06 – KER - 99 - 21.15/24.60
06-0X370 –0618000059 –6958
20.XX.201.120 – Pavement Roadway Rehabilitation 3R
January 2024

Project Report

For Project Approval

On Route 99 in Kern County

Between 0.1 mile north of White Lane Overcrossing

And California Avenue Undercrossing

I have reviewed the right-of-way information contained in this report and the right-of-way data sheet attached hereto, and find the data to be complete, current, and accurate:

Maria Toles, District Division Chief, Right of Way

APPROVAL RECOMMENDED:

Shavonne Conley

Shavonne Conley, Project Manager

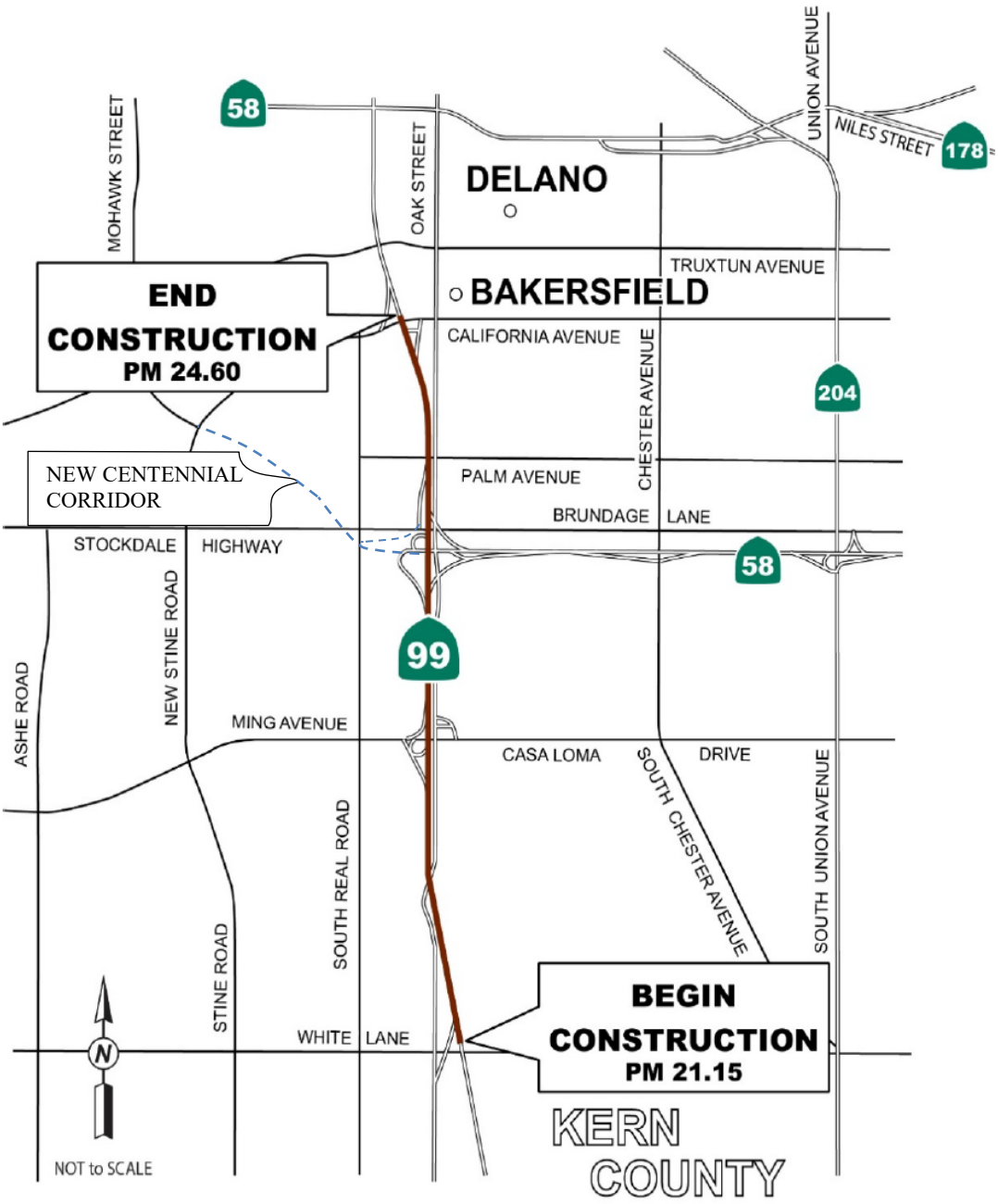
PROJECT APPROVED:

Diana Gomez, District 6 Director

1/30/2024

Date

VICINITY MAP



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

Selvan Paul — 01/15/24

REGISTERED CIVIL ENGINEER — *DATE*

Table of Contents

1. INTRODUCTION

Project Description

This Project Report (PR) is for a Resurfacing, Restoring, and Rehabilitation (3R) Project on State Route (SR) 99 in Kern County from Post Mile (PM) 21.15 to 24.60. The project proposes to rehabilitate the number four lane and outside shoulder in both northbound and southbound directions with Continuously Reinforced Concrete Pavement (CRCP) and replace failing Jointed Plain Concrete Pavement (JPCP) slabs in the number one through three lanes with Rapid Set Concrete (RSC). Inside shoulders will be upgraded to JPCP. Traffic congestion along southbound SR 99 is being caused by inadequate spacing between the California Avenue on-ramp and the SR 58/SR 99 interchange. An auxiliary lane will be constructed to improve traffic operations and enhance safety for this segment. The auxiliary lane will require construction of multiple retaining walls, widening of California Avenue Undercrossing (UC), and the replacement of Palm Avenue Overcrossing (OC). This project will also construct a soundwall, upgrade safety barriers and guardrail, upgrade signage and improve various traffic management system (TMS) elements throughout the project limits. TMS elements proposed include Ramp Metering Systems (RMS), traffic signals, traffic sensors, traffic loops, and a fiber optic line.

Project Limits	06-Ker-99 PM 21.15/24.60	
Number of Alternatives	2- Build and No Build	
	Current Cost Estimate:	**Escalated Cost Estimate:**
Capital Outlay Support	$17,640,000	$18,370,000
Capital Outlay Construction	$74,445,000	$85,800,000
Capital Outlay Right-of-Way	$600,000	$695,000
Funding Source	20.XX.201.120	
Funding Year	2026/2027	
Type of Facility	8-lane freeway	
Number of Structures	3	
SHOPP Project Output	Pavement Rehab 3R: 21.8 Lane Mile (LM)	
Environmental Determination or Document	Initial Study with Negative Declaration: California Environmental Quality Act (CEQA) and Categorical Exclusion (CE) determination: National Environmental Policy Act (NEPA)	
Legal Description	*In Bakersfield, from 0.1 mi north of White Lane to California Ave. UC*	
Project Development Category	*4B*	

2. RECOMMENDATION

It is recommended that this project be approved using the preferred alternative, and that the project proceed to plans, specifications, and estimate (PS&E) phase. The affected local agencies have been consulted with respect to the project and their views have been considered. The local agencies, including the City of Bakersfield and Kern Council of Government (COG), are in general accord with project as presented.

3. BACKGROUND

Project History

A Conceptual Report (CR) for this project was completed in 2018 noting a high amount of recurring distressed pavement and increasing congestion on SR 99 within the project limits. The CR recommended a 3R project which included the auxiliary lane along southbound SR 99 between California and the SR 58 east connector ramp. This proposal was further studied in the Project Initiation Report (PIR) and was approved on June 21, 2019. Subsequently, Kern COG agreed to contribute $30,000,000 towards the project, but the funds were not included in the Kern COG 2022 Regional Transportation Improvement Program (RTIP). As a result, District 6 was able to process a Programming Change Request (PCR) at the June 2022 California Transportation Commission (CTC) meeting for the $30,000,000 shortfall in an outer SHOPP year. This project is programmed in the 2022 SHOPP with funding from the 201.120 Program. However, only the PA&ED component is authorized. The remainder of the project's components are designated SHOPP long lead and are considered by the California Transportation Commission (CTC) as unauthorized components. The long lead components will be fully programmed upon the adoption of the 2024 SHOPP which is anticipated at the March 2024 CTC meeting. A Programing Change Request (PCR) is under consideration which may lead to a SHOPP amendment. The PCR requests the following programming changes:

- Right of Way Capital - $695,000
- Construction Support - 10,200,000
- Construction Capital - $85,800,000

Community Interaction

This project addresses many of the needs voiced by the local public. Articles in recent years have been written in the Bakersfield Californian newspaper voicing local resident opinions regarding traffic congestion, lack of connectivity, and poor pavement on SR 99 and SR 58. Bakersfield residents are well aware of the increasing traffic demand resulting from tremendous growth in the past 10 years, the auxiliary lane and pavement improvements proposed with this project, in coordination with other ongoing SR 99 improvements, will be well-received by local community.

Since 1998, the Wilson Park Village Homeowners Association (HOA) has been

requesting a sound wall for their residents. Wilson Park Village is located adjacent to SR 99 (on the south side of SR 99, between Wilson Road OC and Grassotti Court). In 2003, Caltrans measured noise levels for these residences and found a soundwall wasn't warranted at that time. In 2016 the HOA wrote a letter to the City of Bakersfield and Kern COG requesting a soundwall again. The letter cited that increasing traffic and the expansion of SR 99 to four lanes has created more noise and a soundwall was now needed. A Noise Study Report (NSR) was conducted in July of 2021 showing sound levels had increased in this area and a soundwall was indeed warranted. As a result, a soundwall is being proposed in this project, at this location.

Existing Facility

SR 99 is a north-south route spanning nearly the entire length of the Central Valley. It is a major route serving the primary population centers in the San Joaquin Valley (SJV) as well as much of the rural agricultural areas. Within the project limits SR 99 is functionally classified as a Principal Arterial. Freight movements and travel demand are continuously increasing throughout the SR 99 corridor. Small and medium-size communities are interspersed along with commercial areas at numerous interchanges. The posted speed limit through the project limits is 65 miles per hour and the route is classified as a freeway throughout the project limits.

The entrance to the southbound SR 99 to eastbound SR 58 connector exists is located less than a mile from the California Avenue southbound on-ramp. The short spacing coupled with high volumes of entering and exiting traffic is leading to heavy daily queuing and congestion. SR 58 traverses east and west and crosses SR 99 with a major interchange between Palm Avenue OC and Bell Terrace OC. Several new freeway connectors between SR 58 and SR 99 are being constructed as part of the Centennial Corridor Project (EA 06-48460) and will be completed by the end of 2023. A connector ramp for the eastbound SR 58 to northbound SR 99 movement has been designed and construction of this connector is anticipated to begin in mid-2024 (EA 06-48467). The southbound SR 99 to westbound SR 58 connector is currently in the early stages of design (EA 06-48468). South of the SR 58/SR 99 interchange, auxiliary lanes in both directions along SR 99 have recently been constructed.

This section of SR 99 is predominantly eight lanes within the project limits. The Right of Way typically varies between 220 to 260 feet wide between interchanges. The existing outside shoulders varies from eight to ten feet. See Cross Section in Attachment B.

4. PURPOSE AND NEED

4A. Problem, Deficiencies, Justification

Purpose:

The purpose of the project is to restore this segment of SR 99 to a state of good repair so that future maintenance efforts and expenditures are minimized. The project's purpose is also to improve safety and address operational and geometric deficiencies.

Need:

The condition of the pavement within the project limits has severely deteriorated due to considerable storm damage and heavy truck traffic. This has resulted in the need for increased maintenance efforts and the inability of State forces to maintain this section of freeway in a state of good repair continuously for the traveling public. There is a need for a more permanent repair in the form of the reconstruction of the number four lanes to CRCP and replacement of failed JPCP panels in lanes one through three.

Traffic congestion is being caused by inadequate spacing between the southbound California Avenue loop on-ramp and the SR 58/SR 99 interchange. An auxiliary lane is needed to improve traffic operations and safety for this segment. Throughout the project limits, there is a need for improving TMS and safety device elements to meet current Caltrans standards, improve operations, and enhance safety. Additionally, noise levels along southbound SR 99 between Wilson Road and Grassotti Court have exceeded Federal Highway Administration (FHWA) standards and a soundwall is needed.

4B. Regional and System Planning

SR 99 began as a California State highway in 1909. It was originally designated as Legislative Route 4, linking Sacramento and Los Angeles, passing through Fresno and Bakersfield. In the 1920's the road was designated as "U.S. 99". Sections of U.S. 99 have been replaced by Interstate five (I-5). The current SR 99 begins at I-5, near the base of the Tehachapi Mountains in Kern County, passes through Tulare, Fresno, Madera, Merced, Stanislaus, San Joaquin, Sacramento, and Sutter Counties, and ends at SR 36 near Red Bluff in Tehama County. SR 99 is designated as a State High Emphasis Focus Route on the Interregional Road System (IRRS), a Transportation Gateway of Major statewide significance, and identified as a "Priority Global Gateway" for goods movement in the Global Gateways Development Program (January 2002). SR 99 is also identified under the Federal-aid Surface Transportation Program and is part of the National Highway System as a STRAHNET route, is on the National Network for STAA trucks, functionally classified as a Principal Arterial, and identified as an Intermodal Corridor of Economic Significance.

The auxiliary lane proposed with this project is in line with the SR 99 transportation Concept Report (TCR) of 2003. The TCR's ultimate build proposes four lanes with an

auxiliary lane in each direction. This project proposes to replace Palm Avenue OC so it may accommodate both the proposed southbound and future northbound auxiliary lane. The Route 99 Corridor Business Plan (2009) also states this project's segment of SR 99 is to be an eight-lane freeway in its 2030 Facility Concept. The CRCP improvements and repair of failed concrete slabs proposed in this project will ensure this the eight-lane concept well into the future. The Kern Area Regional Goods-Movement Operations Sustainability Study (2021) stated, "in and around the SR 99/California Avenue interchange, level of service is deteriorating, and congestion is increasing towards capacity." The proposed auxiliary lane will relieve congestion on southbound SR 99 and also the surrounding local streets as more local travelers are likely to choose SR 99 if traffic flow improves.

As a point of information, Districts 3, 6, and 10 are currently working with a qualified consultant team to produce a Comprehensive Multimodal Corridor Plan (CMCP) for State Route (SR) 99 through the Central Valley. The objective of the SR 99 CMCP is to develop a shared vision and implementation plan for the SR 99 corridor that aligns with State goals and policies while meeting the needs of agency partners, stakeholders, and the traveling public. The SR 99 CMCP will identify a broad range of multimodal opportunities for improving and enhancing the corridor. It will draw upon a rich inventory of previous and active planning efforts at the state, regional, and local levels. The SR 99 Business Plan prepared in the early 2000s was a multi-jurisdictional effort that facilitated and implemented Proposition 1B funding. The CMCP will revise the prior vision to align with current activity and direction, thereby comprehensively addressing the unique challenges of the corridor.

Local Planning

The project conforms with the City of Bakersfield's Thomas Road Improvements Program (TRIP). The TRIP is nearing completion of the Centennial Corridor Project and several connector ramps which will ease congestion and enable safer traffic flows where SR 99, SR 58, and many local streets interconnect. Additionally, the City of Bakersfield (COB) is preparing a PR for a southbound SR 99 to westbound SR 58 freeway connector ramp. The auxiliary lane and improvements proposed with the project herein will conform with both Centennial and the new connectors and is supported by the COB.

4C. Traffic

Traffic Volume

Within the project limits, the 2021 annual average daily traffic (AADT) within the project limits ranged from 94,000 to 139,000. Truck comprises 8.25% of the AADT. The Design Designation (DD) and Traffic Index (TI) for the project limits are listed as follows:

DAILY AND DESIGN HOURLY VOLUMES (DHV)

Volumes	SR 99	
	AADT	DHV
Construction Year (2029)	213,500	20,000
Design Year (2049)	370,000	33,500
Design Year (2069)	642,500	58,000

TRAFFIC INDEX

Route	20 Years ESAL*	40 Years ESAL*	20 Years TI		40 Years TI	
SR 99 PM 21.15-24.60			Lane 1	Right Shoulder	Lane 1	Right Shoulder
	125,840,000	369,210,000	16.0	11.0	18.0	11.5

**ESAL= Equivalent Single Axle Load*

The Peak-Hour Directional Volume Percentage (D) is 58%, and Truck Design Hourly Percentage (T) is 9%.

Based on the Design Designation, the new CRCP lanes and shoulders, and new JPCP inside shoulders are in line with a 40-year design. The replacement of the failed JPCP slabs using RSC provide an interim solution until future projects are programmed to upgrade lanes one through three with CRCP and address the 40-year design.

Collision Analysis

The collision rates within the project limits for the three-year study period between April of 2019 to March of 2022 are shown in the following tables.

Collision Summary (Entire Project limits)

Freeway Segment	Actual Rates (MVM*)			Statewide Average Rate (MVM*)		
	Fatal	F+I	Total	Fatal	F+I	Total
NB SR 99 PM 21.15/24.60	0.012	0.48	1.88	0.006	0.38	1.16
SB SR 99 PM 21.15/24.60	0.016	0.36	1.32	0.006	0.38	1.16

*MVM = Million Vehicle Miles

The data indicates Actual Rates for Fatal, Fatal plus Injury (F+I), and Total on the Northbound segment are all higher than the statewide average rates for similar highways. Actual rates for southbound SR99 show Fatal and Total are higher than the

statewide average, but Fatal plus Injury actual rates are lower than the statewide average.

The data also showed there were 27 barrier strikes recorded, the guardrail was struck a total of 10 times, and there 7 fatalities documented. The proposed alternative is not anticipated to increase any collision rates in the project vicinity. The proposed auxiliary lane should reduce the collision rate for that segment of SR 99. Median barriers and MGS at several bridge approaches will also be upgraded to current standards.

The collision rates between July 1, 2020, and June 30, 2023, for the proposed auxiliary lane project segment are provided below.

Collision Summary

SB SR 99- California Avenue to SR 58/99 interchange (Auxiliary Lane segment)

Freeway Segment	Actual Rates (MVM*)			Statewide Average Rate (MVM*)		
	Fatal	F+I	Total	Fatal	F+I	Total
SB SR 99 PM 23.89/24.65	0.00	0.48	1.88	0.006	0.38	1.16

*MVM = Million Vehicle Miles

In this relatively short segment, 114 collisions were recorded in the three-year period. The majority of collisions were “rear-end” and “side-swipes” which are typically queuing and congestion related. Field observations have confirmed recurring traffic backup during peak hours on south bound SR99 from the SR 58 connector ramp upstream to the California Avenue on ramp and beyond. Construction of the proposed auxiliary lane would relieve this traffic backup. The queuing related collisions are expected to be reduced as a result.

Operational Analysis

There are operational deficiencies on southbound SR 99 between California Avenue and the SR 99/58 Interchange. The existing interchange spacing is nonstandard. The mainline and ramps at in in this section operate between Level of Service (LOS) D and F during the PM hours. There is a queue backup observed daily on southbound SR 99 from the SR 99/58 Interchange during PM peak hours which contributes to a relatively high collision rate. An auxiliary lane would address these operational deficiencies and improve motorist safety in this section. (See Section 5- Auxiliary Lane for more details.)

5. ALTERNATIVES

5A. Viable Alternatives

Alternative 1- Preferred Alternative

Roadway Scope

Alternative 1, the build alternative, proposes a variety of improvements on SR 99 in both northbound and southbound directions from White Lane (PM 21.15) to California Avenue (PM 24.60). The major pavement improvements include the replacement of failed JPCP panels on lanes one through three with RSC and the upgrading of all JPCP in lanes four and the outside shoulder sections to CRCP. The existing outside shoulders will be extended to ten feet in sections where they are less than standard width. The existing asphalt inside shoulders will be replaced with new JPCP throughout the project limits.

In order to improve safety and operations on southbound SR 99, an auxiliary lane is proposed between the California Avenue southbound loop on ramp and the SR 99 south to SR 58 east connector ramp. The auxiliary lane and existing connector ramp will also be designed to conform to both the existing connector ramp and the future planned SR 58 westbound connector. The auxiliary lane and its ten foot shoulder will have a CRCP structural section. All bridges, drainage features, signs, and TMS elements affected by the proposed auxiliary lane will be modified or rebuilt as needed. Multiple retaining walls will be required when the auxiliary lane goes into a cut section. The California Avenue southbound SR 99 on ramp is a two lane on ramp and RMS is proposed. The RMS requires an auxiliary lane which requires California Avenue UC to be widened. Palm Avenue OC will also require reconstruction to accommodate the additional the auxiliary lane.

Auxiliary Lane

The proposed auxiliary lane on southbound SR 99 between the California Avenue on ramp and the eastbound SR 58 connector ramp will improve motorist safety. The auxiliary lane proposed is 0.6 miles long between PM 24.0 and PM 24.6. This segment of the existing freeway has two conflicting motorist movements as some vehicles are merging onto SR 99 from California Avenue while others are attempting to exit and merge onto the SR 58 connector ramp.

Per Section 501.3 of the Highway Design Manual (HDM), the required interchange spacing between a freeway to freeway connector and another interchange is two miles. The HDM further states to improve operations of closely spaced interchanges the use of auxiliary lanes maybe warranted. The distance between the California Avenue Interchange and the SR 58/99 Interchange is only 1 mile. This geometric deficiency combined with high existing traffic volumes on the entering and exiting ramps are the cause of heavy daily queuing.

Currently this section of southbound SR 99 operates at a LOS F during the PM hours. This segment experiences daily queuing and inadequate space for vehicles to merge and diverge. These factors contribute to the overall collision rates being 58% higher than the State Average. Approximately 88% of the collisions in this segment were due to rear-end and side-swipe collisions. These types of collisions are typically the result of queuing and inadequate space to maneuver. The construction of the Auxiliary lane is anticipated to result in a reduced accident frequency, improved safety to the traveling public, and improved SR 99 mainline operations. The implementation of the auxiliary lane will also reduce the frequency of abrupt lane changes, stop and go traffic, and offer more time and space for drivers to achieve weaving movements more safely.

Existing traffic volumes further warrant the needs for an auxiliary lane in this section. The existing traffic volumes between the southbound SR 99 California Avenue on ramp and the eastbound SR 58 connector ramp are 1572 vehicles per hour (2020 data). The HDM states in section 504.3 that an auxiliary lane with a minimum length of 1300 feet should be provided in advance of a 2-lane exit when volumes exceed 1500 vehicles per hour. Additionally, the HDM states that an auxiliary lane should be included with metered single or multilane freeway ramps downstream from the gore point. California Avenue on ramp is currently a two lane on ramp, with RMS proposed to be installed. The RMS will allow for a smoother flow of traffic entering the freeway which will reduce stop-and-go traffic flow. Eliminating prolonged periods of stop-and-go conditions reduces vehicle emissions and reduces the likelihood of collisions. An auxiliary lane is required for the RMS so that vehicles starting from a standstill will have more time merge safely onto southbound SR 99.

TMS Elements

There are a variety of minor TMS elements that are being replaced or upgraded with this project. Traffic Census Station (TCS), Vehicle Detection Station (VDS), and Closed Circuit Television (CCTV) elements will be installed or upgraded at various locations within the project limits. The existing message sign and highway advisory radio at Palm Avenue OC will need to be replaced with the new bridge.

Electrical signals and fiber connectivity are also being improved with this project. Traffic signals at both California Avenue off ramp intersections are at their end of life and will be replaced. The existing signals at the Ming Avenue northbound on and off ramp intersection and the Ming Avenue southbound on ramp will be upgraded to conform with Roadway Lighting Manual. A fiber optic line will be installed for the length of the project limits which will provide connectivity for various Caltrans Intelligent Transportation System (ITS) elements.

RMS will be installed new or upgraded at several locations to maintain an efficient freeway system. RMS work and locations are summarized below:

- Install new RMS for the SR 99 southbound loop on ramp at California Avenue
- Install new RMS for the SR 99 northbound loop on ramp at California Avenue.

- Install new RMS for the SR 58 westbound to SR 99 northbound connector ramp
- Install new RMS for the SR 58 eastbound to SR 99 southbound connector ramp
- Complete the RMS at the southbound direct on ramp at Ming Avenue
- Install new RMS for the SR 99 northbound on ramp at Ming Avenue. This RMS will be placed north of Bell Terrace Avenue so it can serve as the metering required for the future SR 58 eastbound to SR 99 northbound connector ramp (currently in design – EA 06-48467).

88 mainline and ramp light systems within the project limits are proposed to be upgraded per the Roadway Lighting Manual. Several light poles will also need to be relocated due to the proposed auxiliary lane.

The primary TMS items are shown on the attached layouts in Attachment B, the locations shown for several items are tentative and subject to relocation during the design phase.

Safety Devices

Existing guardrail and barrier will be upgraded with this project. Structure approach guardrail will be upgraded to Midwest Guardrail Systems (MGS) at northbound Wilson Road OC, northbound Wible Road OC, and north and southbound Planz Road. The existing Type 50 concrete barrier in the median does not meet current standards and will be upgraded to a Type 60 M series within the project limits. The proposed retaining walls will be shielded with new Type 60 MD concrete barrier.

Drainage

There are various drainage improvements proposed with this project. Three existing down drains flowing into an existing ditch along southbound SR99 between California Avenue and the SR 58/SR 99 interchange will be replaced with five drainage inlets. The existing ditch capacity is being reduced by the proposed auxiliary lane and the new drainage inlets will connect the down drain and ditch system to another existing system south of Palm Avenue. Several existing cross culverts will require an extension to conform to the new auxiliary lane. All broken asphalt dikes will be replaced as needed throughout the project limits. Additionally, approximately 40 drainage inlets along southbound and northbound SR 99 will need to be adjusted to grade or relocated in areas where the flow line is changing due to roadway improvements.

Noise Barriers

A masonry block soundwall is being proposed to shield the residences abutting southbound SR 99 between Wilson Road OC and Grassotti Court. The freeway is in a cut section in this area and the soundwall will be constructed at the top of the slope. The soundwall will be 10 feet high and approximately 575 feet in length.

Landscape

Replacement Planting:

Portions of the existing side slopes where the roadway is in a cut section will be regraded in this project. The slope behind the proposed retaining walls for the auxiliary lane is relatively steep in some areas and regrading and tree removal maybe necessary. Any vegetation or irrigation that is damaged or removed from within the state right of way will be replaced. Currently it is anticipated approximately 15 trees will need to be removed due to the auxiliary lane and retaining walls. Portions of slopes where the shoulder is widened from eight to ten feet also will require minimal regrading and planting. A three year plant establishment period will be included to facilitate the success of the highway planting.

Erosion Control:

Disturbed or regraded areas will be treated with permanent erosion control. This includes areas such as the slope behind the proposed retaining walls, that are steep and exposed to concentrated flows will require erosion control techniques that may include applications of netting, fiber rolls, and hydroseed. Also, this may apply to where the shoulder is being made standard and extending into the slope one to two feet.

Irrigation Crossovers:

Irrigation crossovers are needed to service existing or future highway planting in the project area. During design, the locations of any new crossovers will be determined. Currently the project estimate accounts for irrigation crossovers based on the latest Landscape recommendation.

Structures Scope

The proposed auxiliary lane and shoulder begins at the California Avenue UC (Bridge No. 50-0260), which requires this bridge to be widened by approximately 23 feet. The widened portion will have a cast in place (CIP) deck on precast box beams supported by diaphragm abutments, reinforced concrete (RC) bent caps, and RC columns similar to the existing structure. The abutment and columns will be founded on Class 200 strength piles. The widening of California Avenue UC is estimated to have a duration of 130 working days.

The new auxiliary lane and shoulder also necessitate the replacement of the Palm Avenue OC (Bridge No. 50-0261) due to the inadequate span width. The existing bridge is a four span RC “T” girder bridge. The new Palm Ave. OC bridge will feature box girders with a CIP deck, RC bent caps, RC columns supported by larger diameter shafts, and diaphragm abutments. The new structure will feature two 88 foot spans as opposed to the existing four span structure and will be 82 feet 4 inches wide, 14 feet 4 inches wider than the existing structure. The columns will be founded on Class 200

strength piles. The new bridge will maintain the profile of the existing bridge, and the new superstructure will be 17.25 inches shallower than the existing structure, giving the new bridge a minimum vertical clearance of 16 feet 6 inches which conforms to the Caltrans minimum vertical clearance requirement. The existing bridge currently has a non-standard vertical clearance of 15 feet one inch. The new OC will upgrade existing sidewalks to the standard width of 6 feet 2 inches. The new bridge construction of Palm Avenue OC is estimated to have a duration of 180 working days.

As the proposed auxiliary lane approaches Palm Avenue OC, the roadway descends into a cut section which requires retaining walls to be built. Multiple walls will be needed to conform to each side of the new Palm Avenue OC southbound abutment and an existing maintenance pumping station just south of the overcrossing. The retaining walls will be soil nail walls and will extend under the bridge almost to the terminus of the auxiliary lane. The retaining walls will be approximately 2600 feet long and vary in height from four feet to twelve feet. Some modifications with respect to access and drainage connections will be necessary at the pumping station. Currently there is access from SR 99 into the station via stairs along the embankment. The retaining walls will be designed to conform to a new maintenance vehicle pullout which will replace current access to the pumping station.

The Advanced Planning Study (APS) drawings and estimate are in Attachment L. The estimated costs of all the proposed structures work are included in the total project estimate (Attachment D).

Nonstandard Features

There are several existing design features which require a Design Standard Decision Document (DSDD). The DSDD is in accordance with the District 6 Design Delegation Master agreement signed May 17, 2023, has been approved on December 01, 2023. The non-standard features per the Highway Design Manual (HDM) are included in the DSDD are summarized below.

Minimum Vertical Clearance – HDM 309.2(1)(a)

The project proposes to maintain the existing nonstandard minimum vertical clearance at seven locations within the project limits. These bridges are summarized in the following table.

Location	Bridge No.	Standard (HDM 309.2 (1)(a)	Existing Vertical Clearance	Proposed Vertical Clearance
Planz Rd OC	50-0252	16’ 6”	15’4”	15’4”
Wible Rd OC	50-0249	16’ 6”	15’2”	15’2”
Wilson Rd OC	50-0250	16’ 6”	15’6”	15’6”

Location	Bridge No.	Standard (HDM 309.2 (1)(a)	Existing Vertical Clearance	Proposed Vertical Clearance
Ming Ave OC	50-0256	16’ 6”	15’5”	15’5”
Brundage Ln/Stockdale Hwy OC	50-0264	16’ 6”	15’5”	15’5”
99 S to 58 E Connector	50-0429F	16’ 6”	15’2”	15’2”
California Ave UC	50-0260	16’ 6”	14’9”	14’9”

Shoulder Width and Horizontal Clearance to Objects – HDM 302.1 & 309.1(3)(a)

The standard shoulder width and horizontal clearance to objects closer than the edge of travel way is ten feet. The project proposes to maintain the existing nonstandard shoulder width and nonstandard horizontal clearance at the following locations:

Location	**Existing Feature to Remain**
Planz Rd OC	8’ NB outside shoulder 8’ SB outside shoulder 9’2” NB inside shoulder 8’ 10” SB inside shoulder
Wible Rd. OC	8’ NB outside shoulder 5’5”-7’4” NB inside shoulder 6’8”-7’9” SB inside shoulder
Wilson Rd. OC	7’2” SB inside shoulder 8’6” SB outside shoulder 8’3” NB inside shoulder 7’9” NB outside shoulder
Ming Ave OC	4’ SB Outside shoulder 3’1”-4’2” SB inside shoulder 8’ NB Inside shoulder 4’8” NB Outside shoulder
SR99 at Belle Terrace OC	8’8” NB and SB inside shoulder
SR 99 at NB SR99 to WB SR-58 Connector	6’6”-10’ NB inside shoulder 6’6”-10’ SB inside shoulder
SR99/SR 58 Grade Separation	5’9”-10’ NB inside shoulder 6’ 4”’-10’ SB inside shoulder
SR 99 Sta 654+09 to 655+38 (OH sign)	7’11”-10’ NB & SB inside shoulder

Location	Existing Feature to Remain
SR 99 Sta 593+63 to 595+55 (OH sign)	7'11"-10' NB & SB inside shoulder
SR 99 Sta 593+63 to 595+55 (OH sign)	7'-10' NB inside shoulder 9'-10' SB inside shoulder
SR 99 Sta 623+50 to 625+44 (OH sign)	7'-10' NB inside shoulder 5'-10' SB inside shoulder

**"OH"- overhead*

Median Width for Multi-Lane Freeway (Urban Area) – HDM 305.1(1)(a): less than 36' and 305.1(1)(3)(a) less than 22'

The project proposes to maintain the existing nonstandard median width of 22' on SR 99 from PM 21.15 to PM 24.6. Additionally, The nonstandard median width of 16' to 22' is proposed to be maintained through and at Ming Avenue OC.

Weaving Length – HDM 504.7

The project proposes to maintain existing nonstandard weaving lengths in both directions on SR 99 between the SR99/California Avenue interchange and the SR 58/SR 99 interchange.

Location	HDM standard	Existing Feature to Remain
SB SR 99 Sta 710+38 to 745+64	504.7- Nonstandard Weaving Length- 5000'	3526'
NB SR 99 Sta 697+65 to Sta 732+15	504.7- Nonstandard Weaving Length- 5000'	3450'

Minimum Vertical Profile Grade – HDM 204.3

The project proposes to maintain an existing nonstandard profile grade at three locations throughout the project limits.

Location	HDM standard	Existing Feature to Remain
SR 99 (South of Ming Ave.)	204.3- Minimum Profile Grade- 0.3%	.26%

Location	HDM standard	Existing Feature to Remain
SR 99 (Between Ming Ave. and SR 58)	204.3- Minimum Profile Grade- 0.3%	.21%
SR 99 (through SR 58/SR 99interchange)	204.3- Minimum Profile Grade- 0.3%	.12%

Minimum Length of Auxiliary Lane at Branch Merge – HDM 504.4

The project proposes to maintain an existing nonstandard branch merge of 1,288 ft along eastbound SR 58 and southbound SR99 connector.

Right of Way Data Sheet

A few locations of the project require Right of Way (R/W) acquisition and utility work. Temporary Construction Easements (TCEs) will be needed at each end of Palm Avenue OC in order to tie the new bridge into the local streets and sidewalks. TCEs will also be needed for access and construction of the soundwall. Utility relocation will be required at the replacement of the Palm Avenue OC. There is a City of Bakersfield storm drain, Pacific Gas and Electric (PG&E) gas line, and Cal-Water line running through or under the existing bridge. These lines will be relocated with the new bridge. Potholing will be necessary to investigate potential conflicts as design progresses. All costs are included in the R/W Data Sheet (Attachment G) and total project cost estimate (Attachment D).

Interim Features

The proposed auxiliary lane with this project will be designed to conform to a future southbound SR 99 to westbound SR 58 connector ramp. The project will conform to a new segment of SR 58 to the west of SR 99 which is expected to finish construction by the end of 2023. The Centennial project is constructing new connector ramps between SR 58 and SR 99 and auxiliary lanes on SR 99 south of SR 58 which will tie in with the CRCP proposed with the project herein. The new Palm Avenue OC will accommodate a future northbound auxiliary lane.

5B. Rejected Alternatives

The “no-build” alternative is not recommended due to the unacceptable roadway conditions and higher preservation costs, as well as not meeting the project’s Purpose and Need.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

An Initial Site Assessment was conducted in June of 2021 and concluded that there are no impacts regarding hazardous waste sites. However, hazardous waste studies are required due to bridge work and excess soil requiring disposal and or relinquishment from auxiliary lane construction. Applicable Standard Special Provisions will be edited and included in the bid package.

6B. Value Analysis

A Value Analysis (VA) was conducted June 13-17 of 2022. It was recommended to shorten the Palm Avenue OC by thirty feet by using taller abutments. The new bridge will implement a variation of this proposal. The new OC will be designed to accommodate the proposed southbound auxiliary lane, a future northbound auxiliary lane, and utility relocation of existing lines (including a 30" storm drain flowing from east to west).

6C. Resource Conservation

Where feasible, salvaged material will be incorporated into the final design phase of the project. Reasonable measures will be taken to reduce wasteful, inefficient, and unnecessary consumption of energy and non-renewable resources during construction.

6D. Right-of-Way Issues

The acquisition of TCE's, and the need for utility relocation, are the two major R/W issues for this project. The project schedule allows for time for acquisition of the easements and planning for utility relocation. Utility mapping and verification is currently underway. During the design phase any conflicts will need to be discovered and coordinated with the appropriate utility companies. The Right of Way programmed cost will need to be increased because of acquisition and utility relocation through a PCR. A PCR has been drafted for the shortfall at the January 2024 CTC meeting.

6E. Environmental Compliance

An Initial Study with a Negative Declaration has been prepared in accordance with the California Environmental Quality Act (CEQA). The project will have a less than significant impact on Biological Resources, Greenhouse Gas Emissions, and Noise. A Final Environmental Document supporting a CE determination has been prepared in accordance with the National Environmental Policy Act (NEPA). See Attachment E for the Final Environmental Document.

The Negative Declaration has been prepared in accordance with Caltrans' environmental procedures, as well as State and federal environmental regulations. The attached Negative Declaration is the appropriate document for the proposal.

Species monitoring and protection will be necessary for this project. Monitoring and protection with regards to the San Joaquin Kit Fox will be conducted for this project in coordination with U.S. Fish and Wildlife Service (USFWS). Monitoring will also be required to ensure Swainson Hawk are not adversely affected.

