter of Road				
103	City of Bakersfield	30" Storm Drain	715+70	726+29	S		1117	230	257
104	City of Bakersfield	Storage Box	715+84		N/S		-		
105	City of Bakersfield	18" Storm Drain	717+70		S		185	140	26
106	City of Bakersfield	30" O.D. Welded Steel Pipe	718+30		C		414		0
107	City of Bakersfield	8" PVC Water	718+04		S		160		0
108	City of Bakersfield	18" C.P. Storm Drain	720+00	725+01	N/S		500	140	70
109	City of Bakersfield	30" Storm Drain	722+65	726+07	S		378	230	87
110	City of Bakersfield	30" RCP RG Storm Drain	725+52	726+56	S		117	230	27
111	City of Bakersfield	Overhead Cable TV	726+06	736+65	N		1090	30	33
112	City of Bakersfield	Overhead Tele. Comm.	726+06	736+80	N		1090	15	16
113	PG&E	12KV Overhead	726+06	736+34	N		1055		0
114	City of Bakersfield	33" RCP RG Storm Drain	726+55	730+00	S		335		0
115	City of Bakersfield	24" Storm Drain	728+38	732+94	S		674		0
116	City of Bakersfield	36" Storm Drain	731+60		C		766	280	214
117	BRIGHT HOUSE	Buried Cable TV	732+00		S		119	50	6
118	AT&T	Overhead Tele. Comm.	732+04		S	Y	196	0	0
119	City of Bakersfield	6' Stl Water	732+09		S		170		0
120	City of Bakersfield	33" Storm Drain	731+83	733+00	S		119		0
121	City of Bakersfield	24" Storm Drain	732+16	733+12	S		239		0
122	City of Bakersfield	18" Storm Drain	735+36		N		129	140	18
123	City of Bakersfield	33" Storm Drain	735+19	744+25	S		911		0
124	City of Bakersfield	12" Water Line	737+65	738+36	S		205		0
125	AT&T	6-4" Conduits	737+83	744+26	S	Y	870	0	0
126	AT&T	Distribution Box Telco	739+60		S	Y	-	0	
127	AT&T	Distribution Box Telco	741+32		S	Y	-	0	
128	City of Bakersfield	18" Storm Drain	743+47		N		73	140	10
129	City of Bakersfield	Existing Pipe (unknown size)	743+79	746+35	S		354		0
130	City of Bakersfield	12" Storm Drain	744+25		S		141		0
131	City of Bakersfield	48" Storm Drain	744+26	757+00	C		1313		0
132	AT&T	12-4" Conduits	744+31		C	Y	602	0	0
133	City of Bakersfield	Inter Connect	745+40		C		633		0
134	MCI WorldCom	4" Fiber Optic	745+40		C		633	90	57
135	AT&T	Telco Conduit	745+79	750+30	S	Y	389	0	0
136	City of Bakersfield	18" Storm Drain	746+24		C		192	140	27
137	City of Bakersfield	12" Storm Drain	746+18		N		69		0
138	PG&E	12KV Overhead	746+72	762+73	S		1922		0
139	AT&T	Overhead Tele. Comm.	746+89	751+35	S	Y	522	0	0
140	BRIGHT HOUSE	Buried Cable TV	749+76	750+52	S		227	50	11
141	BRIGHT HOUSE	Buried Cable TV	749+86	756+07	S		6468	50	323
142	AT&T	4-4" Conduits	752+63	755+08	S	Y	426	0	0
143	AT&T	Distribution Box Telco	755+01		S	Y	-	0	
144	City of Bakersfield	12" Water Line	752+91	754+54	S		1015	180	183
145	City of Bakersfield	6" Water Line	754+19		C		216		0

