06 - Fre - 168 – R8.28/45.80
06-0X220 – 0618000041 – 6992
20.XX.201.151 – Drainage System Restoration
April/2023

Project Report
to
Request Project Approval

On Route 168, in Fresno County

Between Fowler Avenue Overcrossing in Clovis

And Warbler Lane in Shaver Lake

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:

for Maria L. Toles, District Division Chief, Right of Way

APPROVAL RECOMMENDED:

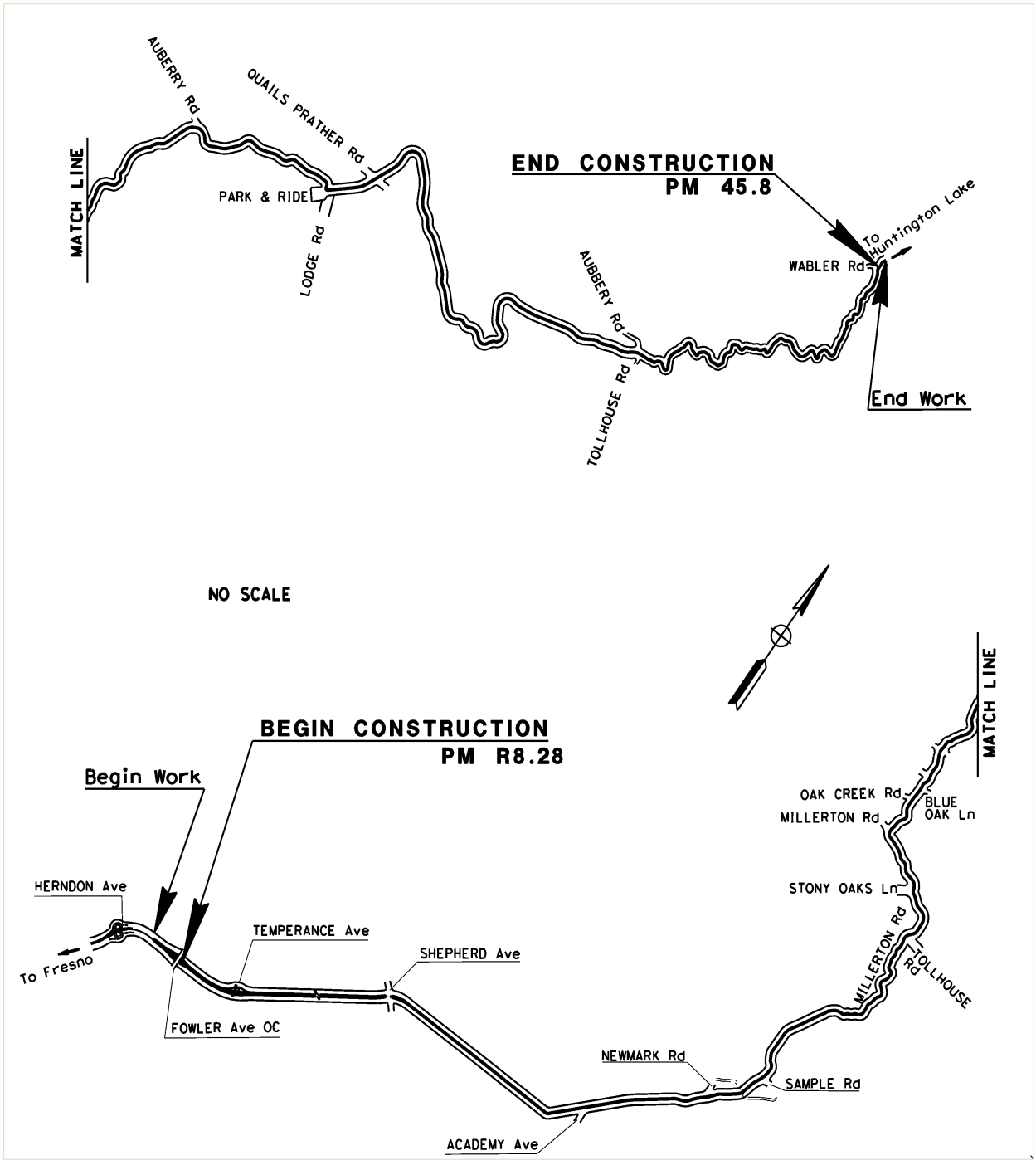
Ilda Thanas, Project Manager

APPROVED:

Diana Gomez, District 6 Director

5-9-2023
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.

E. Ataelgeed 04/25/2023

REGISTERED CIVIL ENGINEER *DATE*

Table of Contents

1. INTRODUCTION

Project Description:

The project proposes to repair or replace 144 culverts and associated elements in Fresno County on State Route (SR) 168 at various locations from Post Mile (PM) R8.28 to PM 45.80, from Fowler Avenue (Ave) Overcrossing in Clovis to Warbler Lane in Shaver Lake. See Attachments A and B for more information.

Project Limits	06-Fre-168, R8.28/45.8	
Number of Alternatives	2	
	Current Cost Estimate:	**Escalated Cost Estimate:**
Capital Outlay Support	$9,254,000	$10,800,000
Capital Outlay Construction	$10,580,000	$11,560,000
Capital Outlay Right-of-Way	$765,000	$843,000
Funding Source	SHOPP 201.151	
Funding Year	2024/25	
Type of Facility	2-Lane Conventional Highway, Freeway/Expressway.	
Number of Culverts	144	
SHOPP Project Output	144 Culverts (12,962 LF) 2000 Feet of Guardrail	
Environmental Determination or Document	Initial Study (IS) with Mitigated Negative Declaration (MND) under the California Environmental Quality Act (CEQA). Categorically Excluded (CE) under the National Environmental Policy Act (NEPA).	
Legal Description	In Fresno County on Route 168 from Fowler Ave Overcrossing in Clovis to Warbler Lane in Shaver Lake.	
Project Development Category	4B	

2. RECOMMENDATION

It is recommended that this Project Report be approved and that the project proceed to the Plans Specifications and Estimate (PS&E) Phase.

3. BACKGROUND

Project History:

The project was initiated by the District 6 Maintenance unit in a Project Initiation Proposal dated 1/3/2018, followed by a Conceptual Report dated 2/2/2018 to repair or replace existing drainage systems in Fresno County on SR 168 from PM R8.2 to PM 45.8. A Project Initiation Report was approved on 05/28/2019 to request programming into the 2020 SHOPP.

Community Interaction:
To minimize the impact to the public, the Department incorporated a Project Communication Plan during the Design phase and Construction phase of this project. The Project Communication Plan identified the stakeholders and our Department's internal and external partners. The plan will also help coordinate and ensure timely completion of the construction activities. See attachment I for more information.

Existing Facility:
SR 168 is categorized by the Streets and Highways Code, Division 1 - State Highways, Chapter 2, Article 2, as on the Freeway and Expressway System. Within the project limits, outside the City of Clovis, the existing facility functions as a 2-lane conventional highway. SR 168 is an urban freeway within Fresno and Clovis.

4. PURPOSE AND NEED

Purpose:
The purpose of the project is to prevent roadway damage due to drainage systems failure and to maximize the service life of drainage elements by rehabilitating and upgrading existing drainage facilities within the project limits.

Need:
A. Problem, Deficiencies, Justification
Existing drainage systems have perforations, rust, joint separation, and damaged end treatments. These systems will not be serviceable in the near future if proper rehabilitative actions are not taken. By rehabilitating the drainage systems, the culverts service lives will be extended.

B. Regional and System Planning

Per the 2015 Transportation Concept Report, District 6 system planning on SR 168 is to enhance vista points, curve corrections, and pavement rehabilitation at various segments along the route.

This project is a non-capacity increasing project. The proposed features will not affect the level of service or the ultimate transportation corridor.

C. Traffic

Traffic volumes
The Annual Average Daily Traffic (AADT) varies from 40,000 to 6,700 between Fowler Ave and Academy Ave. The AADT varies from 6,700 to 4,050 from Academy Ave to the easterly project limit.

Per the District Transportation Planning unit this proposed Drainage System Restoration Project will not require Design Designations or structural section recommendations. Work at many of the locations for this project will not affect pavement and where pavement will need to be replaced it should be replaced in kind. The risks, probability and impact, of not providing Design Designations at the Project Approval and Environmental (PA&ED) phase are low, and efficiency in business practice will be improved.

Collision Analysis

The collision rates for the project area for the most recent 3-year (01/01/2015-12/31/2017) period were reviewed. This analysis was done in 2019 and is still valid per the District Traffic Operations unit.

The collision rates shown in the tables below are indicated in collisions per Million-Vehicle-Miles (MVM). The collision history indicates that the fatal and fatal plus injury collisions within the project are consistent with the statewide average for similar highway segments and traffic volumes.