6F. Air Quality Conformity

Per the Air Quality memorandum dated November 9, 2022 (Chapter 2 of Environmental Document), CEQA significance determinations found no impacts for Air Quality.

6G. Title VI Considerations

The project proposes to maintain the existing facilities and would not negatively impact the community. The new auxiliary lane will ease congestion and enhance safety for all communities within the region.

6H. Noise Abatement Decision Report

A Noise Study Report (NSR) for this project was prepared by Allam Alhabaly, on July 28 of 2021, and approved on the same date by Ken Romero who is the Chief of Caltrans Central Region Environmental Engineering Branch. The results of the NSR showed the need for a soundwall for the segment of multi-family residences adjacent to SR 99 where a receiver was placed. During the noise study, a receiver was placed at 2600 Chandler Court, and was labeled as the "R5" receiver. The NSR showed an existing modeled noise level of 70 dBA (A-weighted decibels) and projected a level of 74 dBA for the design year which indicates a soundwall is required for all residences between Wilson Road OC and Grassotti Court. The U.S. Environmental Protection Agency recommend maintaining noises below 70 dBA, so a soundwall is recommended at locations where this threshold is reached or exceeded. Results of the noise study are summarized in the tables below. The soundwall will provide attenuation of 7 decibels for the residences.

Model Calibration

Receiver No.	Street Address, City	Measured Noise Level (dBA Leq)	Modeled Noise Level (dBA Leq)	K-Factor (dB)
R2	3017 McCall Avenue, Bakersfield	66	65	1
R4	3101 Coventry Drive, Bakersfield	60	58	2
R5	2600 Chandler Lane, Bakersfield	68	70	-2
R10	3117 Terrace Way, Bakersfield	57	56	1

K-Factor = correction factor, Leq = equivalent continuous sound level

Predicted Future Noise and Barrier Analysis

ID	# Dwelling Units	Address	Existing Noise Level (dBA Leq)	Design Yr. Noise Level (dBA Leq)
R1	1	2700 White Lane, Bakersfield	70	70
R2	11	3017 McCall Ave, Bakersfield	77	77
R3	1	3400 Wible Road, Bakersfield	75	75
R4	1	3101 Coventry Drive, Bakersfield	62	62
R5	10	2600 Chandler Ct, Bakersfield	74	74

The NSR further recommended the soundwall be a height of ten feet and not exceed a cost of $1,100,000.

7. OTHER CONSIDERATIONS AS APPROPRIATE

Public Hearing Process

The Draft Environmental Document was circulated to the public. During the review process, no public hearing was requested. A separate environmental document supporting a CE determination has been prepared in accordance with NEPA and therefore a public hearing is not required for this project.

Route Matters

The SR 58/SR 99 interchange is located within the project limits. A portion of the future SR 58 freeway west of SR 99 (Centennial) is currently being constructed by the City of Bakersfield with Caltrans oversight and will be transferred into the State Highway System (SHS) after its completion. The Route Transfer will include SR 58 from Coffee Avenue to SR 99. This segment will include portions of new connector ramps within the 06-0X370 project limits (eastbound SR 58 to southbound SR 99 connector, eastbound SR 58 to Ming Avenue connector, and northbound SR 99 to westbound SR 58 connector). The Route Transfer of Centennial is scheduled to occur in 2024. The new connector ramps and freeway sections will take the SR 99 or SR 58 designation where appropriate after its transferred into the SHS. An updated freeway agreement will be executed after the Route Transfer.

Permits and Agreements

No permits that are required for project construction. The project does have a Letter of Concurrence from the USFWS for a “may affect, not likely to adversely affect” determination for impacts to San Joaquin Kit Fox.

Transportation Management Plan

Preliminary traffic impacts and mitigation for this project have been outlined in the attached Transportation Management Plan (TMP) Data Sheet in Attachment J. Costs associated with the traffic impact mitigation measures including Public Information Outreach, COZEEP, and Portable Changeable Message Signs are listed in the TMP Data Sheet have been included in the cost estimate.

Individual lane closures will be approved by the Work Zone Operations Branch.

Stage Construction

Construction will occur in stages to maintain acceptable traffic flow and maximum accessibility. Temporary K-rail will need to be set up or adjusted before each stage. The construction of the new CRCP lanes, auxiliary lane and outside shoulder will require long term lane closures. The repair of the failed slabs with RSC will require lane closures and will be done at night. The standard speed limit reduction of ten miles per hour is expected to be used along with appropriate signage since all work will be done behind the K-rail.

Pavement work on SR 99 will be staged and coordinated with the bridge work at California Avenue UC and Palm Avenue OC. Stage construction of the actual bridge work will not be required. Vehicular and pedestrian traffic will be detoured from the site. Vehicles will be able to use California Avenue to the north and Stockdale Highway to the south as detours.

The southbound SR 99 to westbound SR 58 connector project (EA 06-48468) is currently in the early stages of design. If that project's anticipated construction schedule aligns with this project, then it is possible that the two projects may be combined into one construction contract. This would potentially minimize impacts to the traveling public during the construction phase. Further analysis is required.

Aesthetic Treatments

The retaining walls and new bridge construction may contain aesthetic treatments as recommended by landscape architecture. These estimates have been included into the preliminary structures estimate and total project estimate.

Asset Management

The roadway concrete pavement, auxiliary lane, bridge replacement, retaining walls, drainage improvements, median barrier upgrades, sign panel replacement, ramp meter, lighting upgrades, overhead sign replacement, traffic monitoring detection improvements, traffic signal improvements, traffic census stations and other TMS improvements are the major asset advancements of this project. The performance objectives of this project are to maintain the assets for the stability and proper

functionality of the roadway. The timely rehabilitation of the existing roadway will enhance the life of the roadway system throughout the project limits. The SHOPP Performance Measures Report (SPMR) tracks the asset improvements with this project (Attachment I).

The project achieves the objective by maintaining the following assets:

- Pavement Rehabilitation – SPMR shows 15.08 Lineal Miles (LM) differing from actual total of 21.8 LM because the Asset Management tool no longer shows existing "pre-good" pavement quantity. Fair and poor pavement quantities are still the same.
  The number four lane in each direction will be replaced with CRCP and failed slabs in lanes one through three will be rehabilitated with RSC.
- Number of Bridges – 2 EA
  Palm Ave OC (Br No.50-0261) will be replaced to allow Auxiliary Lane and Vertical Clearance improvement and California UC Bridge (Br No.50-0260) will be widened for Auxiliary Lane.
- Bridge Replacement/New Construction- 18,295 SF
  Palm Ave OC – 14,661 SF (New)
  California UC – 3,634 SF (Widening)
- New Auxiliary Lane – 1 EA
  Auxiliary Lane (.75 mile long) will be constructed to improve operational deficiencies and relieve congestion on southbound SR 99 between California Ave and the SR 99 south to SR 58 east connector.
- Retaining Walls – 25,800 SF
  Retaining walls will be constructed on southbound SR 99 between PM 23.87 to PM 24.35 in coordination with the auxiliary lane.
- Drainage System – SPMR shows 313 LF and cannot be updated at this time,
  1000 LF of drainage system pipe will be replaced or installed with this project.
- Median Barrier – 18,744 LF
  18,744 LF median barrier (type 60M) will be reconstructed to meet the standard.
- Lighting – 88 EA
  This project proposes to replace or modify the existing lighting systems within the project limits.
- Overhead Sign Structures – 15 EA
  10 overhead sign panels will be replaced. 5 overhead sign structures will be replaced.
- TMS Structure and Technology – 22 EA

TMS Improvements include 9 RMS, 4 traffic signals, 6 VDS, 2 TCS, and 1 CCTV

- Planting (Irrigated) – 5.67 Acres
  Includes 4.55 acres of replacement planting and 1.12 acres pf noise barrier planting.

Complete Streets

Sidewalks will be upgraded to Caltrans' standard on the newly constructed Palm Avenue OC. All connections for pedestrians from the new bridge to existing sidewalk or ramps will comply with American Disability Act (ADA) standards. On June 1, 2023, the District 6 Sustainability/Complete Streets Engineer stated a Complete Streets Decision Document was not required for this project.

Climate Change Considerations/Greenhouse Gas (GHG) Emission

Per the Climate Change Memorandum dated March 2023, it was determined that the project has no conflict with any plan or policy adopted for the purpose of reducing emissions of GHGs. Also, it was found this project would have less than significant impact on the generation of GHGs. No avoidance, minimization, and/or mitigation measures are required.

Broadband and Advance Technologies

Caltrans does not have a Fiber Optic business need for this project. In accordance with Assembly Bill 1549, Broadband Stakeholders shall bear 100% of all Capital Construction costs and Capital Outlay Support costs pertaining to Fiber Optic conduit installation. In the Middle-Mile Broadband Network covering 10,000 miles in California, a project was created, 06-1F280, that will create a lease with Central Valley Independent Network which will provide the needed fiber network enveloping this project's corridor.

Pavement Rehabilitation

The new CRCP pavement structural section is 1.1 feet of CRCP over a 0.25 feet of Hot Mix Asphalt (HMA). The section is designed in accordance with the Highway Design Manual and based on the 40 year Traffic Index of 18. The concrete slab replacement will entail the removal of the existing cement treated based and concrete (approximately one foot total depth) and placing an equal depth of RSC. The current estimate of slabs to be replaced is based on the Pavement Condition Summary projected to the construction year The summary is attached. During the next phase of the project the actual locations will be determined in the field by Maintenance Design.

8. FUNDING, PROGRAMMING AND ESTIMATE

Funding

It has been determined that this project is eligible for Federal-aid funding.

This project is programmed in the 2022 SHOPP with funding from the 201.120 Program. However, only the PA&ED component is authorized. The remainder of the project's components are designated SHOPP "long lead" and are considered by the CTC as unauthorized components. The remaining preconstruction support components (PS&E and R/W Support) will be authorized (i.e., removing the long lead designation) and allocated at the March 2024 CTC meeting. The two capital components (Construction and R/W Capital) will be authorized for delivery in the 2026/27 fiscal year after the 2024 SHOPP is adopted by the CTC in March 2024. The project's combined components total (escalated) once the remaining phase are programmed in to the 2024 SHOPP will be approximately $111,385,000 (PA&ED Support - $5,000,000, PS&E Support- $8,000,000, R/W Support - $790,000, R/W Capital – $695,000, Construction Support - $11,100,000 and Construction Capital – $85,800,000), which is greater than the originally programmed components of $97,490,000. As a result of the increase in PS&E and Right of Way Support, a greater than 120% allocation will be requested at the March CTC Meeting as well.

Fund Source	Fiscal Year Estimate								
20.XX.201.120	Prior	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
Component	In thousands of dollars ($1,000)								
PA&ED Support		$5,000							$5,000
PS&E Support*					$4,500				$4,500
Right-of-Way Support*					$270				$270
Construction Support*								$8,600	$8,600
Right-of-Way*								$20	$20
Construction*								$79,100	$79,100
Total		$5,000			$4,770			$87,720	$97,490

*SHOPP long lead (unauthorized) component.
**The support cost ratio is 28.7%.

Estimate

The current total capital estimate including roadway, structures, and right of way is $75,044,000, escalated the total is $86,486,000. The escalated construction capital estimate without right of way ($85,800,000) exceeds the programmed amount of $79,100,000. The estimate includes a 15% contingency and will be reduced as the project moves into the design phase. The escalated right of way capital estimate is $695,000 and is greater than the programmed amount of $20,000. The increase was due to additional TCE's required for construction of the soundwall and to address utility

relocation at the Palm Street Bridge. Since this project added scope back in (southbound auxiliary lane, retaining wall, and Palm Street Bridge), as mentioned in the Background section of this report, the construction support cost has increased.

A PCR is being processed for the right of way capital ($675,000) and construction support ($1,600,000) increases prior to the 2024 SHOPP being adopted.

9. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	07/20/2020	ACTUAL
BEGIN ENVIRONMENTAL	M020	12/17/2020	ACTUAL
APPROVE DPR	M100	07/28/2023	ACTUAL
CIRCULATE DED EXTERNALLY	M120	08/04/2023	ACTUAL
PA&ED	M200	01/19/2024	TARGET
BEGIN DESIGN	M210	03/1/2024	TARGET
BEGIN STRUCTURE	M215	03/15/2024	TARGET
RECEIVE BRIDGE SITE DATA	M221	03/29/2024	TARGET
MAPS TO SURVEYS	M224	06/03/2024	TARGET
REGULAR ROW	M225	12/02/2024	TARGET
DESIGN SAFETY REVIEW	M310	12/09/2025	TARGET
95% CONST REVIEW COMPLETED	M315	12/10/2025	TARGET
PS&E TO DOE	M377	01/23/2026	TARGET
DRAFT STRUCTURES PS&E	M378	11/01/2025	TARGET
RIGHT OF WAY CERTIFICATION	M410	07/15/2026	TARGET
READY TO LIST	M460	07/31/2026	TARGET
FUND ALLOCATION	M470	10/23/2026	TARGET
HEADQUARTERS ADVERTISE	M480	11/17/2026	TARGET
AWARD	M495	02/02/2027	TARGET
APPROVE CONTRACT	M500	03/29/2027	TARGET
CONTRACT ACCEPTANCE	M600	02/26/2029	TARGET
END PROJECT EXPENDITURES	M800	04/17/2031	TARGET
FINAL PROJECT CLOSEOUT	M900	01/16/2033	TARGET

10. RISK SUMMARY

The risk register was prepared with the input from the PDT. The risk register is included as an attachment which lists all the high and low risks pertaining to the project. Responsible parties, potential impacts, and management strategies are provided for each risk, and these risks will need to be actively monitored and managed until they are retired.

There are several risks categorized as "moderate" in the proposed project. Excessive traffic congestion caused by concurrent construction projects in the vicinity could lead to schedule delays. Design and Construction will need to coordinate so traffic impacts by various projects do not get overly "stacked" but rather staggered. The other moderate risks being tracked in the Risk Register involve Right of Way and utilities. Solutions to potential utility conflicts should be coordinated with appropriate utility companies (Cal Water, City of Bakersfield, and PG&E) early enough in the design phase in order to ensure there is enough time in the project schedule and funding in the project budget to address potential issues.

11. EXTERNAL AGENCY COORDINATION

The project requires the following coordination:

- USFWS
- City of Bakersfield

12. PROJECT REVIEWS

Scoping team field review	PDT	Date	03/02/2023
Scoping team field review attendance roster attached.			
District Program Advisor	Marco Sanchez	Date	04/23/2019
Headquarters SHOPP Program Advisor	Sarabjit Singh	Date	07/17/23
District Maintenance	Bill Moses	Date	06/22/2018
Headquarters Project Delivery Coordinator	Paul Genaro	Date	09/14/2021
Project Manager	Shavonne Conley	Date	06/15/2023
FHWA	N/A	Date	
District Safety Review	Warren Lum	Date	11/04/2022
Constructability Review		Date	04/23/2019
Complete Streets/Sustainability	Ramon Lopez	Date	06/01/2023

13. PROJECT PERSONNEL

Name	Title	Division /Office	Phone Number
Shavonne Conley	Project Manager	PPM	(559) 383-5609
Shane Gunn	Sr Environmental Scientist	Environmental	(559) 832-0051
Cuauhtemoc Galvan	Environmental Planner	Environmental	(559) 383-5431
Ken Romero	Sr Transportation Engineer	Environmental	(559) 593-5891
Michael Downs	Sr Bridge Engineer	Structures	(916) 804-3026
Laurel Shen	Sr Bridge Engineer	Bridge Design	(916) 277-2156
Taylor Moyles	Bridge Engineer	Bridge Design	(209) 559-8278
Matthew Scott	Sr Bridge Engineer	Bridge Design	(916) 227-1958
Isidro Perez	Transportation Engineer	TMC	(559)383-5246
Sam Wong	Sr Transportation Engineer	Hydraulics	(559) 908-9693
Masis Kayaian	Transportation Engineer		(559) 383-5545
Caleb Wu	Sr Transportation Engineer	Tr Operations	(559) 383-5236
Warren Lum	Transportation Engineer	Tr Operations	(559) 383-5616
Harkirat Shergill	Sr Transportation Engineer	Design	(559) 383-5832
Selvan Paul	Project Engineer	Design	(559) 355-4687
Saman Mirkarimi	Transportation Engineer	Design	(559) 513-3942
Sara Blum	Sr Right of Way Agent	Right of Way	(559) 383-5194
Nick Dumas	Office Chief	Right of Way	(559) 243-3461
Mazin Al Ali	Sr Transportation Engineer	Stormwater	(559) 908-6061
Samuel Campos	Sr Transportation Engineer	Tr Electrical	(559) 351-1883
Ali Bakhdoud	Sr Electrical Engineering	Electrical	(559) 899-9615
Raafat Shehata	Sr Transportation Engineer	Material Testing	(559) 488-4113
Brad Cole	Sr Landscape Architect	Land. Arch.	(559) 974-4929
Tom Overstreet	Sr Transportation Surveyor	Surveys	(559) 903-4937
Joel Martin	Region Manager	Maintenance	(661) 304-0432
Amrit Brar	Sr Construction Manager	Construction	(661) 332-0538
Brittney Vasquez	Transportation Engineer	Asset Mgmt.	(559) 283-6331
Ramon Lopez	Sr Transportation Engineer	Complete St.	(559) 383-5219

14. ATTACHMENTS (104)

A. Location Map (1)
B. Typical Cross Sections (3)
C. Layout Sheets (13)
D. Project Cost Estimate (10)
E. Final Environmental Document (61)
F. Risk Register (3)
G. Right of Way data Sheet (6)
H. Storm Water Data Report-signed cover sheet (1)
I. SHOPP Performance Measures Report (6)
J. Transportation Management Plan Data Sheet (2)
K. Pavement Condition Summary (2)
L. Advanced Planning Study (5)

Attachment A

Location Map

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	99	21.15/24.6		

STATE OF CALIFORNIA

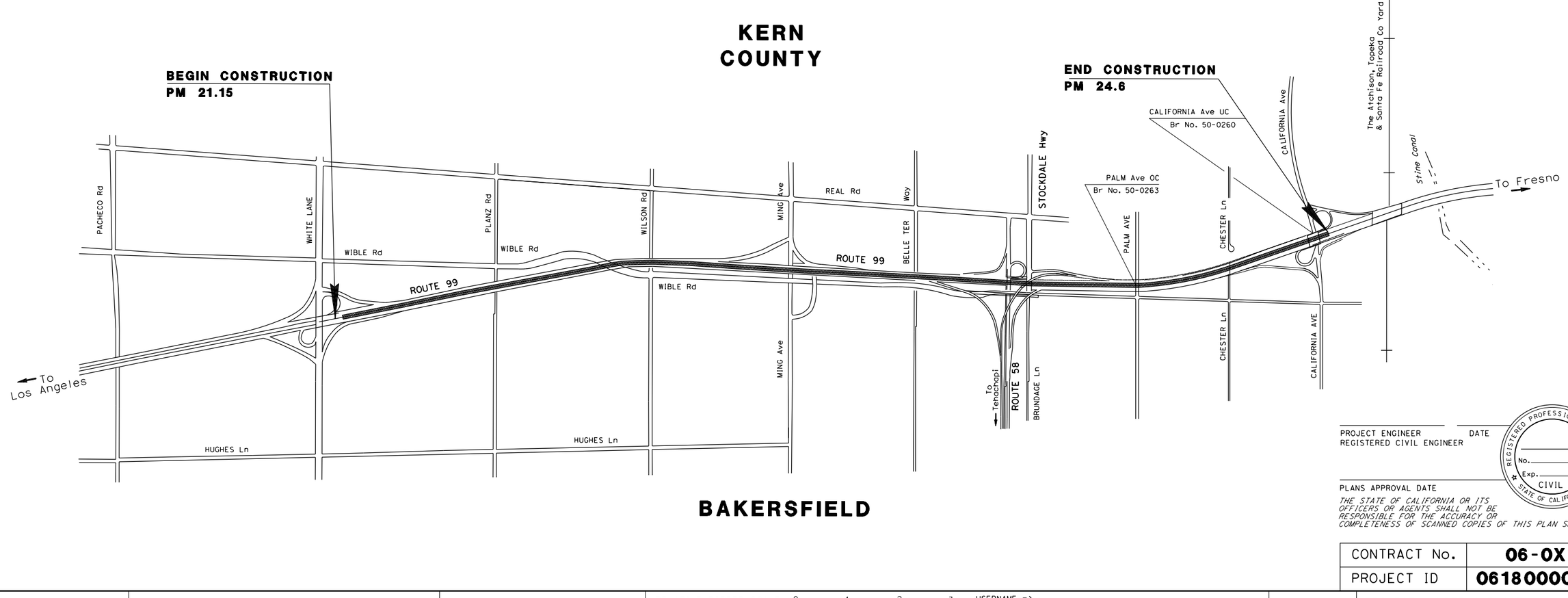
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN KERN COUNTY, IN BAKERSFIELD FROM 0.1 MILE NORTH OF WHITE LANE OC TO CALIFORNIA AVENUE UC

KERN COUNTY



BAKERSFIELD

PROJECT MANAGER: SHAVONNE CONLEY

DESIGN MANAGER: HARKIRAT SHERGILL

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

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

PLANS APPROVAL DATE

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CONTRACT No.	06-0X370_
PROJECT ID	0618000059

LAST REVISION 9-7-22

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Attachment B

Typical Cross Section

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	99	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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EXISTING STRUCTURAL SECTIONS

- A: 0.25′ AC / 0.50′ Cl 2 AB
- B: 0.75′ PCC / 0.33′ Cl A CTB / 0.33′ Cl 2 AB / 0.50′ Cl 2 AS
- C: 0.65′ AC (TYPE B)
- D: 1.10′ CRCP / 0.25′ HMA (TYPE A)
- E: 0.8′ JPCP / 0.5′ AB

TYPICAL PAVEMENT STRUCTURAL SECTIONS

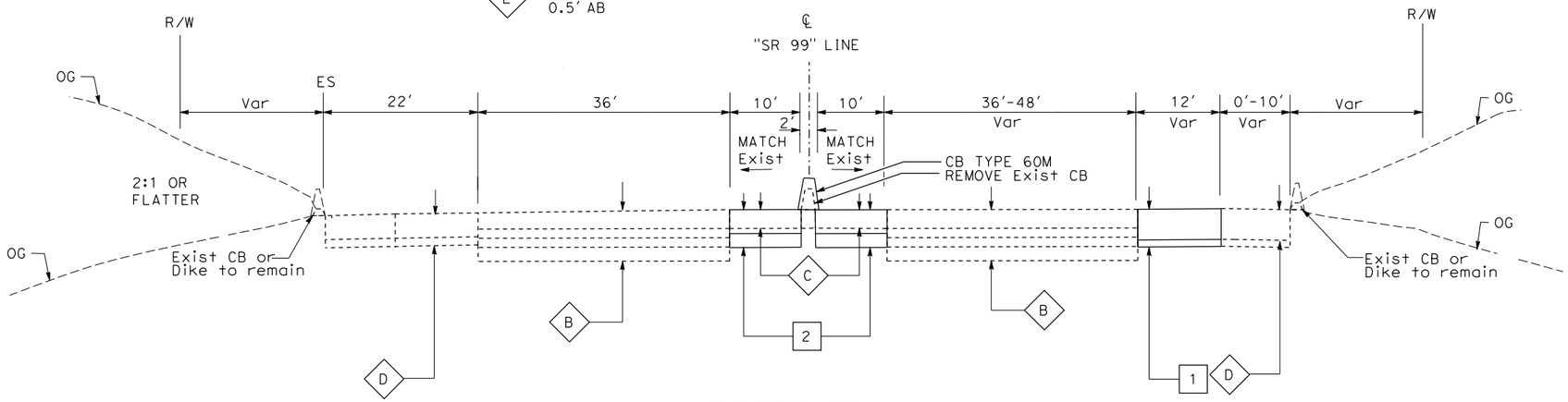
- 1: 1.10′ CRCP / 0.25′ HMA (TYPE A)
- 2: 0.8′ JPCP / 0.5′ AB
- 3: 1.35′ MINOR PCC AND PCC DIKE
- 4: 0.75′ ISR (RSC) / BASE BOND BREAKER / 0.33′ REPLACE BASE

ROUTE 99 DESIGN DESIGNATION

ADT (2029)	213,500	D	54%
ADT (2069)	642,500	T	10%
DHV	58,000	V	65 mph
ESAL	698,210,000	TI_a	18.0

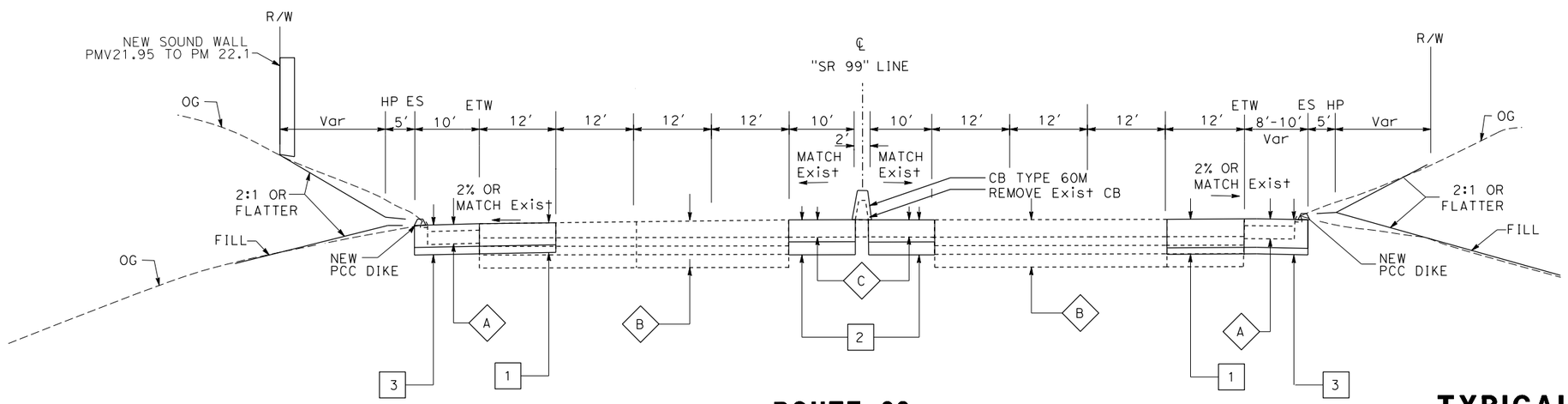
PAVEMENT CLIMATE REGION

INLAND VALLEY



ROUTE 99

TYPICAL X-SECTION PM 22.1 TO 23.6



ROUTE 99

TYPICAL X-SECTION PM 21.15 To 22.1
TYPICAL X-SECTION PM 23.6 To 23.9

TYPICAL CROSS SECTIONS

NO SCALE **X-1**

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FUNCTIONAL SUPERVISOR: SEAN PLEDGER
CALCULATED-DESIGNED BY:
CHECKED BY:
RANDY BOWLES
REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	99	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

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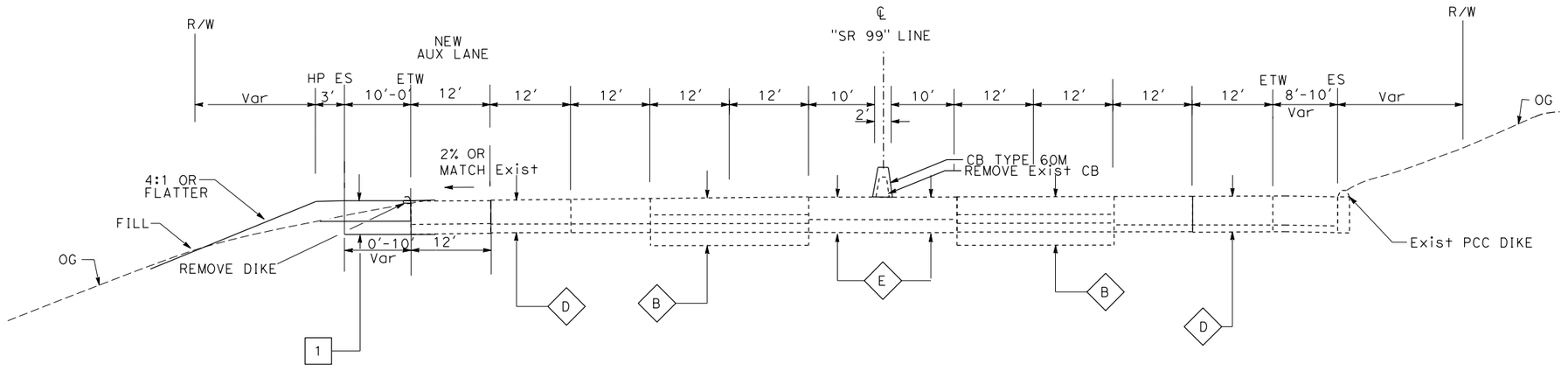
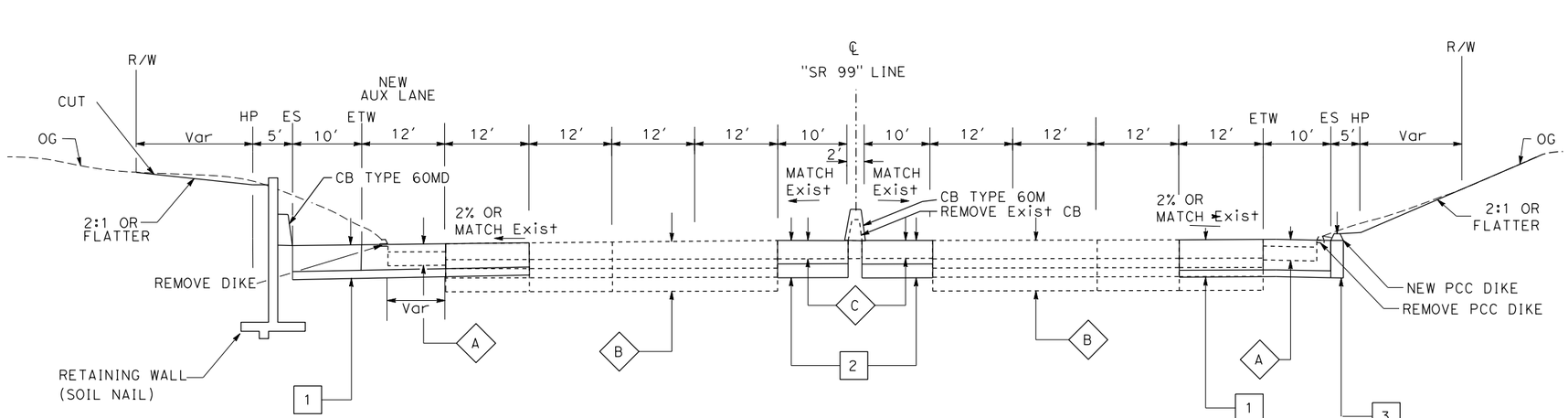


ROUTE 99

TYPICAL X-SECTION PM 24.4 TO 24.5



ROUTE 99

TYPICAL X-SECTION PM 23.9 TO 24.4

TYPICAL CROSS SECTIONS

NO SCALE **X-2**

REVISED BY | DATE REVISED

RANDY BOWLES

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR

SEAN PLEDGER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	99	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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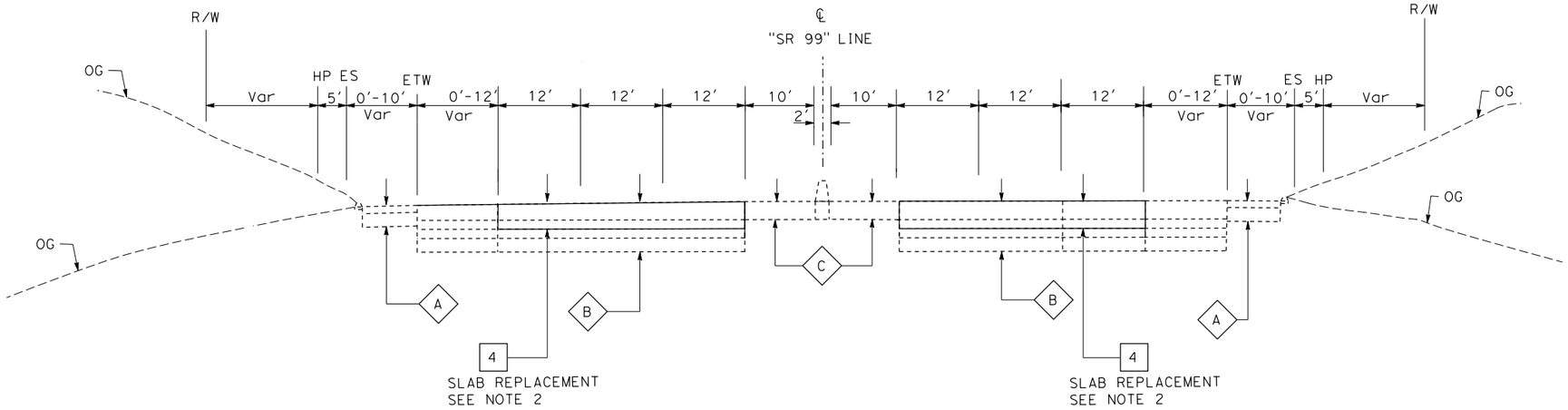

ROUTE 99

TYPICAL X-SECTION PM 21.15 To 24.6
(SHOWS INDIVIDUAL SLAB REPLACEMENT ONLY)

TYPICAL CROSS SECTIONS

NO SCALE **X-3**

CALCULATED-DESIGNED BY
CHECKED BY

REVISED BY
DATE REVISED

RANDY BOWLES

FUNCTIONAL SUPERVISOR
SEAN PLEDGER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 09-07-22
DATE PLOTTED => 10/18/2023
TIME PLOTTED => 5:33:17 PM

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Typical_x-sections 3_06-0X370.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Attachment C

Layout Sheets

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.15/24.6		

REGISTERED CIVIL ENGINEER   DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

Layout 1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BRANCH I

FUNCTIONAL SUPERVISOR: HARKI SHERGILL

CALCULATED-DESIGNED BY: SAMAN MIRKARIMI

CHECKED BY: SELVAN PAUL

REVISED BY

DATE REVISED

LAST REVISION 11-20-22

DATE PLOTTED => 1/30/2024

TIME PLOTTED => 9:05:05 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

LAYOUT 2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BRANCH I

FUNCTIONAL SUPERVISOR: HARKI SHERGILL

CALCULATED-DESIGNED BY: SAMAN MIRKARIMI

CHECKED BY: SELVAN PAUL

REVISED BY

DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME =>

DGN FILE => ...\Plans\Layouts\06-0X370_2.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

LAST REVISION 11-20-22

DATE PLOTTED => 1/30/2024

TIME PLOTTED => 9:05:52 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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LAYOUT 3

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
SAMAN MIRKARIMI	SELVAN PAUL		

FUNCTIONAL SUPERVISOR: HARKI SHERGILL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
BRANCH I

LAST REVISION | DATE PLOTTED => 1/30/2024
TIME PLOTTED => 9:06:37 AM

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_3.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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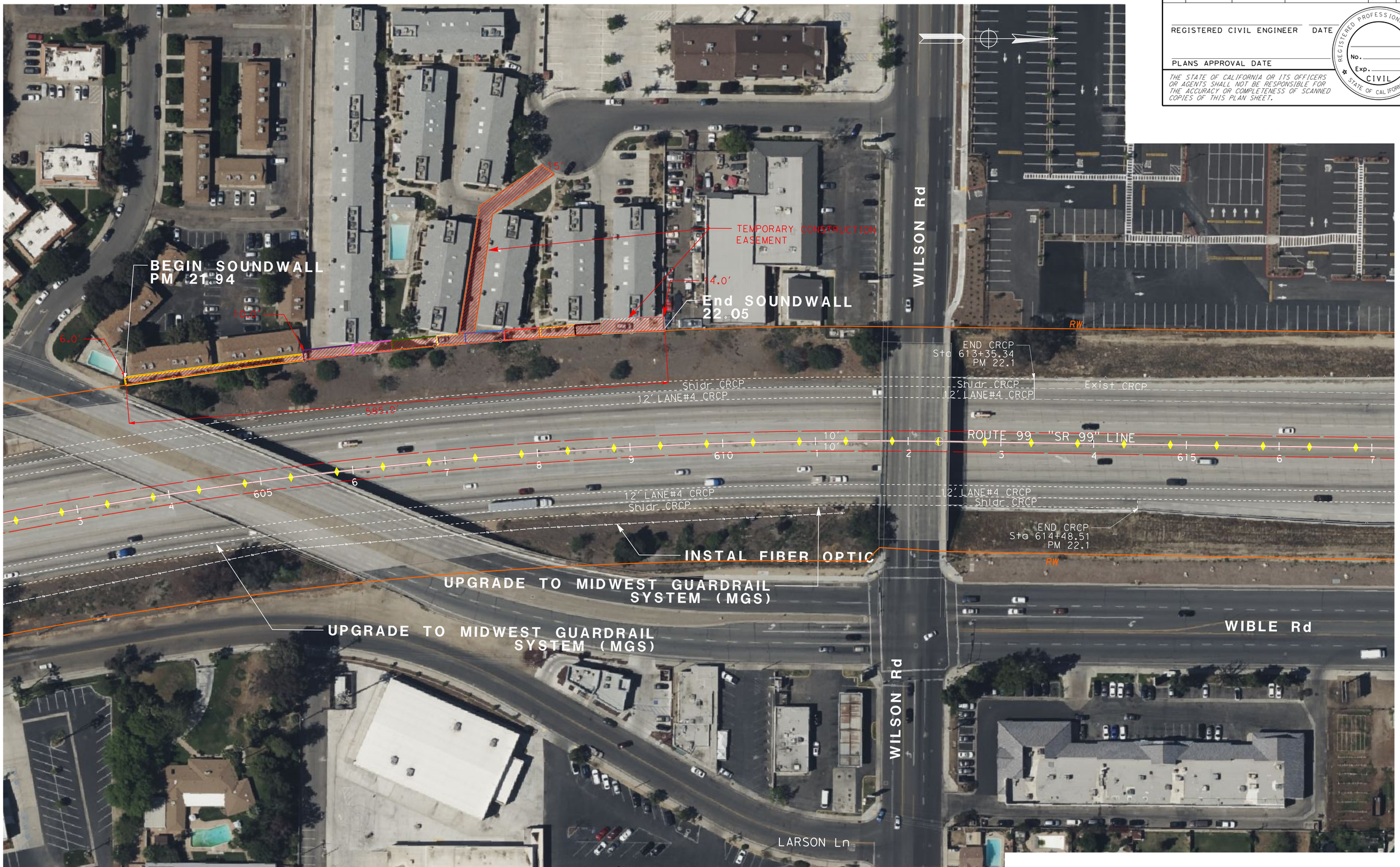