POTENTIAL UTILITY CONFLICT DATA SHEET - CENTENNIAL CORRIDOR ALTERNATIVE-C

HNTB

Tehachapi Roads Improvement Program TRIP Connecting Bakersfield

Ref. I.D.	Agency/ Utility	Description	Approx. Location					Cost	
			Approx Sta. Start	If parallel to SR 58		Franchise (YES/NO)	Length	Unit Cost	Total Cost ($1,000)
				Approx Sta. End (parallel)	East/West/ North/South/C enter of Road				
146	City of Bakersfield	12" Water Line	754+20		C		215		0
147	City of Bakersfield	6" Conduit Storm Drain	761+00		C		120		0
148	City of Bakersfield	10" Conduit Storm Drain	762+12		C		295		0
149	City of Bakersfield	24" Storm Drain	762+77		C		125	180	23
150	City of Bakersfield	Sewer Line	763+09		S		450		0
151	AT&T	2-4" Conduits	764+58		C	Y	774	0	0
152	City of Bakersfield	12" Water Line	764+60		C		774	180	139
153	City of Bakersfield	Inter Connect	764+69		C		774		0
154	Time Warner	Buried Tele. Comm.	764+71		C		774		0
155	AT&T	2-4" Conduits	765+32		C	Y	655	0	0
156	MCI WorldCom	4" Fiber Optic	765+40		C		655	90	59
157	BRIGHT HOUSE	Buried Cable TV	765+42		C		655	50	33
158	City of Bakersfield	6" Conduit Storm Drain	768+00		C		120		0
SR99 (Out of Project Scope)									0
SR99 (WB SR58 TO SB SR99)									0
159	City of Bakersfield	30" Storm Drain	685+56	689+38	S		384	230	88
160	City of Bakersfield	36" Storm Drain	685+58	691+07	S		652	280	183
161	City of Bakersfield	30" Storm Drain	685+65	691+03	S		537	230	124
162	PG&E	12KV Overhead	685+58	691+24	S		568		0
163	City of Bakersfield	18" Storm Drain	685+92	687+58	S		166	140	23
164	Ser. Pipe	4" Water Line	686+95	691+13	S		667	100	67
165		Existing Gas Line	687+23	691+19	S		644		0
									0
SR58									0
001	City of Bakersfield	24" Storm Drain	30+12	34+08	W		560		0
002	City of Bakersfield	18" Storm Drain	35+88		C		190	140	27
003	City of Bakersfield	18" Storm Drain	38+90		C		330	140	46
004	City of Bakersfield	18" Storm Drain	42+34		C		261	140	37
005	City of Bakersfield	24" Storm Drain	42+34	54+08	W/E		796	180	143
006	City of Bakersfield	18" Storm Drain	46+12		C		205	140	29
007	City of Bakersfield	18" Storm Drain	49+87		C		349	140	49
008	City of Bakersfield	18" Storm Drain	54+08		C		152	140	21
009	City of Bakersfield	36" Storm Drain	55+00	57+64	E		267	280	75
010	BRIGHT HOUSE	Overhead Cable TV	56+89		C		234	30	7
011	City of Bakersfield	72" Storm Drain	57+64	81+17	W/E		2326	580	1349
012	City of Bakersfield	18" Storm Drain	58+34		C		128	140	18
013	City of Bakersfield	18" Storm Drain	62+51		C		132	140	18
014	AT&T	Overhead Tele. Comm.	49+24		W	Y	61	0	0
015	City of Bakersfield	18" Storm Drain	67+00		C		141	140	20
016	City of Bakersfield	18" Storm Drain	71+11		C		135	140	19
017	City of Bakersfield	18" Storm Drain	75+08		C		135	140	19
018	City of Bakersfield	18" Storm Drain	76+96		C		78	140	11
019	City of Bakersfield	18" Storm Drain	80+00		C		158	140	22
020	BRIGHT HOUSE	Overhead Tele. Comm.	81+85		C		247	15	4
021	City of Bakersfield	Abn 2" Gas	81+86		C		247		0
022	City of Bakersfield	8" Water	82+42		C		253	140	35
023	City of Bakersfield	18" Storm Drain	85+00		C		158	140	22
024	City of Bakersfield	36" Storm Drain	88+14	90+79	W/E		276	280	77
						TOTAL			$7,318,105
						CONTINGENCY		25%	$1,829,526
						GRAND TOTAL			**$9,147,631**

ATTACHMENT H

COOPERATIVE AGREEMENT

06-Ker-58-PM 31.7/55.92
06-48460
Centennial Corridor
District Agreement No. 06-1386

COOPERATIVE AGREEMENT 08-055

THIS AGREEMENT, ENTERED INTO EFFECTIVE ON MAR 2 6 2008, is between the STATE OF CALIFORNIA, acting by and through its Department of Transportation, referred to herein as "STATE", and the

CITY OF BAKERSFIELD, a body politic and a municipal Corporation of the State of California, referred to herein as "CITY".

RECITALS

1. STATE and CITY, pursuant to Streets and Highways Code section 130, are authorized to enter into a Cooperative Agreement for improvements to the State Highway System (SHS) within CITY's jurisdiction.