PM R8.1-PM R10.0 Eastbound

There were 12 reported collisions along this eastbound freeway segment. There were no fatal collisions, and only three had a reported injury. Two of the 12 total collisions were solo-vehicle collisions.

A review of Table 2 indicates that 9 of the 12 collisions were Rear-End collisions. Six of the total 12 collisions occurred on the eastbound off-ramp to North Temperance Avenue. Two of the 12 collisions occurred with wet surface conditions, and 2 of the 12 collisions occurred in low light conditions.

Table 1

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.000	0.12	0.49	0.003	0.18	0.50

Table 2

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol								
Following too Close								
Failure to Yield								
Improper Turn								
Speeding			8		1	1		
Other Violations		1	1					
Improper Driving								
Other than Driver								
Unknown								
Total		1	9		1	1		

PM R8.1-PM R10.0 Westbound

There were 8 reported collisions along this westbound freeway segment during the study period. There were no fatal collisions, and four had a reported injury. Five collisions were solo-vehicle collisions.

A review of Table 4 indicates that 4 of the 8 collisions were Hit-Object collisions 3 collisions occurred on the westbound loop on-ramp from northbound North Temperance Avenue. Four collisions occurred with wet surface conditions.

Table 3

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.000	0.16	0.33	0.003	0.18	0.50

Table 4

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol						1		
Following too Close								
Failure to Yield								
Improper Turn					1			
Speeding			3		3			
Other Violations								
Improper Driving								
Other than Driver								
Unknown								
Total			3		4	1		

PM R10.0-PM R12.083-Eastbound

There were 9 reported collisions along this eastbound expressway segment. There were no fatal collisions, and four collisions had a reported injury. Four collisions were solo-vehicle collisions.

A review of Table 6 indicates that 3 of the total 9 collisions were Hit-Object collisions. Two collisions occurred at the Owens Mountain Parkway/Dragonfly Lane intersection, and 3 collisions occurred at the East Shepherd Avenue intersection. Three of the 9 collisions occurred with low light conditions.

Table 5

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.000	0.24	0.53	0.005	0.20	0.54

Table 6

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol			1		1			
Following too Close								
Failure to Yield								
Improper Turn		1						
Speeding			1		2	1		
Other Violations				1				
Improper Driving								
Other than Driver								
Unknown								1
Total		1	2	1	3	1		1

PM R10.0-PM R12.083-Westbound

There were 6 reported collisions along this westbound expressway segment during the study period. There was one fatal collision, and four collisions had a reported injury. There were no solo vehicle collisions. The fatal collision was a westbound driver falling asleep and colliding head-on with an eastbound vehicle.

A review of Table 8 indicates that 3 of the 6 total collisions were Head-On collisions. Four of the 6 total collisions occurred at the Owens Mountain Parkway/Dragonfly Lane intersection. Only one collision occurred during low light conditions. It was a head-on collision that resulted in the fatality.

Table 7

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.059	0.30	0.35	0.005	0.20	0.54

Table 8

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol								
Following too Close								
Failure to Yield	1			2				
Improper Turn								
Speeding			1					
Other Violations	2							
Improper Driving								
Other than Driver								
Unknown								
Total	3		1	2				

PM 11.671-PM 17.9

There were 30 reported collisions along this conventional highway segment. There was one fatal collision, and 11 collisions had a reported injury. There were 13 of the 30 total collisions that involved more than one vehicle.

A review of Table 10 indicates that 16 of the 30 total collisions were Hit-Object collisions. These types of collisions are consistent with the types of collisions that would be expected on a rural 2-lane conventional highway. four collisions occurred during wet surface conditions, and 15 collisions occurred in dark or low-light conditions. Speeding was determined to be the primary collision factor in 27% of the collisions. The single fatal collision was a solo-vehicle on Academy Avenue that sped through the intersection as it approached Route 168. The driver might have been suffering a health-related issue that resulted in his erratic driving.

Table 9

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.020	0.24	0.60	0.028	0.55	1.12

Table 10

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol					4	1		
Following too Close								
Failure to Yield	1							
Improper Turn					7			
Speeding			6		2			
Other Violations		3			2			
Improper Driving								
Other than Driver					1	1		2
Unknown								
Total	1	3	6		16	2		2

PM T25.6-PM T32.97

There were 94 reported collisions along this highway segment. There were no fatal collisions, but 38 of the collisions had a reported injury. There were 65% solo-vehicle collisions.

A review of Table 12 indicates that 56 of the 94 total collisions were Hit-Object collisions, and 16 were Rear-End collisions. These types of collisions are consistent with the types of collisions that would be expected on a 2-lane conventional highway in mountainous terrain. Eight collisions occurred during wet surface conditions, and 32 collisions occurred in dark or low-light conditions. Speeding was determined to be the primary collision factor in 27% of the collisions; however, a review of the collision reports would seem to suggest that alcohol was a contributing factor in more collisions than is suggested by Table 12.

Table 11

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.000	0.82	2.03	0.033	0.69	1.38

Table 12

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol		2	1		14	1		
Following too Close								
Failure to Yield				5				
Improper Turn		2			20	1		
Speeding	1	1	15		18	3		
Other Violations		3			1	1		
Improper Driving								
Other than Driver					3			2
Unknown								
Total	1	8	16	5	56	6		2

PM L27.368-PM R36.341

There were 17 reported collisions along this highway segment during the study period. Eleven of the collisions had a reported injury. There were 4 of the 17 total collisions that involved more than one vehicle.

A review of Table 14 indicates that 9 of the 17 total collisions were hit-object collisions, and 3 were overturn collisions. These types of collisions are consistent with the types of collisions that would be expected on a highway in mountainous terrain. Four collisions occurred during wet or icy surface conditions, and 5 occurred in dark or low-light conditions. Speeding was the primary collision factor in 29% of the collisions. Alcohol was also determined to be a primary collision factor in 29% of the collisions.

Table 13

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.000	0.17	0.26	0.008	0.17	0.45

Table 14

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol					5			
Following too Close								
Failure to Yield								
Improper Turn				2	1	1		
Speeding			1		2	2		
Other Violations		1						
Improper Driving								
Other than Driver					1			1
Unknown								
Total		1	1	2	9	3		1

PM 39.323-PM 45.8

There were 59 reported collisions along this conventional highway segment during the study period. Twenty-four collisions had a reported injury. There were 19 collisions that involved more than one vehicle.

A review of Table 16 indicates that 32 of the 59 collisions were hit-object collisions, 11 were overturn collisions, and 10 were sideswipe collisions. These types of collisions are consistent with the types of collisions that would be expected on a 2-lane highway in mountainous terrain. Twenty collisions occurred during wet or icy surface conditions, and 23 occurred in dark or low-light conditions. Speeding was determined to be the primary collision factor in 49% of the collisions.

Table 15

Actual (MVM)			Average (MVM)		
Fatal	F+I	Total	Fatal	F+I	Total
0.000	0.43	1.07	0.033	0.69	1.39

Table 16

Primary Collision Factor	Type of Collision							
	Head-On	Side-Swipe	Rear-End	Broad-Side	Hit Object	Over Turn	Auto / Ped	Other
Influence of Alcohol		2			2			
Following too Close								
Failure to Yield	1							
Improper Turn					13	3		
Speeding	2	4	1		16	6		
Other Violations		4				1		1
Improper Driving								
Other than Driver					1	1		1
Unknown								
Total	3	10	1		32	11		2

5. ALTERNATIVES

5A. Viable Alternatives

The viable alternative is to replace, repair, pave the invert, and reline culverts at 144 locations between PM R8.28 and PM 45.80. Guardrail will be upgraded at one location that will be impacted by the culvert replacement. Embankment reconstruction is proposed at 5 locations and grading side slopes at 8 locations. See Attachment B for more information.

Americans with Disabilities Act (ADA) ramps are not included in the scope of the project because this is a rural area and there are no existing ADA ramps or sidewalks at the project locations.

This project proposes to rehabilitate culverts at spot locations within the project limits and does not change the roadway geometry. Therefore, this project would not be expected to correct existing nonstandard features or provide a Design Standard Decision Document for the existing nonstandard roadway features.

5B. Rejected Alternatives

The no build alternative was rejected, as it would fail to address the projects need.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

There are no listed hazardous waste sites within the project limits that may impact the proposed project. Treated wood will be generated from the removal of the existing guardrail. The Treated Wood Waste will require disposal as a hazardous waste. A Standard Special Provisions will be provided for proper Treated Wood Waste handling and disposal and for dust control. Excess excavated materials will be disposed of off-site and an ADL investigation will be performed. A Lead Compliance Plan is also required for this project to ensure worker safety.