LAYOUT 4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
BRANCH I
FUNCTIONAL SUPERVISOR: HARKI SHERGILL
CALCULATED-DESIGNED BY: SAMAN MIRKARIMI
CHECKED BY: SELVAN PAUL
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 11-20-22
DATE PLOTTED => 1/30/2024
TIME PLOTTED => 10:04:52 AM

BORDER LAST REVISED 7/2/2010
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1477
PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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MODIFY/COMPLETE RMS
PM 22.4

REPLACE DAMAGED LOOPS
AT Exist VDS PM 22.2

ROUTE 99 "SR 99" LINE

Exist CRCP

12' LANE#4 CRCP
Exist CRCP

10'
10'

620 625 630

8 9 1 2 3 4 6 7 8 9 1 2

RW

LAYOUT 5

CALCULATED-DESIGNED BY

CHECKED BY

REVISED BY

DATE REVISED

SAMAN MIRKARIMI

SELVAN PAUL

FUNCTIONAL SUPERVISOR

HARKI SHERGILL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

BRANCH I

Caltrans

LAST REVISION DATE PLOTTED => 1/30/2024
TIME PLOTTED => 9:07:59 AM

11-20-22

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_5.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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MODIFY SIGNALIZED INTERSECTION
MING Ave to SR 99 ON-RAMP
PM 22.6

MING Ave

Exist CRCP

Exist CRCP

ROUTE 99 "SR 99" LINE

12' LANE#4 CRCP

Exist CRCP

Exist CRCP

RW

REPLACE CCTV
PM 22.5

RW

MODIFY SIGNALIZED INTERSECTION
PM 22.6

LAYOUT 6

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY

CHECKED BY

SAMAN MIRKARIMI

SELVAN PAUL

FUNCTIONAL SUPERVISOR

HARKI SHERGILL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BRANCH 1

LAST REVISION | DATE PLOTTED => 1/30/2024
TIME PLOTTED => 9:08:41 AM

BORDER LAST REVISED 7/2/2010

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DGN FILE => ...\Plans\Layouts\06-0X370_6.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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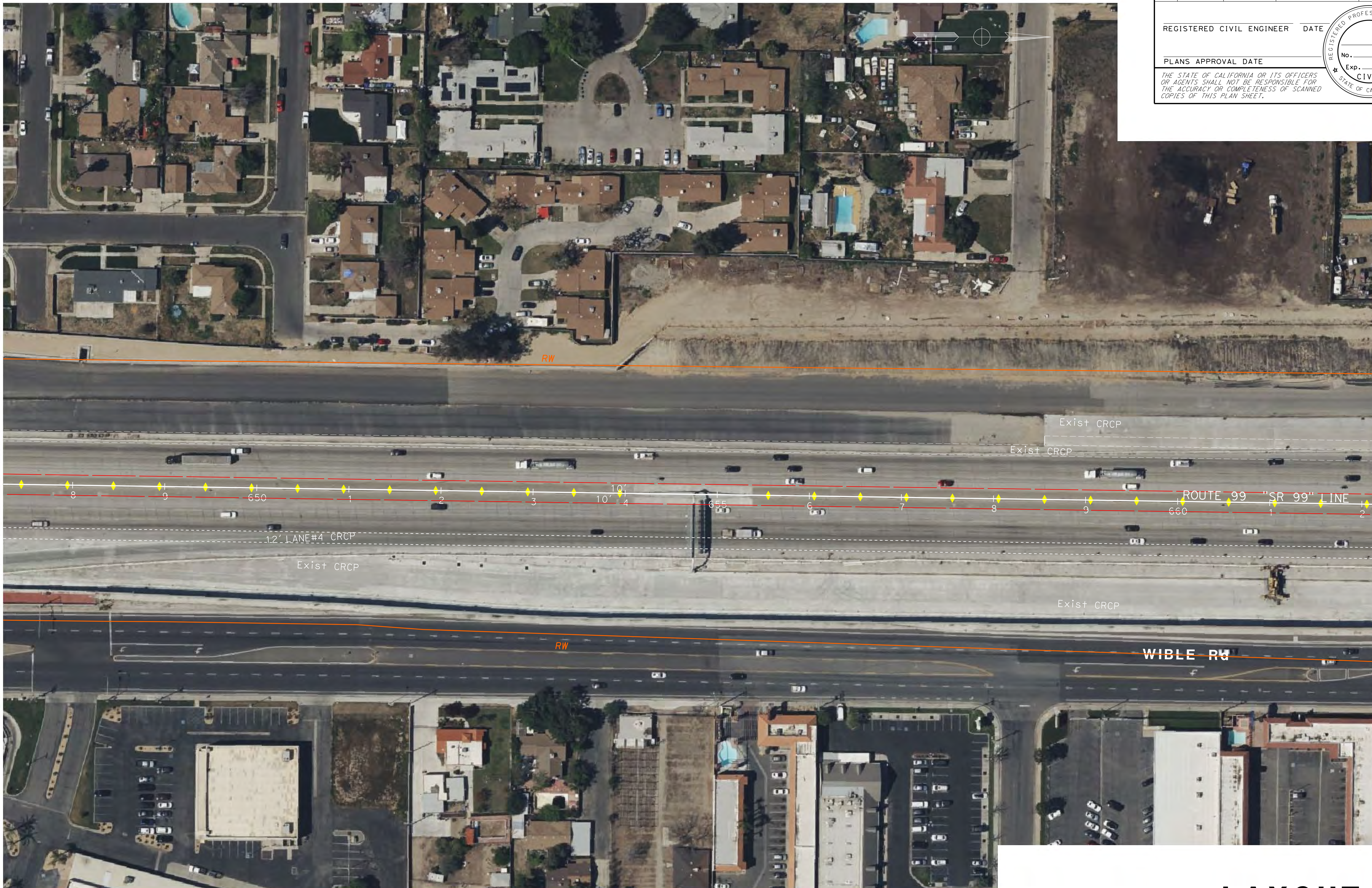

LAYOUT 7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BRANCH I

FUNCTIONAL SUPERVISOR: HARKI SHERGILL

CALCULATED-DESIGNED BY: SAMAN MIRKARIMI

CHECKED BY: SELVAN PAUL

REVISED BY

DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_7.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

LAST REVISION 11-20-22

DATE PLOTTED => 1/30/2024
TIME PLOTTED => 9:09:29 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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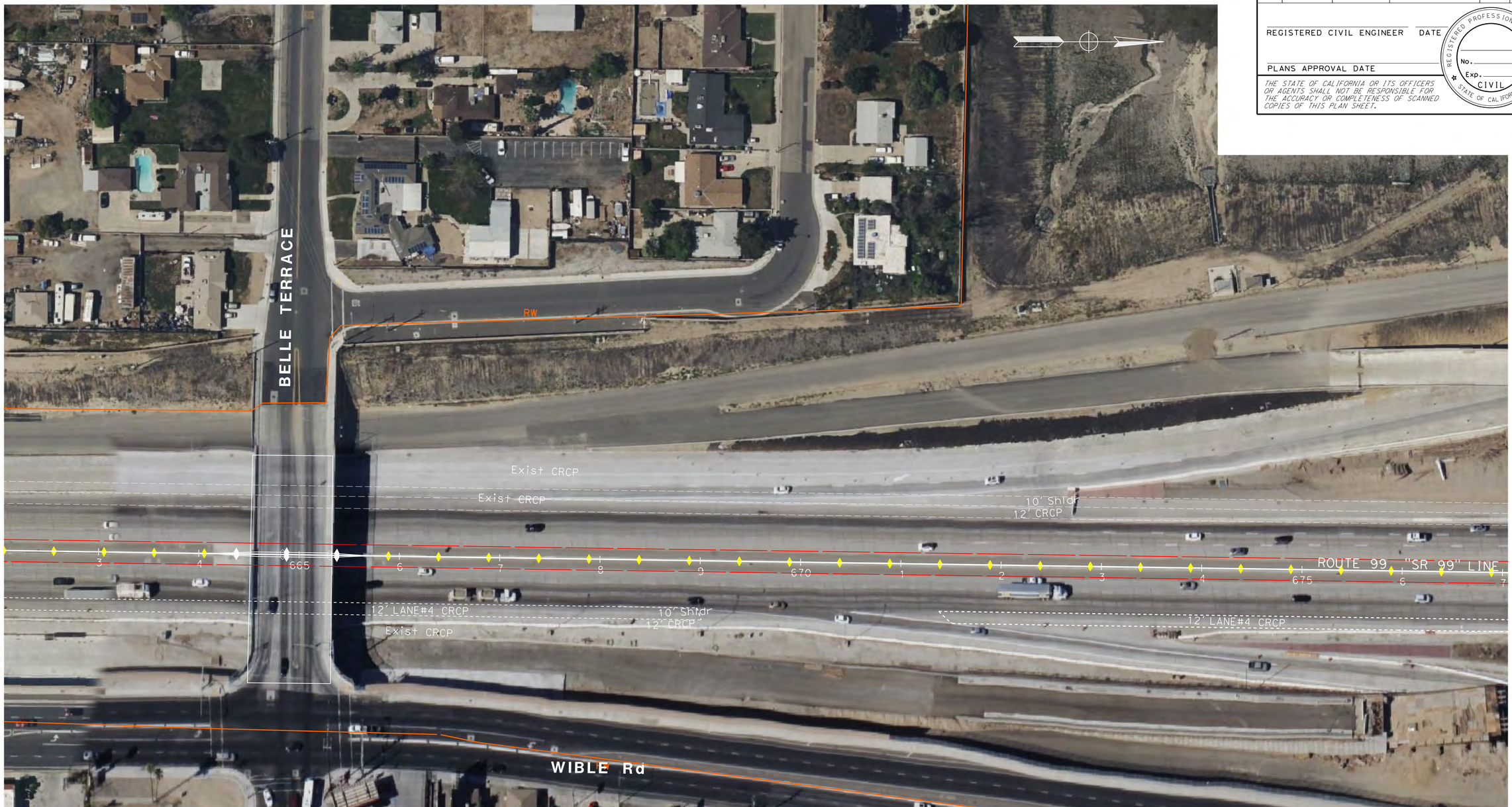

LAYOUT 8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
BRANCH I
FUNCTIONAL SUPERVISOR HARKI SHERGILL
CALCULATED-DESIGNED BY SAMAN MIRKARIMI
CHECKED BY SELVAN PAUL
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 1/30/2024
TIME PLOTTED => 9:10:12 AM
11-20-22

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_8.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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LAYOUT 9

CALCULATED- DESIGNED BY
CHECKED BY

SAMAN MIRKARIMI REVISED BY
SELVAN PAUL DATE REVISED

FUNCTIONAL SUPERVISOR
HARKI SHERGILL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
BRANCH 1

LAST REVISION
DATE PLOTTED => 1/30/2024
TIME PLOTTED => 9:10:51 AM

BORDER LAST REVISED 7/2/2010

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DGN FILE => ...\Plans\Layouts\06-0X370_9.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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LAYOUT 10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BRANCH I

FUNCTIONAL SUPERVISOR: HARKI SHERGILL

CALCULATED-DESIGNED BY: SAMAN MIRKARIMI

CHECKED BY: SELVAN PAUL

DATE REVISED	REVISED BY

LAST REVISION
DATE PLOTTED => 1/29/2024
TIME PLOTTED => 4:54:42 PM

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_10.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN IV

FUNCTIONAL SUPERVISOR: HARKI SHERGILL

CALCULATED-DESIGNED BY: SAMAN MIRKARIMI

CHECKED BY: SELVAN PAUL

REVISED BY

DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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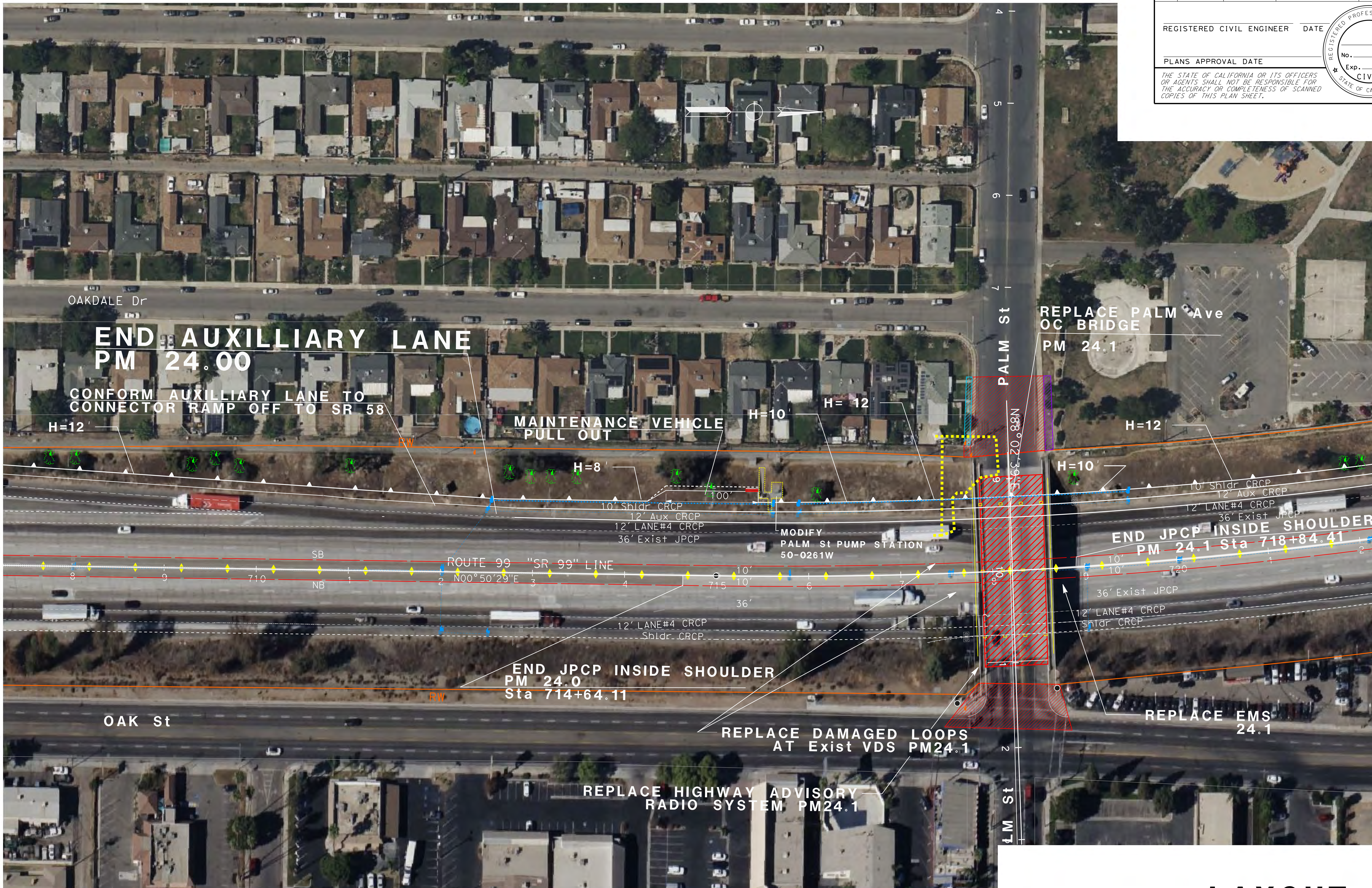

LAYOUT 11

BORDER LAST REVISED 7/2/2010

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DGN FILE => ...\Plans\Layouts\06-0X370_11.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

LAST REVISION 11-20-22

DATE PLOTTED => 1/29/2024
TIME PLOTTED => 1:44:59 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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CHESTER Ln

PM 24.4

BEGIN RETAINING WALL
PM 24.35
Sta 731+15.34, 79.9 Lt

END CRCP LANE #4
PM 24.3
Sta 726+68.99

DI RELOCATION AND PIPE EXTENTION

DS #1

H=10'

H=9'

H=9'

H=4'

R/W

10' Shldr CRCP
12' AUX CRCP
12' LANE#4 CRCP
12' Exist CRCP
12' Exist CRCP
24' Exist JPCP
ROUTE 99 "A1" LANE
24' Exist JPCP
12' Exist CRCP
12' Exist CRCP
10' Exist Shldr
12' LANE#4 CRCP
Shldr CRCP

SB
NB
725
730
735

REPLACE DAMAGED LOOPS
AT Exist DCS PM 24.3

END CRCP LANE #4
AND OUTSIDE SHOULDER
PM 24.2 Sta 723+55.64

LAYOUT 12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
BRANCH I
FUNCTIONAL SUPERVISOR: HARKI SHERGILL
CALCULATED-DESIGNED BY: SAMAN MIRKARIMI
CHECKED BY: SELVAN PAUL
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 1/29/2024
TIME PLOTTED => 11:51:50 PM

BORDER LAST REVISED 7/2/2010
USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_12.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1477
PROJECT NUMBER & PHASE 0618000059

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	099	21.1/24.6	X	X

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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LAYOUT 13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans®

FUNCTIONAL SUPERVISOR	HARKI SHERGILL
BRANCH I	
CALCULATED-DESIGNED BY	SAMAN MIRKARIMI
CHECKED BY	SELVAN PAUL
REVISED BY	
DATE REVISED	

LAST REVISION 11-20-22

DATE PLOTTED => 1/29/2024
TIME PLOTTED => 5:11:11 PM

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\Plans\Layouts\06-0X370_13.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1477

PROJECT NUMBER & PHASE 0618000059

Attachment D

Project Report Cost Estimate

PROJECT

PROJECT REPORT COST ESTIMATE

EA: 06-0X370

EA: 06-0X370

PID: 0618000059

District-County-Route: 06-KER-99

PM: 21.15 - 24.6

Type of Estimate : PROJECT REPORT

Program Code : SHOPP / 201.120

Project Limits : Route 99 PM 21.15 to 24.6

Project Description: Roadway Rehabilitation (3R)

Scope : CRCP lane 4 each direction, Aux Lane, JPCP inside shoulers, failed slab replacement of lanes 1-3 , install TMS elements, Replace OH Signs, install soundwall, replace Palm Ave OC, and Widen California Ave UC.

Alternative : Preferred

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	**$ 54,754,500**	**$ 63,100,429**
TOTAL STRUCTURES COST	**$ 19,689,768**	**$ 22,690,972**
SUBTOTAL CONSTRUCTION COST	**$ 74,444,268**	**$ 85,791,401**
TOTAL RIGHT OF WAY COST	**$ 599,688**	**$ 694,214**
TOTAL CAPITAL OUTLAY COSTS	**$ 75,044,000**	**$ 86,486,000**
PA/ED SUPPORT	**$ 5,000,000**	**$ 5,000,000**
PS&E SUPPORT	**$ 8,000,000**	**$ 8,000,000**
RIGHT OF WAY SUPPORT	**$ 790,000**	**$ 790,000**
CONSTRUCTION SUPPORT	**$ 11,100,000**	**$ 11,100,000**
TOTAL SUPPORT COST	**$ 24,890,000**	**$ 24,890,000**
TOTAL PROJECT COST	**$ 99,934,000**	**$ 111,376,000**

Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2024
Estimated Construction Start (Month/Year)	3	/	2027
Number of Working Days =			450
Estimated Mid-Point of Construction (Month/Year)	2	/	2028
Estimated Construction End (Month/Year)	2	/	2029
Number of Plant Establishment Days			1095

Estimated Project Schedule

PID Approval	August-19
PA/ED Approval	January-24
PS&E	January-26
RTL	July-26
Begin Construction	March-27

Approved by Project Manager — Shavonne Conley — 01/16/24 — (559) 383-5609

Project Manager — **Date** — **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,215,000
2	**Pavement Structural Section**	$	21,875,800
3	**Drainage**	$	303,100
4	**Specialty Items**	$	3,145,900
5	**Environmental**	$	2,681,800
6	**Traffic Items**	$	8,436,200
7	**Detours**	$	20,000
8	**Minor Items**	$	1,160,400
9	**Roadway Mobilization**	$	3,983,900
10	**Supplemental Work**	$	1,037,700
11	**State Furnished**	$	1,762,800
12	**Time-Related Overhead**	$	990,000
13	**Total Roadway Contingency**	$	7,141,900
	TOTAL ROADWAY ITEMS	**$**	**54,754,500**

Estimate Prepared By :	Selvan Paul	10/12/23	559-355-4687
	Selvan Paul, Project Engineer	Date	Phone
Estimate Reviewed By :		10/12/23	559-383-5832
	Harkirat Shergill, Design Manager	Date	Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

EA: 06-0X370 PID: 0618000059

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	47,000	x	45.00	=	$	2,115,000
19010X	Roadway Excavation (Insert Type) ADL	CY		x		=	$	-
19801X	Imported Borrow	CY		x		=	$	-
194001	Ditch Excavation	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
17010X	Clearing & Grubbing	LS	1	x	100,000.00	=	$	100,000
100100	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
21012X	Duff	ACRE		x		=	$	-
418002						=		

TOTAL EARTHWORK SECTION ITEMS	**$**	**2,215,000**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY	10,160	x	410.00	=	$	4,165,600
400050	Continuously Reinforced Concrete Pavement	CY	21,100	x	360.00	=	$	7,596,000
390132	Hot Mix Asphalt (Type A)	TON	9,500	x	120.00	=	$	1,140,000
250201	Class 2 Aggregate Subbase	CY		x		=	$	-
260203	Class 2 Aggregate Base	CY	10,248	x	80.00	=	$	819,840
414240	Isolation Joint Seal	LF	24,350	x	10.00	=	$	243,500
414240	Isolation Joint Seal (Asphalt Rubber)	LF		x		=	$	-
414241	Isolation Joint Seal (Silicone)	LF		x		=	$	-
731521	Minor Concrete (Sidewalk)	CY	70	x	1,050.00	=	$	73,500
410096	Drill and Bond (Dowel Bar)	EA	27,035	x	22.00	=	$	594,770
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
391006	Asphalt Binder (Geosynthetic Pavement Interlayer)	TON		x		=	$	-
360200	Base Bond Breaker	SY	42,054	x	4.25	=	$	178,730
37400x	Asphaltic Emulsion (Paint Binder)	TON		x		=	$	-
397005	Tack Coat	TON	11	x	950.00	=	$	10,450
377501	Slurry Seal	TON		x		=	$	-
XXXXXX	Remove and Construct Dike	LS	1	x	100,000.00	=	$	100,000
XXXXXX	Tapered Edge (Concrete & HMA)	LS	1	x	120,000.00	=	$	120,000
731530	Minor Concrete (Textured Paving)	CY	450	x	745.00	=	$	335,250
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Insert Type)	LF		x		=	$	-
398100	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD	112,808	x	5.00	=	$	564,040
411105	Individual Slab Replacement (RSC)	CY	10,514	x	540.00	=	$	5,677,560
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
41800X	Remove Concrete Pavement	SQYD/CY		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
398200	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
846046	6" Rumble Strip (Asphalt Concrete Pavement)	STA		x		=	$	-
846049	6" Rumble Strip (Concrete Pavement)	STA		x		=	$	-
846051	12" Rumble Strip (Asphalt Concrete Pavement)	STA		x		=	$	-
846052	12" Rumble Strip (Concrete Pavement)	STA		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
066395A	Smoothnes Incentive	LS	1	x	256,500.00	=	$	256,500
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**21,875,800**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
71013X	Remove Culvert	EA/LF	314	x	40.00	=	$	12,560
710150	Remove Inlet	EA	42	x	1,000.00	=	$	42,000
710370	Remove Downdrain	EA	2	x	750.00	=	$	1,500
71010X	Abandon Culvert	EA/LF		x		=	$	-
710196	Adjust Inlet	EA	47	x	2,000.00	=	$	94,000
710262	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
731627	Minor Concrete (Curb, Sidewalk, and Curb Ramp)	CY		x		=	$	-
6101XX	XX" Alternative Pipe Culvert (Insert Type)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
650014	18" Reinforced Concrete Pipe	LF	816	x	150.00	=	$	122,400
650018	24" Reinforced Concrete Pipe	LF	180	x	170.00	=	$	30,600
6901XX	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thic	LF		x		=	$	-
7006XX	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
7032XX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Insert Class)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS	**$**	**303,100**

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
5100XX	Structural Concrete	CY		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
5201XX	Bar Reinforcing Steel	LB		x		=	$	-
080050	Progress Schedule (Critical Path Method)	LS		x		=	$	-
582001	Sound Wall (Masonry Block)	SQFT	5,500	x	60.00	=	$	330,000
XXXXX	Other Soundwall Cost	LS	1	x	200,000.00	=	$	200,000
60005X	Remove Sound Wall	LF/LS/SQFT		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	3,000.00	=	$	3,000
140003	Asbestos Compliance Plan	LS	1	x	3,000.00	=	$	3,000
839774	Remove Concrete Barrier	LF	18,200	x	25.00	=	$	455,000
839640	Concrete Barrier (Type 60M)	LF	21,324	x	83.00	=	$	1,769,892
141120	Treated Wood Waste	LB		x		=	$	-
839750	Remove Barrier	LF		x		=	$	-
839752	Remove Guardrail	LF	500	x	20.00	=	$	10,000
710167	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Insert Type)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-X)	EA		x		=	$	-
8320XX	Midwest Guardrail System (Insert Type)	LF	750	x	60.00	=	$	45,000
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
839566	Terminal System (Type CAT)	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x	3,500.00	=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
XXXXX	Sounwall	LS		x	650,000.00	=	$	-
8396XX	Pump Plant modification/staris	LS	1	x	300,000.00	=	$	300,000
8331XX	Concrete Barrier (Insert Type)	LF		x		=	$	-
475010	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
780460	Anti-Graffiti Coating	SQFT		x		=	$	-
780450	Rock Stain	SQFT		x		=	$	-
4730XX	Reinforced Concrete Crib Wall (Insert Type)	SQFT		x		=	$	-
83954X	Transition Railing (Type WB-31)	EA	4	x	7,500.00	=	$	30,000
780440	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Insert Type)	EA		x		=	$	-

TOTAL SPECIALTY ITEMS	**$**	**3,145,900**

Effective immediately, districts must input estimated item quantities in blue text above in the PRSM database for the pay items listed in the Design Memo, dated April 9, 2018, when Project Report is approved (Milestone 200). Link to Desgin Memo.

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
XXXXXX	Biological Mitigation (on-site) Monitoring	LS	1	x	155,000.00	=	$	155,000		
141000	Temporary Fence (Type ESA)	LF	1,000	x	8.00	=	$	8,000		
XXXXXX	Lead Compliance Plan	LS	1		3,000.00		$	3,000		
XXXXXX	Asbestos Compliance Plan	LS	1		3,000.00		$	3,000		
XXXXXX	Storm water work/plant	LS	1		9,160.00		$	9,160		
XXXXXX	CDFW Filing Fee	LS	1	x	2,764.00	=	$	2,764		
									$	*180,924*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20000x	Replacement Planting	SF	198,536	x	5.00	=	$	992,680		
20XXXX	Planting with Noise Barriers	SF	48,324	x	5.00	=	$	241,620		
20409x	Irrigation Modification	LS	1	x	58,000.00	=	$	58,000		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
206405	Remove Irrigation Facility	LS		x		=	$	-		
204096	Maintain Existing Planted Areas	LS		x		=	$	-		
20XXXX	Irrigation Crossovers	LF	765	x	100.00	=	$	76,500		
20XXXX	Relocate Existing Irrigation Facilities	LS	1	x	165,600.00	=	$	165,600		
832070	Vegetation Control	SQYD	80	x	250.00	=	$	20,000		
20XXXX	Pavement Beyond the Gore Area	SQFT	18,000	x	8.00	=	$	144,000		
20XXXX	Maintenance Vehicle Pullout	EA	4	x	11,000.00	=	$	44,000		
21011X	Imported Topsoil	CY/TON		x		=	$	-		
200114	Rock Blanket	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
995100	Water Meter Charges	LS		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation	LF		x		=	$	-		
									$	*1,742,400*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
211111	Erosion Control	SQFT	174,240	x	0.45	=	$	78,408		
210010	Move-In/Move-Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF		x		=	$	-		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (Insert Type)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210610	Compost	CY		x		=	$	-		
210630	Incorporate Materials	SQFT								
									$	*78,408*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,800.00	=	$	10,800		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	115,000.00	=	$	115,000		
130330	Storm Water Annual Report	EA	2	x	2,000.00	=	$	4,000		
130310	Rain Event Action Plan	EA		x		=	$	-		
130320	Storm Water Sampling and Analysis Day	EA		x		=	$	-		
130520	Temporary Hydraulic Mulch	SQYD	5,695	x	1.50	=	$	8,543		
130550	Temporary Hydroseed	SQYD	5,695	x	3.00	=	$	17,085		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	11	x	1,000.00	=	$	11,000		
130640	Temporary Fiber Roll	LF	3,000	x	7.00	=	$	21,000		
130900	Temporary Concrete Washout	LS	1	x	50,000.00	=	$	50,000		
130710	Temporary Construction Entrance	EA	6	x	5,000.00	=	$	30,000		
700617	Drainage Inlet Marker	EA	42	x	100.00	=	$	4,200		
130620	Temporary Drainage Inlet Protection	EA	42	x	200.00	=	$	8,400		
130730	Street Sweeping	LS	1	x	400,000.00	=	$	400,000		
								Subtotal NPDES	*$*	*680,028*

								TOTAL ENVIRONMENTAL	**$**	**2,681,800**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	21,000.00	=	$	21,000		
066596	Additional Water Pollution Control**	LS	1	x	8,000.00	=	$	8,000		
066597	Storm Water Sampling and Analysis***	LS	1	x	3,000.00	=	$	3,000		
066916	Annual Con General Permit	LS	1	x	4,000.00	=	$	4,000		
									$	*36,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
******	Modify or Replace Signalized intersection	LS	1	x	1,125,000.00	=	$	1,125,000
870200	Lighting System	LS	1	x	700,000.00	=	$	700,000
*****	Replace/Modify loops an sensors	LS	1	x	244,000.00	=	$	144,000
888888	Extinguishable Message Sign	LS	1	x	40,000.00	=	$	40,000
870510	New and Modify Ramp Metering Systems	LS	1	x	1,315,000.00	=	$	1,315,000
87181X	Replace Highway Advisory Radio System	LS	1	x	87,000.00	=	$	87,000
871900	Fiber Optic Cable Systems	LS	1	x	572,000.00	=	$	572,000
5602XX	Replace CCTV camera	EA	1	x	20,000.00	=	$	20,000
5602XX	Modify Traffic Count Stations	LB	1	x		=	$	-
4980XX	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
87011X	Inductive Loop Detector	EA/LS		x		=	$	-
870600	Traffic Monitoring Station System	LS		x		=	$	-
56804X	Remove Sign Structure	EA/LS		x		=	$	-
568054	Reconstruct Sign Structure	EA		x		=	$	-
568060	Modify Sign Structure	EA		x		=	$	-
870009	Elements During Construction	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *4,003,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
820840	Roadside Sign - One Post	EA		x		=	$	-
XXXXXX	Roadside Sign - Two Posts	LS		x		=	$	-
566XXX	Roadside Signs and Overhead Signs	LS	1	x	829,200.00	=	$	829,200
5602XX	Furnish Sign Structure (Insert Type)	SQFT		x		=	$	-
820890	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
846020	Remove Painted Traffic Stripe	LS	1	x	142,250.00	=	$	142,250
141102	Remove Yellow Painted Traffic Stripe (Hazardous W	LF		x		=	$	-
846025	Remove Painted Pavement Marking	SQFT		x		=	$	-
820250	Remove Roadside Signs	LS	1	x	125,450.00	=	$	125,450
820530	Reset Roadside Sign	EA		x		=	$	-
820610	Relocate Roadside Sign	EA		x		=	$	-
8101XX	Delineator (Insert Class)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (Enhanced Wet Night Visibility)	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	77,000.00	=	$	77,000
84XXXX	Permanent Pavement Delineation	LS	1	x	452,000.00	=	$	452,000

Subtotal Traffic Signing and Striping $ *1,625,900*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
128652	Portable Changeable Message Sign	LS	1	x	$ 15,000	=	$	15,000

Subtotal Traffic Management Plan $ *15,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120198	Plastic Traffic Drums	EA		x		=	$	-
12016X	Channelizer (Insert Type)	EA		x		=	$	-
120116	Type II Barricade	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	700,000.00	=	$	700,000
XXXXXX	Temporary Crash Cushion/Barrier System	LS	1	x	1,045,000.00	=	$	1,045,000
129000	Temporary Railing (Type K)	LF	35,000	x	16.00	=	$	560,000
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
120152	Temporary Pavement Marking (Tape)	SQFT		x		=	$	-
128650	Portable Changeable Message Signs	EA/LS		x		=	$	-
1201XX	Traffic Handling Items Including Detour	LS	1	x	130,750.00	=	$	130,750
XXXXXX	Temp striping/Traffic handling items	LS	1	x	356,500.00	=	$	356,500

Subtotal Stage Construction and Traffic Handling $ *2,792,250*

TOTAL TRAFFIC ITEMS $ **8,436,200**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	CY/TON		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Insert Type)	LF		x		=	$	-
XXXXXX	Temp Pedestrian Access	LS	1	x	20,000	=	$	20,000

TOTAL DETOURS	**$**	**20,000**

SUBTOTAL SECTIONS 1 through 7	$	38,677,800

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				1.0%	$	386,778	
8B - Bike Path Items							
Bike Path Items				0.0%	$	-	
8C - Other Minor Items							
Other Minor Items				2.0%	$	773,556	
Total of Section 1-7	$	38,677,800	x	3.0%	=	$	1,160,334

TOTAL MINOR ITEMS	**$**	**1,160,400**

SECTIONS 9: ROADWAY MOBILIZATION *

Item code								
999990	Total Section 1-8	$	39,838,200	x	10%	=	$	3,983,820

TOTAL ROADWAY MOBILIZATION	**$**	**3,983,900**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS	1	x	106,247.06	=	$	106,247
066094	Value Analysis	LS	1	x	10,000.00	=	$	10,000
066070	Maintain Traffic	LS	1	x	332,000.00	=	$	332,000
066919	Dispute Resolution Board	LS	1	x	15,000.00	=	$	15,000
066921	Dispute Resolution Advisor	LS	1	x	10,000.00	=	$	10,000
066015	Federal Trainee Program	LS	1	x	50,000.00	=	$	50,000
066610	Partnering	LS	1	x	70,000.00	=	$	70,000
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS	1	x	10,000.00	=	$	10,000
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	36,000
	Total Section 1-8	$	39,838,200		1%	=	$	398,382

TOTAL SUPPLEMENTAL WORK	**$**	**1,037,700**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	275,000.00	=	$275,000
066063	Traffic Management Plan - Public Information	LS	1	x	10,400.00	=	$10,400
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS	1	x	1,079,000.00	=	$1,079,000
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8	$	39,838,200		1%	= $	398,382

TOTAL STATE FURNISHED $1,762,800

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $52,714,312 (used to calculate total TRO)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **5.00**

Item code		Unit	Quantity		Unit Price ($)		Cost
090100	Time-Related Overhead	WD	450	X	$2,200	=	$990,000

TOTAL TIME-RELATED OVERHEAD $990,000

SECTION 13: ROADWAY CONTINGENCY*

Risk Amount from Risk Register	(for Known Risks)				0%		
Additional or Residual Contingency	(for Unknown/Undefined Risks)				20%		$9,522,520
Total Section 1-12	$	47,612,600	x	**15%**	=		$7,141,890
				%			

TOTAL CONTINGENCY* $7,141,900

II. STRUCTURE ITEMS

	Palm		**Widen Ca UC**		
DATE OF ESTIMATE	07/18/23		07/18/23		00/00/00
Bridge Name	Palm Ave OC		California Ave UC		xxxxxxxxxxxxxxxxxx
Bridge Number	50-0261		50-0260		57-XXX
Structure Type	Concrete Tee Beam		PC/PS I-Girder		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	86 LF		15 LF		0 LF
Total Bridge Length (Feet)	212 LF		160 LF		0 LF
Total Area (Square Feet)	18232 SQFT		3661 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$350				$0
COST OF EACH	**$8,557,000**		**$1,631,000**		**$0**

(Approximately

	Retaining walls				
DATE OF ESTIMATE	07/18/23		00/00/00		00/00/00
Building Name	Soil nail wall(s) for Aux lane		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	NA		57-XXX		57-XXX
Structure Type	Retaining Wall		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	2590 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	25900 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	NA		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$103		$0		$0
COST OF EACH	**$2,688,112**		**$0**		**$0**

Bridge Removal (Palm Ave OC)	**$375,600.00**
TOTAL COST OF BRIDGES	**$10,188,000**
TOTAL COST OF WALLS	**$2,688,112**

Time-Related Overhead	10%	**$1,287,611**
STRUCTURES MOBILIZATION	10%	**$1,287,611**
STRUCTURES CONTINGENCY*	25%	**$3,862,834**

TOTAL COST OF STRUCTURES	**$19,689,768**

Estimate Prepared By: Matt Schott — 45,078

XXXXXXXXXXXXXXXX ------ Division of Structures — Date

EA: 06-0X370 PID: 0618000059

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way Data Sheet.