2. STATE and CITY plan to construct a new freeway between (SR) 58 and Interstate 5, referred to herein as "PROJECT".

3. CITY intends to prepare Project Approval and Environmental Document (PA&ED), referred to herein as "PROJECT DEVELOPMENT", and is willing to fund one hundred percent (100%) of all capital outlay and staffing costs, except for the costs of STATE's independent quality assurance (IQA) of PROJECT DEVELOPMENT, and STATE's costs incurred as the California Environmental Quality Act (CEQA) Lead Agency and National Environmental Policy Act (NEPA) Lead Agency, if applicable, in the review and approval, if appropriate, of the PROJECT environmental documentation prepared entirely by CITY, which will be borne by STATE. PROJECT will be funded from CITY'S federal demonstration earmarks and the required match will be funded by CITY.

4. STATE funds will not be used to finance any of the PROJECT DEVELOPMENT capital and support costs except as set forth in this Agreement.

5. This Agreement will define roles and responsibilities of the CEQA Lead Agency and CEQA Responsible Agency regarding environmental documentation, studies, and reports

necessary for compliance with CEQA. This Agreement will also define roles and responsibilities for compliance with the NEPA, if applicable.

6. This Agreement supersedes any prior Memorandum of Understanding (MOU) relating to PROJECT.

7. Plans, Specifications and Estimates (PS&E), Right of Way (ROW) and Construction of PROJECT will be the subject of a separate future Agreement.

8. The parties hereto intend to define herein the terms and conditions under which PROJECT is to be developed and financed.

SECTION I

CITY AGREES:

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

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

3. To have a Project Report (PR), including all necessary environmental documentation, prepared, at no cost to STATE, and to submit each to STATE for STATE's review, comment, and approval at appropriate stages of development. The PROJECT PR, shall be signed on behalf of CITY by a Civil Engineer registered in the State of California.

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

5. To permit STATE to monitor, participate in, and oversee selection of personnel who will prepare the PR, conduct environmental studies and prepare environmental documentation for PROJECT. CITY agrees to consider any request by STATE to avoid a contract award or to discontinue services of any personnel considered by STATE to be unqualified on the basis of credentials, professional expertise, and failure to perform in accordance with the scope of work and/or other pertinent criteria.

6. Personnel who prepare the environmental documentation, including investigative studies and technical environmental reports, shall be made available to STATE, at no cost to STATE, through completion of PROJECT construction to discuss problems

which may arise during PS&E, right of way acquisition, construction, and/or to make design revisions for contract change orders.

7. All PROJECT work, except as set forth herein this Agreement, is to be performed by CITY. Should CITY request that STATE perform any portion of PROJECT work except as otherwise set forth in this Agreement, CITY shall first agree to reimburse STATE for such work pursuant to an amendment to this Agreement.

8. To make written application to STATE for necessary encroachment permits authorizing entry of CITY onto the SHS right of way to perform required PROJECT DEVELOPMENT work as more specifically defined elsewhere in this Agreement. CITY shall also require CITY's consultants and contractors to make written application to STATE for the same necessary encroachment permits.

9. To be responsible for, and to the STATE's satisfaction, the investigation of potential hazardous material sites within and outside existing SHS right of way that could impact PROJECT as part of work pursuant to this Agreement. If CITY discovers hazardous material or contamination within the PROJECT study area during said investigation, CITY shall immediately notify STATE.

10. All environmental documentation and supporting investigative studies and technical reports must be in compliance with the STATE's current content and format guidance including all guidance found at [http://www.dot.ca.gov/ser/], the STATE's Standard Environmental Reference website. Formal submittals will include three hard copies, and electronic copies in Adobe Acrobat pdf files and Microsoft Word format.

11. All aerial photography and photogrammetric mapping shall conform to STATE's latest standards. For aerial mapping, survey documents to be furnished are three sets of contract prints, with one set showing control, a complete photo index - two prints and a copy of the negative, and the original aerial photography negative.

12. Since the PROJECT construction phase is the subject of a future agreement, CITY in administering and contracting to perform PROJECT DEVELOPMENT, agrees to include a "conflict of interest" requirement in the PROJECT design consultant contracts that prohibits that design consultant from being employed or under contract to the future PROJECT construction contractor.

SECTION II

STATE AGREES:

1. At no cost to CITY, to complete STATE's review as CEQA Lead Agency and NEPA Lead Agency, if applicable, of the environmental documentation prepared and submitted by CITY and to provide IQA of all CITY PROJECT DEVELOPMENT work necessary for completion of the environmental document for PROJECT done by

CITY, including, but not limited to, investigation of potential hazardous material sites and provide prompt reviews, comments, concurrence, and/or approvals as appropriate, of submittals by CITY, while cooperating in timely processing of documents necessary for completion of the environmental documentation for PROJECT.