6B. Value Analysis

Value Analysis (VA)/Value Engineering is not applicable to this project because the current total cost of this project is less than the threshold required for a Value Analysis. Should the project cost increase above the VA threshold, a VA exception will be requested.

6C. Resource Conservation

The proposed work would enhance efficiency and safety of the existing systems, hence indirectly contributing to resource conversation. There are no significant resources to conserve during construction.

6D. Right-of-Way Issues

Permanent work will be done inside existing State right of way except at some locations that will require acquiring Permanent Easements. Temporary Construction Easements will be acquired. Underground utilities exist within the project limits. Utility relocation may be required pending potholing results. A Right of Way data Sheet was prepared for this project. See Attachment C for more information.

6E. Environmental Compliance

In compliance with the CEQA, an IS/MND has been prepared. The IS/MND has been prepared in accordance with Caltrans' Environmental procedures, as well as state and federal environmental regulations. The attached Initial Study is the appropriate document for the proposal. Environmental determination under the NEPA is a CE. See Attachment D for more information.

6F. Air Quality Conformity

This project is exempt from air quality conformity requirements. Transportation conformity rule 40 CFR Part 93 Section 126.

6G. Title VI Considerations

The proposed culverts and drainage systems are not accessible to the public and will not have an adverse effect on the Departments Title VI Policies. Low mobility or minority groups will not be impacted.

6H. Noise Abatement Decision Report

Per the 2020 Noise Protocol this project is a Type III. Noise Abatement Decision Report (NADR) is not needed.

6I. Life-Cycle Cost Analysis

Not applicable to this project.

6J. Reversible Lanes

Not applicable to this project.

7. OTHER CONSIDERATIONS AS APPROPRIATE

Public Hearing Process
An opportunity for a public hearing was made available during the PA&ED phase. The dates available to request a meeting were from February 3, 2023 to March 6, 2023. The project team will look into having a public information meeting at the PS&E phase.

Route Matters
Not applicable to this project.

Permits
Below are permits that will be needed for this project:

- A 401 Water Quality Certification Permit or Waste Discharge Requirement.
- Clean Water Act Section 404 Nationwide Permit.
- Biological Opinion U.S. Fish and Wildlife Service.
- 1602 California Department of Fish and Wildlife (CDFW).
- Incidental Take Permit from CDFW for California Tiger Salamander and Tree Anemone.

Cooperative Agreements
Not needed on this project.

Report on Feasibility of Providing Access to Navigable Rivers
Not needed on this project.

Public Boat Ramps
Not applicable to this project.

Transportation Management Plan
Preliminary traffic impacts and mitigation for this project have been outlined in the attached Transportation Management Plan (TMP) Data Sheet . Costs associated with the traffic impact mitigation measures listed in the TMP have been included in this project's cost estimate. See Attachment E for more information.

Stage Construction

Construction will be carried out in one stage. Temporary lane and shoulder closure will be implemented during construction. One way reversing traffic control is anticipated at the two-lane segment of the highway. There are no restrictions on night work.

Accommodation of Oversize Loads

Oversize loads movements will be accommodated during construction.

Graffiti Control

Since the proposed work is not accessible to the public and is in rural and suburban areas, it is anticipated that graffiti will not be an issue.

Asset Management

The SHOPP output for this project is 144 culverts with a total length of 12,962 linear feet. The roadway pavement, bridges, culverts, and Intelligent Transportation System (ITS) are the major asset elements of the highway system. This project is to restore the existing drainage systems to good condition by replacing or repairing the existing identified deteriorating culverts within the project limits. Replacing and repairing the clogged culverts is necessary to maintain the operational integrity of the highway. Maintaining this asset (culverts) is crucial for the stability and proper functioning of the roadway. Clogged culverts can cause flooding and erode the roadway while poorly working culverts can result in saturation of soil under the pavement leading to uneven settlement of the roadbed causing pavement cracks. The timely repair or replacement of the existing worn-out drainage systems will not only enhance the life of the drainage systems but also of the roadway through the project limits.

Complete Streets

This project is in accordance with DP-37 and does not offer opportunity to incorporate any Complete Streets elements. This project is a drainage systems restoration project so it will not incorporate complete street elements given the scope of the project and the purpose and need.

Drainage inlets on the shoulders will be upgraded with grates suitable for bicycles because this route is open to bicycle traffic.

Park and ride facilities exist at PM T31.238 and PM L27.368.

Climate Change Considerations

Green House Gas (GHG) Emissions analysis was performed and determined that this project is expected to result in less than significant impacts given the scope of the project. This project is a non-capacity-increasing pavement rehabilitation and an increase in operational emissions is unlikely.

Short-term emission increases are expected, resulting from traffic delays, during construction activities. Mitigations measures to reduce traffic delays will be specified in the contract special provisions.

This project is in Fresno County and is not susceptible to sea level rise because of the location.

Inclusion of Climate Change features was determined to be unsuitable given the scope of the project and the available information.

Broadband and Advance Technologies

There are no planned broadband facilities on this project.

Storm Water Quality Conformance

This project will create 15.03 acres of Disturbed Surface Area from installing construction area signs, drainage systems rehabilitation, contractor staging areas, and workers and equipment movements. There is no new net impervious (NNI) surface area created by this project. BMP bid items will be detailed in the PS&E phase.

A Storm Water Data Report (SWDR) was approved for this project. See attachment F for information.

8. FUNDING, PROGRAMMING AND ESTIMATE

Funding

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

Programming

The project is programmed in the 2020 SHOPP Drainage System Restoration Program (20.XX.201.151) as a long lead for delivery in the 2024/2025 fiscal year.

A PCR will be processed during PS&E for anchor assets and funding.

Programmed Cost Table.

Fund Source	Fiscal Year Estimate								
20.XX.201.151	Prior	20/21	21/22	22/23	23/24	24/25	25/26	Future	Total
Component	In thousands of dollars ($1,000)								
PA&ED Support		$4,500							$4,500
PS&E Support				$1,900					$1,900
Right-of-Way Support				$1,000					$1,000
Construction Support						$2,700			$2,700
Right-of-Way						$ 270			$270
Construction						$17,800			$17,900
Total		$4,500		$2,900		$20,770			$28,970

The support cost ratio is 55.9%.

Estimate

Construction cost escalated to 2026 is $11,560,000 and right of way cost is $843,000. A cost estimate was prepared for this project. See attachment G for more information.

9. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)
PROGRAM PROJECT	M015	05/15/2020
BEGIN ENVIRONMENTAL	M020	07/28/2020
CIRCULATE DPR & DED EXTERNALLY	M120	02/03/2023
PA & ED	M200	04/28/2023
REGULAR RW	M225	05/19/2023
PS&E TO DOE	M377	10/01/2024
RIGHT OF WAY CERTIFICATION	M410	02/19/2025
READY TO LIST	M460	03/03/2025
FUND ALLOCATION	M470	05/16/2025
HEADQUARTERS ADVERTISE	M480	06/09/2025
AWARD	M495	08/08/2025
APPROVE CONTRACT	M500	09/09/2025
CONTRACT ACCEPTANCE	M600	10/06/2026
FINAL REPORT	M700	08/06/2027
END PROJECT EXPENDITURES	M800	02/04/2028
FINAL PROJECT CLOSEOUT	M900	11/01/2030

10. RISKS

The anticipated risks associated with this project are listed in the Risk Management Plan (RMP). The RMP identifies the risks that may impact the scope, cost, and schedule of this project. Risks arising because of the possible need for more environmental studies could impact the schedule. Future culvert inspections may lead to more culverts needing replacement than anticipated, thereby impacting the scope, cost, and schedule. See Attachment H for more information.

11. EXTERNAL AGENCY COORDINATION

Federal Highway Administration (FHWA)
This project is an Assigned Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

The project requires the following coordination:

US Army Corps of Engineers-Department of the Army
404 Clean Water Act.

United States Coast Guard
Not needed on this project.

US Department of Fish and Wildlife Service
Biological Opinion.

California Department of Fish and Wildlife
1600 Lake or Streambed Alteration Agreement
Incidental take permit 2081

US Forest Service- Department of Agriculture
Permit for use of Federal Lands.

Regional Water Quality Control Board
Clean Water Act Section 401 Water Quality Certification.