				Current Value Future Use		***Escalated Value***
A)	A1)	Acquisition, including Excess Land, Fees, Damages, Goodwill	$	58,306	$	67,497
	A2)	Acquisition of Offsite Mitigation	$	3,455	$	4,000
	A3)	Railroad Acquisition	$	0	$	0
B)	B1)	Utility Relocation (State Share)	$	496,875	$	575,195
	B2)	Potholing (Design Phase)	$		$	0
C)	Utility - Advance Engineering Estimate (Encumber with State Only Funds)		$		$	0
D)	RAP and/or Last Resort Housing		$	0	$	0
E)	Clearance & Demolition		$	0	$	0
F)	Relocation Assistance (RAP and/or Last Resort Housing Costs)		$	0	$	0
G)	Title and Escrow		$	41,052	$	47,523
H)	Environmental Review		$	0	$	0
I)	Condemnation Settlements	0%	$	0	$	0
J)	Design Appreciation Factor	0%	$	0	$	0
K)	Utility Relocation (Construction Cost)		$	0	$	0

173283

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$599,688**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$694,214**
N)	**RIGHT OF WAY SUPPORT**	**$0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] _____ Phone

Utility Estimate Prepared By _____ Utility Coordinator[2] _____ Phone

R/W Acquisition Estimate Prepared By _____ Right of Way Estimator[3] _____ Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

Attachment E

Final Environmental Document

Bakersfield 99 Rehabilitation II (South)

State Route 99 between White Lane Overcrossing
and California Avenue Undercrossing in Bakersfield in Kern County
06-KER-99-21.15/24.60
06-0X370/0618000059
State Clearinghouse Number 2023080051

Initial Study with Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

September 2023

Caltrans

General Information About This Document

Document prepared by: Cuauhtemoc Galvan, Environmental Planner

The Initial Study circulated for public review and comment for 31 days between August 4, 2023 and September 4, 2023. Comments received during this period are included in Appendix C. Elsewhere, language has been added throughout the document to indicate where a change has been made since the circulation of the draft environmental document. Minor editorial changes and clarifications have not been so indicated.

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For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Shane Gunn, District 6 Environmental, 2015 East Shields Avenue, Suite 100, Fresno, California 93726; phone number 559-832-0051 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711. Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

State Clearinghouse Number 2023080051
06-KER-99-21.15/24.60
06-0X370/0618000059

Rehabilitate State Route 99 from post miles 21.15 to 24.60 in Kern County

INITIAL STUDY
with Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agency: California Transportation Commission

Philip Vallejo

Philip Vallejo
Deputy District Director
Environmental
California Department of Transportation
CEQA Lead Agency

9/12/2023

Date

The following individual can be contacted for more information about this document:

Shane Gunn, 2015 East Shields Avenue, Suite 100, Fresno, California 93726; telephone: (559) 832-0051; email: shane.gunn@dot.ca.gov

Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: 2023080051
District-County-Route-Post Mile: 06-KER-99-PM 21.15/24.60
EA/Project Number: 06-0X370/0618000059

Project Description

The California Department of Transportation (Caltrans) proposes to resurface, restore, and rehabilitate State Route 99 in Kern County from post miles 21.15 to 24.60. An auxiliary lane will be constructed between California Avenue and the southbound State Route 99 to eastbound State Route 58 connector ramp. The auxiliary lane will require the construction of a new retaining wall, widening of the California Avenue Undercrossing, and replacement of the Palm Avenue Overcrossing. Also, a soundwall will be constructed between the Wilson Road Overcrossing and the Wible Road Overcrossing.

Determination

An Initial Study has been prepared by Caltrans District 6. On the basis of this study, it is determined that the proposed action will not have a significant effect on the environment for the following reasons:

The project will have no effect on aesthetics, agriculture and forest resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, paleontological resources, population and housing, public services, parks and recreational facilities, tribal cultural resources, utilities and service systems, and wildfire.

The project will have a less than significant impact on air quality, biological resources, greenhouse gas emissions, and noise.

Philip Vallejo

Philip Vallejo
Deputy District Director
Environmental
California Department of Transportation

9/12/2023
Date

Table of Contents

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to resurface, restore, and rehabilitate a segment of State Route 99 in Kern County from just north of the White Lane Overcrossing to the California Avenue Overcrossing. The total length of the project is 3.45 miles. Figures 1-1 and 1-2 show the project location and vicinity maps.

This pavement rehabilitation 3R (resurfacing, restoration, and rehabilitation) project is included in the 2022 State Transportation Improvement Program and is funded from the 2020 State Highway Operations and Protection Program-Roadway Rehabilitation 3R 20.XX.201.120 for the 2025-2026 fiscal year. The City of Bakersfield has committed $30 million of its State Transportation Improvement Program (Regional Improvement Program) funding for this project.

The project's estimated cost is $66,000,000; construction is expected to begin in the spring of 2025 and end in 2026.

The existing State Route 99 roadway in the project area is an urban, 8-lane freeway on mostly level terrain. This portion of State Route 99 is a major highway and important travel link between the San Joaquin Valley and Southern California. It serves the major population centers in the San Joaquin Valley as well as the rural agricultural areas with smaller towns and communities. Commuter, recreational, and truck traffic uses State Route 99 within the project limits. The proposed project will improve operations and reduce congestion within the region.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to restore this segment of State Route 99 to a state of good repair so that future maintenance efforts and expenditures are minimized. The project will improve safety and address operational and geometric deficiencies and relieve congestion between California Avenue and the State Route 99/58 interchange. The project will also improve Transportation Management System elements and ramp metering, and install a soundwall.

1.2.2 Need

The condition of the pavement within the project limits has severely deteriorated due to considerable storm damage and a heavy amount of truck traffic on this segment. This has resulted in increased costs to maintain existing pavement and the inability of state forces to maintain this section of freeway continuously in good condition for the travelling public. There is a need for a more permanent repair in the form of reconstruction of the number four lanes with continuously reinforced concrete pavement and replacement of failed panels in lanes one through three.

[The following information was edited since the draft environmental document was circulated]. Existing traffic congestion is being caused by inadequate maneuverability between the southbound California Avenue on-ramp and the State Route 99/State Route 58 interchange; an auxiliary lane is needed to improve queuing and maneuverability for this segment. Also, there is a need for improving or installing Traffic Management System and safety device elements to meet current Caltrans operational and safety standards throughout the project limits. In addition, noise levels along southbound State Route 99 between Wilson Road and Grassotti Court have exceeded Federal Highway Administration standards, and a soundwall is needed.

1.3 Project Description

Caltrans proposes to resurface, restore, and rehabilitate State Route 99 in Kern County from post miles 21.15 to 24.60. The project will rehabilitate the number four lane and outside shoulder in both directions with continuously reinforced concrete pavement and replace failing concrete slabs in the number one through number three lanes.

[The following information was edited since the draft environmental document was circulated]. To relieve congestion and improve operational deficiencies, an auxiliary lane will be constructed between California Avenue and the southbound State Route 99 to eastbound State Route 58 eastbound connector ramp. An auxiliary lane provides extra room for motorists' lane changes, truck climbing and speed changes along the route. The auxiliary lane will require construction of a new retaining wall, widening of the California Avenue Undercrossing, and replacement of the Palm Avenue Overcrossing.

A soundwall will be constructed between the Wilson Road Overcrossing and the Wible Road Overcrossing. The project will also upgrade or install new safety barriers, signs, and Traffic Management System elements throughout the project limits to meet current standards.

Figure 1-1 Project Vicinity Map

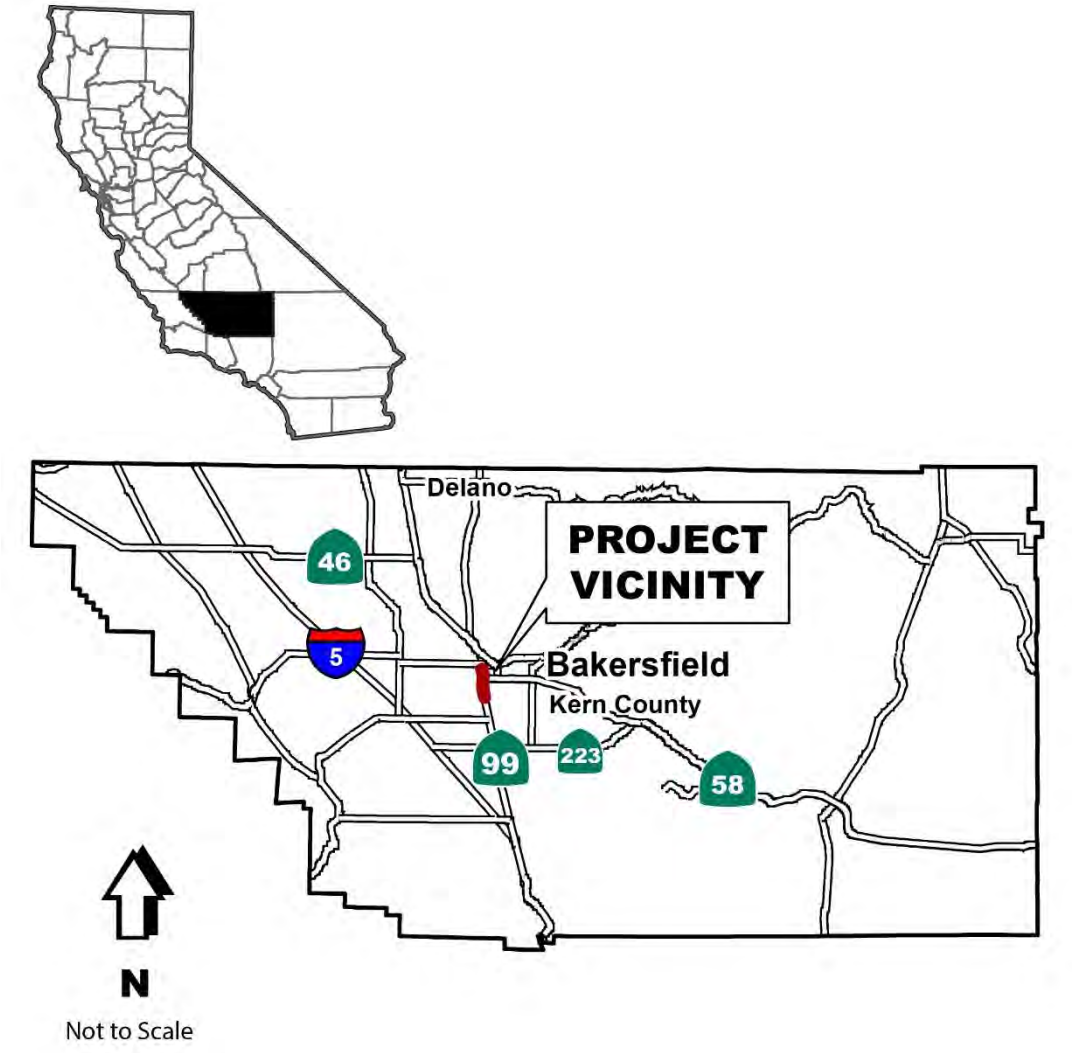
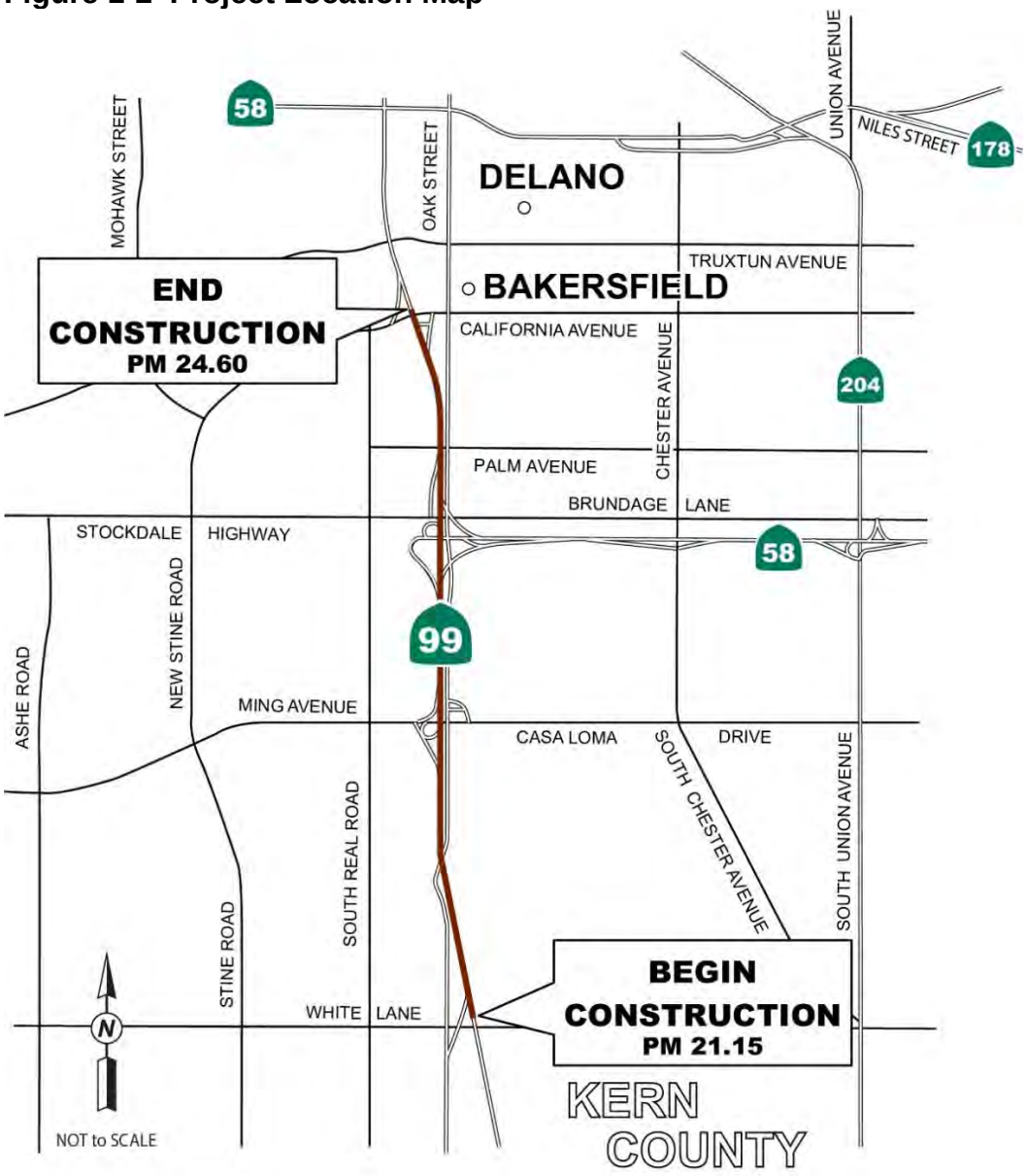


Figure 1-2 Project Location Map



1.4 Project Alternatives

Two alternatives—the Build Alternative and the No-Build Alternative—are being considered for the project.

1.4.1 Build Alternative

The Build Alternative will rehabilitate the roadway and improve drainage elements and Transportation Management Systems within the project limits. Work will include the following:

Pavement:

- Rehabilitate the number four lane with a 14-foot panel of continuously reinforced concrete pavement using 2 feet as part of the shoulder, and widen and reconstruct the remaining outside shoulder with continuously reinforced concrete pavement to current standards where feasible.

- Replace the failed panels in the number one, two and three lanes with rapid strength concrete pavement in both the northbound and southbound directions.

Auxiliary Lane:

- [Additional information was added to this bullet since the draft environmental document was circulated]. Install a new 12-foot continuously reinforced concrete pavement southbound auxiliary lane between California Avenue and the eastbound State Route 58 connector. The new auxiliary lane is in a cut section of the freeway, and a new retaining wall, approximately 3,000 feet long and up to 14 feet tall, will be required. The auxiliary lane will be approximately 0.76 mile long.

- Replace the Palm Avenue Overcrossing structure to accommodate the auxiliary lane. The replacement structure will be designed to allow a future auxiliary lane in the northbound direction.

Soundwall:

- Install a soundwall west of State Route 99, approximately between Wilson Road and the Wible Road Overcrossing. The soundwall will be 10 feet high and approximately 820 feet long.

Other Safety Upgrades:

- Modify existing traffic count stations, vehicle detection and classification systems along with existing lighting systems. Install new closed-circuit

television and fiber optic systems at various locations within the project limits.

- Replace and install 1,400 feet of drainage system pipe, replace or modify 29 lighting elements, and rehabilitate or replace 11 overhead sign structures.

- Replace 30 Traffic Management System elements, and install 17 new Traffic Management System elements within the project limits.

- Remove and upgrade the existing metal beam guardrail with the new Midwest Guardrail System.

Right-of-Way:

- Require temporary construction easements to install the soundwall and work on the Palm Street Overcrossing bridge.

Construction is scheduled to start in the spring of 2025 and is expected to take 400 working days, with about 50 days of nightwork.

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would maintain the existing facility on State Route 99 in its present condition. The pavement would continue to deteriorate, which would result in ongoing costly maintenance and rough pavement for the travelling public. Heavy truck traffic and non-standard spacing between vehicles would continue operational deficiencies and increase congestion in the project area. Current sound levels for nearby receptors would remain the same; there would be no decrease in noise. This alternative does not meet the purpose and need of the project.

1.5 Identification of a Preferred Alternative

[Section 1.5 Identification of a Preferred Alternative has been added since the draft environmental document was circulated.] Caltrans has selected the Build Alternative as the preferred alternative. The No-Build Alternative will not meet the purpose and need of the project, which is to improve safety and address operational and geometric deficiencies and relieve congestion between the project limits on State Route 99.

1.6 Standard Measures and Best Management Practices Included in All Build Alternatives

Air Quality—To effectively reduce and control emission impacts during construction, Caltrans Standard Specifications, Section 14-9.02 “Air Pollution Control” and Section 10-5 “Dust Control,” will be included in the bid package.

Biology—Caltrans Standard Specifications Section 14-6.03 Species Protection: Pertains to protecting regulated species and their habitat that occur within or near the job site. Upon discovery of a regulated species, notify the resident engineer.

Hazardous Waste—Applicable Standard Special Provisions that will be included in the bid package may include, but are not limited to, Standard Special Provisions Section 7-1.02K(6)(j)(ii) Lead Compliance Plan; Standard Special Provisions Section 7-1.02K (6)(j)(iii)—ground disturbance of unregulated materials; Standard Special Provisions Section 14-11.08—ground disturbance of regulated Aerially Deposited Lead materials; Standard Special Provisions Section 14-11.12 Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue; Standard Special Provisions Section 14-11.16 Asbestos-Containing Construction Materials in Bridges; Standard Special Provisions Section 14-11.14—disposal and handling of treated wood waste; Standard Special Provisions Section 36-4 Residue Containing Lead from Paint and Thermoplastic.

Noise Quality—Caltrans Standard Specifications Section 14-8.02 Noise Control, which pertains to controlling and monitoring noise resulting from work activities, will be included in the bid package. Noise levels must not exceed 86 A-weighted decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. All equipment must be fitted with adequate mufflers and operated according to the manufacturers’ specifications.

1.7 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, has been prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—that is, species protected by the Federal Endangered Species Act).

1.8 Permits and Approvals Needed

No permits, licenses, agreements, or certifications are required for project construction.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant Impact with Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A "No Impact" answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

"No Impact" determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated July 2023, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**No Impact**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**No Impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**No Impact**

2.1.2 Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Considering the information in the California Department of Conservation's California Important Farmland Finder visited in February 2023 and the U.S. Department of Agriculture's Forest Service Map visited in May 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	**No Impact**
c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	**No Impact**
d) Result in the loss of forest land or conversion of forest land to non-forest use?	**No Impact**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	**No Impact**

2.1.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Considering the information in the Air Quality Memorandum dated November 9, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	**No Impact**
c) Expose sensitive receptors to substantial pollutant concentrations?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Air Quality
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**Less Than Significant**

Affected Environment

The project is on State Route 99 from 0.07 mile north of the White Lane Overcrossing to the California Avenue Overcrossing in the City of Bakersfield in Kern County. It lies within the San Joaquin Valley Air Basin. The San Joaquin Valley, almost 300 miles long, stretches from the Tehachapi Mountains in the south to the Sacramento-San Joaquin River Delta in the north. The Sierra Nevada Mountain Range forms the eastern boundary of the valley, while the lower Coastal Ranges form the boundary on the west. Kern County has an arid climate with very hot, dry summers, and winters that consist of mild days with cold nights. Precipitation in the San Joaquin Valley ranges from 8 to 13 inches annually, with about 70 percent of the annual rainfall occurring between December and April.

For particulate matter pollutants—broken down into particles of 2.5 micrometers and smaller (particulate matter 2.5) and particles of 10 micrometers or smaller (particulate matter 10)—the project area lies in a portion of the San Joaquin Valley Air Basin that is in nonattainment for particulate matter 2.5 and attainment/maintenance for particulate matter 10. According to the Environmental Protection Agency's conformity guidance, particulate matter 2.5 hotspot analysis is required for Projects of Air Quality Concern in nonattainment and maintenance areas. Projects that are exempt or not Projects of Air Quality Concern do not require a hotspot analysis.

The project was submitted to Interagency Consultation Partners on October 14, 2022. Concurrence that the project is not a Project of Air Quality Concern was received on October 24, 2022 from the Environmental Protection Agency and on October 31, 2022 from the Federal Highway Administration. See Appendix B for the interagency consultation approval correspondence.

Environmental Consequences

Build Alternative—Construction Phase

During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also expected and would include carbon monoxide, nitrogen oxides, volatile organic compounds, directly emitted particulate matter 2.5 and particulate matter 10 and toxic air contaminants, such as diesel exhaust particulate

matter. A temporary increase in traffic resulting from construction will create a localized increase in emissions from traffic.

Construction emissions were estimated for the Build Alternative. Construction emissions for the project were calculated using the Caltrans Construction Emissions Tool (CAL-CET) v1.1. Project construction is expected to generate about 2,739 tons of carbon dioxide during the 400 working days of the project.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications Section 14-9.02 Air Pollution Control and Section 10-5 Dust Control require the contractor to comply with the air pollution control rules, ordinances, regulations, and statutes that apply to work performed under the contract, including those provided in Government Code Section 11017.

A Dust Control Plan approved by the San Joaquin Air Pollution Control District is needed if at least 2,500 cubic yards of material are moved in a day for at least 3 days of the project, or 5 or more acres of land will be disturbed during construction.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study (Minimal Impacts) dated August 12, 2021 and the Biological Assessment dated January 3, 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	**Less Than Significant Impact**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**No Impact**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**No Impact**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**No Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**No Impact**

Affected Environment

For details of biological studies, please refer to the Natural Environment Study and the Biological Assessment in Volume 2.

The project limits extend between post miles 21.15 and 24.60 on State Route 99 in the City of Bakersfield in Kern County. The topography of the project area is relatively flat, and State Route 99 is set slightly lower than the surrounding developments. The Biological Study Area is defined as the immediate project area, plus a 200-foot buffer around it. The Biological Study Area encompasses about 173 acres of immediate project footprint and 212 acres of study area that is exposed to temporary impacts. The Biological Study Area spans across 3.5 miles of urban landscape and contains mostly disturbed ruderal habitat. Ruderal vegetation is typical of areas where the native vegetation has been heavily modified or completely removed due to human interference.

The City of Bakersfield is highly developed with residential and commercial buildings throughout. The surrounding land consists of paved sidewalks, paved roadways, and other residential and commercial buildings. Habitats within the study area consist mostly of ornamental species that are maintained on a regular basis. These include native, invasive, and landscaped shrubs and trees that have been planted to beautify portions of the freeway.

Special-Status Animal Species

Two special-status animal species were identified in species queries and have historical records of occurrence or potentially suitable habitats near the study area. No observations were made during in-the-field animal surveys. With implementation of avoidance and minimization measures, no permanent habitat impacts are expected, and compensatory mitigation is not proposed.

The project may affect but is not likely to adversely affect the following species and their habitats.

San Joaquin Kit Fox (Vulpes macrotis mutica)

The San Joaquin kit fox is a small canid native to the San Joaquin Valley and is listed as a federally endangered and state threatened species.

On average, this species weighs about 5 pounds and stands about 12 inches tall. The San Joaquin kit fox is mostly nocturnal (active at night) and feeds on small nocturnal rodents. These kit foxes typically use various types of agricultural land for denning sites and suitable prey bases. They can also use human-made structures such as culverts and pipes for denning. Historically, this species prefers alkali scrub/shrub, oak woodland, vernal pool communities, and arid grassland habitat.

The San Joaquin kit fox has been found in most of the San Joaquin Valley, ranging from the native valley and foothill grasslands to surrounding foothills. No San Joaquin kit foxes were seen during general wildlife surveys. Though denning and foraging habitat was not found in the action area, the San Joaquin kit fox could cross through the action area.

Swainson's Hawk (Buteo swainsonii)

Swainson's hawks are broad-winged hawks that migrate to the San Joaquin Valley during summer months from Central and South America. Swainson's hawks forage in grasslands and agricultural fields. Their main food sources are small mammals, birds, and insects. These hawks roost and nest typically in large trees. Breeding occurs from late March into late August.

Swainson's hawks are known to occur along State Route 99 throughout Central California, but no occurrences have been documented in or adjacent to the project area. The project limits were surveyed during the 2021 nesting season, and no Swainson's hawks or nesting structures were found. Though there are suitable nesting trees for raptors within the study area, the State Route 99 corridor through the City of Bakersfield offers little to no foraging habitat.

Environmental Consequences

San Joaquin Kit Fox

The ruderal habitat next to State Route 99 has very low habitat value, and the inner area of the ramp loops offers limited denning and foraging habitat. The

project will temporarily disturb up to the entire 173 acres of urban habitat within the project limits. These areas are near active kit fox sightings and have the potential to be used for kit fox dispersal and foraging.

Construction activities, such as noise from construction equipment and light pollution used during nighttime work, may affect the San Joaquin kit fox. The nighttime disturbance is expected to last for 50 working days. Installation of Type K temporary railing may also increase the risk of vehicle strikes in the active work zone or along State Route 99, but openings will be placed in the railing to allow for wildlife passage. Type K temporary railing is a modular concrete barrier used to separate lanes of traffic.

Night work increases the risk of San Joaquin kit foxes being exposed to hazardous and dangerous conditions because kit foxes are generally most active at night. It is possible that dispersing San Joaquin kit foxes could move near or across work areas overnight. However, San Joaquin kit foxes will be expected to avoid active work sites due to human presence, lighting, and active machinery. Avoidance of the action area could cause a temporary reduction in movement. This impact is expected to be minimal since there are no current sightings or evidence of scat (kit fox droppings) or prey remains within the action area.

Swainson's Hawk

Tree and vegetation removal is anticipated where widening of the outside shoulder of State Route 99 is feasible and where the auxiliary lane will be added between California Avenue and the eastbound State Route 58 connector ramp. Other trees within the Biological Study Area would be suitable for nesting birds and raptors. If nests are found farther than 500 feet from the Biological Study Area, any noise or disturbance from construction would have no greater impact to a Swainson's hawk than the current disturbances from traffic along State Route 99.

No impacts to the Swainson's hawk are anticipated with the implementation of avoidance and minimization measures.

Avoidance, Minimization, and/or Mitigation Measures

San Joaquin Kit Fox

Caltrans and its contractor will implement the following measures to avoid adverse effects to the kit fox. A "qualified biologist," as referenced in this section, refers to an individual who, at a minimum, holds a four-year degree in a relevant biological field and who has demonstrated knowledge of, and experience with, this species.

- *Environmental Awareness Training.* Prior to the start of work/ground disturbance, a qualified biologist will provide worker environmental awareness training for all construction personnel, including contractors,

subcontractors, and contractors' representatives, covering the status of the species; how to identify the species and its habitat; the importance of avoiding impacts to the species; the laws that protect it; and what to do if an individual is encountered during construction. New construction personnel who are added to the project after the training is first conducted also will be required to take the training. Caltrans will keep documentation of the training on file, including sign-in sheets, and will make these available to the Service upon request.

- *Staging*. Staging areas will be surveyed and approved for use by a qualified biologist prior to the start of construction and will be designated clearly with stakes or flagging.

- *Preconstruction Survey*. A qualified biologist will conduct a preconstruction survey no more than 30 days prior to the beginning of ground disturbance and/or construction activities. The survey for the kit fox will be performed throughout the project footprint, as well as in areas 200 feet out from the edge of the footprint that are accessible and/or visible with binoculars. Caltrans will provide the Service with written notification (email or letter) of the survey results.

- *Den Avoidance*. Disturbance to any known or natal dens identified during preconstruction surveys and/or construction will be avoided. Caltrans will implement the following for any potential, known, or natal dens discovered within, or outside of, the project footprint:

    - *Potential Dens*. Prior to the start of work, all potential dens detected within the project footprint will be monitored by a qualified biologist for kit fox presence for four consecutive nights using a remote sensor camera. If there is no detection of the kit fox or other animal activity, these potential dens will be either i) protected by 50-foot exclusion zones, or ii) plugged/blocked temporarily or collapsed to discourage the kit fox from denning during construction, and then re-checked immediately prior to groundbreaking to ensure they remain plugged/blocked or collapsed and do not show evidence of animal entry or use. A qualified biologist will check any plugged/blocked dens every two weeks to ensure the exclusion device remains intact throughout construction. If the kit fox is detected using any dens, sub-measure b) below will apply.
    - *Known and Natal Dens*. Any known dens will be protected by 100-foot exclusion zones, and natal dens will be protected by 200-foot exclusion zones. The exclusion zones will be demarcated by types of fencing or flagging that do not entangle the kit fox or prevent ingress/egress. A qualified biologist will ensure that this fencing/flagging is maintained for the duration of construction and is repaired or replaced as necessary. If either den type is detected onsite, Caltrans will contact the Service to discuss how to proceed, including possible initiation of formal

consultation if known and/or natal dens cannot be avoided by construction.

- *Monitoring*. A qualified biologist will be present onsite during initial ground-disturbing activities in proximity to any potential, known, or natal dens. The biologist also will be available on-call throughout construction if the kit fox is observed either onsite or near the project footprint.

    - *Nighttime Monitoring*. Where there is suitable habitat present for the kit fox (e.g., at the California Avenue, State Route 58, Ming Avenue, and White Lane interchanges; and along the shoulders), a qualified biologist will conduct at least two worksite monitoring checks for the kit fox per night between the hours of dusk and dawn (e.g., at least one half-hour in the period before sunset to one hour following sunset, and again for at least one half-hour in the period before sunrise to one hour following sunrise). Depending on the results of early monitoring efforts, Caltrans may decide to either increase or decrease the frequency of these checks. Caltrans may reduce its monitoring frequency once it detects no kit foxes during at least half of the proposed nights of work.

- *Inspection of Structures and Equipment*. All construction pipes or similar structures with a diameter of 4 inches or greater that are stored overnight on the construction site will be inspected thoroughly for the kit fox or other wildlife before burying, capping, moving, or using the structures. Vehicles and other equipment that could provide shade or shelter also will be inspected for animal presence prior to use. If an individual is discovered during these inspections, the structure or vehicle will not be disturbed until the individual leaves of its own accord.

- *Escape Ramps*. To prevent the inadvertent entrapment of the kit fox or other wildlife during construction of the project, all excavated, steep-walled openings (e.g., holes, basins, trenches) more than 1 foot deep will be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or planks. Before any such openings are filled, they will be inspected thoroughly for trapped wildlife. If at any time a trapped or injured species is discovered, Caltrans will stop work immediately and contact the Service.

- *Limit Artificial Lighting.* The use of temporary artificial lighting at night will be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction will be confined to areas within the construction footprint and directed away from surrounding sensitive habitat. Caltrans will limit non-target casting of stationary lights by using shielding around the light source to further confine the illumination.

- *Trash Disposal*. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed, secured containers,

and removed daily from the project site to eliminate the potential for attracting predator species.

- *Prohibition of Pets, Firearms, and Pesticides*. To eliminate the potential for disturbance or injury to, or death of, the kit fox or any other species resulting from the presence of pets and firearms, neither will be allowed on the project site (except for firearms carried, or working animals handled, by authorized law enforcement officials). No rodenticides or herbicides will be used on the project site during construction.

- *Vehicle Speed Limits*. All project-related vehicles will observe a daytime speed of no more than 20 miles per hour and a nighttime speed of no more than 10 miles per hour in all project areas, except on the highway and local roads. Off-road travel outside of designated project areas will be prohibited. Project personnel will be provided with guidance on vehicle use and speed limits.

- A U.S. Fish and Wildlife Service-approved biologist will be present onsite during initial ground-disturbing activities occurring within 500 feet of any potential or known dens identified in the project footprint.

- Any newly discovered potential or atypical dens located within the project footprint will be monitored and, once they are verified to be unoccupied, they will be temporarily blocked (via sandbagging or installation of a one-way door) for the duration of the project, for no more than one season. A letter report will be submitted to the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife prior to the start of ground disturbance and/or construction activities.

- Preconstruction surveys will be conducted within the study area no more than 30 days prior to the start of construction to determine any presence of kit fox dens. A letter report and map of known and potential kit fox dens will be submitted to the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife prior to the start of ground disturbance and/or construction activities.

    - If a natal/pupping den is observed during preconstruction surveys, U.S. Fish and Wildlife Service will be notified to determine an appropriate course of action.

- A U.S. Fish and Wildlife Service-approved biologist will check the closed den site(s) every two weeks to ensure the exclusion device remains intact for the project duration, not to exceed one season. If animal activity is observed, the biologist will monitor the site, verify the den is unoccupied, and apply new temporary exclusion. The exclusion device will be removed after approval is received from the U.S. Fish and Wildlife Service.

- A U.S. Fish and Wildlife Service-approved biologist may monitor nighttime construction activities within 500 feet of any potential or known dens identified in the project footprint (if feasible) in the event the exclusion device is temporarily compromised. Once the exclusion device is intact, the monitoring will cease. Monitoring will take place for one-half hour before sunset up to one hour following sunset and again for one-half hour before sunrise up to one hour following sunrise.

- Temporary railing (Type K) modified with openings will be used in the project area to allow passage during nighttime construction activities.

- Fencing would be installed between any dens and work areas, which would be designated as Environmentally Sensitive Areas. The fencing would be placed to include a 20-foot buffer around the den openings and 3 feet beyond the edge of pavement. The fencing would also be checked every two weeks to ensure it remains intact for the project duration, not to exceed one season (in the case of dens only). The fencing would be removed upon approval from U.S. Fish and Wildlife Service.

With implementation of avoidance and minimization measures, compensatory mitigation is not proposed for the San Joaquin kit fox.

Swainson's Hawk

- Preconstruction surveys will be completed according to "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (May 31, 2001) during nesting season (February 1 to September 30) the year prior to groundbreaking activities to ensure no nesting Swainson's hawks will be affected if construction is to occur during the nesting season.

- If nesting Swainson's hawks are observed onsite, then the nest site will be designated an Environmentally Sensitive Area, with a buffer zone of 500 feet until it has been determined that the young have fledged and are no longer reliant on the nest.

- A biologist will be present to monitor any active nests during construction activities.

- A special provision for migratory birds will be included to ensure that no potential nesting migratory birds are affected during construction activities.

- Removal of any trees within the project area should be done outside of the nesting season; however, if a tree within the project area needs to be removed during the nesting season, a qualified biologist will inspect the tree prior to removal to ensure that no nests are present.

With the implementation of avoidance and minimization measures, compensatory mitigation is not proposed for the Swainson's hawk.

No-Build Alternative

No impacts to biological resources are expected under the No-Build Alternative.

2.1.5 Cultural Resources

Considering the information in the Cultural Screening Memorandum dated January 12, 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	**No Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**No Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

2.1.6 Energy

Considering the information in the Energy Memorandum dated March 9, 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	**No Impact**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**No Impact**

2.1.7 Geology and Soils

Considering the information in the California Department of Conservation Earthquake Zone Map visited February 2023, California Department of Conservation Landslide Map visited May 2023, Alquist-Priolo Earthquake Fault Zoning Map visited May 2023, and Caltrans Paleontological

Identification/Evaluation Report dated September 25, 2018, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	**No Impact**
ii) Strong seismic ground shaking?	**No Impact**
iii) Seismic-related ground failure, including liquefaction?	**No Impact**
iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**No Impact**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**No Impact**
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**No Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**No Impact**

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change Memorandum dated March 9, 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**No Impact**

Affected Environment

The project lies on State Route 99 in Kern County between the White Lane Overcrossing and the California Undercrossing in Bakersfield in Kern County. State Route 99 connects San Joaquin Valley cities and communities to areas north and south through the state. Within the southern San Joaquin Valley, State Route 99 is used heavily by truck traffic, with the surrounding areas offering light industrial, residential, and commercial land uses. The route in the project area is used heavily during peak hours.