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

SECTION III

IT IS MUTUALLY AGREED:

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

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

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

If, during preparation of preliminary engineering, preparation of the PS&E, performance of right of way activities, or PROJECT construction, new information is obtained which requires the preparation of additional environmental documentation to comply with CEQA and if applicable NEPA, this Agreement will be amended to include completion of these additional tasks by CITY.

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

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

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

8. CITY, subject to STATE's prior review and approval, as a PROJECT cost, shall be responsible for preparing, submitting, publicizing and circulating all public notices related to the CEQA environmental process and the NEPA environmental process, including, but not limited to, notice(s) of availability of the environmental document and/or determinations and notices of public hearings. Public notices shall comply with all State and Federal laws, regulations, policies and procedures. STATE will work with the appropriate Federal agency to publish notices in the Federal Register, if applicable.

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

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

10. All administrative reports, studies, materials, documentation, including, but not limited to, all administrative drafts and administrative finals, relied upon, produced, created or utilized for PROJECT will be held in confidence pursuant to Government Code section 6254.5(e). The parties agree that said material will not be distributed, released or shared with any other organization, person or group other than the parties' employees, agents and consultants whose work requires that access without the prior written approval of the party with the authority to authorize said release and except as required or authorized by statute or pursuant to the terms of this Agreement.

11. PROJECT DEVELOPMENT for PROJECT shall be performed in accordance with STATE's Highway Design Manual, Project Development Procedures Manual, and Federal and STATE standards and practices current as of the date of performance. Any exceptions to applicable design standards shall first be approved by STATE via the processes outlined in STATE's Highway Design Manual and appropriate memorandums and design bulletins published by STATE. In the event that STATE proposes and /or requires a change in design standards, implementation of new or revised design standards shall be done as part of the work on PROJECT in accordance with STATE's current Highway Design Manual Section 82.5, "Effective Date for Implementing Revisions to Design Standards". STATE shall consult with CITY in a timely manner regarding effect of proposed and/or required changes on PROJECT.

12. The party that discovers Hazardous materials (HM) will immediately notify the other party(ies) to this Agreement.

HM-1 is defined as hazardous material (including but not limited to hazardous waste) that requires removal and disposal pursuant to federal or state law, whether it is disturbed by PROJECT or not.

HM-2 is defined as hazardous material (including but not limited to hazardous waste) that may require removal and disposal pursuant to federal or state law, only if disturbed by PROJECT.

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

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

14. If HM-2 is found within the limits of PROJECT, the public agency responsible for advertisement, award, and administration (AAA) of the PROJECT construction contract will be responsible for HM-2 management activities.

Any management activity cost related to HM-2 is a PROJECT construction cost.

15. Management activities related to either HM-1 or HM-2 include, without limitation, any necessary manifest requirements and designation of disposal facility. STATE's acquisition or acceptance of title to any property on which any hazardous material is found will proceed in accordance with STATE's policy on such acquisition.

16. A separate Cooperative Agreement will be required to cover responsibilities and funding for the PS&E, ROW and construction phases of PROJECT.

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

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

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

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

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

24. This Agreement shall terminate upon the satisfactory completion of all post-PROJECT construction obligations of CITY and the delivery of required PROJECT construction documents, with concurrence of STATE, or on June 30, 2018 whichever is earlier in time, except that the ownership, operation, maintenance, indemnification, environmental commitments, legal challenges, and claims articles shall remain in effect until terminated or modified, in writing, by mutual agreement. Should any construction related or other claims arising out of PROJECT be asserted against one of the parties, the parties agree to extend the fixed termination date of this Agreement, until such time as the construction related or other claims are settled, dismissed or paid.

District Agreement No.: 06-1386
Ea: 06-48460

STATE OF CALIFORNIA
Department of Transportation

WILL KEMPTON
Director

By: _____
MALCOLM X. DOUGHERTY
District 6 Director

Approved as to form and procedure:

By: _____
MEERA DANDAY, Attorney
Department of Transportation

Certified as to procedure:

By: _____ for Judith Levine
JUDITH K. LEVINE
Accounting Administrator

Certified as to funds:

By: _____
WADE A. TANKSLEY
District 6 Office of Budgets

CITY OF BAKERSFIELD
A municipal corporation

By: _____
HARVEY L. HALL
Mayor

Approved as to form:

By: _____
ROBERT M. SHERFY
Deputy City Attorney

Approved as to content:

By: _____
for RAUL M. ROJAS
Public Works Director

COUNTERSIGNED:

By: _____
NELSON K. SMITH
Finance Director