12. PROJECT REVIEWS

Scoping team field review		Date 12/18/2018
District Program Advisor	*Rene Sanchez*	Date 11/04/2022
Headquarters SHOPP Program Advisor	*Joe Baltazar*	Date 11/07/2022
District Maintenance	*Rene Sanchez*	Date 11/04/2022
Headquarters Project Delivery Coordinator	*Paul Gennaro*	Date 11/04/2022
Project Manager	Jeanie Wiley	Date 08/10/2022
FHWA	N/A	Date N/A
District Safety Review "Waived for PID Required at PS&E"		Date N/A
Constructability Review		Date 09/06/2022
Peer Review	Irene Lee	Date 08/22/2022

13. PROJECT PERSONNEL

Name, Title	Functional Unit	Phone #
Jeannie Wiley, Project Manager	PPM	(559) 978-3234
Abdul Baker, Design Manager	Design	(559) 908-9448
Eltahir Ataelgeed, Project Engineer	Design	(559) 383-5459
Brent Haroldsen, Construction Engineer	Construction	(559) 246-6410
Shane Gunn, Associate Env Planer	Environmental	(559) 832-0051
Tom Fisher, Senior Engineer	Hydraulics	(559) 974-5061
Rene Sanchez, District Program Advisor	Maintenance	(559) 488-4225
Daniel Saldivar, Culvert Inspection	Maintenance	(559) 488-4773
Claudia Westerlund, Senior Surveyor	Surveys	(559) 515-3528
Nick Dumas, Office Chief RW	Right of Way	(559) 246-9635
Mazin Al Ali, Senior SW Coordinator	NPDES	(559) 908-6061
Brad Cole, Senior Landscape Architect	Landscape	(559) 230-3134
Isidro Perez, Senior Engineer	Traffic Management	(559) 383-5246
Caleb Wu, Acting Senior Engineer	Traffic Operations	(559) 383-5236
Andrey Chevychalov, Senior Engineer	Traffic Design	(559) 974-5082
Derran Reitz, Senior Engineer	Electrical	(559) 981-7534
Scott Harlan, Branch Chief	Asset Management	(559) 383-5241

14. ATTACHMENTS (Number of Pages)

A. Title Sheet (1)
B. Locations of Construction (4)
C. Right of Way Data Sheet (6)
D. Environmental Document (71)
E. Transportation Management Plan Data Sheet (2)
F. Storm Water Data Report-Signed Cover Sheet (1)
G. Cost Estimate (10)
H. Risk Register (2)
I. Communication Plan (4)

ATTACHMENT A

Title Sheet

INDEX OF PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre	168	R8.28/45.8	1	

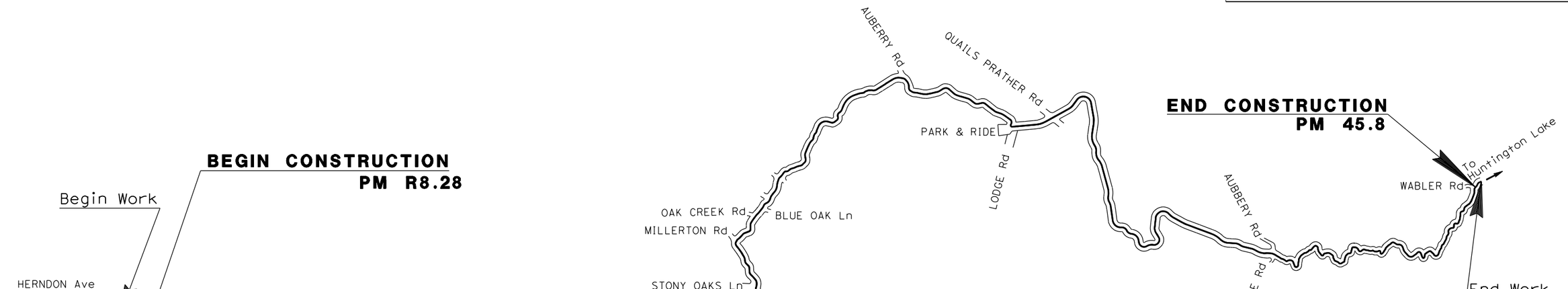
STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN FRESNO COUNTY ON ROUTE 168
FROM FOWLER AVE OVERCROSSING IN
CLOVIS TO WARBLER LANE IN SHAVER LAKE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2022



PROJECT MANAGER: JEANNIE WILEY

DESIGN MANAGER: ABDUL BAKER

PROJECT ENGINEER — DATE
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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

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

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

NO SCALE

CONTRACT No.	06-0X2204
PROJECT ID	0618000041

LAST REVISION 04-05-23

DATE PLOTTED => 4/5/2023
TIME PLOTTED => 9:15:17 AM

BORDER LAST REVISED 8/1/2016 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => DGN FILE => ...\Plans\0618000041ab001.dgn | UNIT 1476 | PROJECT NUMBER & PHASE 06180000410

ATTACHMENT B

Locations of Construction

06-0X220 (0618000041)
Fresno 168 Culvert Rehab Project
Locations of Construction

Location	PM	System #	Existing Pipe Material	Existing Diameter (FT)	Length (FT)	Proposed Work
1	R8.13	421681000813	HDPE	1.5	67.6	Replace section, 18"
2	R9.00	421680000900	HDPE	1.5		~~Not included in this project~~
3	R11.98	421684001198	HDPE	2.0	101.4	Replace section, 24"
4	15.40	421684001540	CSP	0.7	30.6	Replace, 18"
5	15.76	421680001576	CSP	0.7	37.9	Replace, 18"
6	15.91	421680001591	CSP	1.0	47.3	Replace, 18"
7	16.01	421680001601	CSP	0.7	40.5	Replace, 18"
8	16.21	421680001621	CSP	1.0	47.5	Replace, 18"
9	16.35	421680001635	CSP	1.0	47.2	Replace, 18"
10	17.15	421680001715	CSP	1.5	64.0	Replace, 24"
11	17.21	421680001721	CSP	1.5	58.0	Replace, 24"
12	17.30	421680001730	CSP	0.8	42.9	Replace, 18"
13	17.49	421680001749	CSP	1.0	42.6	Replace, 18"
14	17.67	421680001767	CSP	1.0	44.5	Replace, 18"
15	17.72	421680001772	CSP	0.7	34.6	Replace, 18"
16	17.86	421680001786	CSP	1.0	40.3	Replace, 18"
17	T25.68	421681102568	CSP	2.0	100.1	Replace, 24"
18	T25.81	421681202581	CSP	1.5	36.2	Replace, 24"
19	R26.00	421680102600	CSP	0.7	35.9	Replace, 18"
20	R26.06	421680102606	CSP	1.0	69.1	Replace, 24"
21	T26.48	421685102648	CSP	2.5	48.0	Replace section, 30"
22	T26.62	421685102662	CSP	1.0	34.1	Replace, 18"
23	T26.66	421685102666	CSP	1.0	93.3	Replace, 24"
24	T26.77	421685102677	CSP	0.7	42.0	Replace 18"
25	T26.86	421685102686	CSP	1.0	36.6	Replace, 24"
26	T26.94	421685102694	CSP	1.2		Replace, 18"-Combine w/ Loc 27
27	T26.94	421685102694	CSP	1.2	50.1	Replace, 18"
28	T27.08	421685102708	CSP	1.0	59.3	Replace, 18"
29	T27.34	421685102734	CSP	0.7	32.9	Replace, 18"
30	T27.43	421685102743	CSP	1.0	37.7	Replace, 18"
31	T27.53	421685102753	CSP	1.0	49.9	Replace, 18"
32	T27.63	421685102763	CSP	0.7	38.3	Replace, 24"
33	T27.79	421685102779	CSP	1.5	65.0	Replace, 18"
34	T27.85	421685102785	CSP	0.0	68.7	RCB 5wx4h
35	T28.11	421685102811	Stove pipe	0.7		Abandon
36	T28.11	421685102811	CSP	1.0	71.9	Replace, 18" New Alignment
37	T28.29	421685102829	CSP	1.0	57.7	Replace, 18"
38	T28.40	421685102840	CSP	1.0	68.9	Replace, 18"
~~39~~	~~R28.87~~	~~421684102887~~	~~CSP~~	~~2.0~~		~~Not included in this project~~
40	R28.94	421684102894	CSP	1.0	40.0	Replace, 24, Flatter with DI and 18" Downdrain down the slope
40	R28.94	421684102894	CSP		22.0	Replace, 18" OSD New alignment"