The Kern Council of Governments 2022 Regional Transportation Plan/Sustainable Communities Strategy guides transportation and housing development in the project area. The Transportation Plan's Sustainability element addresses greenhouse gases and their reduction strategy for the region. The Sustainable Communities Strategy by Kern Council of Governments strives to reduce air emissions from passenger vehicles and light-duty truck travel by better coordinating transportation expenditures with forecasted development patterns and helping to meet greenhouse gas targets for Kern County.

Environmental Consequences

Greenhouse gas emissions impacts of non-capacity-increasing projects like the Bakersfield 99 Rehabilitation II (South) project are considered less than significant under CEQA because there will be no increase in operational emissions. However, construction equipment, traffic delays, and material processing and delivery may generate short-term greenhouse gas emissions during construction. Greenhouse gas emissions for the project were calculated using the Caltrans Construction Emissions Tool v1.1. Estimated emissions will be 2,739 tons of carbon dioxide per 400 working days.

While some construction greenhouse gas emissions will be unavoidable, implementing standard conditions or Best Management Practices designed to reduce or eliminate emissions as part of the project will reduce impacts to less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Best Management Practices will be implemented during construction activities. Caltrans Standard Specifications that will be incorporated include the following:

- Caltrans Standard Specifications Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes.
- Caltrans Standard Specifications Section 10-5, a Dust Control Plan approved by the San Joaquin Valley Air Pollution Control District, will be needed if at least 2,500 cubic yards of material are moved in a day for at least three days of the project or if 5 or more acres of land will be disturbed during construction.

No-Build Alternative

Avoidance, minimization, and/or mitigation measures will not be required for the No-Build Alternative.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment dated June 7, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**No Impact**
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	**No Impact**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	**No Impact**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	**No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**No Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

2.1.10 Hydrology and Water Quality

Considering the information in the Water Quality Compliance Memorandum dated August 2, 2021 and Floodplain Analysis Memorandum dated December 8, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	**No Impact**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No Impact**
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	**No Impact**
(iv) impede or redirect flood flows?	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	**No Impact**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**No Impact**

2.1.11 Land Use and Planning

Considering the information in the 2009 Kern County General Plan, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	**No Impact**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	**No Impact**

2.1.12 Mineral Resources

Considering the information in the 2009 Kern County General Plan, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	**No Impact**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	**No Impact**

2.1.13 Noise

Considering the information in the Noise Study Report dated July 28, 2021, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**Less Than Significant Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**Less Than Significant Impact**
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	**No Impact**

Affected Environment

A Noise Study Report was completed for the project in July 2021; a Noise Abatement Decision section will be included in the Project Report.

A field noise investigation was done to identify land uses that could be affected by traffic noise impacts from the addition of the auxiliary lane on State Route 99.

For the study, single-family residences and a mobile home community are identified as Activity Category B land uses. Hotels, motels, and businesses are identified as Activity Category E land uses. Agricultural fields, light industrial facilities, truck stops, and warehousing have no noise impact criteria, and noise levels for this category are reported for informational use only. Most noise receivers used in the noise investigation represented by residences have existing soundwalls that protect them from highway noise, as discussed in detail within the Noise Study Report. The topography of the project area within the project limits is fairly level, but State Route 99 is lower at most residential locations.

During the field visit on May 11, 2021, a total of 21 potentially impacted noise receivers were identified within the project limits. Due to access limitations to properties, only four noise receivers were used to collect short-term field measurements to aid in noise model validation; the rest of the receivers were modeled accordingly. The purpose of the field noise measurements was to calibrate the Traffic Noise Model so that the prediction of future noise levels could be made more accurately. As shown in Table 2-1, the existing noise levels for the 21 studied receivers vary between 62 decibels and 79 decibels.

The areas within the project limits and next to the project area are urban and have numerous single-family homes, apartment complexes, mobile home communities, commercial buildings and service stations. In determining traffic noise impacts, consideration is given to residential exterior areas where frequent human use occurs that would benefit from a lowered noise level. In general, an area of frequent human use is an area where people are exposed to traffic noise for an extended period of time on a regular basis.

The proposed improvements under the Build Alternative will not impact the future traffic volumes, and the forecasted traffic volumes would be the same whether the project is built or not. Since an auxiliary lane is proposed, the project meets the criteria as a Type I project according to the Caltrans 2020 Noise Protocol. The Caltrans Noise Study Report focused on the potential noise impacts generated from the addition of the auxiliary lane.

Table 2-1 Predicted Future Noise and Barrier Analysis

Receiver Number	Address	Sound-Wall Number	Existing Noise Levels (Decibels)	Design Year Noise Level without Project (Decibels)	Design Year Noise Level with Project (Decibels)	Activity Category (Noise Abatement Criteria Decibel Threshold)	Predicted Noise Level with 8-Foot Wall (Decibels)	Predicted Nosie Level with 10-Foot Wall (Decibels)	Predicted Noise Level with 12-Foot Wall (Decibels)	Noise Impact Requiring Abatement Consideration
Receiver 1	2700 White Lane, Bakersfield	N/A	70	70	70	E (72)	N/A	N/A	N/A	No
Receiver 2	3017 McCall Ave, Bakersfield	N/A	77	77	77	B (67)	N/A	69	N/A	Soundwall Exists
Receiver 3	3400 Wible Road, Bakersfield	N/A	75	75	75	C (67)	N/A	N/A	N/A	No Outdoor Gathering Location
Receiver 4	3101 Coventry Drive, Bakersfield	N/A	62	62	62	B (67)	N/A	N/A	N/A	No
Receiver 5	2600 Chandler Ct, Bakersfield	SW 1	74	74	74	B (67)	68	67	66	Yes, Included in Proposed Project
Receiver 6	1806 Westbrook Drive, Bakersfield	N/A	68	68	68	B (67)	N/A	59	N/A	Soundwall Exists
Receiver 7	2310 Wible Road, Bakersfield	N/A	70	70	70	B (67)	N/A	N/A	N/A	No

Receiver Number	Address	Sound-Wall Number	Existing Noise Levels (Decibels)	Design Year Noise Level without Project (Decibels)	Design Year Noise Level with Project (Decibels)	Activity Category (Noise Abatement Criteria Decibel Threshold)	Predicted Noise Level with 8-Foot Wall (Decibels)	Predicted Nosie Level with 10-Foot Wall (Decibels)	Predicted Noise Level with 12-Foot Wall (Decibels)	Noise Impact Requiring Abatement Consideration
Receiver 8	704 Wible Road, Bakersfield	N/A	74	74	74	B (67)	N/A	66	N/A	Soundwall Exists
Receiver 9	3321 Granada Avenue, Bakersfield	N/A	75	75	75	B (67)	N/A	65	N/A	Soundwall Exists
Receiver 10	3117 Terrace Way, Bakersfield	N/A	68	68	68	B (67)	N/A	60	N/A	Soundwall Exists
Receiver 11	118 Oak Street, Bakersfield	N/A	73	73	73	F	N/A	N/A	N/A	No Noise Abatement Criterion for this Land Use
Receiver 12	316 Oakdale Drive, Bakersfield	N/A	75	75	75	B (67)	N/A	65	N/A	Soundwall Exists
Receiver 13	300 Oak Street, Bakersfield	N/A	73	73	73	E (72)	N/A	N/A	N/A	No Outdoor Gathering Location
Receiver 14	3289 Chester Lane, Bakersfield	N/A	64	64	64	B (67)	N/A	N/A	N/A	No
Receiver 15	828 Real Road, Bakersfield	N/A	70	70	70	E (72)	N/A	N/A	N/A	No

Receiver Number	Address	Sound-Wall Number	Existing Noise Levels (Decibels)	Design Year Noise Level without Project (Decibels)	Design Year Noise Level with Project (Decibels)	Activity Category (Noise Abatement Criteria Decibel Threshold)	Predicted Noise Level with 8-Foot Wall (Decibels)	Predicted Nosie Level with 10-Foot Wall (Decibels)	Predicted Noise Level with 12-Foot Wall (Decibels)	Noise Impact Requiring Abatement Consideration
Receiver 16	3232 Mona Way, Bakersfield	N/A	63	63	63	B (67)	N/A	62	N/A	Soundwall Exists
Receiver 17	2801 Wible Road, Bakersfield	N/A	64	64	64	B (67)	N/A	N/A	N/A	No
Receiver 18	3309 Truman Avenue, Bakersfield	N/A	64	64	64	B (67)	N/A	N/A	N/A	No
Receiver 19	132 Oakdale Drive, Bakersfield	N/A	71	71	71	E (72)	N/A	62	N/A	Soundwall Exists
Receiver 20	2800 Larson Lane, Bakersfield	N/A	65	65	65	C (67)	N/A	N/A	N/A	No
Receiver 21	3231 Chester Lane, Bakersfield	N/A	79	79	79	F	N/A	N/A	N/A	No Noise Abatement Criterion for this Land Use

Environmental Consequences

The project is a Type 1 project defined by the Federal Highway Administration because it will increase the number of through-traffic lanes through the addition of an auxiliary lane and move traffic closer to receivers.

Within the project limits, 21 receivers were evaluated to determine if a soundwall was reasonable and feasible. Table 2-1 shows the receiver locations and their existing and future noise levels. Receiver 5 was the only location that qualified for noise abatement from a soundwall. The other 20 receivers did not qualify because of the lack of an outdoor gathering area, decibel levels not exceeding the threshold, land use of the receiver did not necessitate noise abatement, or a soundwall already exists in the area. The noise study concluded that one soundwall, as described in the project description, is needed adjacent to the auxiliary lane.

The proposed soundwall was not added to the project as a mitigation measure but was included in the project description as an identified need prior to the noise analysis.

Future Noise Environment and Impacts

The noise study was done to determine future traffic impacts of the project at frequent outdoor human use areas within the highway project limits. The future worst-case traffic noise impact at frequent outdoor human use areas along the project alignment was modeled for the Build Alternative to determine if included noise abatement measures were sufficient. This section discusses the future noise environment and feasible noise abatement measures for impacted locations.

Modeling results indicated that predicted traffic noise levels for the design year with-project conditions approach or exceed the noise abatement criteria of 67 decibels for land use (residential) at the Receiver 5 location within the project limits. Therefore, traffic noise impacts are predicted to occur within the study area, and noise abatement must be considered.

Receiver 5

Receiver 5 is for multi-family residence units (an apartment complex) on the west side of State Route 99 at 2600 Chandler Court. The noise level for the design year Build Alternative at Receiver 5, as shown in Table 2-1, is 74 decibels. This noise level is above the noise abatement criteria threshold of 67 decibels designated for this land use; therefore, appropriate abatement must be considered at this location.

Construction Noise

Temporary construction noise impacts will be unavoidable in areas next to the project. Noise from construction activities may intermittently dominate the noise environment in the immediate construction area.

Construction is expected to take 400 working days to complete; nightwork is anticipated. Temporary construction noise impacts will be unavoidable in areas immediately next to the project and will be minimized in residential areas during the evenings, weekend evenings, and holidays.

Certain construction activities could cause intermittent localized vibration in the project area. Processes such as earth-moving with bulldozers, use of vibratory compaction rollers, demolitions, or pavement breaking may cause construction-related vibration impacts such as human annoyance or, in some cases, building damages.

A combination of Caltrans mitigation techniques for equipment vibration control as well as administrative measures, when properly implemented, can be selected to provide the most effective means to minimize the effects of construction activity.

Application of standard minimization measures will reduce the construction impacts; however, temporary increases in vibration will likely occur at some locations within the project limits.

Avoidance, Minimization, and/or Noise Abatement Measures

The Noise Study Report analyzed noise barriers of heights ranging from 8 feet to 16 feet to determine feasible noise abatement. Soundwalls are considered feasible when they provide a noise reduction of at least 7 decibels. The Noise Reduction Design Goal, which is one measure in determining whether a soundwall is reasonable, is achieved when a noise barrier is predicted to provide a noise reduction of at least 7 decibels at one or more of benefitted receptors. Other considerations include topography, access requirements, other noise sources, and safety considerations.

Factors used in determining if a proposed noise abatement measure is reasonable include residents' acceptance and cost per benefitted home. From a cost perspective, the estimated cost of the noise barrier should be equal to or less than the total cost allowance calculated for the noise barrier to be considered reasonable.

Soundwall–Segment 1

This soundwall is proposed on the right-of-way west of State Route 99 between Wilson Road and the Wible Road Overcrossing with State Route 99 at 2600 Chandler Lane to provide noise attenuation for 10 units (total of 10 units in 5 buildings). The soundwall is proposed for a height of at least 10 feet and will extend approximately 820 feet. A 10-foot soundwall will provide the required attenuation of 5 decibels and meet the required design goal attenuation of 7 decibels. The soundwall will be high enough to be able to break the line of sight of an 11.5-foot truck stack.

The estimated cost allowance per benefitted residence, in this case Receiver 5, is based on a cost allowance of $1,070,000.

Because a soundwall is part of the proposed project description and construction noise is regulated by Caltrans Standard Specifications Section 14-8.02 Noise Control, no avoidance, minimization, and/or noise abatement measures are required.

2.1.14 Population and Housing

Considering the information in the 2009 Kern County General Plan (Housing Element Update 2015-2023) and the Caltrans Draft Project Initiation Report dated June 20, 2019, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	**No Impact**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	**No Impact**

2.1.15 Public Services

Considering that the project will not affect any government facilities or trigger the need for new facilities or government services, the following significance determinations have been made:

Question:	CEQA Significance Determinations for Public Services
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	**No Impact**
Police protection?	**No Impact**
Schools?	**No Impact**
Parks?	**No Impact**
Other public facilities?	**No Impact**

2.1.16 Recreation

Considering that the proposed project will not affect parks or recreational facilities or trigger the need for more recreational facilities to be constructed, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**No Impact**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	**No Impact**

2.1.17 Transportation

Considering the information in the Caltrans Traffic Management Plan dated May 24, 2019 and the Kern County General Plan, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	**No Impact**
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	**No Impact**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**No Impact**
d) Result in inadequate emergency access?	**No Impact**

2.1.18 Tribal Cultural Resources

Considering the information in the Cultural Screening Memorandum dated January 12, 2023, the following significance determinations have been made:

Would. the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	**No Impact**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**No Impact**

2.1.19 Utilities and Service Systems

Considering the information in the Caltrans Right-of-Way Data Sheet dated September 12, 2018 and the Caltrans Project Initiation Report dated June 20, 2019, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**No Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	**No Impact**
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	**No Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

2.1.20 Wildfire

Considering the information in the California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Maps, the following significance determinations have been made:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	**No Impact**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	**No Impact**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	**No Impact**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	**No Impact**

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	**No Impact**

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	**No Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**No Impact**

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49 | SACRAMENTO, CA 94273-0001
(916) 654-6130 | FAX (916) 653-5776 TTY 711
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September 2022

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment."

Appendix B Interagency Consultation Approval

[Appendix B Interagency Consultation Approval has been added since the draft environmental document was circulated.]

Hildebrand, Maya@DOT

From: OConnor, Karina (she/her) <OConnor.Karina@epa.gov>
Sent: Monday, October 24, 2022 10:19 AM
To: Hildebrand, Maya@DOT; Alex Marcucci; Bagde, Abhijit J@DOT; Ahron Hakimi (ahakimi@kerncog.org); Arellano, Alexus@DOT; Adams, Alicia@ARB; Lee, Anita (she/her); Ryan Niblock; Anna Myers; Antonio Johnson; Becky Napier (bnapier@kerncog.org); Ben Raymond; Blake Dunford; Braden Duran; Knecht, Carey@ARB; Hendrix, Dana E@DOT; Padilla, Dave@DOT; Cortez, David M@DOT; Deel, David@DOT; Derek Winning; Diane Nguyen (nguyen@sjcog.org); Dylan Stone (dylan@maderactc.org); Ed Flickinger; Edith Robles; Elisabeth Hahn; Elizabeth Wright (EWright@tularecog.org); Emma Goldsmith; Chin, Eric C@DOT; Espinosa Araiza, Erika@DOT; Thompson, Erin M@DOT; Becket, Forest P@DOT; Gabriel Gutierrez (ggutierrez@tularecog.org); Valencia, Gilbert@DOT; 'King, Heather@ARB'; Kahrs, Jacqueline J@DOT; 'Gentry, Jamaica@DOT'; Perrault, James R@DOT; Jasmine Amanin; Jeff Findley (Jeff@maderactc.org); Jennifer Soliz; Jessica Coria; Joseph Stramaglia (jstramaglia@kerncog.org); Joseph Vaughn (Joseph.Vaughn@dot.gov); Swearingen, Joshua B@DOT; Kai Han (khan@fresnocog.org); Romero, Ken J@DOT; Mariant, Kevin B@DOT; Kevin Wing; Vu, Khanh D@DOT; Kim Kloeb (kloeb@sjcog.org); Kristine Cai (kcai@fresnocog.org); Carr, Laura@ARB; Lawrence, Laura (she/her); Kimura, Lezlie@ARB; Huy, Lima A@DOT; Mendibles, Lorena@DOT; Sanchez, Lucas@DOT; Evans, Marcus B@DOT; Melany Arriola; Michael Corder; Michael Morris; Navarro, Michael@DOT; Kalandiyur, Nesamani@ARB; Fung, Nicholas@DOT; Isla, Nicholas@DOT; Singh, Parminder@DOT; Patricia Taylor (patricia@maderactc.org); patrick.pittenger@dot.gov; Marquez, Paul Albert@DOT; Martinez-Velez, Priscilla@DOT; Raquel Pacheco (rpacheco@kerncog.org); Rob Ball (rball@kerncog.org); Robert Phipps; Roberto Brady (RBrady@tularecog.org); Rochelle Invina; Tavitas, Rodney A@DOT; Mays, Rory; Rosa Park (rpark@stancog.org); Yazdi, Sadegh@DOT; Samuel Becker; Scherr, Sandra L@DOT; Santosh Bhattarai; 'Christian, Shalanda M@DOT'; Martinez, Steven R@DOT; Suriya Vallamsundar; Suzanne Martinez; Vanderspek, Sylvia@ARB; Ted Matley (Ted.Matley@fta.dot.gov); Ted Smalley (tsmalley@tularecog.org); Terri King (terri.king@co.kings.ca.us); Dumas, Thomas A@DOT; tom.jordan@valleyair.org; Tony Boren; Ty Phimmasone (ty.phimmasone@mcagov.org); Vincent Liu (vliu@kerncog.org); Choi, Yoojoong@DOT
Subject: RE: Correction: Caltrans - Kern County Bakersfield SR 99 Rehabilitation (South) Consultation on PM 2.5/PM 10 Hot Spot Conformity Assessment

EXTERNAL EMAIL. Links/attachments may not be safe.

EPA concurs that this is not a project of air quality concern.

Thanks, Karina

Karina OConnor (she/her)
Air Planning Office
US EPA Region 9 (AIR-2)
75 Hawthorne St.
San Francisco, CA 94105
(775) 434-8176
oconnor.karina@epa.gov

1

From: Hildebrand, Maya@DOT <Maya.Hildebrand@dot.ca.gov>
Sent: Monday, October 17, 2022 8:03 AM
To: Alex Marcucci <AMarcucci@trinityconsultants.com>; Bagde, Abhijit J@DOT <abhijit.bagde@dot.ca.gov>; Ahron Hakimi (ahakimi@kerncog.org) <ahakimi@kerncog.org>; Arellano, Alexus@DOT <Lexie.Arellano@dot.ca.gov>; alicia.adams@arb.ca.gov; Lee, Anita (she/her) <Lee.Anita@epa.gov>; Ryan Niblock <niblock@sjcog.org>; Anna Myers <Anna.Myers@valleyair.org>; Antonio Johnson <antonio.johnson@dot.gov>; Becky Napier (bnapier@kerncog.org) <bnapier@kerncog.org>; Ben Raymond <BRaymond@kerncog.org>; Blake Dunford <blake.dunford@mcagov.org>; Braden Duran <BDuran@fresnocog.org>; Knecht, Carey@ARB <Carey.Knecht@arb.ca.gov>; Hendrix, Dana E@DOT <dana.hendrix@dot.ca.gov>; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Cortez, David M@DOT <david.m.cortez@dot.ca.gov>; Deel, David@DOT <david.deel@dot.ca.gov>; Derek Winning <dwinning@tularecog.org>; Diane Nguyen (nguyen@sjcog.org) <nguyen@sjcog.org>; Dylan Stone (dylan@maderactc.org) <dylan@maderactc.org>; Ed Flickinger <EFlickinger@kerncog.org>; Edith Robles <erobles@stancog.org>; Elisabeth Hahn <ehahn@stancog.org>; Elizabeth Wright (EWright@tularecog.org) <EWright@tularecog.org>; Emma Goldsmith <egoldsmith@stancog.org>; Chin, Eric C@DOT <eric.chin@dot.ca.gov>; Espinosa Araiza, Erika@DOT <Erika.Espinosa.Araiza@dot.ca.gov>; Thompson, Erin M@DOT <Erin.Thompson@dot.ca.gov>; Becket, Forest P@DOT <forest.becket@dot.ca.gov>; Gabriel Gutierrez (ggutierrez@tularecog.org) <ggutierrez@tularecog.org>; Valencia, Gilbert@DOT <Gilbert.Valencia@dot.ca.gov>; 'King, Heather@ARB' <Heather.King@arb.ca.gov>; Kahrs, Jacqueline J@DOT <jacqueline.kahrs@dot.ca.gov>; 'Gentry, Jamaica@DOT' <Jamaica.Gentry@dot.ca.gov>; Perrault, James R@DOT <james.perrault@dot.ca.gov>; Jasmine Amanin <jasmine.amanin@dot.gov>; Jeff Findley (Jeff@maderactc.org) <Jeff@maderactc.org>; Jennifer Soliz <JSoliz@fresnocog.org>; Jessica Coria <jessica.coria@valleyair.org>; Joseph Stramaglia (jstramaglia@kerncog.org) <jstramaglia@kerncog.org>; Joseph Vaughn (Joseph.Vaughn@dot.gov) <Joseph.Vaughn@dot.gov>; Swearingen, Joshua B@DOT <joshua.swearingen@dot.ca.gov>; Kai Han (khan@fresnocog.org) <khan@fresnocog.org>; OConnor, Karina (she/her) <OConnor.Karina@epa.gov>; Romero, Ken J@DOT <ken.j.romero@dot.ca.gov>; Mariant, Kevin B@DOT <kevin.mariant@dot.ca.gov>; Kevin Wing <Kevin.Wing@valleyair.org>; Vu, Khanh D@DOT <khanh.vu@dot.ca.gov>; Kim Kloeb (kloeb@sjcog.org) <kloeb@sjcog.org>; Kristine Cai (kcai@fresnocog.org) <kcai@fresnocog.org>; Carr, Laura@ARB <Laura.Carr@arb.ca.gov>; Lawrence, Laura (she/her) <Lawrence.Laura@epa.gov>; Kimura, Lezlie@ARB <Lezlie.Kimura@arb.ca.gov>; Huy, Lima A@DOT <lima.huy@dot.ca.gov>; Mendibles, Lorena@DOT <lorena.mendibles@dot.ca.gov>; Sanchez, Lucas@DOT <Lucas.Sanchez@dot.ca.gov>; Evans, Marcus B@DOT <marcus.evans@dot.ca.gov>; Melany Arriola <marriola@stancog.org>; Michael Corder <michael.corder@valleyair.org>; Michael Morris <michael.morris@dot.gov>; Navarro, Michael@DOT <michael.navarro@dot.ca.gov>; Kalandiyur, Nesamani@ARB <nesamani.kalandiyur@arb.ca.gov>; Fung, Nicholas@DOT <nicholas.fung@dot.ca.gov>; Isla, Nicholas@DOT <Nicholas.Isla@dot.ca.gov>; Singh, Parminder@DOT <parminder.singh@dot.ca.gov>; Patricia Taylor (patricia@maderactc.org) <patricia@maderactc.org>; patrick.pittenger@dot.gov; Marquez, Paul Albert@DOT <paul-albert.marquez@dot.ca.gov>; Martinez-Velez, Priscilla@DOT <priscilla.martinez-velez@dot.ca.gov>; Raquel Pacheco (rpacheco@kerncog.org) <rpacheco@kerncog.org>; Rob Ball (rball@kerncog.org) <rball@kerncog.org>; Robert Phipps <rphipps@fresnocog.org>; Roberto Brady (RBrady@tularecog.org) <RBrady@tularecog.org>; Rochelle Invina <rinvina@kerncog.org>; Tavitas, Rodney A@DOT <rodney.tavitas@dot.ca.gov>; Mays, Rory <Mays.Rory@epa.gov>; Rosa Park (rpark@stancog.org) <rpark@stancog.org>; Yazdi, Sadegh@DOT <sadegh.yazdi@dot.ca.gov>; Samuel Becker <sbecker@stancog.org>; Scherr, Sandra L@DOT <sandra.l.scherr@dot.ca.gov>; Santosh Bhattarai <Bhattarai@fresnocog.org>; 'Christian, Shalanda M@DOT' <shalanda.christian@dot.ca.gov>; Martinez, Steven R@DOT <Steven.R.Martinez@dot.ca.gov>; Suriya Vallamsundar <Suriya.Vallamsundar@trinityconsultants.com>; Suzanne Martinez <SMartinez@fresnocog.org>; Vanderspek, Sylvia@ARB <Sylvia.Vanderspek@arb.ca.gov>; Ted Matley (Ted.Matley@fta.dot.gov) <Ted.Matley@fta.dot.gov>; Ted Smalley (tsmalley@tularecog.org) <tsmalley@tularecog.org>; Terri King (terri.king@co.kings.ca.us) <terri.king@co.kings.ca.us>; Dumas, Thomas A@DOT <tom.dumas@dot.ca.gov>; tom.jordan@valleyair.org; Tony Boren <tboren@fresnocog.org>; Ty Phimmasone (ty.phimmasone@mcagov.org) <ty.phimmasone@mcagov.org>; Vincent Liu (vliu@kerncog.org) <vliu@kerncog.org>; Choi, Yoojoong@DOT <yoojoong.choi@dot.ca.gov>
Subject: Correction: Caltrans - Kern County Bakersfield SR 99 Rehabilitation (South) - Consultation on PM 2.5/PM 10 Hot Spot Conformity Assessment

Dear Interagency Consultation Partners,

Please disregard the previous email/attachments for the Kern County Bakersfield SR 99 project. This submittal has the corrected date for a request for concurrence:

The California Department of Transportation (Caltrans) is providing a PM 2.5 and PM 10 Hot-spot Conformity Assessment memo for interagency consultation. The project is the Bakersfield SR 99 Rehabilitation (South) project in Kern County. It is requested that the Interagency Consultation Partners concur that this project is not a "Project of Air Quality Concern" (POAQC). Comments on the assessment are due on **November 1, 2022**. An interagency conference call will be held upon request.

The NEPA document for this project is a Routine EA. Public notifications are not required. EPA and FHWA concurrence is requested.

Please contact me if you have questions regarding this email or the attached memo.

Regards,
Maya Hildebrand Garcia
Environmental Engineering Branch
Caltrans Central Region
559.383.5981

3

Hildebrand, Maya@DOT

From: Vaughn, Joseph (FHWA) <Joseph.Vaughn@dot.gov>
Sent: Monday, October 31, 2022 1:23 PM
To: Hildebrand, Maya@DOT; 'Alex Marcucci'; Bagde, Abhijit J@DOT; 'Ahron Hakimi (ahakimi@kerncog.org)'; Arellano, Alexus@DOT; Adams, Alicia@ARB; 'Anita Lee'; 'Ryan Niblock'; 'Anna Myers'; Johnson, Antonio (FHWA); 'Becky Napier (bnapier@kerncog.org)'; 'Ben Raymond'; 'Blake Dunford'; 'Braden Duran'; Knecht, Carey@ARB; Hendrix, Dana E@DOT; Padilla, Dave@DOT; Cortez, David M@DOT; Deel, David@DOT; 'Derek Winning'; 'Diane Nguyen (nguyen@sjcog.org)'; 'Dylan Stone (dylan@maderactc.org)'; 'Ed Flickinger'; 'Edith Robles'; 'Elisabeth Hahn'; 'Elizabeth Wright (EWright@tularecog.org)'; 'Emma Goldsmith'; Chin, Eric C@DOT; Espinosa Araiza, Erika@DOT; Thompson, Erin M@DOT; Becket, Forest P@DOT; 'Gabriel Gutierrez (ggutierrez@tularecog.org)'; Valencia, Gilbert@DOT; 'King, Heather@ARB'; Kahrs, Jacqueline J@DOT; 'Gentry, Jamaica@DOT'; Perrault, James R@DOT; Amanin, Jasmine (FHWA); 'Jeff Findley (Jeff@maderactc.org)'; 'Jennifer Soliz'; 'Jessica Coria'; 'Joseph Stramaglia (jstramaglia@kerncog.org)'; Swearingen, Joshua B@DOT; 'Kai Han (khan@fresnocog.org)'; 'Karina O'Connor (OConnor.Karina@epamail.epa.gov)'; Romero, Ken J@DOT; Mariant, Kevin B@DOT; 'Kevin Wing'; Vu, Khanh D@DOT; 'Kim Kloeb (kloeb@sjcog.org)'; 'Kristine Cai (kcai@fresnocog.org)'; Carr, Laura@ARB; 'Laura Lawrence'; Kimura, Lezlie@ARB; Huy, Lima A@DOT; Mendibles, Lorena@DOT; Sanchez, Lucas@DOT; Evans, Marcus B@DOT; 'Melany Arriola'; 'Michael Corder'; Morris, Michael (FHWA); Navarro, Michael@DOT; Kalandiyur, Nesamani@ARB; Fung, Nicholas@DOT; Isla, Nicholas@DOT; Singh, Parminder@DOT; patricia maderactc.org; Pittenger, Patrick (FHWA); Marquez, Paul Albert@DOT; Martinez-Velez, Priscilla@DOT; 'Raquel Pacheco (rpacheco@kerncog.org)'; 'Rob Ball (rball@kerncog.org)'; 'Robert Phipps'; 'Roberto Brady (RBrady@tularecog.org)'; 'Rochelle Invina'; Tavitas, Rodney A@DOT; 'Rory Mays'; 'Rosa Park (rpark@stancog.org)'; Yazdi, Sadegh@DOT; 'Samuel Becker'; Scherr, Sandra L@DOT; 'Santosh Bhattarai'; 'Christian, Shalanda M@DOT'; Martinez, Steven R@DOT; 'Suriya Vallamsundar'; 'Suzanne Martinez'; Vanderspek, Sylvia@ARB; 'Ted Matley (Ted.Matley@fta.dot.gov)'; 'Ted Smalley (tsmalley@tularecog.org)'; terri.king co.kings.ca.us; Dumas, Thomas A@DOT; 'Tom Jordan'; 'Tony Boren'; 'Ty Phimmasone (ty.phimmasone@mcagov.org)'; 'Vincent Liu (vliu@kerncog.org)'; Choi, Yoojoong@DOT
Subject: RE: Correction: Caltrans - Kern County Bakersfield SR 99 Rehabilitation (South) - Consultation on PM 2.5/PM 10 Hot Spot Conformity Assessment

EXTERNAL EMAIL. Links/attachments may not be safe.

FHWA concurs that this not a "Project of Air Quality Concern" (POAQC). Thanks.

Joseph Vaughn
Environmental Specialist
FHWA, CA Division
(916) 498-5346

From: Hildebrand, Maya@DOT <Maya.Hildebrand@dot.ca.gov>
Sent: Monday, October 31, 2022 10:36 AM
To: Vaughn, Joseph (FHWA) <Joseph.Vaughn@dot.gov>; 'Alex Marcucci' <AMarcucci@trinityconsultants.com>; Bagde, Abhijit J@DOT <abhijit.bagde@dot.ca.gov>; 'Ahron Hakimi (ahakimi@kerncog.org)' <ahakimi@kerncog.org>; Arellano, Alexus@DOT <Lexie.Arellano@dot.ca.gov>; Adams, Alicia@ARB <Alicia.Adams@arb.ca.gov>; 'Anita Lee' <Lee.Anita@epa.gov>; 'Ryan Niblock' <niblock@sjcog.org>; 'Anna Myers' <Anna.Myers@valleyair.org>; Johnson,

Antonio (FHWA) <antonio.johnson@dot.gov>; 'Becky Napier (bnapier@kerncog.org)' <bnapier@kerncog.org>; 'Ben Raymond' <BRaymond@kerncog.org>; 'Blake Dunford' <blake.dunford@mcagov.org>; 'Braden Duran' <BDuran@fresnocog.org>; Knecht, Carey@ARB <Carey.Knecht@arb.ca.gov>; Hendrix, Dana E@DOT <dana.hendrix@dot.ca.gov>; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Cortez, David M@DOT <david.m.cortez@dot.ca.gov>; david.deel dot.ca.gov <david.deel@dot.ca.gov>; 'Derek Winning' <dwinning@tularecog.org>; 'Diane Nguyen (nguyen@sjcog.org)' <nguyen@sjcog.org>; 'Dylan Stone (dylan@maderactc.org)' <dylan@maderactc.org>; 'Ed Flickinger' <EFlickinger@kerncog.org>; 'Edith Robles' <erobles@stancog.org>; 'Elisabeth Hahn' <ehahn@stancog.org>; 'Elizabeth Wright (EWright@tularecog.org)' <EWright@tularecog.org>; 'Emma Goldsmith' <egoldsmith@stancog.org>; Chin, Eric C@DOT <eric.chin@dot.ca.gov>; Espinosa Araiza, Erika@DOT <Erika.Espinosa.Araiza@dot.ca.gov>; Thompson, Erin M@DOT <Erin.Thompson@dot.ca.gov>; Becket, Forest P@DOT <forest.becket@dot.ca.gov>; 'Gabriel Gutierrez (ggutierrez@tularecog.org)' <ggutierrez@tularecog.org>; Valencia, Gilbert@DOT <Gilbert.Valencia@dot.ca.gov>; 'King, Heather@ARB' <Heather.King@arb.ca.gov>; Kahrs, Jacqueline J@DOT <jacqueline.kahrs@dot.ca.gov>; 'Gentry, Jamaica@DOT' <Jamaica.Gentry@dot.ca.gov>; Perrault, James R@DOT <james.perrault@dot.ca.gov>; Amanin, Jasmine (FHWA) <jasmine.amanin@dot.gov>; 'Jeff Findley (Jeff@maderactc.org)' <Jeff@maderactc.org>; 'Jennifer Soliz' <JSoliz@fresnocog.org>; 'Jessica Coria' <jessica.coria@valleyair.org>; 'Joseph Stramaglia (jstramaglia@kerncog.org)' <jstramaglia@kerncog.org>; Vaughn, Joseph (FHWA) <Joseph.Vaughn@dot.gov>; Swearingen, Joshua B@DOT <joshua.swearingen@dot.ca.gov>; 'Kai Han (khan@fresnocog.org)' <khan@fresnocog.org>; 'Karina O'Connor (OConnor.Karina@epamail.epa.gov)' <OConnor.Karina@epamail.epa.gov>; Romero, Ken J@DOT <ken.j.romero@dot.ca.gov>; Mariant, Kevin B@DOT <kevin.mariant@dot.ca.gov>; 'Kevin Wing' <Kevin.Wing@valleyair.org>; Vu, Khanh D@DOT <khanh.vu@dot.ca.gov>; 'Kim Kloeb (kloeb@sjcog.org)' <kloeb@sjcog.org>; 'Kristine Cai (kcai@fresnocog.org)' <kcai@fresnocog.org>; Carr, Laura@ARB <Laura.Carr@arb.ca.gov>; 'Laura Lawrence' <Lawrence.Laura@epa.gov>; Kimura, Lezlie@ARB <Lezlie.Kimura@arb.ca.gov>; Huy, Lima A@DOT <lima.huy@dot.ca.gov>; Mendibles, Lorena@DOT <lorena.mendibles@dot.ca.gov>; Sanchez, Lucas@DOT <Lucas.Sanchez@dot.ca.gov>; Evans, Marcus B@DOT <marcus.evans@dot.ca.gov>; 'Melany Arriola' <marriola@stancog.org>; 'Michael Corder' <michael.corder@valleyair.org>; Morris, Michael (FHWA) <Michael.Morris@dot.gov>; Navarro, Michael@DOT <michael.navarro@dot.ca.gov>; Kalandiyur, Nesamani@ARB <nesamani.kalandiyur@arb.ca.gov>; Fung, Nicholas@DOT <nicholas.fung@dot.ca.gov>; Isla, Nicholas@DOT <Nicholas.Isla@dot.ca.gov>; Singh, Parminder@DOT <parminder.singh@dot.ca.gov>; patricia maderactc.org <patricia@maderactc.org>; Pittenger, Patrick (FHWA) <patrick.pittenger@dot.gov>; Marquez, Paul Albert@DOT <paul-albert.marquez@dot.ca.gov>; Martinez-Velez, Priscilla@DOT <priscilla.martinez-velez@dot.ca.gov>; 'Raquel Pacheco (rpacheco@kerncog.org)' <rpacheco@kerncog.org>; 'Rob Ball (rball@kerncog.org)' <rball@kerncog.org>; 'Robert Phipps' <rphipps@fresnocog.org>; 'Roberto Brady (RBrady@tularecog.org)' <RBrady@tularecog.org>; 'Rochelle Invina' <rinvina@kerncog.org>; Tavitas, Rodney A@DOT <rodney.tavitas@dot.ca.gov>; 'Rory Mays' <Mays.Rory@epa.gov>; 'Rosa Park (rpark@stancog.org)' <rpark@stancog.org>; Yazdi, Sadegh@DOT <sadegh.yazdi@dot.ca.gov>; 'Samuel Becker' <sbecker@stancog.org>; Scherr, Sandra L@DOT <sandra.l.scherr@dot.ca.gov>; 'Santosh Bhattarai' <Bhattarai@fresnocog.org>; 'Christian, Shalanda M@DOT' <shalanda.christian@dot.ca.gov>; Martinez, Steven R@DOT <Steven.R.Martinez@dot.ca.gov>; 'Suriya Vallamsundar' <Suriya.Vallamsundar@trinityconsultants.com>; 'Suzanne Martinez' <SMartinez@fresnocog.org>; Vanderspek, Sylvia@ARB <Sylvia.Vanderspek@arb.ca.gov>; 'Ted Matley (Ted.Matley@fta.dot.gov)' <Ted.Matley@fta.dot.gov>; 'Ted Smalley (tsmalley@tularecog.org)' <tsmalley@tularecog.org>; terri.king co.kings.ca.us <terri.king@co.kings.ca.us>; Dumas, Thomas A@DOT <tom.dumas@dot.ca.gov>; 'Tom Jordan' <Tom.Jordan@valleyair.org>; 'Tony Boren' <tboren@fresnocog.org>; 'Ty Phimmasone (ty.phimmasone@mcagov.org)' <ty.phimmasone@mcagov.org>; 'Vincent Liu (vliu@kerncog.org)' <vliu@kerncog.org>; Choi, Yoojoong@DOT <yoojoong.choi@dot.ca.gov>
Subject: RE: Correction: Caltrans - Kern County Bakersfield SR 99 Rehabilitation (South) - Consultation on PM 2.5/PM 10 Hot Spot Conformity Assessment

Dear Interagency Consultation Partners,

This email and request for concurrence are being resent, as the original request was not received by several people.

The California Department of Transportation (Caltrans) is providing a PM 2.5 and PM 10 Hot-spot Conformity Assessment memo for interagency consultation. The project is the Bakersfield SR 99 Rehabilitation (South) project in Kern County. It is requested that the Interagency Consultation Partners concur that this project is not a "Project of Air Quality Concern" (POAQC). Comments on the assessment are due on **November 1, 2022**. An interagency conference call will be held upon request.

The NEPA document for this project is a Routine EA. Public notifications are not required. EPA and FHWA concurrence is requested.

Please contact me if you have questions regarding this email or the attached memo.

Regards,
Maya Hildebrand Garcia
Environmental Engineering Branch
Caltrans Central Region
559.383.5981

Appendix C Comment Letters and Responses

[Appendix C Comment Letters and Responses has been added since the draft environmental document was circulated.]

This appendix contains the comments received during the public circulation and comment period from August 4, 2023, to September 4, 2023, retyped for readability. The comment letters are stated verbatim as submitted, with acronyms, abbreviations, and any original grammatical or typographical errors included. A Caltrans response follows each comment presented. Copies of the original comment letters and documents can be found in Volume 2 of this document.

To announce the availability of the Initial Study with Proposed Negative Declaration, a public notice for the project was published in English and Spanish in *The Bakersfield Californian* on August 4, 2023. It stated the public review and comment period for the draft environmental document would run from August 4, 2023, to September 4, 2023, explained how to submit comments, and offered the public an opportunity to request a virtual public hearing. There were no requests for a virtual public hearing during the public circulation period.

Comment from the State Clearinghouse and Planning Unit

Comment 1:

The State Clearinghouse (SCH) would like to inform you that our office will transition from providing close of review period acknowledgement on your CEQA environmental document, at this time. During the phase of not receiving notice on the close of review period, comments submitted by State Agencies at the close of review period (and after) are available on CEQAnet. Please visit: https://ceqanet.opr.ca.gov/search/advanced

Filter for the SCH# of your project OR your “Lead Agency”
If filtering by “Lead Agency”
Select the correct project

Only State Agency comments will be available in the “attachments” section: bold and highlighted

Thank you for using CEQA Submit.

Mikayla Vaba
Office of Planning and Research (OPR)
State Clearinghouse

Response to comment 1: Thank you for circulating the Initial Study with Proposed Negative Declaration for the Bakersfield 99 Rehabilitation II (South) project and acknowledging Caltrans’ compliance with California Environmental Quality Act requirements pursuant to State Clearinghouse guidelines. Caltrans has recorded the corresponding State Clearinghouse number for this project.

Comment from Jackson Hurst, Resident

Comment 2:

From: Jackson Hurst ghostlightmater@yahoo.com
Sent: Wednesday, August 23, 2023 4:39 PM
To: Gunn, Shane M@DOT <shane.gunn@dot.ca.gov>
Subject: Bakersfield 99 Rehabilitation (South) IS/PND Document Public Comment

Name – Jackson Hurst

Address – 4216 Cornell Crossing, Kennesaw, Georgia 30144

Comment – I have reviewed the IS/PND Document for Caltrans Bakersfield 99 Rehabilitation (South) Project and I approve and support the build alternative because the build alternative for Caltrans Bakersfield 99 Rehabilitation (South) Project will be build and auxiliary lane on CA-99 from California Avenue to CA-58 which will improve safety and reduce congestion resulting from weaving movements.

Sent from ghostlightmater@yahoo.com

Response to comment 2: Thank you for your comment on the environmental document. Caltrans appreciates your support for this project.

Comment from Crystal Mendoza, Cultural Resources Administrative Assistant, Santa Ynez Band of Chumash Indians

Comment 3:

California Department of Transportation
District 6 Office
2015 East Shields Avenue, Suite A-100
Fresno, CA 93726-5428

Attn.: Shavonne Conley, Project Manager

Re: Bakersfield 99 Rehabilitation II (South) Project

Dear Ms. Conley:

Thank you for contacting the Tribal Elders' Council for the Santa Ynez Band of Chumash Indians.

At this time, the Elders' Council requests no further consultation on this project; however, we understand that as a part of NHPA Section 106, we must be notified of the project.

Thank you for remembering that at one time our ancestors walked this sacred land.

Sincerely Yours,

Crystal Mendoza
Administrative Assistant| Cultural Resources| Santa Ynez Band of Chumash Indians| Tribal Hall
(805) 325-5537
cmendoza@chumash.gov

Response to Comment 3: Thank you for your comment on the environmental document.

List of Technical Studies Bound Separately (Volume 2)

Air Quality Memorandum, November 9, 2022

Noise Study Report, July 28, 2021

Water Quality Compliance Memorandum, August 2, 2021

Biological Assessment, January 3, 2023

Natural Environment Study (Minimal Impacts), August 12, 2021

Floodplain Analysis, December 8, 2022

Cultural Screening Memorandum, January 12, 2023

Initial Site Assessment, June 7, 2021

Caltrans Paleontological Identification/Evaluation Report, September 25, 2018

Climate Change Memorandum, March 9, 2023

Energy Memorandum, March 9, 2023

Visual Impact Assessment, July 2023

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

Shane Gunn
District 6 Environmental Division
California Department of Transportation
2015 East Shields Avenue, Suite 100, Fresno, CA 93726

Or send your request via email to: shane.gunn@dot.ca.gov
Or call: (559) 832-0051

Please provide the following information in your request:

Project title: Bakersfield 99 Rehabilitation II (South)
General location information: On State Route 99 in Bakersfield in Kern County
District number-county code-route-post mile: 06-KER-099-21.50/24.60
EA/Project ID: EA 06-0X370- Project ID 0618000059

Attachment F

Risk Register

Risk Register for 06-0X370K, Bakersfiled Rehab Sounth II

Form v3.3 last modified 10/30/2018 CB

Risk Checkpoint:	PA&ED
Date:	1/11/2024
Project Nickname:	Bakersfiled Rehab Sounth II
EA:	06-0X370K
Co-Rt, Post Miles:	Ker-99-15.5/23.6
Project Manager:	Shavonne Conley
FY & Program (SHOPP or STIP):	2018 (SHOPP)
Capital Costs:	$85,800k
Support Costs:	$18,370k
Total Costs:	$104,170k
RTL Target:	7/31/2026

Phase	Cost Contingency Range $k			Schedule Contingency Range (Wkg Days)		
	Optimistic	PERT	Pessimistic	Optimistic	PERT	Pessimistic
0-PA&ED	$0	$0	$0	0	0	0
1-PS&E	$0	$0	$0	0	0	0
2-RW Sup	$0	$0	$0	0	0	0
3-Con Sup	$0	$0	$0	0	0	0
Support Contingency	$0	$0	$0	0	0	0
9-RW Cap	$0	$0	$0	0	0	0
4-Con Cap	$0	$0	$0	0	0	0
Capital Contingency	$0	$0	$0	0	0	0
Total Contingency	$0	$0	$0	0	0	0

Risk Identification								Risk Assessment			Risk Response				Quantifying "Red" (High P & I) Level Risks			
Status	ID #	Type	Category	Title	Risk Statement	Current status / assumptions	Risk Trigger	Probability (P)	Cost Impact Schedule Impact (I)	Cost Score Schedule Score (PxI)	Strategy	Response Actions	Risk Owner	Updated	Impacted Phase	Calculated Contingency	Support (hours) Capital Cost $k	Schedule (Days)
Active	1	Threat	Environmental	Buried Materials	As a result of encountering or impacting buried cultural during construction, evaluation by a qualified specialist and the preparation of an MOA may occur, which would lead to a delay in schedule and increase in cost.	There will not be any buried cultural materials encountered during construction.	Buried cultural materials are encountered during construction.	1-Very Low (1-10%)	1 - Very Low (Insignificant)	1	Accept	During construction, halt work and wait for an evaluation from a qualified archaeologist . Evaluate monitoring requirements and determine appropriate task order.	Juergen Vespermann	3/29/2019	3-Con Sup		O ML P	O ML P
								5%	8 - High (3-6 months)	8					4-Con Cap		O ML P	O ML P
Active	2	Threat	Environmental	Archaeological Site	As a result of identifying an archaeological site during PA&ED, additional documentation, subsurface testing, avoidance measures, monitoring, and consultation may occur, which would lead to a delay in schedule and increase in cost.	There will not be any archaeological sites identified during PA&ED.	Archaeological sites are identified during PA&ED.	1-Very Low (1-10%)	1 - Very Low (Insignificant)	1	Accept	During PAED phase, adjust the schedule and determine additional hours and costs for cultural studies.	Juergen Vespermann	3/29/2019	0-PA&ED Sup		O ML P	O ML P
								5%	16 - Very High (>6 months)	16								
Active	3	Threat	Environmental	Raptors, Birds, San Joaquin Kit Fox, or other Special Status Species	As a result of raptors, migratory birds, San Joaquin Kit Fox, or other special status species observed in the action area (during the nesting season for birds/raptors), additional protocol surveys, exclusion measures, and additional consultation may occur, which would lead to an increase in project cost and a delay in project schedule.	No raptors or nesting birds will be observed in the nesting season, and no San Joaquin Kit Fox or other special status species will be observed in the action area.	Raptors or nesting birds are observed in the nesting season, or San Joaquin Kit Fox and/or additional special status species are observed in the action area.	2-Low (11-30%)	2 - Low (<$k)	4	Accept	Determine additional hours and costs for biological compliance.	Juergen Vespermann	3/29/2019	3-Con Sup		O ML P	O ML P
								20%	4 - Moderate (1-3 months)	8					4-Con Cap		O ML P	O ML P
Active	4	Threat	Environmental	Hazardous Waste Disposal	As a results of the ADL Study and Bridge Surveys, disposal of hazardous waste (excess soil and/or asbestos-containing materials) may be required at a Class I landfill, which would lead to an increase in project costs.	No hazardous waste will be encountered.	Hazardous waste is encountered.	3-Moderate (31 50%)	4 - Moderate ($1k - $k	12	Accept	During PAED phase, determine additional resources that will need to be allotted.	Haz Waste	4/2/2019	0-PA&ED Sup		O ML P	O ML P
								40%	2 - Low (<1 month)	6								
Active	5	Threat	Environmental	Air Studies	As a result of Air Quality receiving Traffic Operations' studies and findings after June 1, 2021, a delay in the Air Study may occur, which would lead to a delay in project schedule.	Air Quality will receive Traffic Operations' studies and findings no later than June 1, 2021.	Air Quality receives Traffic Operations' studies and findings after June 1, 2021.	2-Low (11-30%)	1 - Very Low (Insignificant)	2	Accept	During PAED phase, determine schedule alterations that will need to be made.	Juergen Vespermann	4/4/2019	0-PA&ED Sup		O ML P	O ML P
								20%	4 - Moderate (1-3 months)	8								
Active	6	Threat	Environmental	Unexpected Fossil Discovery	As a result of uncovering buried fossils, a new task order and monitoring requirement may occur, which would lead to a delay in project schedule and increase in project cost.	No fossils will be found.	A Fossil is unearthed.	1-Very Low (1-10%)	1 - Very Low (Insignificant)	1	Accept	During construction, halt work and wait for an evaluation from a qualified paleontologist. Evaluate monitoring requirements and determine appropriate task order.	Juergen Vespermann	4/4/2019	3-Con Sup		O ML P	O ML P
								5%	2 - Low (<1 month)	2								
Active	7	Threat	Environmental	Air Quality Concern	As a result of EPA classifying this project as a project of air quality concern, a PM Hot Spot Analysis would need to be completed, which would cost $50,000 and lead to a delay in project schedule.	EPA will not classify this project as a project of air quality concern.	EPA classifies the project as a project of air quality concern.	2-Low (11-30%)	2 - Low (<$4,615k)	4	Accept	During PAED phase, determine additional hours and costs for Air Quality Analysis.	Juergen Vespermann	6/7/2019				
								20%	8 - High (3-6 months)	16								
Active	8	Threat	Design	GeoTech Investigation Worries	Unexpected geotechnical issues with the Retaining Wall	It is currently assumed that a standard design will suffice for the retaining Wall.	None ideal soil conditions discovered and shown on geotechnical report.	3-Moderate (31 50%)	4 - Moderate ($3,114,351k - $6,228,700k	12	Mitigate	Retaining Wall design to be designed by Structures.	Sanku G. Mohan	4/5/2019	1-PS&E Sup		O ML P	O ML P
								40%	2 - Low (<1 month)	6								

Risk Identification								Risk Assessment			Risk Response				Quantifying "Red" (High P & I) Level Risks			
Status	ID #	Type	Category	Title	Risk Statement	Current status / assumptions	Risk Trigger	Probability (P)	Cost Impact Schedule Impact (I)	Cost Score Schedule Score (PxI)	Strategy	Response Actions	Risk Owner	Updated	Impacted Phase	Calculated Contingency	Support (hours) Capital Cost $k	Schedule (Days)
Active	9	Threat	Design	Outside Shoulder Material Changes	Changes to Materials	Currently we are proposing HMA for the outside shoulder.	Outside shoulder material change to CRCP.	2-Low (11-30%)	2 - Low (<$3,114,350k)	4	Mitigate	Design outside shoulder with CRCP.	Sanku G. Mohan	4/5/2019	1-PS&E Sup		O ML P	O ML P
								20%	1 - Very Low (Insignificant)	2								
Active	10	Threat	Design	Standards Changed	New or Revised Design Standards	Current Standards to not have significant changes from 2018 standards to RTL.	Major changes to current Standards	2-Low (11-30%)	2 - Low (<$3,114,350k)	4	Mitigate	Design to use current standards at RTL time.	Sanku G. Mohan	4/5/2019	1-PS&E Sup		O ML P	O ML P
								20%	2 - Low (<1 month)	4								
Active	11	Threat	Design	Impact to Pumping Plant	Pumping Plant capacity impacted by additional runoff from new impervious areas from new auxiliary lane.	Additional drainage can be handled by current pumping plant.	Pumping Plant capacity is discovered to not have sufficient capacity due to this or concurrent projects	2-Low (11-30%)	4 - Moderate ($3,114,351k - $6,228,700k	8	Mitigate	Increase pumping plant capacity or add higher flowrate pumps.	Sanku G. Mohan	4/5/2019	1-PS&E Sup		O ML P	O ML P
								20%	4 - Moderate (1-3 months)	8								
Active	12	Threat	Design	Construction Congestion	Concurrent construction projects impacting construction Schedule and increasing cost of project.	No impact from concurrent projects.	Concurrent projects with same construction window.	3-Moderate (31 50%)	4 - Moderate ($3,114,351k - $6,228,700k	12	Mitigate	Insure concurrent projects schedule does not impact project schedule.	Sanku G. Mohan	4/5/2019	4-Con Cap		O ML P	O ML P
								40%	8 - High (3-6 months)	24								
Active	13	Threat	Right of Way	Threat	As a result of the preliminary nature of Design additional R/W or TCE's may be required.	The current assumption is that TCE's will be needed.	Risk Trigger once Design has determined the exact nature of R/W a Data Sheet can be completed to allow enough time in the project schedule.	3-Moderate (31 50%)	4 - Moderate ($3,114,351k - $6,228,700k	12	Accept	As Design moves into PA&ED determine the exact nature of the R/W required if any.	David Sherman	4/5/2019	9-RW Cap		O ML P	O ML P
								40%							2-RW Sup		O ML P	O ML P
Active	14	Threat	Utilities	Threat	As a result of the preliminary nature of Design it is not know what if any utilities will be impacted by the project.	The current assumption is that no Utility Relocation will be required however it is assumed that some potholing will need to take place.	Risk Trigger Once Design has determined the nature of R/W Utilities and requested potholing to determine if there are any conflicts.	2-Low (11-30%)	2 - Low (<$3,114,350k)	4	Accept	As Design moves into PA&ED determine the exact nature of the R/W Utilities affected and work through the R/W Utility Unit to address these conflicts if any.	David Sherman	4/5/2019	9-RW Cap		O ML P	O ML P
								20%							2-RW Sup		O ML P	O ML P
Active	15	Threat	Construction	Threat	As a result of a wet subgrade or change in the water table dewatering will be required.	No wet subgrade or change in the water table will be encountered.	Wet subgrade or change in the water table is encountered.	2-Low (11-30%)	2 - Low (<$3,114,350k)	4	Accept	During construction, adjust schedule and cost for dewatering.	Amrit Brar	4/4/2019	4-Con Cap		O ML P	O ML P
								20%	2 - Low (<1 month)	4								
Active	16	Threat	Construction	Threat	Unsuitable material - the native material adjacent to the project limits is pretty sandy and has caused difficulties during HMA paving operations.	No unsuitable material will be encountered.	Unsuitable material is encountered.	2-Low (11-30%)	2 - Low (<$3,114,350k)	4	Accept	During construction, adjust schedule and cost to address the unsuitable material.	Sam Dhaliwal	4/5/2019	4-Con Cap		O ML P	O ML P
								20%	2 - Low (<1 month)	4								
Active	17	Threat	Construction	Threat	Depending on staging - the lane(s) being removed can require maintenance prior to being removed.	No maintenance will be required.	Maintenance will be required.	3-Moderate (31 50%)	4 - Moderate ($3,114,351k - $6,228,700k	12	Accept	During construction, adjust schedule and cost for maintenance on the lane(s).	Sam Dhaliwal	4/5/2019	4-Con Cap		O ML P	O ML P
								40%	2 - Low (<1 month)	6								
Active	18	Opportunity	Stakeholders	Opportunity to proposed a northbound auxiliary lane	As a result of the local agency providing additional funding a northbound auxiliary lane could be added to the scope of the project.	The local agency will find the funding.	The local agency provides the funding to add the northbound auxiliary lane to the scope of the project.	3-Moderate (31 50%)	4 - Moderate ($4,170k - $8,337k	12	Accept	During PA&ED the scope of the project will be expanded to propose a northbound auxiliary lane.	Minerva Rodriguez	5/29/2019	0-PA&ED Sup		O ML P	O ML P
								40%	2 - Low (<1 month)	6					4-Con Cap		O ML P	O ML P

Risk Identification								Risk Assessment			Risk Response				Quantifying "Red" (High P & I) Level Risks			
Status	ID #	Type	Category	Title	Risk Statement	Current status / assumptions	Risk Trigger	Probability (P)	Cost Impact Schedule Impact (I)	Cost Score Schedule Score (PxI)	Strategy	Response Actions	Risk Owner	Updated	Impacted Phase	Calculated Contingency	Support (hours) Capital Cost $k	Schedule (Days)
Active	19	Threat	A&E	Threat	As a result of Kern COG removing $30M from phase 3, THe SHOPP has restored the $30M, but there may be a need for additional funds for support and capital as cost continue to increase, if the full scope moves forward to construction.	A capital and support shortfall will need to cover scope changes.	Construction notifoed the PM that the 3 phase reroources were not in PRSM	3-Moderate (31 50%) 40%	2 - Low (<$4,875k) 4 - Moderate (1-3 months)	6 12	Accept	During PA&ED Asset Management will be cosulted to use funds from the Varianceand a >120% Allocation will be requested to fund the shortfalls if needed.	Shavonne Conley	12/5/2023	1-PS&E Sup 2-RW Sup		O ML P O ML P	O ML P O ML P

Attachment G

Right of Way Data Sheet

STATE OF CALIFORNIA CALIFORNIA STATE TRANSPORTATION AGENCY

Memorandum

To: Shavonne Conley

Attn: Paul Selvan

Harkirat Shergill

From: **Department of Transportation**
Division of Right of Way Central Region

Date: 7/6/2023

File: **CD** 06 **EA** 0X3700 **Alt** Rev1
Co KER **RTE** 99

DESCRIPTION:
Roadway Rehabilitation (3R)

Subject: **RIGHT OF WAY DATA SHEET**

We have completed an estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form dated 3/27/2023

The following assumptions and limiting conditions were identified:

Parcels

The estimator has assumed that each Condo unit has an interest in the driveway access and has given value to each condo listed by design. If evidence is found during the appraisal process that more owners have an interest in the driveway this will require a new datasheet, information will be better determined after title reports are reviewed. It is assumed that these parcels will have continued access both during and after construction.

Utility

Project engineer states on the Right of Way data sheet request form that no potholing is required as design has been able to identify all utilities at this time however they do request that potholes be reserved as they may need to identify additional utilities. Additional information was provided by engineering stating approximately 240 linear feet of PG&E gas line, Calwater line, and City storm drain will need to be relocated Since Utility relocation will be required the full utility right of way process and timeline will be necessary before the project can be certified.

Right of Way Lead Time will require a minimum 16 months after we receive Certified Appraisal Maps and/or Utility Conflict Plans, obtained necessary environmental clearance and applicable freeway agreements have been approved.

Recommended for approval by: Sara Blum

SARA BLUM
Senior Right of Way Agent
(559) 383-5194

General Description of R/W and Excess Lands Required (zoning, use, major improvements, critical or sensitive parcels, etc.):

This 3R project proposes to rehabilitate the number four lane on SB SR 99 in the City of Bakersfield in Kern County. A southbound auxiliary lane is being proposed between California Ave. UC to 99 S to 58 E connector. A sound wall is proposed due to the increase in noise from the new auxiliary lane addition, also retaining walls will be needed for some portions of the auxiliary lane. To complete the project work design has estimated 17 temporary construction easements will be needed. There are several different types of land uses within the scope of the project which consist of multi-family and single-family use. The current design proposes a temporary easement for access to the soundwall off Chandler Ct which will be used for driving only during construction. The access will require an agreement with the owner of the current condominium complex Wilson Park, vesting is currently unknown to this area and current online data indicates HOA fees of $250. It appears all private owners have a right to the access, as each individual condominium has a 2-car attached garage, and this access allows them entrance. Once more information is available to the vesting of this area another datasheet will be required to capture an accurate cost estimate.
All temporary easements that were nominal were given a $2,500 value. There are no outdoor advertising signs on this project. Incentive payments if applicable are not considered in this estimate.

General Description of Utility Involvement:

This is a 3R project which proposes to rehabilitate the number four lane with CRCP, the remaining shoulder will be widened to 10’ where feasible. A southbound Auxiliary Lane is being added between California Ave. UC to 99 S to 58 E connector. Failed panels in both directions will be replaced with Rapid Strength Concrete also. To accommodate the new auxiliary lane and shoulder, the Palm Ave. OC will be replaced and the California Ave. UC, will be widened. Palm Ave. OC vertical clearance will be raised to standard with the new bridge. Retaining walls will be needed for some portions of the auxiliary lane. A sound wall is being built on the southbound side between the Wilson Rd. and Wible Rd.

General Description of Railroad Involvement:

No railroad facilities will be affected.

Right Of Way Cost Estimate	Current Year	Contingency Rate	Escalation Rate	Escalated Year
	2023	25%	5%	2026
Acquisition:	$58,306	25%	5%	**$67,497**
Mitigation:	$3,455	25%	5%	**$4,000**
State Share of Utilities:	$496,875	25%	5%	**$575,195**
Expert Witness:	$0	25%	5%	**$0**
Relocation Assistance:	$0	25%	5%	**$0**
Demolition and Clearance:	$0	25%	5%	**$0**
Title and Escrow:	$41,052	25%	5%	**$47,523**
Ad Signs:	$0	25%	5%	**$0**
Total Current Value:	$599,688			**$694,214**

If RW Cost Est fields are blank, Costs = $0

NOTE: above estimate includes railroad engineering in the amount of: $0.00

Estimated Construction Contract Work (CCW): 0 R/W LEAD TIME/Mo. 16

Estimated Pothole Date: 6/3/2024

Cost Break Down	
Pot Hole	37,500
# Pot Holes	50
Mitigation	
Land	
Bank	
Permit Fees	2,764

Parcel Area

Total R/W Required:	16598
Total Excess Area:	0

Parcel Data

# of Parcel Type X:	0	
# of Parcel Type A: less than $10,000 non-complex	17	
# of Parcel Type B: more than $10,000 non-complex	0	
# of Parcel Type C: complex, special valuation	0	
# of Parcel Type D: most complex/time consuming	0	# of Duals Needed: 0
Totals:	17	**Totals:** 0

# of Excess Parcels: 0

Misc R/W Work

# of RAP Displacements:	0
# of Clearance/Demos:	0
# of Const Permits:	0
# of Condemnations:	0

RR Involvement

Railroad Facilities or Right of Way Affected?	No
Const/Maint Agreement:	None
Service Contract Count:	0
Right of Entry:	None
Clauses:	None
Estimated Lead-time:	None

Utilities

12 Companies to be potholed
12 Companies for Verification
3 Companies for Utility Relocations
JUA/CCUAs are not needed

Is there a significant effect on assessed valuation: No

Were any previously unidentified sites with hazardous waste or material found: No

Are RAP displacements required: No

# of single family: 0 # of muliti-family: 0 # of business/nonprofit: 0 # of farms: 0

Sufficient replacement housing will be available without last resort housing: N/A

Are material borrow or disposal sites required: No

Are there potential relinquishments or abandonments: No

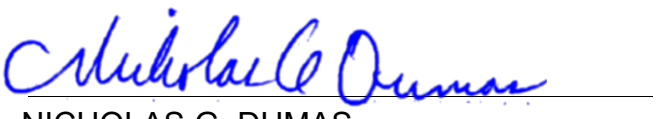
Are there any existing or potential airspace sites: No

Are environmental mitigation parcels required: No

Data for evaluation provided by:

Estimator:	Nicole Olsen	5/8/2023
Railroad Liaison Agent:	Sandra Sifuentes	3/28/2023
Utility Relocation Coordinator:	Heather Franklin	7/6/2023

I have personally reviewed this Right of Way Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.



NICHOLAS G. DUMAS
Office Chief, District 6 Right of Way

Date
ENTERED PRSM 7/6/2023
BY: N Beebe Pence

Mitigation and Compliance Cost Estimate (MCCE)

PART 1 - PROJECT INFORMATION

DIST-CO-RTE: 06 - KER - 099 **PM/PM:** 21.150/24.600

EA/Project Number: 06-0X370_ / 0618000059

Project Name: Bakersfield 99 Rehab II (South)

Form Completed by: Cuauhtemoc Galvan

Project Manager: Shavonne Conley **Phone:** (559) 243-3518

Date: 5/1/2023

MCCE Phase prepared for: DED

PART 2 - ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

Environmental Commitments for Alternative:

Commitment	Design $	FY	Ac/Crd	ROW $ Planned	FY	ROW $ Actual	Pd	Construction $	FY
Biological									
Monitoring	$80,000	26/27					☐		
ESA Fencing							☐	$8,000	26/27
Hazardous Waste									
PSI	$75,000	23/24					☐		
Lead Compliance Plan							☐	$3,000	26/27
Asbestos Compliance Plan							☐	$3,000	26/27
Other									
Storm water work/plant							☐	$9,160	26/27

PART 3 - PERMITS AND AGREEMENTS

Permit/Agreement	ROW $ Planned	FY	ROW $ Actual	Pd	Construction $	FY
CEQA Review	$2,764	23/24		☐		

TOTAL	$155,000	$2,764	$23,160

Approved by:

Shane Gunn — Environmental Branch Chief (Print Name)

Shane Gunn — Signature

5/2/2023 — Date

If Right of Way Capital is needed:

Sara Blum — Right-of-Way Office Chief (Print Name)

Sara Blum — Signature

5/4/23 — Date

If cultural and biology mitigation totals more than $500,000:

Environmental Office Chief (Print Name)	Signature	Date

Submitted to PM on:_____ Initial___

Comments (explanation and risk management plan attached)

6/7/21- Reduced HW PSI cost from $115K to $75K, excess soil from portion of project and not entire project.

9/30/2022 - updated cost of biological ESA fencing to account for 1,000 linear feet of temporary high-visibility fencing at $8.00 per foot

5/1/2023 - $80k bio monitoring task order added for SJKF nighttime/early morning construction checks per LOC. Estimate is based off similar TO for 06-0Q280 Bakersfield Rehab North.

Attachment H

Storm Water Data Report
(Signed Cover Sheet)

Dist-County-Route: 06-Ker-99
Post Mile Limits: 21.15/24.6
Type of Work: Roadway improvements and 3R Rehabilitation
Project ID (EA): 0618000059 (06-0X3700)
Program Identification: SHOPP
Phase: ☐ PID ☒ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Central Valley Region (5–Fresno)
Total Disturbed Soil Area: 16.14 acres PCTA: Exempt
Alternative Compliance (acres) NA ATA 2 (50% Rule)? Yes ☐ No ☒
Estimated Const. Start Date: 03/29/2027 Estimated Const. Completion Date: 02/26/2029
Risk Level: RL 1 ☒ RL 2 ☐ RL 3 ☐ WPCP ☐ Other: _____
Is MWELO applicable? Yes ☐ No ☒
Is the Project within a TMDL watershed? Yes ☐ No ☒
TMDL Compliance Units (acres): NA
Notification of ADL reuse (if yes, provide date): Yes ☐ Date: _____ 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 only.

Selvan Paul 8/21/23
Selvan Paul, Registered Project Engineer Date

I concur with the Construction water pollution control strategy and selected temporary BMPs in this report:

Jamal Alguitami For 10/6/2023
Sarbjit Deol, *District Construction SW Coordinator* *Date*

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

Shavonne Conley 10/9/2023
Shavonne L. Conley, *Project Manager* *Date*

10/9/23
Rene Sanchez, *Designated Maintenance Representative* *Date*

10/12/23
Brad Cole, *Designated Landscape Architect Representative* *Date*

[Stamp Required at PS&E only]

Mazin Al Ali 10/16/2023
Mazin Al Ali, *Regional SW Coordinator* *Date*

Attachment I

SHOPP Performance Measures Report

SHOPP Project - Accomplishment - Performance Measures - Benefits

District: 06 **Tool ID:** 19345 **Project ID:** 0618000059 **EA:** 0X370 **Co-Rte-PM:** KER-099-21.15/24.60 (Primary Location)

View/Print PIR (Performance) Report

Bridge (B) | Pavement (P) | Drainage (D) | Facilities | Signs and Lighting | Mobility (TMS) | Roadside | Complete Streets | Sustainability /Climate Change | Advance Mitigation /Mitigation | Major Damage & Betterments | Green-house Gases | Relinquishment

Performance & Accomplishments (PPC)

	ActID	Activity Detail	Performance Objective	Unit of Measurement	Quantity	Pre-Good	Pre-Fair	Pre-Poor	New	Post-Good	Post-Fair	Post-Poor	HQ Program Review - Agree with District?	HQ Comment	Review Date	Performance Change Date After Review	Comment
1	A02	Bridge Replacement/New Construction (201.110, .111, .113, .322)	Bridge and Tunnel Health	Square Feet	49564.000	28729.000	17201.000		3634.000	45930.000							Bridge Replacement Deck = 14661 SF per D6 Engineer
2	A02		Bridge Scour Mitigation			45930.000				45930.000							
3	A02		Bridge Seismic Restoration			45930.000				45930.000							
4	A02		Bridge Goods Movement Upgrades			17201.000		28729.000		45930.000							
5	A03	Bridge Rail (201.112)	Bridge Rail Replacement and Upgrade	Linear Feet	890.000	574.000	316.000			890.000							
6	A08	Number of Bridges	No Performance Objective in the SHSMP	Each	2.000												
7	B21	Concrete Pavement Major Rehab	Pavement Class I	Lane Miles	1.808		1.808			1.808							Pavement Worksheet Incorrect, 5.0 LM CRCP lane replacement per D6 Engineer
8	B26	Concrete Pavement Minor Rehab (CAPM)	Pavement Class I	Lane Miles	13.270		10.841	2.429		13.270							Pavement Worksheet Incorrect, 6.0 LM slap replacement per D6 Engineer
9	B99	Other Pavement Activity	No Performance Objective in the SHSMP	-	12403.000			12403.000		12403.000							unit = CY, replacing inside shoulder SB/NB
10	C01	Replace/Install Culverts (201.151)	No Performance Objective in the SHSMP	Each	3.000			3.000		3.000							additional 4 culverts, system #s not known at this time.
11	C02	Replace/Install Culverts (201.151)	Drainage Restoration	Linear Feet	313.900			313.900		313.900							System numbers missing from database, additional approx. 700 LF of culvert Replace/Install
12	C99	Other Drainage Activity	No Performance Objective in the SHSMP	-	47.000				47.000								Construction 47 new DIs, removing 42 DIs
13	E01	Median Barrier (201.010, .015)	No Performance Objective in the SHSMP	Linear Feet	18744.000				18744.000								
14	E11	Lighting (201.010, .015)	No Performance Objective in the SHSMP	Each	88.000			88.000		88.000							
15	E23	Collisions Reduced (201.015)	Collision Severity Reduction	Fatal/Serious Injury Collisions	11.000			11.000		11.000							Sh. widen + aux lane
16	E25	Overhead Sign Structures Rehabilitation (201.170)	Overhead Sign Structures Rehabilitation	Each	5.000			5.000		5.000							
17	E26	Sign Panel Replacement	Sign Panel Replacement	Each	10.000			10.000		10.000							
18	E55	Proactive Safety Vehicles	Proactive Safety	Annual Fatal & Serious Injury Collisions	0.200			0.200		0.200							Estimate until final PSW, adding 1 MVP
19	F01	Census Station (201.315)	No Performance Objective in the SHSMP	Each	2.000			2.000		2.000							
20	F03	CCTV (201.315)	No Performance Objective in the SHSMP	Each	1.000	1.000				1.000							
21	F04	Communications (Fiber Optics - 201.315)	No Performance Objective in the SHSMP	Linear Miles	0.870				0.870								PM 21.24/22.11
22	F05	Vehicle Detection (201.315)	No Performance Objective in the SHSMP	Each	6.000	4.000		1.000	1.000	5.000							
23	F06	Ramp Meter (201.315)	No Performance Objective in the SHSMP	Each	9.000				9.000								
24	F19	Shoulders - New & Widening (201.310, .010, .015)	No Performance Objective in the SHSMP	Linear Miles	5.930			5.930		5.930							unit measurement = DVHD
25	F35	DVHD Reduced (201.310)	Operational Improvements	DVHD	21.000			21.000		21.000							
26	F36	Auxiliary Lanes (201.310)	No Performance Objective in the SHSMP	Each	0.750				0.750								0.75 miles
27	F39	Traffic Signals (201.315)	No Performance Objective in the SHSMP	Each	4.000	1.000		3.000		4.000							
28	F45	TMS Structure Component	Transportation Management System Structures	Each	10.000				10.000								
29	F46	TMS Technology Component	Transportation Management Systems	Each	22.000	6.000		6.000	10.000	12.000							
30	G02	Planting (Irrigated)	Roadside Rehabilitation	Acres	5.670			5.670		5.670							
31	G07	Worker Safety - Safe Access	Roadside Safety Improvements	Locations	47.000			47.000		47.000							
32	G10	Worker Safety - Vegetation Control	Roadside Safety Improvements	Locations	5.000			5.000		5.000							

33	H13	Crosswalks	No Performance Objective in the SHSMP	Linear Feet	75.000			75.000		75.000							
34	H21	Sidewalks	No Performance Objective in the SHSMP	Linear Feet	480.000			480.000		480.000							
35	H32	Is any Location Within the Project Limits Ped/Bike Accessible?	No Performance Objective in the SHSMP	Yes/No	Yes												
36	H56	Complete Streets Fix Existing	Complete Streets Fix Existing	Linear Feet	555.000			555.000		555.000							
37	H57	Complete Streets Build New	Complete Streets Build New	Linear Feet													
38	I11	Use of Recycled/Reclaimed Materials (Not Counted Above)	No Performance Objective in the SHSMP	Linear Miles	4.100												Reuse grindings
39	I12	Use of Locally Available Building Materials	No Performance Objective in the SHSMP	Linear Miles	4.100												
40	M04	Retaining Wall	No Performance Objective in the SHSMP	Square Feet	25800.000				25800.000								
41	N04	Defer	No Performance Objective in the SHSMP	-													Not a CE/CE
(Last Saved - 07/19/23 @ 1:37 PM by Brittney Vasquez)																	

Programming Performance Summary (All Locations)

Program Code	Activity Category	Asset Class	Asset	Performance Value	Performance Measure	Unit	Pre-Good	Pre-Fair	Pre-Poor	Pre-Total	Post Good	New	Post Good+New	Post-Fair	Post-Poor	Post-Total
201.120	Pavement - Roadway Rehabilitation 3R	Primary	Pavement	15.1	Lane mile(s)	Lane mile(s)	0.0	12.6	2.4	15.1	15.1	0.000	15.1	0.0	0.0	15.1

Notes:

1. The crosswalk for reporting performance in the "Programming Performance Summary" was developed to assist the districts on performance reporting requirements for CTC and PCRs. For discrepancies or errors, please notify AM Tool admins via e-mail at CT-TAM@dot.ca.gov.
2. The data summarized in the table represents the performance reported or to be reported in CTIPS.
3. Programming only requires the breakdown of Good, Fair and Poor for Primary and Supplementary Asset Classes.
4. Reporting of bridge pre and post conditions may contain errors if the project RTL is before 2024/25.
5. Reporting drainage pre-total and post good may differ whenever projects contain abandoned/removed culverts as the culvert no longer exists at post construction, is deleted from the pre-total value for posting of the post good value, and gets deleted from the statewide CIP inventory database.
6. Reactive Safety projects will temporally use the same performance outputs of Safety Improvement projects. When the reporting requirements for CTC changes, the logic in the AM Tool will change.
7. During the transition to the new Proactive Safety objective, the performance output for projects with a primary activity category of Proactive Safety (under program codes 015, 112, or 235) will continue to be presented here in the units of measure corresponding to the activities historically reported to date. A change in units to "Annual Fatal and Serious Injury Collisions" for future programming requests is being planned.