06-0X220 (0618000041)
Fresno 168 Culvert Rehab Project
Locations of Construction

Location	PM	System #	Existing Pipe Material	Existing Diameter (FT)	Length (FT)	Proposed Work
41	R28.98	421684102898	CSP		60.2	Line
41	R28.98	421684102898	CSP	1.0	37.0	Replace, 18" New alignment
41	R28.98	421684102898	CSP		20.8	Replace, 18" (No culvert info) New alignment
42	~~T29.07~~	~~421685102907~~	~~CSP~~	~~1.0~~		~~Not included in this project~~
43	~~T29.12~~	~~421685102912~~	~~CSP~~	~~1.5~~		~~Not included in this project~~
44	~~T29.36~~	~~421681102936~~	~~CSP~~	~~1.0~~		~~Not included in this project~~
45	R30.08	421684103008	CSP	3.0	92.9	Line
46	T30.66	421681103066	CSP	1.0	39.9	Replace, 18"
47	~~T31.04~~	~~421685103104~~	~~CSP~~	~~1.0~~		~~Not included in this project~~
48	T31.38	421685103138	CSP	1.0	78.8	Replace, 24"
49	T31.67	421681103167	CSP	1.0	51.7	Replace, 18"
50	T31.74	421685103174	WC/CSP	1.0	67.2	Replace, 18"
51	T31.81	421685103181	CSP	1.0	62.0	Replace, 18"
52	T31.89	421685103189	WC/CSP	0.8	62.1	Replace, 18"
53	T32.07	421685103207	CSP	1.2	86.5	Replace, 24"
54	T32.17	421685103217	CSP	2.5	85.6	Replace 30" Section dented/Rusted
55	T32.59	421685103259	CSP	5.0	39.2	Invert Repair, Stabilize Embankment
56	L28.52	421684702852	CSP	2.0	353.9	Line
57	L28.63	421684702863	CSP	2.0	102.7	Replace, 24"
58	L28.75	421684702875	CSP	2.0	102.1	Replace, 24"
59	L28.83	421684702883	CSP	2.0	74.0	Line, repave flowline/apron
60	L29.03	421685202903	CSP	2.0	177.0	Line
61	L29.69	421684702969	CSP	2.0	132.5	Line & combine with 62, 63
62	L29.69	421684702969	CSP	2.0		Combined with 61
63	L29.69	421684702969	CSP	1.5		Combined with 61
64	L30.56	421684703056	CSP	2.0	103.2	Replace, 24"
~~65~~	~~L30.56~~	~~421684703056~~	~~CSP~~	~~1.0~~		~~Not included in this project~~
66	L30.63	421684703063	CSP	2.0	81.0	Replace, 24"
67	L30.77	421684703077	CSP	2.0	119.3	Line
68	L30.79	421684703079	CSP	2.0	119.8	Line
69	L30.82	421684703082	CSP	2.0	125.7	Line
70	L31.04	421684703104	CSP	2.5	166.3	Line
71	L31.09	421684703109	CSP	2.0	164.4	Line
72	L31.23	421684703123	CSP	2.0	99.7	Line
73	L31.35	421684703135	CSP	2.0	135.5	Line
74	L31.38	421684703138	CSP	2.0	135.8	Line
75	L31.50	421684703150	CSP	2.0	107.2	Line
76	L31.60	421684703160	CSP	2.0	123.8	Line
77	R32.72	421684103272	CSP	2.0	86.5	Line
78	R32.78	421684103278	CSP	2.5	191.8	Line
79	R32.82	421684103282	CSP	2.0	110.8	Line

06-0X220 (0618000041)
Fresno 168 Culvert Rehab Project
Locations of Construction

Location	PM	System #	Existing Pipe Material	Existing Diameter (FT)	Length (FT)	Proposed Work
80	R32.96	421684103296	CSP	2.0	163.7	Line
81	R33.00	421684103300	CSP	2.0	97.6	Line
82	R33.12	421684103312	CSP	2.0	233.6	Line
83	R33.12	421685203312	CSP	2.0	251.7	Line
84	R33.26	421684103326	CSP	2.0	83.4	Replace, 24"
85	R33.32	421684103332	CSP	2.0	167.5	Line
86	R33.34	421684103334	CSP	2.0	198.9	Line
87	R33.50	421684103350	CSP	3.0	142.5	Replace, 30"
88	R33.65	421684103365	elliptical CSP	0.0	261.9	Line
89	R33.79	421684103379	CSP	2.0	122.8	Line
90	R33.83	421684103383	CSP	3.0	124.2	Line
91	R33.88	421684103388	CSP	2.0	98.3	Replace, 24" New alignment
92	R33.99	421684103399	CSP	2.0	121.9	Replace, 24"
93	R34.09	421684103409	CSP	2.0	159.6	Line
94	R34.14	421684103414	CSP	2.0	84.2	Replace, 24"
95	R34.23	421684103423	CSP	2.0	88.3	Replace, 24"
96	R34.32	421684103432	CSP	2.0	96.5	Replace, 24"
97	R34.37	421684103437	CSP	1.5	93.0	Replace, 18" New alignment
98	R34.37	421684103437	CSP	2.0	36.3	Replace, 24"
99	R34.40	421684103440	CSP	1.5	79.8	Line
100	R34.40	421684103440	CSP	2.0	40.5	Line
101	R34.58	421685203458	CSP	4.0	238.4	Line
102	R34.74	421684103474	CSP	2.0	283.5	Line
103	R34.92	421684103492	CSP	2.5	301.4	Line
104	R34.99	421684103499	CSP	2.0	167.2	Line
105	R35.05	421684103505	CSP	2.0	120.6	Line
106	R35.12	421684103512	CSP	2.0	169.5	Line
107	R35.18	421684103518	CSP	2.0	186.2	Line
108	R35.46	421684103546	CSP	2.0	172.8	Line
109	R35.54	421684103554	CSP	2.0	116.0	Line
110	R35.60	421684103560	CSP	2.0	177.5	Line
111	R35.84	421684103584	CSP	0.0	112.0	Line
112	R35.89	421684103589	CSP	2.0	132.2	Line
113	R35.95	421684103595	CSP	2.0	190.8	Line
114	R35.98	421684103598	CSP	2.0	215.6	Line
115	R36.05	421684103605	CSP	2.0	109.7	Line
116	R36.16	421684103616	CSP	2.0	212.4	Line
117	R36.25	421684103625	CSP	2.0	159.9	Line
118	R36.25	421684103625	CSP	2.0		Line
119	39.51	421684003951	CSP	1.5	33.2	Line
~~120~~	~~39.58~~	~~421684003958~~	~~CSP~~	~~1.0~~		~~Not included in this project~~

06-0X220 (0618000041)
Fresno 168 Culvert Rehab Project
Locations of Construction

Location	PM	System #	Existing Pipe Material	Existing Diameter (FT)	Length (FT)	Proposed Work
121	39.58	421684003958	CSP	1.0	82.8	Replace, 24"
122	39.63	421684003963	CSP	2.0	127.0	Line
~~123~~	~~39.88~~	~~421680003988~~	~~CSP~~	~~2.5~~		~~Not included in this project~~
~~124~~	~~40.03~~	~~421680004003~~	~~CSP~~	~~1.5~~		~~Not included in this project~~
125	40.23	421680004023	CSP	1.5	42.2	Replace, 24"
126	40.30	421680004030	CSP	1.5	42.0	Replace, 24"
127	40.45	421680004045	CSP	1.5	36.0	Line & Regrade
128	40.65	421680004065	CSP	1.5	40.0	Line & Regrade
~~129~~	~~40.73~~	~~421680004073~~	~~CSP~~	~~1.5~~		~~Not included in this project~~
130	41.25	421684004125	CSP	1.0	51.8	Replace, 18" & Regrade
~~131~~	~~41.47~~	~~421680004147~~	~~CSP~~	~~1.5~~		~~Not included in this project~~
132	41.55	421680004155	CSP	1.5	57.2	Line
~~133~~	~~41.73~~	~~421680004173~~	~~CSP~~	~~1.5~~		~~Not included in this project~~
134	41.86	421680004186	CSP	1.5	86.4	Replace, 24"
135	41.86	421681204186	CSP	1.5	65.2	Replace, 24"
136	42.04	421680004204	CSP	2.0	47.0	Replace, 24"
137	42.13	421680004213	CSP	1.5		Stabilize Embankment
138	42.42	421680004242	CSP	3.0	71.0	Line
139	42.42	421680004242	CSP	1.5	35.3	Replace, 18"
140	42.42	421680004242	CSP	4.0	94.0	Pave Invert
141	42.44	421680004244	CSP	1.5	59.8	Replace, 24"
142	42.55	421680004255	CSP	1.5		Stabilize Embankment
143	42.81	421680004281	CSP	1.5	37.2	Line & Regrade
144	R42.90	421680104290	CSP	1.5		Stabilize Embankment
~~145~~	~~R42.90~~	~~421680004290~~	~~CSP~~	~~1.5~~		~~Not included in this project~~
146	R42.96	421680104296	CSP	1.5	67.9	Replace, 24"
147	R43.10	421680104310	HDPE	1.5		Remove tree and regrade
148	R43.30	421684104330	CSP	1.5		Stabilize Embankment
149	43.71	421680004371	CSP	1.5	39.2	Line
150	44.02	421680004402	HDPE	1.5	86.7	Replace, 24"
151	44.45	421680004445	elliptical CSP	0.0	84.5	Replace, 30"
152	44.85	421680004485	CSP	1.5	36.0	Replace, 24"
153	45.14	421680004514	CSP	2.0	60.5	Replace, 24"
154	45.44	421680004544	CSP	2.0	61.3	Replace, 24"
155	45.50	421680004550	CSP	1.0	99.0	Replace, 18"
156	45.50	421680004550	CSP	1.0	4.0	Replace, 18"
157	45.50	421680004550	CSP	1.0	61.1	Line
158	45.80	421684004580	CSP	2.0	39.6	Line