Project Tool ID 19345 Bridge Worksheet - 06-KER-099-21.15/24.60 (PPC)

(Bridge Worksheet Last Saved - 06/26/23 @ 10:11AM by Brittney Vasquez)

№	Project Location	Bridge №	Work Type	Bridge / Tunnel Work Description	Conditions								Deck Areas		Bridge Paint			Electrical / Mechanical			Approach Slabs			Bridge Rail									Fish Passage Priority List (Yes/No)	Priority Identifier	Stream Name	Is the proposed treatment expected to remediate the fish passage priority barrier? (Yes/No/NA)	Addressing Fish Passage not in the Priority List (Yes/No)	Should Cou toward Fis Passage n in the Priority Lis (Yes/No)
					Bridge / Tunnel Health Pre	Bridge / Tunnel Health Post	Bridge Scour Pre	Bridge Scour Post	Bridge Seismic Pre	Bridge Seismic Post	Bridge Gds Mvmt Pre	Bridge Gds Mvmt Post	Exist (sf)	Additional (sf)	Y/N	Condition	Paint Area (sf)	Y/N	Condition	Area (sf)	Y/N	Replaced (sf)	New (sf)	Y/N	Good (lf)	Fair (lf)	Poor (lf)	Additonal (lf)	Post Good (lf)	Post Fair (lf)	Post Poor (lf)	Post New (lf)						
1	06-KER-099-21.15/24.60 (Primary Location)	50 0261	Replacement	Reconst to allow Aux lane and vertical clearance	Fair	Good	Good	Good	Good	Good	Good	Good	17201		No			No			No			Yes	416	0	0		416				No			No		No
2	06-KER-099-21.15/24.60 (Primary Location)	50 0260	Replacement	Widening to allow Aux lane	Good	Good	Good	Good	Good	Good	Poor	Good	28729	3634	No			No			No			Yes	158	316	0		474				No			No		No

HQ Comments: **Review Date:**

Project Summary

Project Location	No of Bridges	Bridge Health (sf)						Bridge Scour (sf)						Bridge Seismic (sf)						Bridge Goods Movement (sf)						Bridge Rail (lf)					
		Pre-Good	Pre-Fair	Pre-Poor	Post-Good	Post-Fair	Post-Poor	Pre-Good	Pre-Fair	Pre-Poor	Post-Good	Post-Fair	Post-Poor	Pre-Good	Pre-Fair	Pre-Poor	Post-Good	Post-Fair	Post-Poor	Pre-Good	Pre-Fair	Pre-Poor	Post-Good	Post-Fair	Post-Poor	Pre-Good	Pre-Fair	Pre-Poor	Post-Good	Post-Fair	Post-Poor
KER-099-21.15/24.60	2	28729	17201	0	45930	0	0	45930	0	0	45930	0	0	45930	0	0	45930	0	0	17201	0	28729	45930	0	0	574	316	0	890	0	0

Bridge Pre and Post Conditions Summary

№	Bridge/Tunnel Number	Inspection Date	Bridge data date	Pre-Health	Post-Health	Pre-Scour	Post-Scour	Pre-Seismic	Post-Seismic	Pre-Goods	Post-Goods	Deck Areas	Rail Pre-Good (lf)	Rail Pre-Fair (lf)	Rail Pre-Poor (lf)	Rail Post-Good (lf)	Rail Post-Fair (lf)	Rail Post-Poor (lf)
1	50 0261	10/21/21	04/09/23	Fair	Good	Good	Good	Good	Good	Good	Good	17201	416	-	-	416	-	-
2	50 0260	10/21/21	04/09/23	Good	Good	Good	Good	Good	Good	Poor	Good	28729	158	316	-	474	-	-

Pavement Worksheet - Tool ID: 19345 - 06-KER-099-21.15/24.60 (Primary Location - Section PPC)

Plan Year: **2027**

PROJECT INPUT																2019 PAVEMENT PRE-CONDITION														
Pavement Work Limits																Roadway	Traditional Condition (Lane Miles)						MAP-21 Condition (Lane Miles)			EFFECTIVENESS					COMMENTS
№	Project Location	District	County	Route	Route Suffix	Beg PM Prefix	Beg PM	Beg PM Suffix	End PM Prefix	End PM	End PM Suffix	Direction	Lane	Treatment	ActID	Class	Green	Yellow	Blue	Orange	Red	Good	Fair	Poor	Total Lane Miles	SHOPP Effectiveness %	Rehab Effectiveness %	MAP-21 Effective-ness %	PCR Scenario No	District's Notes
1	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Right	4	CRCP Lane Replacement	B21	1	0.000	0.904	0.000	0.000	0.000	0.000	0.904	0.000	0.904	0	0	100	3299	PaveM incorrect, actual = 27.6 Per PaveM Engineer
2	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Left	1	Slab Replacement - CAPM	B26	1	3.333	0.000	0.000	0.000	0.000	0.000	0.421	0.000	0.421	0	0	100	3299	
3	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Right	1	Slab Replacement - CAPM	B26	1	3.333	0.000	0.000	0.000	0.000	0.000	1.325	0.000	1.325	0	0	100	3299	
4	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Left	2	Slab Replacement - CAPM	B26	1	1.567	1.766	0.000	0.000	0.000	0.000	2.429	0.000	2.429	0	0	100	3299	
5	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Right	2	Slab Replacement - CAPM	B26	1	0.904	0.000	0.000	2.429	0.000	0.000	2.429	0.000	2.429	100	0	100	3299	
6	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Left	3	Slab Replacement - CAPM	B26	1	0.000	0.000	0.000	1.567	1.766	0.000	1.988	1.345	3.333	100	53	100	3299	
7	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Right	3	Slab Replacement - CAPM	B26	1	0.000	0.000	0.000	0.904	2.429	0.000	2.249	1.084	3.333	100	73	100	3299	
8	KER-099-21.15/24.60 (Primary Location)	06	KER	099			21.15			24.6		Left	4	CRCP Lane Replacement	B21	1	0.000	0.000	0.000	0.904	0.000	0.000	0.904	0.000	0.904	100	0	100	3299	PaveM incorrect, actual = 27.6 Per PaveM Engineer

Pavement Class Summary
Performance Tab Information

Activity ID	Activity Description	Activity Unit	Pavement Class I			Pavement Class II			Pavement Class III			Total Good, Fair, Poor		
			Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
B21	Concrete Pavement Major Rehab	Lane Miles	0.000	1.808	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.808	0.000
B22	Asphalt Pavement Major Rehab	Lane Miles	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B25	Asphalt Pavement Minor Rehab (CAPM)	Lane Miles	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B26	Concrete Pavement Minor Rehab (CAPM)	Lane Miles	0.000	10.841	2.429	0.000	0.000	0.000	0.000	0.000	0.000	0.000	10.841	2.429
B29	Existing Ramps & Connectors & Existing Shoulders	Lane Miles	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

(Last Saved - 06/02/23 @ 2:12 PM by Brittney Vasquez)

AM TOOL ID 19345 - Drainage Worksheet (PPC) **Data Date: 03/05/21** Save to Excel

№	Project Location	Activity	SYSNO	INETNO	OUTETNO	Inspected Date	Health Assessment	Diameter (in)	Width (ft)	Height (ft)	Number of Barrels	Length (ft)	Extension of Existing Culvert (LF/Barrel)	Pre-Condition	Total Added /Reduced Length (LF)	Pre-Condition Quantity for Perf Tab	New Quantities for Perf Tab	Total Quantity of Culvert (LF)	Cleaned date	Non-Structural (last known condition)	Fish Passage Priority List (Yes/No)	Priority Identifier	Stream Name	Is the proposed treatment expected to remediate the fish passage priority barrier? (Yes/No/NA)	Addressing Fish Passage not in the Priority List (Yes/No)?	Should Count toward Fish Passage not in the Priority List (Yes/No)	Comments	HQ Notes
1	KER-099-21.15/24.60 (Primary Location)	Replace/Install Culverts (201.151)	500990002141	500990002141002	500990002141001	08/03/10	40	24.00	0.00	0.00	1	179.80		Poor		179.80	0.00	179.80			No							
2	KER-099-21.15/24.60 (Primary Location)	Replace/Install Culverts (201.151)	500994002179	500994002179013	500994002179011	08/03/10	46	18.00	0.00	0.00	1	70.57		Poor		70.57	0.00	70.57			No							
3	KER-099-21.15/24.60 (Primary Location)	Replace/Install Culverts (201.151)	500994002179	500994002179012	500994002179011	08/03/10	46	18.00	0.00	0.00	1	63.53		Poor		63.53	0.00	63.53			No							
															Total (LF):	**313.90**	**0.00**	**313.90**										

TMS Worksheet - Project ID 19345 - EA 0X370-KER-099-21.15/24.60 (PPC)

RTL Plan Year: 2027 **Data Date:** 05/31/23

№	Project Location	TMS Structural or Technology	TMS Asset Type	TMS Asset Sub Type	TMS ID	IMMS ID	Locatiom Description	Direction	Work Type	Asset Pre-Condition at RTL	Asset Post-Condition	Comments	HQ Comments
1	KER-099-21.15/24.60 (Primary Location)	Technology	Closed Circuit Televisions (CCTV)	-	CC-260	06KER099 -ES260	MING AVE	NB	Technology Component	Good	Good	Replace Camera	
2	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0088 PM22.43, Existing	
3	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0090, New	
4	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0086 PM21.15	
5	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0089 PM22.74	
6	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	PM22.35	
7	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0087 PM21.18	
8	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0095, New	
9	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0093, New	
10	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Freeway Ramp Meters	New	New	New	New Location	New	TMS Technology and Structure	New	New	RM-0094 PM24.59	
11	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Census Stations	Type 5	CE-0426	06KER099 -ET106	N. OF JCT RTE 58	BO	Technology Component	Poor			
12	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Census Stations	Type 5	CE-0425	06KER099 -ET105	S. OF RTE 58	BO	Technology Component	Poor		Replace in Kind	
13	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Signals	-	SI-598	06KER099 -E0513	MING AVENUE	NB	Technology Component	Poor			
14	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Signals	-	SI-041	06KER099 -E0036	SR99 at CALIFORNIA NB RAMP	NB	Technology Component	Poor		Replace in Kind & Add Cabinet	
15	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Signals	-	SI-599	06KER099 -E0514	MING AVENUE	SB	Technology Component	Good	Good		
16	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Signals	-	SI-043	06KER099 -E0136	SR99 SB CALIFORNIA and REAL ROAD	SB	Technology Component	Poor			
17	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Monitoring Detection Stations (VDS)	Radar	VD-0368	06KER099 -V0368	N OF RTE 58 OC AT SB OFF-RAMP	SB	Technology Component	Good	Good	Protect in place or replace in kind	
18	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Monitoring Detection Stations (VDS)	Loop	VD-0092	06KER099 -ET106	S OF PALM AVE ET106 (TMS/TCS)	SB	Technology Component	Good	Good	Replace in Kind & Add Cabinet	
19	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Monitoring Detection Stations (VDS)	Loops	VD-0369	06KER099 -V0369	S OF CALIFORNIA AVE OC	SB	Technology Component	Good	Good	Protect In Place or Replace In Kind	
20	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Monitoring Detection Stations (VDS)	Loop	VD-0090	06KER099 -ET104	S OF BELLE TERRACE(ET 105)(WS)TMS/TCS	SB	Technology Component	Poor		Replace in Kind	
21	KER-099-21.15/24.60 (Primary Location)	Technology & Structures	Traffic Monitoring Detection Stations (VDS)	New	New	New	New Location	New	TMS Technology and Structure	New	New	VD-0089, Replace in Kind	
22	KER-099-21.15/24.60 (Primary Location)	Technology	Traffic Monitoring Detection Stations (VDS)	Radar	VD-0367	06KER099 -V0367	N OF MING AVE OC AT NB LOOP OFFRAMP(WS)	NB	Technology Component	Good	Good	Protect in place or replace in kind	

Last Saved - 07/19/23 @ 1:37 PM by Brittney Vasquez

HQ Comments:

Review Date:

Project Summary Technology

Project Location***	№ of TMS assets	Pre-Good	Pre-Poor	Pre-New	Post-Good	Post-Poor	Post-New
KER-099-21.15/24.60 (Primary Location)	22	6	6	10	12	0	10

Project Summary Structures

Project Location***	№ of TMS assets	Pre-Good	Pre-Poor	Pre-New	Post-Good	Post-Poor	Post-New
KER-099-21.15/24.60 (Primary Location)	10	0	0	10	0	0	10

Attachment J

Transportation Management Plan Data Sheet

DISTRICT 6 - TRANSPORTATION MANAGEMENT PLAN

DATA SHEET

(TMP Elements and Costs)

CO/RTE	KER	99	***PM***	21.16/24.70	***PROJ. NO.***	0618000059
					EA. NO.	0X370
PROJECT NAME	Bakersfield 99 Rehab II					
PROJECT LIMIT	From White Lane Overcrossing to California Avenue Undercrossing					
PROJECT DESCRIPTION	3R Project on SR99, both directions					

A) ***The project includes the following:***
(Check all that applicable type of facility closures.)

- ☑ Highway or Freeway Lanes
- ☑ Highway or Freeway Shoulders
- ☑ Freeway Connectors
- ☐ Full/Complete Freeway/Highway Closure
- ☑ Freeway Off-ramps
- ☑ Freeway On-ramps
- ☐ Local Streets

B) ***Are there any construction strategies that can restore existing number of lanes?***

☑ No ☐ Yes *(Check all applicable strategies.)*

- ☐ Temporary Roadway Widening
  - Structure Involvement? ☐ Yes ☐ No (If yes, notify Project Manager)
- ☐ Lane Restriping (Temporary narrow lane widths)
- ☐ Roadway Realignment (Detour around work area)
- ☐ Median and/or Right Shoulder Utilization
- ☐ Use of HOV lane as Temporary Mixed Flow Lane
- ☐ Staging Alternatives (Explain Below)

C) ***Calculated Delay***
(To be performed if construction strategies in Item B do not mitigate congestion resulting from Item A or on all projects along Interstate 5 and Route 99)

1. Estimated Maximum Individual delay _____ minutes
2. Existing or Acceptable Individual Vehicle Delay _____ minutes
3. Estimated Individual Vehicle Delay Requiring Mitigation _____ minutes
4. Estimate Delay Cost (Most Applicable)
   - ☐ Extended Weekend Closure
   - ☐ Weekly (7 days)
5. Estimated Duration of Project Related Delays _____ # of Days
6. Cost of Construction Related delays _____

TMP Estimates based on X-Number of Working Days
requiring Lane/Shoulder/Ramp/Freeway/Highway Closures: **415** Working Days

Total Working Days to Construct the Project: **415** Working Days

TMP DATASHEET

Date:	*April 17, 2023*		***Cnty/Rte:***	*KER*	*99*
Design Senior:	*Harkirat Shergill*		***PM:***	*21.16/24.70*	*99*
Branch:	*I*	***Office of Design:***	***Project/EA No:***	*0618000059*	*0X370*

D) ***Preliminary TMP Elements and cost:*** (Identify all elements and estimated costs that will be used to mitigate congestion resulting from the proposed construction activities.)

1.	**Public Information** (BEES #**066063**)	
☐	Brochures & Mailers	
☑	Press Release/Media Alerts	$10,400
☐	Paid Advertisements	
☐	Public Information Center/Kiosks	
☐	Telephone Hotline	
☑	Planned Lane Closure Website	$0
☐	Project Website	
☐	Pubic Meetings	
☑	Freight Travel Information	$0
2.	**Motorist Information Strategies**	
☐	Traffic Radio Announcements	
☐	Fixed CMS	
☑	Portable CMS (BEES #**128652**)	$149,000
☐	Temporary Motorist Information Signs	
☐	Ground Mounted Signs (Detour)	
☐	Dynamic Speed Message Sign	
☐	Highway Advisory Radio	
☑	CT Hwy Infom. Network (CHIN)	$0
3.	**Incident Management**	
☑	Transportation Management Center	$0
☐	Traffic Management Team (TMT)	
☐	Intelligent Transportation Systems	
☐	Traff. Surveillance (Loop & CCTV)	
☐	Helicopter Surveillance	
☐	Tow/Freeway	
☑	COZEEP (BEES #**066062**)	$1,079,000
4.	**Construction Strategies (In Addition to Elements Identified on Item B)**	
☑	Lane Requirement Chart	$0
☑	Construction Staging	$0
☑	Traffic Handling Plans	$0
☐	Full Facility Closures	
☐	Local Road Closures	
☐	Lane Modifications	
☐	One-Way Reversing Operation	

4.	**Construction Strategies (In Addition to Elements Identified on Item B)**	
☐	Two-way Traffic On One Side	
☐	Reversible Lanes	
☑	Ramp/Connector Closure	$0
☑	Night Work	$0
☐	Extended Weekend Work	
☐	Ped/Bicycle Access Improvements	
☐	Maintain Business Access	
☐	C + T Bidding	
☐	Innovative Construction Techniques	
☑	Coordination w/ Adj. Construction Site	$0
☑	Speed Limit Reduction	$0
☐	Traffic Screens	
5.	**Demand Management**	
☐	HOV Lane/Ramps	
☐	Variable Work Hours	
☐	Telecommuting	
☐	Truck/Heavy Vehicle Restrictions	
☐	Rideshare Promotions	
☐	Ramp Metering	
☐	Transit Incentives	
☐	Shuttle Services	
☐	Ridesharing/Carpooling Incentives	
☐	Park & Ride Promotion	
6.	**Alternative Route Strategies**	
☐	Off-site Detours/Use of Alt. Rtes	
☐	Signal Timing/Coord. Improvements	
☐	Temporary Traffic Signals	
☐	Signal Retiming	
☐	Street/Intersection Improvements	
☐	Turn Restrictions	
☐	Parking Restrictions	
7.	**Other Considerations**	
☐	Application of New Technologies	
☐	Other	

TOTAL ESTIMATED COST OF TMP	**$1,238,400**

PROJECT NOTES:

1. Current dollar values used. Inflation was not factored into the estimate.
2. There are no noise restrictions / moratoriums for night work.
3. Traffic Control/Maintain Traffic costs was not provided. Please consult with the OE or construction office for this estimate.
4. Portable CMS specified for this project by this estimate is designed for congestion relief as outlined by DD-60. Portable CMS required for other purposes should be included under other specifications.
5. COZEEP specified for this project by this estimate is designated for congestion relief as outlined by DD-60. COZEEP required for other purposes should be included under other specifications.
6. The TMP is a living document that is subject to change if material changes take place in the final version of the project phase or if changes are required during construction to respond to excessive levels of congestion.

*The estimated cost will depend on the Design Engineer's and Office of Traffic Design's Estimate.

PREPARED BY:	**OFFICE OF TRAFFIC MANAGEMENT**	**DATE:**
Paul Yamashita		April 17, 2023

Attachment K

Pavement Condition Summary

PaveM Scenario Used: #3299
APCS Data Year: 2019

Caltrans Pavement Program
Pavement Condition Summary Report (PaveM) By Lane
SOUTHBOUND; LANE #1

District: 6; County: Kern (KER); Route: 99
From PM: 21.150 To PM: 24.600
L-Length: 3.450. R-Length: 0.000
L-Lane Miles: 3.332. R-Lane Miles: 0.000 (Unknown lane miles: 0.000)

Year/ Condition Lane Miles	Pavement Type	Traditional Condition (lane miles)					MAP-21 Condition (lane miles)			Total Lane Miles	Effectiveness (%)	
		Green	Yellow	Blue	Orange	Red	Good	Fair	Poor		SHOPP Effectiveness ((Red + Orange)/(Total	Rehab Effectiveness (Red/Total Lane Miles) %
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.411	0.000	0.000	0.000	0.000	3.411	0.000	0.000	3.411	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	3.332	0.000	0.000	3.332	0.000	0.000
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	3.332	0.000	0.000	3.332	0.000	0.000
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	3.332	0.000	0.000	3.332	0.000	0.000
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	3.332	0.000	0.000	3.332	0.000	0.000
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	3.332	0.000	0.000	3.332	0.000	0.000
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000

Year/ Condition Lane Miles	Pavement Type	Detailed Breakdown of MAP-21 Fair Condition (lane miles)										Fair Total Lane Miles
		Fair (Poor Crack) F1	Fair (Poor Ride) F2	Fair (Poor Rut/Fault) F3/F4	Fair (Fair Ride Only) F5	Fair (Rut/Fault Only) F6/F7	Fair (Cracking Only) F8	Fair (Cracking & IRI) F9	Fair (Cracking & Rutting/ Faulting Only) F10	Fair (IRI & Rut/Fault) F11	Fair (All Fair) F12	
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.420	0.000	0.000	0.000	0.000	0.420
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.420	0.000	0.000	0.000	0.000	0.420
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.420	0.000	0.000	0.000	0.000	0.420
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.420	0.000	0.000	0.000	0.000	0.420
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.420	0.000	0.000	0.000	0.000	0.420
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.420	0.000	0.000	0.000	0.000	0.420
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324

ID	Pavement Condition Rating	Description		
		Crack	Ride	Rutting or Faulting
F1	Fair (Poor Crack)	Poor	Good or Fair	Good or Fair
F2	Fair (Poor Ride)	Good or Fair	Poor	Good or Fair
F3/F4	Fair (Poor Rut/Fault)	Good or Fair	Good or Fair	Poor
F5	Fair (Fair Ride Only)	Good or Fair	Fair	Good
F6/F7	Fair (Rut/Fault Only)	Good or Fair	Good	Fair
F8	Fair (Cracking Only)	Fair	Good	Good
F9	Fair (Cracking & IRI)	Fair	Fair	Good
F10	Fair (Cracking and Rutting/Faulting Only)	Fair	Good	Fair
F11	Fair (IRI & Rut/Fault)	Good	Fair	Fair
F12	Fair (All Fair)	Fair	Fair	Fair

PaveM Scenario Used: #3299
APCS Data Year: 2019

Caltrans Pavement Program
Pavement Condition Summary Report (PaveM) By Lane
SOUTHBOUND; LANE #2

District: 6; County: Kern (KER); Route: 99
From PM: 21.150 To PM: 24.600
L-Length: 3.450. R-Length: 0.000
L-Lane Miles: 3.332. R-Lane Miles: 0.000 (Unknown lane miles: 0.000)

Year/ Condition Lane Miles	Pavement Type	Traditional Condition (lane miles)					MAP-21 Condition (lane miles)			Total Lane Miles	Effectiveness (%)	
		Green	Yellow	Blue	Orange	Red	Good	Fair	Poor		SHOPP Effectiveness ((Red + Orange)/(Total	Rehab Effectiveness (Red/Total Lane Miles) %
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.844	0.000	0.000	0.000	1.567	1.844	0.000	3.411	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	0.904	2.428	0.000	3.332	0.000	0.000
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	0.904	2.428	0.000	3.332	0.000	0.000
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605

Year/ Condition Lane Miles	Pavement Type	Detailed Breakdown of MAP-21 Fair Condition (lane miles)										Fair Total Lane Miles
		Fair (Poor Crack) F1	Fair (Poor Ride) F2	Fair (Poor Rut/Fault) F3/F4	Fair (Fair Ride Only) F5	Fair (Rut/Fault Only) F6/F7	Fair (Cracking Only) F8	Fair (Cracking & IRI) F9	Fair (Cracking & Rutting/ Faulting Only) F10	Fair (IRI & Rut/Fault) F11	Fair (All Fair) F12	
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	1.844	0.000	0.000	0.000	0.000	1.844
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	1.765	0.000	0.000	0.000	0.000	1.765
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.663	1.345	2.428

ID	Pavement Condition Rating	Description		
		Crack	Ride	Rutting or Faulting
F1	Fair (Poor Crack)	Poor	Good or Fair	Good or Fair
F2	Fair (Poor Ride)	Good or Fair	Poor	Good or Fair
F3/F4	Fair (Poor Rut/Fault)	Good or Fair	Good or Fair	Poor
F5	Fair (Fair Ride Only)	Good or Fair	Fair	Good
F6/F7	Fair (Rut/Fault Only)	Good or Fair	Good	Fair
F8	Fair (Cracking Only)	Fair	Good	Good
F9	Fair (Cracking & IRI)	Fair	Fair	Good
F10	Fair (Cracking and Rutting/Faulting Only)	Fair	Good	Fair
F11	Fair (IRI & Rut/Fault)	Good	Fair	Fair
F12	Fair (All Fair)	Fair	Fair	Fair

PaveM Scenario Used: #3299
APCS Data Year: 2019

Caltrans Pavement Program
Pavement Condition Summary Report (PaveM) By Lane
SOUTHBOUND; LANE #3

District: 6; County: Kern (KER); Route: 99
From PM: 21.150 To PM: 24.600
L-Length: 3.450. R-Length: 0.000
L-Lane Miles: 3.332. R-Lane Miles: 0.000 (Unknown lane miles: 0.000)

Year/ Condition Lane Miles	Pavement Type	Traditional Condition (lane miles)					MAP-21 Condition (lane miles)			Total Lane Miles	Effectiveness (%)	
		Green	Yellow	Blue	Orange	Red	Good	Fair	Poor		SHOPP Effectiveness ((Red + Orange)/(Total	Rehab Effectiveness (Red/Total Lane Miles) %
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.844	0.000	0.000	0.000	0.904	2.507	0.000	3.411	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	0.904	2.428	0.000	3.332	0.000	0.000
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.663	0.000	0.000	1.765	0.904	2.428	0.000	3.332	52.971	52.971
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	0.000	0.000	0.000	1.765	0.904	2.428	0.000	3.332	52.971	52.971
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	0.000	0.000	0.000	1.765	0.904	2.428	0.000	3.332	52.971	52.971
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	0.000	0.000	0.000	1.765	0.904	2.428	0.000	3.332	52.971	52.971
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	0.000	0.000	0.000	1.765	0.904	2.428	0.000	3.332	52.971	52.971
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	0.000	0.000	0.000	1.765	0.904	2.428	0.000	3.332	52.971	52.971
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.663	0.000	0.000	1.765	0.000	3.332	0.000	3.332	52.971	52.971
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.663	0.000	0.904	1.765	0.000	3.332	0.000	3.332	80.102	52.971
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.663	0.000	0.904	1.765	0.000	1.987	1.345	3.332	80.102	52.971
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	1.987	1.345	3.332	100.000	52.971
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	1.987	1.345	3.332	100.000	52.971
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	1.987	1.345	3.332	100.000	52.971
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	0.904	2.428	3.332	100.000	52.971
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	0.904	2.428	3.332	100.000	52.971
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	0.904	2.428	3.332	100.000	52.971
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	1.567	1.765	0.000	0.904	2.428	3.332	100.000	52.971

Year/ Condition Lane Miles	Pavement Type	Detailed Breakdown of MAP-21 Fair Condition (lane miles)										Fair Total Lane Miles
		Fair (Poor Crack) F1	Fair (Poor Ride) F2	Fair (Poor Rut/Fault) F3/F4	Fair (Fair Ride Only) F5	Fair (Rut/Fault Only) F6/F7	Fair (Cracking Only) F8	Fair (Cracking & IRI) F9	Fair (Cracking & Rutting/ Faulting Only) F10	Fair (IRI & Rut/Fault) F11	Fair (All Fair) F12	
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.844	0.000	0.000	0.000	0.000	0.663	0.000	0.000	0.000	0.000	2.507
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	0.663	1.345	0.000	0.000	0.000	2.428
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.428
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.428
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.428
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.428
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.428
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.428
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	3.332
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	3.332
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.083	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	1.987
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.083	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	1.987
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.000	1.987
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.000	1.987
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.904
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.904
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.904
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.904

ID	Pavement Condition Rating	Description		
		Crack	Ride	Rutting or Faulting
F1	Fair (Poor Crack)	Poor	Good or Fair	Good or Fair
F2	Fair (Poor Ride)	Good or Fair	Poor	Good or Fair
F3/F4	Fair (Poor Rut/Fault)	Good or Fair	Good or Fair	Poor
F5	Fair (Fair Ride Only)	Good or Fair	Fair	Good
F6/F7	Fair (Rut/Fault Only)	Good or Fair	Good	Fair
F8	Fair (Cracking Only)	Fair	Good	Good
F9	Fair (Cracking & IRI)	Fair	Fair	Good
F10	Fair (Cracking and Rutting/Faulting Only)	Fair	Good	Fair
F11	Fair (IRI & Rut/Fault)	Good	Fair	Fair
F12	Fair (All Fair)	Fair	Fair	Fair

PaveM Scenario Used: #3299
APCS Data Year: 2019

Caltrans Pavement Program
Pavement Condition Summary Report (PaveM) By Lane
NORTHBOUND; LANE #1

District: 6; County: Kern (KER); Route: 99
From PM: 21.150 To PM: 24.600
L-Length: 0.000. R-Length: 3.450
L-Lane Miles: 0.000. R-Lane Miles: 3.332 (Unknown lane miles: 0.000)

		Traditional Condition (lane miles)					MAP-21 Condition (lane miles)				Effectiveness (%)	
Year/ Condition Lane Miles	Pavement Type	Green	Yellow	Blue	Orange	Red	Good	Fair	Poor	Total Lane Miles	SHOPP Effectiveness ((Red + Orange) (Total	Rehab Effectiveness (Red/Total Lane Miles) %
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.748	0.663	0.000	0.000	0.000	0.000	3.411	0.000	3.411	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	0.000	3.332	0.000	3.332	0.000	0.000
2017	*No Data Available*											
2018	Flexible	0.663	0.000	0.000	0.000	0.000	0.663	0.000	0.000	0.663	0.000	0.000
	Rigid	2.669	0.000	0.000	0.000	0.000	1.765	0.904	0.000	2.669	0.000	0.000
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	3.332	0.000	0.000	3.332	0.000	0.000
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	3.332	0.000	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.008	1.324	0.000	3.332	0.000	0.000

		Detailed Breakdown of MAP-21 Fair Condition (lane miles)										
Year/ Condition Lane Miles	Pavement Type	Fair (Poor Crack) F1	Fair (Poor Ride) F2	Fair (Poor Rut/Fault) F3/F4	Fair (Fair Ride Only) F5	Fair (Rut/Fault Only) F6/F7	Fair (Cracking Only) F8	Fair (Cracking & IRI) F9	Fair (Cracking & Rutting/ Faulting Only) F10	Fair (IRI & Rut/Fault) F11	Fair (All Fair) F12	Fair Total Lane Miles
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	2.507	0.000	0.000	0.000	0.000	3.411
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	2.428	0.000	0.000	0.000	0.000	3.332
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.904
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	0.000	0.420	0.000	0.000	0.000	0.000	1.324

ID	Pavement Condition Rating	Description: Crack	Description: Ride	Description: Rutting or Faulting
F1	Fair (Poor Crack)	Poor	Good or Fair	Good or Fair
F2	Fair (Poor Ride)	Good or Fair	Poor	Good or Fair
F3/F4	Fair (Poor Rut/Fault)	Good or Fair	Good or Fair	Poor
F5	Fair (Fair Ride Only)	Good or Fair	Fair	Good
F6/F7	Fair (Rut/Fault Only)	Good or Fair	Good	Fair
F8	Fair (Cracking Only)	Fair	Good	Good
F9	Fair (Cracking & IRI)	Fair	Fair	Good
F10	Fair (Cracking and Rutting/Faulting Only)	Fair	Good	Fair
F11	Fair (IRI & Rut/Fault)	Good	Fair	Fair
F12	Fair (All Fair)	Fair	Fair	Fair

PaveM Scenario Used: #3299
APCS Data Year: 2019

Caltrans Pavement Program
Pavement Condition Summary Report (PaveM) By Lane
NORTHBOUND; LANE #2

District: 6; County: Kern (KER); Route: 99
From PM: 21.150 To PM: 24.600
L-Length: 0.000. R-Length: 3.450
L-Lane Miles: 0.000. R-Lane Miles: 3.332 (Unknown lane miles: 0.000)

		Traditional Condition (lane miles)					MAP-21 Condition (lane miles)				Effectiveness (%)	
Year/ Condition Lane Miles	Pavement Type	Green	Yellow	Blue	Orange	Red	Good	Fair	Poor	Total Lane Miles	SHOPP Effectiveness ((Red + Orange) (Total	Rehab Effectiveness (Red/Total Lane Miles) %
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.844	0.000	0.000	0.000	1.567	1.844	0.000	3.411	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.765	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	1.567	1.765	0.000	3.332	0.000	0.000
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.912	0.420	0.000	3.332	0.000	0.000
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	2.249	1.083	0.000	3.332	0.000	0.000
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	0.904	2.428	0.000	3.332	0.000	0.000
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.912	0.420	0.000	0.000	0.000	0.904	2.428	0.000	3.332	0.000	0.000
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.249	0.420	0.000	0.663	0.000	0.904	2.428	0.000	3.332	19.898	0.000
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.249	0.420	0.000	0.663	0.000	0.904	2.428	0.000	3.332	19.898	0.000
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.249	0.420	0.000	0.663	0.000	0.904	2.428	0.000	3.332	19.898	0.000
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.249	0.420	0.000	0.663	0.000	0.904	2.428	0.000	3.332	19.898	0.000
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.428	0.000	0.904	2.428	0.000	3.332	72.869	0.000
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.428	0.000	0.904	2.428	0.000	3.332	72.869	0.000
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.428	0.000	0.904	2.428	0.000	3.332	72.869	0.000
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	0.000	0.000	2.428	0.000	0.904	2.428	0.000	3.332	72.869	0.000
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	2.428	0.000	0.904	2.428	0.000	3.332	72.869	0.000
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	2.008	0.420	0.904	2.428	0.000	3.332	72.869	12.605

		Detailed Breakdown of MAP-21 Fair Condition (lane miles)										
Year/ Condition Lane Miles	Pavement Type	Fair (Poor Crack) F1	Fair (Poor Ride) F2	Fair (Poor Rut/Fault) F3/F4	Fair (Fair Ride Only) F5	Fair (Rut/Fault Only) F6/F7	Fair (Cracking Only) F8	Fair (Cracking & IRI) F9	Fair (Cracking & Rutting/ Faulting Only) F10	Fair (IRI & Rut/Fault) F11	Fair (All Fair) F12	Fair Total Lane Miles
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	1.844	0.000	0.000	0.000	0.000	1.844
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	1.765	0.000	0.000	0.000	0.000	1.765
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	0.000	1.765
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.420
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	0.000	0.000	0.000	0.000	1.083
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	1.345	0.000	0.000	0.000	0.000	2.428
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.663	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.663	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.663	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.663	0.000	0.000	0.000	0.000	1.345	0.000	0.000	0.000	2.428
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.663	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.345	2.428