ATTACHMENT C

Right of Way Data Sheet

STATE OF CALIFORNIA CALIFORNIA STATE TRANSPORTATION AGENCY

Memorandum

To: Jeannie Wiley

Attn: Eltahir Ataelgeed

Abdul Baker

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

Date: 11/8/2022

File: **CD** 06 **EA** 0X2200 **Alt** NA
Co FRE **RTE** 168

DESCRIPTION:
Repair and replace culverts

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 10/18/2022

The following assumptions and limiting conditions were identified:

Parcels

It is assumed that these parcels will have continued access both during and after construction. The culverts along SR 168 were very difficult to identify making determination of improvement impacts unclear, these impacts if present may change the estimate significantly when the project enters phase 2.

Utility

Based on the information from the Right of Way Data Sheet Request the project engineer states that potholing will be necessary and utility relocation will be required. Access rights, temporary construction easements or drainage easements will be required. If after potholing is completed, and any utilities are discovered to be in conflict , then a new datasheet should be requested.

Right of Way Lead Time will require a minimum 21 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

EA: 06-0X2200 ALT: NA

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

This project proposes drainage system restoration work at 158 culvert locations on State Route 168 in Fresno County at various locations between Post Miles R8.28 and 45.8, from Fowler Avenue Overcrossing in Clovis to 0.10 mile east of Warbler Lane in Shaver Lake. Existing guardrail will be upgraded at culvert replacement locations. Grading and embankment reconstruction work is proposed at several locations within the project limits. There will be 90 locations that will require permanent and/or temporary easements, 45 on the northside and 45 on the southside. These locations consist of Vacant Land, Rural Residential land, and some Commercial parcels. It is assumed that there are no improvements within the easement areas. The easements have all been given a value of $2500 or more to capture all ROW programs available during the time of the project.

General Description of Utility Involvement:

The 6-0X220 (Fresno 168 Culvert Rehab) project proposes drainage system restoration work at 158 culvert locations on State Route 168 in Fresno County between Post Miles R8.28 and 45.8, from Fowler Avenue Overcrossing in Clovis to 0.10 mile east of Warbler Lane in Shaver Lake. The project proposes to replace, repair, reline culverts and end treatments. Existing guardrail will be upgraded at culvert replacement locations. Grading and embankment reconstruction work is proposed at several locations within the project limits.

General Description of Railroad Involvement:

No railroad facilities will be affected.

06-0X220 **CO/RTE/PM-PM: FRE/168/R8.2-45.8** **Request Date: 10/18/2022**

ALT: NA **Revised Date:**

Right Of Way Cost Estimate	Current Year	Contingency Rate	Escalation Rate	Escalated Year
	2022	25%	5%	2024
Acquisition:	$295,000	25%	5%	**$325,238**
Mitigation:	$280,205	25%	5%	**$308,926**
State Share of Utilities:	$87,500	25%	5%	**$96,469**
Expert Witness:	$0	25%	5%	**$0**
Relocation Assistance:	$0	25%	5%	**$0**
Demolition and Clearance:	$0	25%	5%	**$0**
Title and Escrow:	$101,388	25%	5%	**$111,780**
Ad Signs:	$0	25%	5%	**$0**
Total Current Value:	$764,093			**$842,412**

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. 21

Estimated Pothole Date: 2/1/2023

Cost Break Down	
Pot Hole	70,000
# Pot Holes	140
Mitigation	
Land	
Bank	150,000
Permit Fees	74,164

Parcel Area

Total R/W Required:	165498
Total Excess Area:	

Parcel Data

# of Parcel Type X:	0	
# of Parcel Type A: less than $10,000 non-complex	90	
# 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:	90	**Totals:** 0

# of Excess Parcels: 0

EA: 06-0X2200 ALT: NA

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?	None
Const/Maint Agreement:	None
Service Contract Count:	0
Right of Entry:	None
Clauses:	None
Estimated Lead-time:	None

Utilities

16 Companies to be potholed

16 Companies for Verification

0 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: Yes

Data for evaluation provided by:

Estimator:	Nicole Olsen	11/7/2022
Railroad Liaison Agent:	Sandra Sifuentes	10/24/2022
Utility Relocation Coordinator:	Heather Franklin	11/7/2022

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

Date

ENTERED PRSM 11/8/2022

BY: N Beebe Pence

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

Mitigation and Compliance Cost Estimate (MCCE)

PART 1 - PROJECT INFORMATION

DIST-CO-RTE: 06-FRE-168 **PM/PM:** R8.28/45.80

EA/Project Number: 06-0X220_ / 0618000041

Project Name: Fre 168 Culvert Rehab

Form Completed by: Cuauhtemoc Galvan

Project Manager: Jeannie Wiley **Phone:** (559) 243-3432

Date: 10/31/2022

MCCE Phase prepared for: FED

PART 2 - ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

Environmental Commitments for Alternative:

Commitment	Design $	FY	Ac/Crd	ROW $ Planned	FY	ROW $ Actual	Pd	Construction $	FY
Archaeological									
Monitoring							☐	$20,000	24/25
Biological									
Exclusion Fence							☐	$28,080	25/26
RFP			0.16	$100,000	23/24		☐		
Annual 401 Fee				$2,031	24/25		☐		
Bank Credits			0.25	$50,000	23/24		☐		
Monitoring	$20,500	25/26					☐		
Hazardous Waste									
PSI	$14,000	23/24					☐		
Lead Compliance Plan							☐	$3,000	25/26

PART 3 - PERMITS AND AGREEMENTS

Permit/Agreement	ROW $ Planned	FY	ROW $ Actual	Pd	Construction $	FY
CEQA Review	$2,548	22/23		☐		
1600	$20,000	23/24		☐		
2081 - Incidental Take Permit	$34,585.25	23/24		☐		
401	$15,000	23/24		☐		
NOI/NOT (Stormwater)				☐	$1,325	26/27
NOI/NOT (Stormwater)				☐		

TOTAL	$34,500	$224,164.25	$52,405	

EA/Project ID: 06-0X220_/0618000041

Approved by:

Trais Norris	J William "Trais" Norris, A A A	10/31/2022
Environmental Branch Chief (Print Name)	Signature	Date

If Right of Way Capital is needed:

Sara Blum	Sara Blum	11/1/22
Right-of-Way Office Chief (Print Name)	Signature	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)

TO #3 approved in July for OHWM delineation
7/28/2021: Monitoring for trimming of Carpenteria estimated at $20,500.
10/26/2021: Permit fee estimates added to MCCE
2/17/2022: VPFS mitigation needed for roughly 0.25 acres. 1 credit is estimated at $150,000 so 1/4 that is $37,500
8/31/2022: VPFS mitigation is no longer needed. Funds set aside for CTS and Carpenteria
8/31/2022: 10' by 10' exclusion area around culverts (30 LF x 2) is 2,340 LF. Avg fence price is $12 per LF

9/26/2022 Assuming Carpenteria mitigation will cost $50,000 based on the estimated replacement ratio of 3:1 of the 22 trimmed trees. There is potential that Carpenteria mitigation could cost more if CDFW will require a CE.
10/31/2022: "Mitigation Parcel $100,000" has been updated to RFP. Current mitigation proposal is to provide funding to Sierra Conservancy to maintain their current Carpenteria population. Risk Register will be updated to reflect risk if CDFW denies the RFP.

ATTACHMENT D

Environmental Document

CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM (rev. 06/2022)

Project Information

Project Name (if applicable): Fresno 168 Culvert Rehabilitation

DIST-CO-RTE:06-FRE-168 **PM/PM:** 8.28/45.8

EA:06-0X220 **Federal-Aid Project Number:** 0618000041

Project Description

The purpose of the project is to maximize the service life of drainage elements by rehabilitating and upgrading or replacing existing culverts at various locations within the project limits. The California Department of Transportation (Caltrans) proposes to repair or replace 158 culverts and associated elements at various locations on State Route 168 in Fresno County from post mile R8.28 to post mile 45.80 from the Fowler Avenue Overcrossing to 0.10 mile east of Warbler Lane. The project is needed to maintain proper drainage and extend the life of the culverts on State Route 168 for the following reasons: The culverts are perforated and heavily rusted, the culverts have damaged end treatments and joint separations, and the culverts have reached or exceeded their design life. Temporary construction easements and permanent right-of-way easements will be required and identified during the design phase of the project.