ID	Pavement Condition Rating	Description: Crack	Description: Ride	Description: Rutting or Faulting
F1	Fair (Poor Crack)	Poor	Good or Fair	Good or Fair
F2	Fair (Poor Ride)	Good or Fair	Poor	Good or Fair
F3/F4	Fair (Poor Rut/Fault)	Good or Fair	Good or Fair	Poor
F5	Fair (Fair Ride Only)	Good or Fair	Fair	Good
F6/F7	Fair (Rut/Fault Only)	Good or Fair	Good	Fair
F8	Fair (Cracking Only)	Fair	Good	Good
F9	Fair (Cracking & IRI)	Fair	Fair	Good
F10	Fair (Cracking and Rutting/Faulting Only)	Fair	Good	Fair
F11	Fair (IRI & Rut/Fault)	Good	Fair	Fair
F12	Fair (All Fair)	Fair	Fair	Fair

PaveM Scenario Used: #3299
APCS Data Year: 2019

Caltrans Pavement Program
Pavement Condition Summary Report (PaveM) By Lane
NORTHBOUND; LANE #3

District: 6; County: Kern (KER); Route: 99
From PM: 21.150 To PM: 24.600
L-Length: 0.000. R-Length: 3.450
L-Lane Miles: 0.000. R-Lane Miles: 3.332 (Unknown lane miles: 0.000)

		Traditional Condition (lane miles)					MAP-21 Condition (lane miles)				Effectiveness (%)	
Year/ Condition Lane Miles	Pavement Type	Green	Yellow	Blue	Orange	Red	Good	Fair	Poor	Total Lane Miles	SHOPP Effectiveness ((Red + Orange) (Total	Rehab Effectiveness (Red/Total Lane Miles) %
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	2.507	0.000	0.000	0.000	0.904	2.507	0.000	3.411	0.000	0.000
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.567	1.345	0.000	0.000	0.420	0.904	2.428	0.000	3.332	12.605	12.605
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	2.008	0.000	0.000	0.420	0.904	2.428	0.000	3.332	12.605	12.605
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	1.345	0.000	0.000	1.083	0.000	3.332	0.000	3.332	32.503	32.503
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	1.345	0.000	0.000	1.083	0.000	3.332	0.000	3.332	32.503	32.503
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	1.345	0.000	0.000	1.083	0.000	3.332	0.000	3.332	32.503	32.503
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	1.345	0.000	0.000	1.083	0.000	3.332	0.000	3.332	32.503	32.503
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.904	1.345	0.000	0.000	1.083	0.000	3.332	0.000	3.332	32.503	32.503
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	1.345	0.000	0.904	1.083	0.000	3.332	0.000	3.332	59.634	32.503
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	1.345	0.000	0.904	1.083	0.000	2.912	0.420	3.332	59.634	32.503
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	2.912	0.420	3.332	100.000	72.869
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	2.249	1.083	3.332	100.000	72.869
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	2.249	1.083	3.332	100.000	72.869
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	2.249	1.083	3.332	100.000	72.869
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	0.904	2.428	3.332	100.000	72.869
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	0.904	2.428	3.332	100.000	72.869
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	0.904	2.428	3.332	100.000	72.869
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.904	2.428	0.000	0.904	2.428	3.332	100.000	72.869

		Detailed Breakdown of MAP-21 Fair Condition (lane miles)										
Year/ Condition Lane Miles	Pavement Type	Fair (Poor Crack) F1	Fair (Poor Ride) F2	Fair (Poor Rut/Fault) F3/F4	Fair (Fair Ride Only) F5	Fair (Rut/Fault Only) F6/F7	Fair (Cracking Only) F8	Fair (Cracking & IRI) F9	Fair (Cracking & Rutting/ Faulting Only) F10	Fair (IRI & Rut/Fault) F11	Fair (All Fair) F12	Fair Total Lane Miles
2015	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	2.507	0.000	0.000	0.000	0.000	2.507
2016	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	1.345	1.083	0.000	0.000	0.000	2.428
2017	*No Data Available*											
2018	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.420	0.000	0.000	0.000	0.000	0.000	2.008	0.000	0.000	0.000	2.428
End Previous Years Actuals - Begin APCS Data Collection Year and Predicted Years												
2019	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.083	0.000	0.000	0.000	0.000	0.904	1.345	0.000	0.000	0.000	3.332
2020	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.083	0.000	0.000	0.000	0.000	0.904	1.345	0.000	0.000	0.000	3.332
2021	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	0.000	3.332
2022	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	0.000	3.332
2023	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	3.332
2024	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.428	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	3.332
2025	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.008	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	2.912
2026	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	2.008	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	2.912
2027	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.345	0.000	0.000	0.000	0.000	0.000	0.904	0.000	0.000	0.000	2.249
2028	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.345	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	2.249
2029	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	1.345	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	2.249
2030	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.904
2031	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.904
2032	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.904
2033	Flexible	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rigid	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904

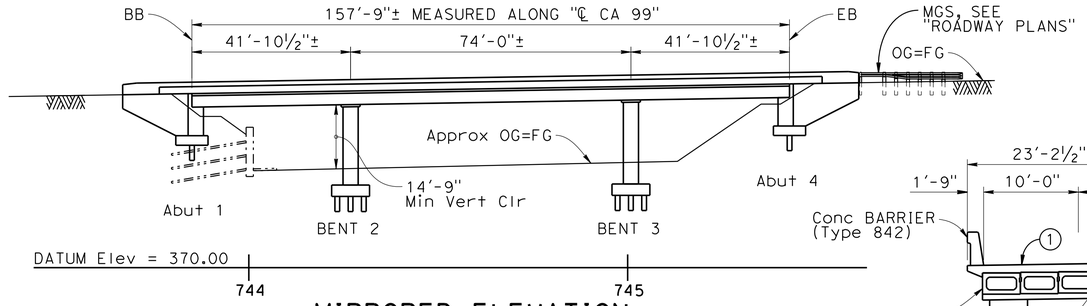
ID	Pavement Condition Rating	Description: Crack	Description: Ride	Description: Rutting or Faulting
F1	Fair (Poor Crack)	Poor	Good or Fair	Good or Fair
F2	Fair (Poor Ride)	Good or Fair	Poor	Good or Fair
F3/F4	Fair (Poor Rut/Fault)	Good or Fair	Good or Fair	Poor
F5	Fair (Fair Ride Only)	Good or Fair	Fair	Good
F6/F7	Fair (Rut/Fault Only)	Good or Fair	Good	Fair
F8	Fair (Cracking Only)	Fair	Good	Good
F9	Fair (Cracking & IRI)	Fair	Fair	Good
F10	Fair (Cracking and Rutting/Faulting Only)	Fair	Good	Fair
F11	Fair (IRI & Rut/Fault)	Good	Fair	Fair
F12	Fair (All Fair)	Fair	Fair	Fair

Attachment L

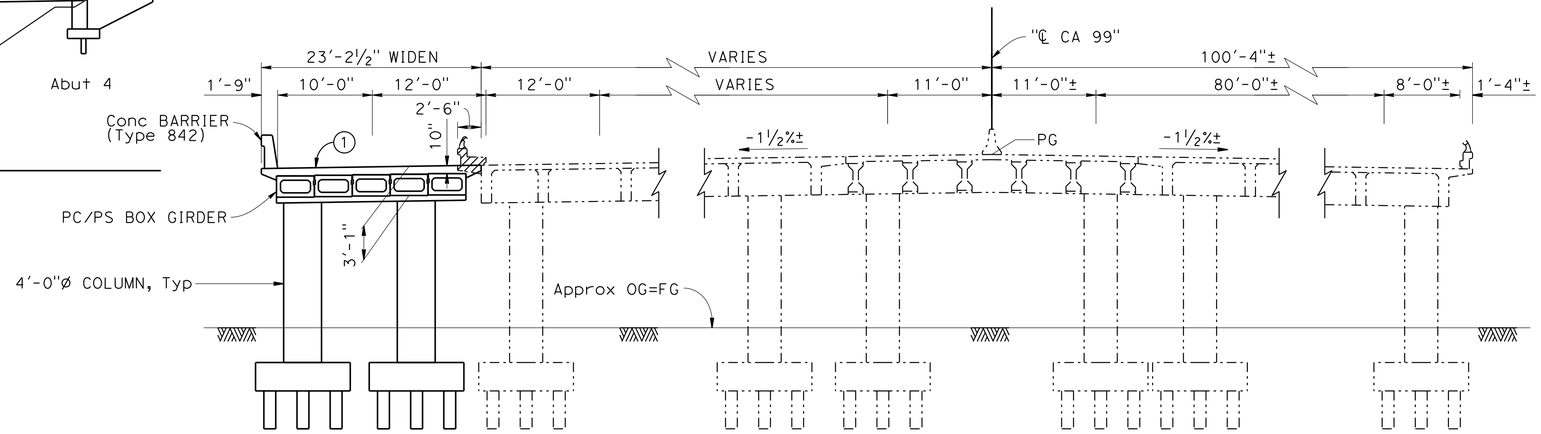
Advanced Plan Study (APS)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF ENGINEERING SERVICES

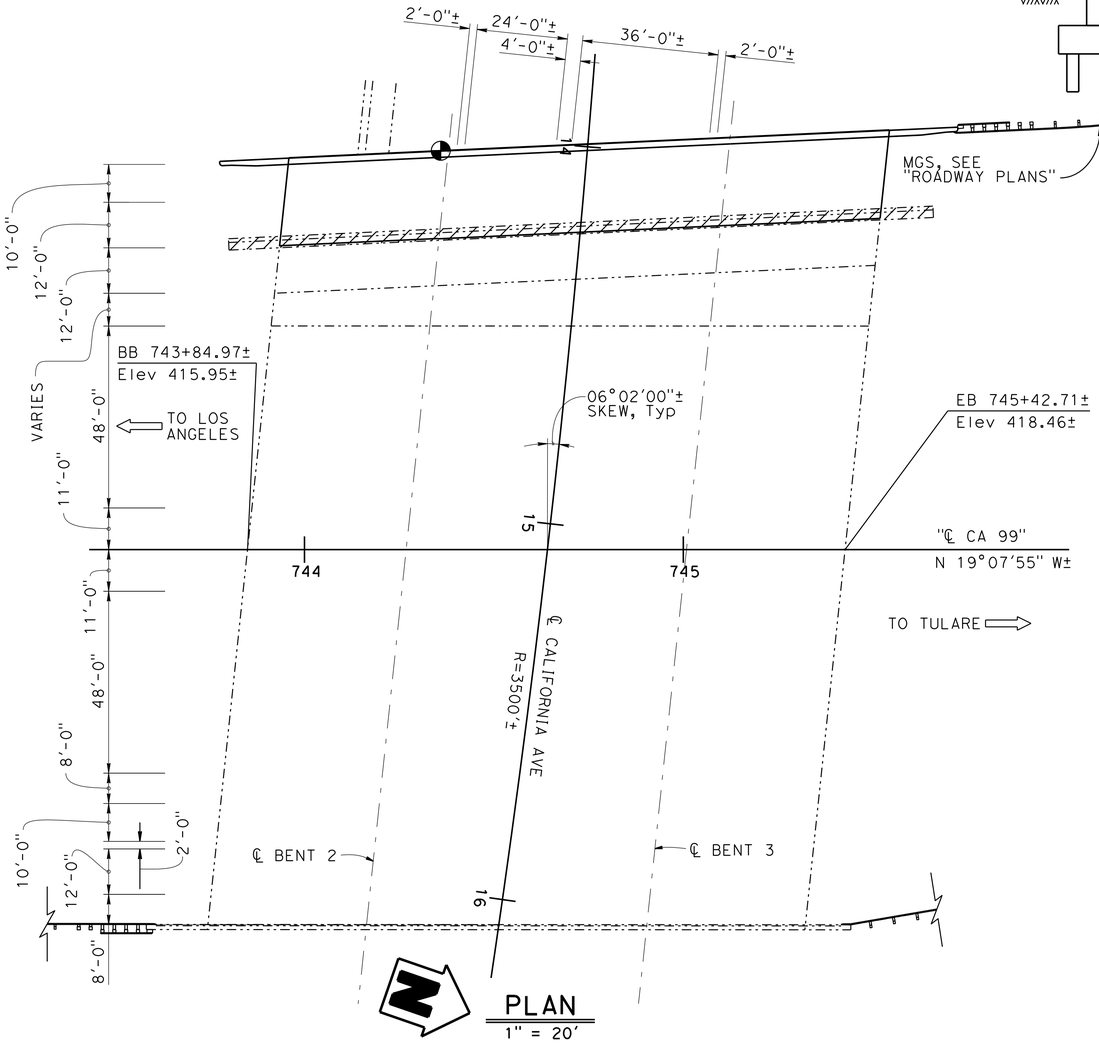
Dist	COUNTY	ROUTE	POST MILE
06	Ker	99	X



MIRRORED ELEVATION
1" = 20'



TYPICAL SECTION
⅛" = 1'-0"



PLAN
1" = 20'

ASSUMPTIONS:

(1) Match existing grade and cross slope

LEGEND:

- Existing Structure
- Limits of Bridge Removal (Portion)
- Point of Minimum Vertical Clearance

DESIGNED BY: T. Moyles	DATE: 03-28-23	BRIDGE DESIGN BRANCH 18	PLANNING STUDY
DRAWN BY: M. Burk	DATE: 03-28-23		CALIFORNIA AVE UC (WIDEN)
CHECKED BY: X	DATE: X		UNIT: 3603 / BRIDGE No.: 50-0260
APPROVED: X	DATE: X		PROJECT EA: 06-0X370 / PROJECT No. & PHASE: 6180000590

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 6/27/2023 TIME PLOTTED => 2:08:16 PM
FILE => ...\DGN\50-0260 aps-TJM-0620.dgn USERNAME =>

PROBABILISTIC STRUCTURE COST ESTIMATE

INPUT

OUTPUT

[ ] GENERAL PLAN ESTIMATE [x] ADVANCE PLANNING ESTIMATE

BD-0109 (REV 09/20/2022)

BRIDGE NAME:	CALIFORNIA AVE. UC
BRIDGE NUMBER:	50-0260
TYPE:	PC/PS I-Girder
EA:	06-0X370
PROJECT ID:	0618000059
ACCELERATED BRIDGE PROJECT	NO
DESIGN BRANCH:	18
NO. OF STRUCTURES IN PROJECT :	1
PRICES BY :	THL
PRICES CHECKED BY :	PKH
QUANTITIES BY:	TAYLOR MOYLES

IN EST:	6/28/2023
OUT EST:	7/18/2023
DISTRICT:	06
CO:	KER
RTE:	99
PM:	21.15/24.6
DEPTH	3'-1"
LENGTH	157'-9"
WIDTH	23'-2.5"
AREA	3,661 SQ. FT
EST. NO.	1
COST INDEX:	2502

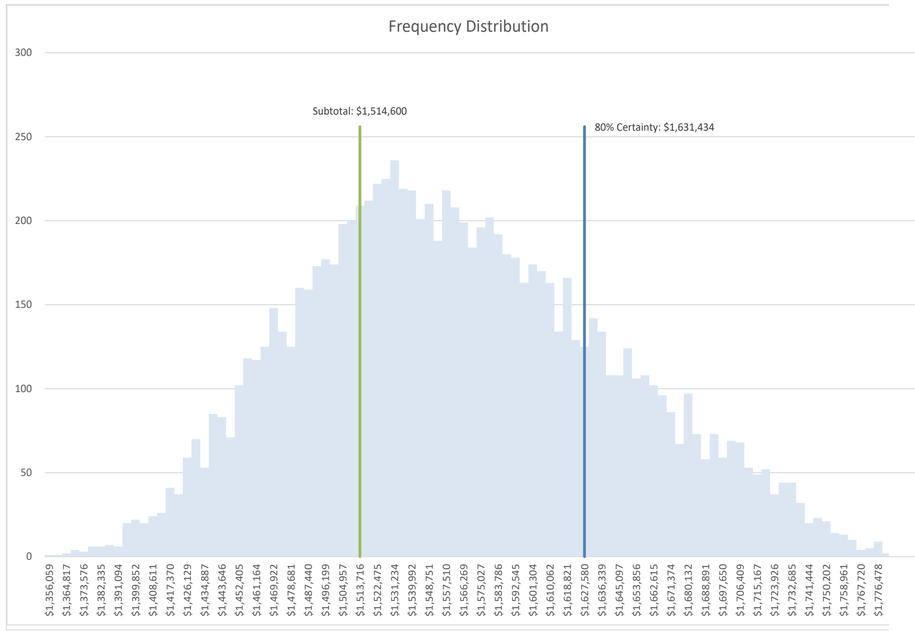
The Assumption Curves, unless noted otherwise, are modeled with a triangular distribution with the "Minimum, Likeliest and Maximum values."

	CONTRACT ITEMS	TYPE	UNIT	QUANTITY	ITEM PRICE RANGE MINIMUM	LIKELIEST	MAXIMUM	AMOUNT
1	STRUCTURE EXCAVATION (BRIDGE)		CY	140	$100.00	$150.00	$200.00	$21,000
2	STRUCTURE BACKFILL (BRIDGE)		CY	65	$150.00	$250.00	$350.00	$16,250
3	FURNISH PILING (CLASS 200)		LF	2200	$110.00	$120.00	$130.00	$264,000
4	DRIVE PILES (CLASS 200)		EA	44	$2,200.00	$2,900.00	$3,400.00	$127,600
5	STRUCTURAL CONCRETE, BRIDGE		CY	393	$1,300.00	$1,600.00	$2,200.00	$628,800
6	FURNISH PRECAST PRESTRESSED CONCRETE BOX	BI-48 40'-50'	EA	10	$17,000.00	$19,000.00	$22,000.00	$190,000
7	FURNISH PRECAST PRESTRESSED CONCRETE BOX	BI-48 70'-80'	EA	5	$30,000.00	$35,000.00	$45,000.00	$175,000
8	ERECT PRECAST PRESTRESSED CONCRETE BOX GI	BI-48	EA	15	$5,000.00	$10,000.00	$15,000.00	$150,000
9	BAR REINFORCING STEEL (BRIDGE)		LB	39300	$1.70	$2.50	$3.30	$98,250
10	BRIDGE REMOVAL (PORTION)		LS	1	$58,500.00	$90,000.00	$121,500.00	$90,000
11	CONCRETE BARRIER (TYPE 842)		LF	195	$200.00	$260.00	$310.00	$50,700
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
							SUBTOTAL	$1,811,600

	TYPE	UNIT	QUANTITY	MINIMUM	LIKELIEST	MAXIMUM	
BRIDGE REMOVAL		SQFT	3747				

Comments
"BRIDGE REMOVAL (PORTION)" quantity and calculation worksheet should be provided in units of CY.
"BRIDGE REMOVAL" section to be left blank, as BRIDGE REMOVAL (PORTION) is covered under contract items.

This probabilistic estimate forecasts a range of likely final costs and their associated probabilities of occurring, or confidence levels. Item cost uncertainty is captured by estimating a range of prices: minimum, likely and maximum. The estimate model assumes a triangular distribution for each item, independent from the other items. A Monte Carlo simulation with 10,000 trials is used to develop a reasonable range of possible cost combinations.



Time Related Overhead, Mobilization and Contingency NOT INCLUDED

Percentiles:	Forecast values
0%	$1,356,059
10%	$1,461,741
20%	$1,491,722
30%	$1,514,312
40%	$1,533,975
50%	$1,555,529
60%	$1,577,017
70%	$1,601,473
80%	**$1,631,434**
90%	$1,671,714
100%	$1,793,996

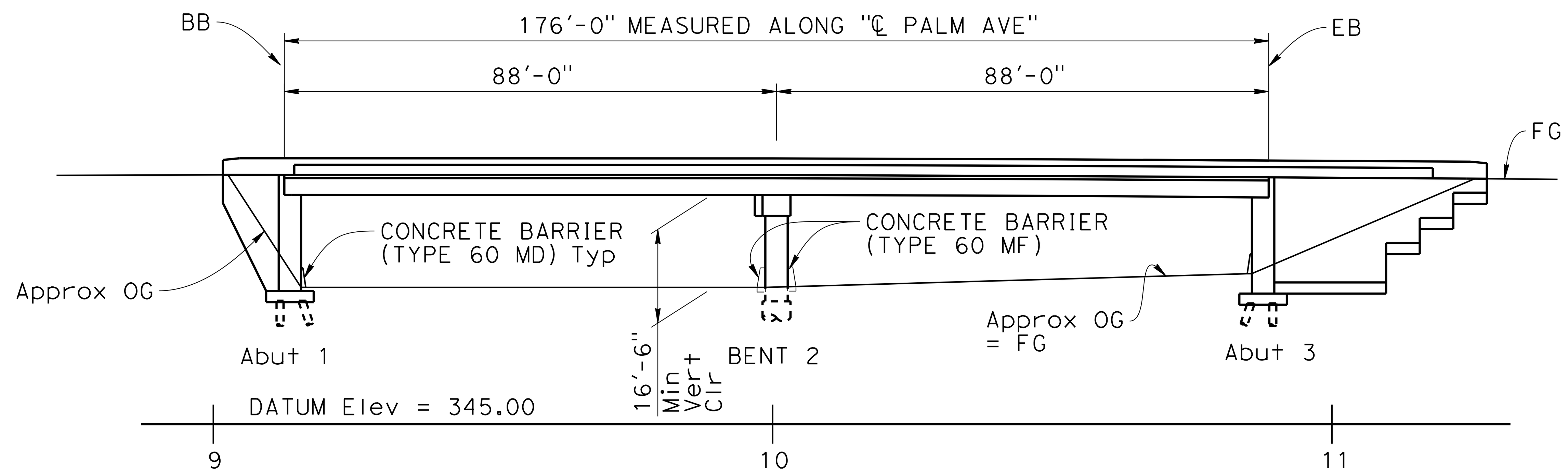
BASED ON THE ASSUMPTIONS USED TO CREATE THE MODEL, DES STRUCTURE OFFICE ENGINEER RECOMMENDS THAT THE PROGRAMMING LEVEL BUDGET FOR THIS PROJECT BE DESIGNATED AT THE 80% FORECAST VALUE.

BRIDGE COST PER SQUARE FOOT	#DIV/0!
BRIDGE REMOVAL	
ESTIMATED COST Subtotal + Bridge	$1,631,000
TOTAL	$2,492,000

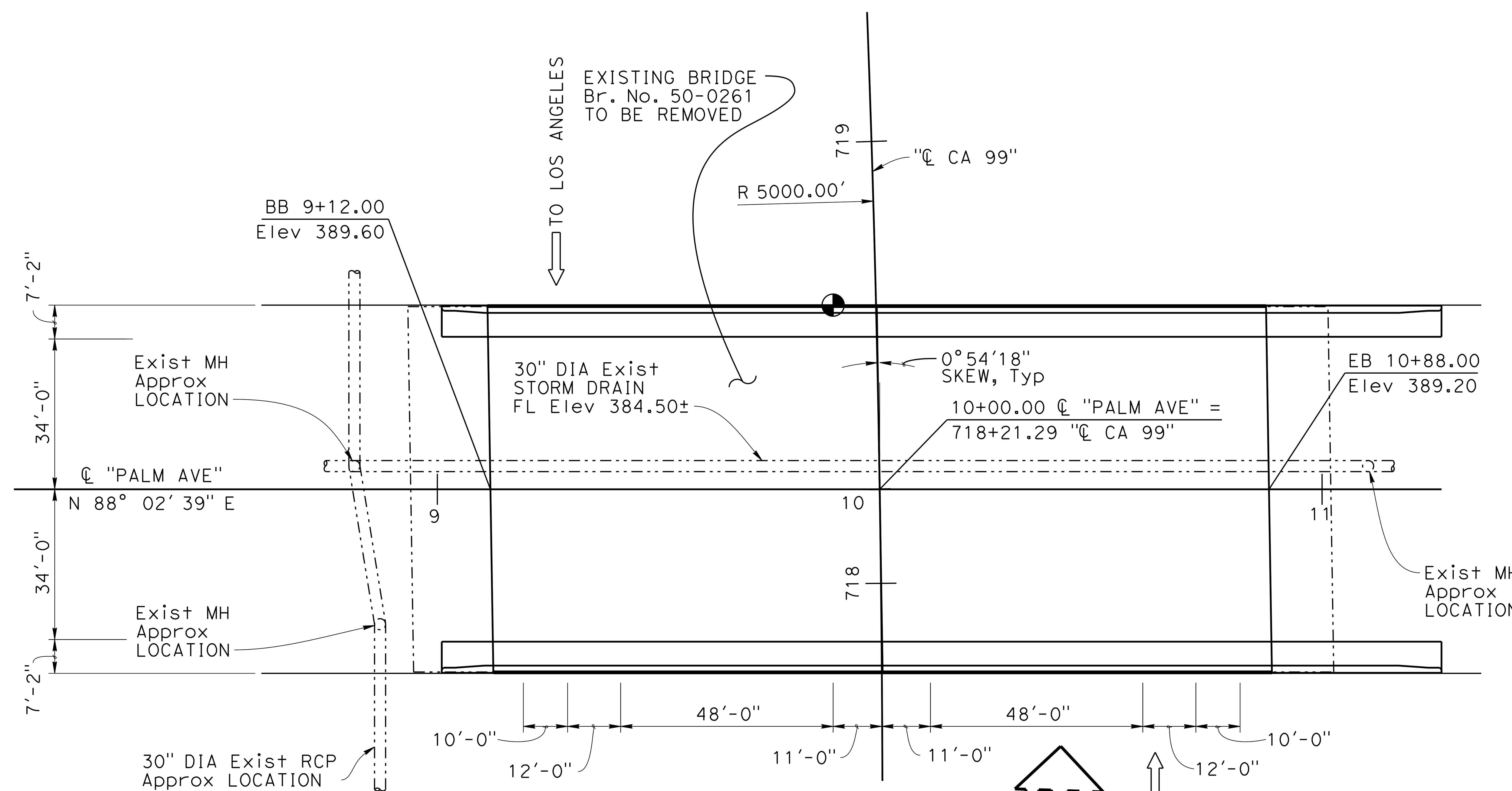
DOES NOT INCLUDE time related overhead (TRO), mobilization and contingency

INCLUDES mobilization: 10%, structure TRO: 10% and contingency: 25%

Dist	COUNTY	ROUTE	POST MILE
06	Ker	99	24.11



ELEVATION
1" = 20'



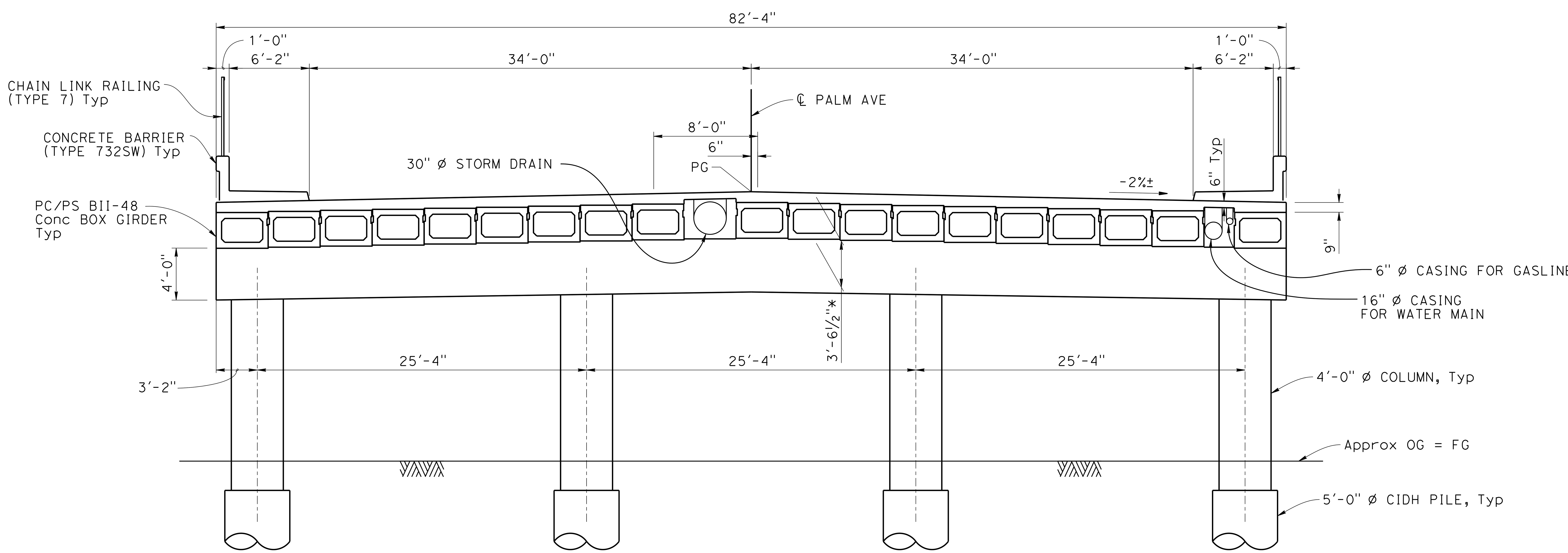
PLAN
1" = 20'

CURVE DATA "℄ PALM AVE"
R = 5000.00'
Δ = 19°57'55"
T = 880.07'
L = 1742.30'

LEGEND:
-··-··- Existing Structure
◐ Point of Minimum Vertical Clearance

DESIGNED BY	DATE		
T. Moyles	05-05-23	BRIDGE DESIGN	PLANNING STUDY
DRAWN BY M. Burk	DATE 05-05-23	BRANCH	PALM AVE OC (REPLACE)
CHECKED BY X	DATE X	18	UNIT: 3603 — BRIDGE No.: TBD
APPROVED X	DATE X		PROJECT EA: 06-0X370 — PROJECT No. & PHASE: 6180000590

Dist	COUNTY	ROUTE	POST MILE
06	Ker	99	24.11



TYPICAL SECTION

1" = 5'-0"

LEGEND:

* Structure depth shown does not include thickness of overlay

—··—··— Existing Structure

DESIGNED BY T. Moyles	DATE 05-05-23	BRIDGE DESIGN	PLANNING STUDY
DRAWN BY M. Burk	DATE 05-05-23	BRANCH	PALM AVE OC (REPLACE)
CHECKED BY X	DATE X	18	UNIT: 3603 / BRIDGE No.: TBD
APPROVED X	DATE X		PROJECT EA: 06-0X370 / PROJECT No. & PHASE: 6180000590

PROBABILISTIC STRUCTURE COST ESTIMATE

INPUT

[ ] GENERAL PLAN ESTIMATE [x] ADVANCE PLANNING ESTIMATE

BD-0109 (REV 09/20/2022)

BRIDGE NAME:	PALM AVENUE OC
BRIDGE NUMBER:	50-0261
TYPE:	RC "T" GIRDER BRIDGE
EA:	06-0X370
PROJECT ID:	0618000059
ACCELERATED BRIDGE PROJECT	NO
DESIGN BRANCH:	18
NO. OF STRUCTURES IN PROJECT :	2
PRICES BY :	THL
PRICES CHECKED BY :	PKH
QUANTITIES BY:	TAYLOR MOYLES

IN EST:	6/28/2023
OUT EST:	7/18/2023
DISTRICT:	06
CO:	KER
RTE:	99
PM:	21.15/24.6
DEPTH	3'-6.75"
LENGTH	176'-0"
WIDTH	82'-4"
AREA	14,491 SQ. FT
EST. NO.	1
COST INDEX:	2502

The Assumption Curves, unless noted otherwise, are modeled with a triangular distribution with the "Minimum, Likeliest and Maximum values."

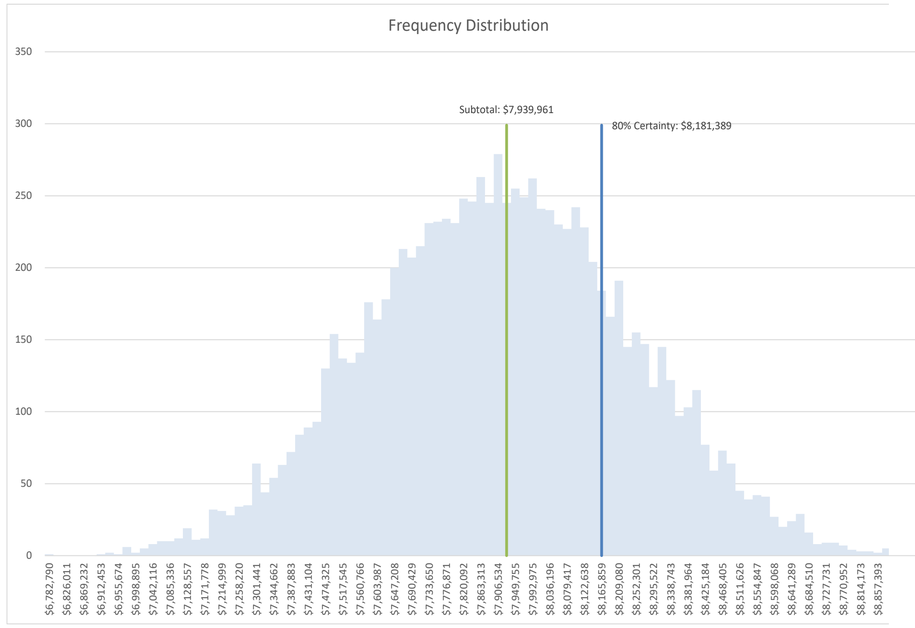
	CONTRACT ITEMS	TYPE	UNIT	QUANTITY	ITEM PRICE RANGE MINIMUM	LIKELIEST	MAXIMUM	AMOUNT
1	STRUCTURE EXCAVATION (BRIDGE)		CY	291	$100.00	$200.00	$300.00	$58,200
2	STRUCTURE EXCAVATION (SOIL NAIL WALL)		CY	2645	$60.00	$100.00	$140.00	$264,500
3	STRUCTURE BACKFILL (BRIDGE)		CY	194	$150.00	$200.00	$260.00	$38,800
4	STRUCTURE BACKFILL (SOIL NAIL WALL)		CY	1140	$60.00	$100.00	$120.00	$114,000
5	SOIL NAIL		LF	16320	$40.00	$50.00	$60.00	$816,000
6	60" CAST-IN-DRILLED-HOLE CONCRETE PILING		LF	200	$1,500.00	$1,600.00	$1,700.00	$320,000
7	FURNISH PILING (CLASS 200)		LF	4800	$70.00	$90.00	$110.00	$432,000
8	DRIVE PILES (CLASS 200)		EA	96	$2,500.00	$3,000.00	$3,500.00	$288,000
9	STRUCTURAL CONCRETE, BRIDGE		CY	1554	$1,300.00	$1,550.00	$1,800.00	$2,408,700
10	STRUCTURAL CONCRETE, RETAINING WALL		CY	697	$700.00	$800.00	$900.00	$557,600
11	FURNISH PRECAST PRESTRESSED CONCRETE BOX	BII-48 80'-90'	EA	38	$45,000.00	$50,000.00	$55,000.00	$1,900,000
12	ERECT PRECAST PRESTRESSED CONCRETE BOX GI	BII-48	EA	38	$5,000.00	$10,000.00	$15,000.00	$380,000
13	BAR REINFORCING STEEL (BRIDGE)		LB	133056	$1.20	$1.40	$1.70	$186,278
14	BAR REINFORCING STEEL (RETAINING WALL)		LB	110103	$1.30	$1.50	$1.60	$165,155
15	STRUCTURAL SHOTCRETE		CY	349	$500.00	$650.00	$750.00	$226,850
16	BRIDGE REMOVAL		SF	17125				
17	CHAIN LINK RAILING (TYPE 7)		LF	452	$120.00	$130.00	$140.00	$58,760
18	CONCRETE BARRIER (TYPE 60MD)		LF	2559	$100.00	$140.00	$160.00	$358,260
19	CONCRETE BARRIER (TYPE 732SW)		LF	452	$200.00	$300.00	$400.00	$135,600
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
							SUBTOTAL	$8,708,703

	TYPE	UNIT	QUANTITY	MINIMUM	LIKELIEST	MAXIMUM	
BRIDGE REMOVAL		SQFT	17194	$20.00	$25.00	$30.00	$429,850

Comments
Contract Item 16 - "BRIDGE REMOVAL" item to be priced separately below "Contract Items" table.

OUTPUT

This probabilistic estimate forecasts a range of likely final costs and their associated probabilities of occurring, or confidence levels. Item cost uncertainty is captured by estimating a range of prices: minimum, likely and maximum. The estimate model assumes a triangular distribution for each item, independent from the other items. A Monte Carlo simulation with 10,000 trials is used to develop a reasonable range of possible cost combinations.



Time Related Overhead, Mobilization and Contingency NOT INCLUDED

Percentiles:	Forecast values
0%	$7,041,765
10%	$7,776,972
20%	$7,933,717
30%	$8,047,197
40%	$8,150,732
50%	$8,245,004
60%	$8,339,383
70%	$8,439,167
80%	**$8,556,997**
90%	$8,715,891
100%	$9,373,060

BASED ON THE ASSUMPTIONS USED TO CREATE THE MODEL, DES STRUCTURE OFFICE ENGINEER RECOMMENDS THAT THE PROGRAMMING LEVEL BUDGET FOR THIS PROJECT BE DESIGNATED AT THE 80% FORECAST VALUE.

BRIDGE COST PER SQUARE FOOT	#DIV/0!
BRIDGE REMOVAL	$375,600
ESTIMATED COST Subtotal + Bridge	$8,557,000
TOTAL	$13,073,000

DOES NOT INCLUDE time related overhead (TRO), mobilization and contingency

INCLUDES mobilization: 10%, structure TRO: 10% and contingency: 25%