Caltrans CEQA Determination (Check one)

☐ **Not Applicable** – Caltrans is not the CEQA Lead Agency
☒ **Not Applicable** – Caltrans has prepared an IS or EIR under CEQA

Based on an examination of this proposal and supporting information, the project is:
☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)
☐ **Categorically Exempt. Class**. (PRC 21084; 14 CCR 15300 et seq.)
  ☐ No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the SER Chapter 34 for exceptions.
☐ **Covered by the Common Sense Exemption**. This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (14 CCR 15061[b][3].)

Senior Environmental Planner or Environmental Branch Chief

Print Name	Signature	Date

Project Manager

Print Name	Signature	Date

Caltrans NEPA Determination (Check one)

☐ **Not Applicable**

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See SER Chapter 30 for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

☒ **23 USC 326:** Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2022, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:

- ☐ **23 CFR 771.117(c): activity (c)**
- ☐ **23 CFR 771.117(d): activity (d)**
- ☒ **Activity 2 listed in Appendix A of the MOU between FHWA and Caltrans**

☐ **23 USC 327:** Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Shane Gunn	Shane Gunn	3/30/2023
Print Name	Signature	Date

Project Manager/ DLA Engineer

Jeannie Wiley	Jeannie Wiley	3-30-2023
Print Name	Signature	Date

Date of Categorical Exclusion Checklist completion (if applicable): 3/29/2023
Date of Environmental Commitment Record or equivalent: 3/29/2023

Briefly list environmental commitments on continuation sheet if needed (i.e., not necessary if included on an attached ECR). Reference additional information, as appropriate (e.g., additional studies and design conditions).

Categorical Exclusion Checklist

PROJECT INFORMATION

DIST-CO-RTE: 06-FRE-168

PM/PM: R8.28/45.8

Fed. Aid Number (Local Project):

EA/Project Number: 06-0X220/0618000041

SECTION A: Type of CE

Use the information in this section to determine the applicable CE and corresponding activity for this project.

1. Project is a CE under CE Assignment 23 USC 326 (activity must be listed in 23 CFR 771.117 (c) or (d) list (See Chapter 30 in the SER) or included in activities listed in Appendix A of the CE Assignment MOU to be eligible for 23 USC 326).

☒ Yes, **Activity:** (Appendix A) 2 ☐ No

Notes for specific activities:

- **If using (c)9,** distinguish between (c)9(i) or (c)9(ii) on the form and include copy of the emergency declaration in the file.
- **If using (c)22,** identify in the project description that all work is within operational right-of-way.
- **If using (c)23,** distinguish between (c)23(i) and (c)23(ii) on the form.
- **If using (c)26, (c)(27), or (c)(28),** ensure that the action DOES NOT include any of the constraints found in 23 CFR 771.117(e). If it does, it may not be processed under (c)(26), (c)(27), or (c)(28), however, the project may qualify for a CE under 23 CFR 771.117(d)(13).

2. Project is a CE for a highway project under NEPA Assignment 23 USC 327 (Use only if project does not qualify under CE Assignment 23 USC 326 (activities not included in question 1)).

☐ Yes ☒ No

3. Independent Utility and Logical Termini

☒ The project complies with NEPA requirements related to connected actions and segmentation (i.e., the project must have independent utility, connect logical termini when applicable, be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made and not restrict further consideration of alternatives for other reasonably foreseeable transportation improvements). (FHWA Final Rule, "Background," Federal Register Vol. 79, No. 8, January 13, 2014.)

4. Categorical Exclusions Defined (23 CFR 771.117[a]).

FHWA regulation 23 CFR 771.117(a) defines categorical exclusions as actions which:

- do not induce significant impacts to planned growth or land use for the area;
- do not require the relocation of significant numbers of people;
- do not have a significant impact on any natural, cultural, recreational, historic or other resources;
- do not involve significant air, noise, or water quality impacts;
- do not have significant impacts on travel patterns; or
- do not otherwise, either individually or cumulatively, have any significant environmental impacts.

☒ Checking this box certifies that project meets the above definition for a Categorical Exclusion.

5. Exceptions to Categorical Exclusions/Unusual Circumstances (23 CFR 771.117[b]).

FHWA regulation 23 CFR 771.117(b) provides that any action which normally would be classified as a CE but could involve *unusual circumstances* requires the Department to conduct appropriate environmental studies to determine if the CE classification is proper. Unusual circumstances include actions that involve:

- Significant environmental impacts;
- Substantial controversy on environmental grounds;
- Significant impact on properties protected by section 4(f) of the DOT Act or section 106 of the National Historic Preservation Act; or
- Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action.

All of the above unusual circumstances have been considered in conjunction with this project. (Choose one)

☒ Checking this box certifies that **none of the above conditions apply** and that the project qualifies for a Categorical Exclusion.

☐ Checking this box certifies that unusual circumstances **are involved**. However, the appropriate studies/analysis have been completed, and it has been determined that the CE classification is still appropriate.

SECTION B: Compliance with FHWA NEPA policy to complete all other applicable environmental requirements[1] prior to making the NEPA determination:

During the environmental review process for which this CE was prepared, all applicable environmental requirements were evaluated. Outcomes for the following requirements are identified below and fully documented in the project file. [**NOTE: EVERY SECTION BELOW MUST BE COMPLETED, DO NOT SKIP ANY SECTIONS.**]

FSTIP

☒ The project description on the Categorical Exemption/Categorical Exclusion Form matches the project description in the FSTIP and RTP, and the appropriate page of the FSTIP is in the project file.

Air Quality

☒ Air Quality Conformity Findings Checklist has been completed and project meets all applicable AQ requirements.

☒ For 23 USC 326 projects which require an air quality conformity determination (this will apply to certain projects under 23 CFR 771.117(c)(22), (c)(23), (c)(26), (c)(27), and (c)(28)), list the date of the Caltrans conformity determination: 6-7-2022

☐ For 23 USC 327 projects, list date of FHWA concurrence on conformity determination:

Cultural Resources

☒ Section 106 compliance is complete.

☐ A Screened Undertaking Memo was prepared, or

☒ A Historic Properties Survey Report was prepared, and the following finding was made:

☐ No Historic Properties Affected ☒ No Adverse Effect with Standard Conditions

☐ No Adverse Effect ☐ Adverse Effect/MOA ☐ Phasing/Project PA

Noise

23 CFR 772

☐ Is this a Type 1 project? ☐ Yes ☒ No (skip this section.)

☐ Future noise levels with project either approach or exceed NAC or result in a substantial increase.

If yes: ☐ Abatement is reasonable and feasible

☐ Abatement is not reasonable or feasible

[1] Please consult the SER for a complete list of applicable laws, statutes, regulations, and executive orders that must be considered before completing the CE.

Biology

USFWS

Species List[2]:

☐ Not required

☒ Required, Date: 3/29/2023

Effect Determination:

☐ No Effect Section 7 (Federal Endangered Species Act)

Consultation with USFWS Findings (Effect determination):

☐ Not Likely to Adversely Affect with USFWS Concurrence. Date: _____[3]

☒ Likely to Adversely Affect with Biological Opinion Date: 3/13/2023[3]

NOAA Fisheries

Species List[2]:

☒ Not required

☐ Required, Date: _____

Effect Determination:

☒ No Effect Section 7 (Federal Endangered Species Act)

Consultation with NOAA Fisheries Findings (Effect determination):

☐ Not Likely to Adversely Affect with NOAA Fisheries Concurrence. Date: _____[3]

☐ Likely to Adversely Affect with Biological Opinion Date: _____[3]

Essential Fish Habitat (Magnuson-Stevens Act) Findings (Effect determination):

☒ Magnuson-Stevens Fishery Conservation and Management Act does not apply

☐ No Adverse Effect ☐ Adverse Effect and consultation with NOAA Fisheries

Floodplains

Floodplains (Executive Order #11988)

☒ No Floodplains ☐ No Significant Encroachment ☐ Significant Encroachment

[2] See the "Changes to Species List Requirements" memo (April 9, 2021) for decision tree and information on determining if a list is required and date requirements.
[3] If concurrence or BO is expected after PA&ED, enter "Pending" into this field.

Waters, Wetlands

Section 404 of the Clean Water Act

Impacts to Waters of the U.S.: ☐ No ☒ Yes; anticipated approval:

☒ Nationwide Permit ☐ Individual Permit ☐ Regional General Permit

☐ Letter of Permission

Section 401 of the Clean Water Act

☐ Exemption ☒ Certification ☐ Not Applicable

Wetland Protection (Executive Order #11990)

☒ No Wetland Impact

☐ Permanent Wetland Impact; Only Practicable Alternative Finding is included in a separate document in the project file

Section 4(f) Transportation Act (23 CFR 774)

Section 4(f) regulation was considered as a part of the review for this project and a determination was made:

☒ Section 4(f) does not apply

- ☒ There are no potential Section 4(f) properties in the project vicinity.
- ☐ The properties do not meet the definition of a Section 4(f) property, the project does not "use" a Section 4(f) property, or the project meets the criteria for an exception (e.g., temporary occupancy). Document in project file or CE.

☐ Section 4(f) applies

- ☐ De Minimis
- ☐ Programmatic: Type: List one of the five categories as defined in 23 CFR 774.3
- ☐ Individual:
  - ☐ Legal Sufficiency Review complete ☐ HQ Coordinator Review Complete

Section 6(f) – Properties Acquired with Land and Water Conservation Fund grants

Was the above property purchased with grant funds from the Land and Water Conservation Fund?

☒ No, Section 6(f) does not apply. No additional documentation required.

☐ Yes: ☐ Documentation of approval from National Park Service Director (through California State Parks) has been received for the conversion/and replacement of 6(f) property.

Coastal Zone

Coastal Zone Management Act of 1972

☒ Not in Coastal Zone ☐ Qualifies for Exemptions ☐ Qualifies for Waiver

☐ Coastal Permit Required

☐ Consistent with Federal, State, and Local Coastal Plans ☐ Federal Consistency

Coast Guard – Bridge Over Navigable Waters of the U.S.

☒ Not applicable

☐ 23 USC 144(c) USCG Bridge Permit Exception

☐ 33 CFR 115.70 Advance Approval

☐ USCG Bridge Permit

Relocation and Right of Way

Relocations

☒ No Relocations

☐ Project involves Enter number relocations and will follow the provisions of the Uniform Relocation Act.

Right of Way Acquisitions/Easements

☐ No right of way acquisitions or easements

☒ Project involves 1 acquisition and 1 easement.

Hazardous Waste and Materials

Are hazardous materials or contamination exceeding regulatory thresholds (as set by U.S. EPA, Cal EPA, County Environmental Health, etc.) present? ☐ Yes ☒ No

If yes, is the nature and extent of the hazardous materials or contamination fully known?

☐ Yes ☐ No

If no, briefly discuss the plan for securing information:

SECTION C: Certification

Based on the information obtained during environmental review process and included in this checklist, the project is determined to be a Categorical Exclusion pursuant to the National Environmental Policy Act and is in compliance with all other applicable environmental laws, regulations, and Executive Orders.

Prepared by:

Cuauhtemoc Galvan	Cuauhtemoc Galvan	3/29/2023
Environmental Planner	Signature	Date

Transportation Air Quality Conformity Findings Checklist

PROJECT INFORMATION

Project Name: FRESNO 168 CULVERT REHAB

DIST-CO-RTE-PM: 06-1FRE-68-PM-8.28/45.8

EA: 06-0X220 **Federal Aid Number:**

Document Type: ☒ 23 USC 326 CE ☐ 23 USC 327 CE ☐ EA ☐ EIS

CHECKLIST

Step 1. Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM2.5, or PM10 per EPA's Green Book listing of non-attainment areas?

☐ If no, go to Step 18. **Transportation conformity does not apply to the project.**

☒ If yes, go to Step 2.

Step 2. Is the project exempt from conformity per 40 CFR 93.126 or 40 CFR 93.128?

☒ If yes, go to Step 18. **The project is exempt from all project-level conformity requirements (40 CFR 93.126 or 128)** (check one box below and identify the project type, if applicable).

☒ 40 CFR 93.126[1]

Project type from Table 2: Shoulder Improvements

☐ 40 CFR 93.128

☐ If no, **go** to Step 3.

Step 3. Is the project exempt from regional conformity per 40 CFR 93.127?

☐ If yes, go to Step 8. **The project is exempt from regional conformity requirements (40 CFR 93.127)** (identify the project type).
Project type: _____

☐ If no, go to Step 4.

Step 4. Is the project located in a region with a currently conforming RTP and TIP?

☐ If yes, t**he project is included in a currently conforming RTP and TIP per 40 CFR 93.115. The project's design and scope have not changed significantly from what was assumed in RTP conformity analysis (40 CFR 93.115[b])** Go to Step 8.

☐ If no and the project is located in an isolated rural area, go to Step 5.

☐ If no and the project is not located in an isolated rural area, STOP and do not proceed until a conforming RTP and TIP are adopted.

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[1] Please refer to Clarifications on Exempt Project Determinations to verify exempt project type from Table 2. Road diets, auxiliary lanes less than one-mile, and ramp metering may be exempt under "projects that correct, improve, or eliminate a hazardous location or feature."

Step 5. For isolated rural areas, is the project regionally significant per 40 CFR 93.101, based on review by Interagency Consultation?

☐ If yes, go to Step 6.

☐ If no, go to Step 8. **The project, located in an isolated rural area, is not regionally significant and does not require a regional emissions analysis (40 CFR 93.101 and 93.109[e]).**

Step 6. Is the project included in another regional conformity analysis that meets the isolated rural area analysis requirements per 40 CFR 93.109, including Interagency Consultation and public involvement?

☐ If yes, go to Step 8. **The project, located in an isolated rural area, has met its regional analysis requirements through inclusion in a previously-approved regional conformity analysis that meets current requirements (40 CFR 93.109[e]).**

☐ If no, go to Step 7.

Step 7. The project, located in an isolated rural area, requires a separate regional emissions analysis.

☐ **Regional emissions analysis for regionally significant project, located in an isolated rural area, is complete. Regional conformity analysis was conducted that includes the project and reasonably foreseeable regionally significant projects for at least 20 years. Interagency Consultation and public participation were conducted. Based on the analysis, the interim or emission budget conformity tests applicable to the area are met (40 CFR 93.109[e] and 95.105).**[2] Go to Step 8.

Step 8. Is the project located in a CO nonattainment or maintenance area? (South Coast Air Basin only)

☐ If no, go to Step 9. **CO conformity analysis is not required.**

☐ If yes, **hot-spot analysis requirements for CO per the** CO Protocol (or per EPA's modeling guidance, CAL3QHCR can be used with EMFAC emission factors[3]) **have been met. Project will not cause or contribute to a new localized CO violation (40 CFR 93.116 and 93.123)**[4]. Go to Step 9.

Step 9. Is the project located in a PM10 and/or a PM2.5 nonattainment or maintenance area?

☐ If no, go to Step 13. **PM2.5/PM10 conformity analysis is not required.**

☐ If yes, go to Step 10.

[2] The analysis must support this conclusion before going to the next step.
[3] Use of the CO Protocol is strongly recommended due to its use of screening methods to minimize the need for modeling. When modeling is needed, the Protocol simplifies the modeling approach. Use of CAL3QHCR must follow U.S. EPA's latest CO hot spot guidance, using EMFAC instead of MOVES; see: http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#co-hotspot.
[4] As of October 1, 2007, there are no CO nonattainment areas in California. Therefore, the requirements to not worsen existing violations and to reduce/eliminate existing violations do not apply.

Step 10. Is the project considered to be a Project of Air Quality Concern (POAQC), as described in EPA's Transportation Conformity Guidance for PM 10 and PM 2.5?

☐ If no, **the project is not a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Analysis Guidance. Interagency Consultation concurred with this determination on _____**. Go to Step 12.

☐ If yes, go to Step 11.

Step 11. The project is a POAQC.

☐ **The project is a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123, and EPA's Hot-Spot Guidance. Interagency Consultation concurred with this determination on _____. Detailed PM hot-spot analysis, consistent with 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Guidance, shows that the project would not cause or contribute to, or worsen, any new localized violation of PM10 and/or PM2.5 standards.** Go to Step 12.

Step 12. Does the approved PM SIP include any PM10 and/or PM2.5 control measures that apply to the project, and has a written commitment been made as part of the air quality analysis to implement the identified SIP control measures? [Control measures can be found in the applicable Federal Register notice at: https://www.epa.gov/state-and-local-transportation/conformity-adequacy-review-region-9#ca.]

☐ If yes, **a written commitment is made to implement the identified SIP control measures for PM10 and/or PM2.5 through construction or operation of this project (40 CFR 93.117).** Go to Step 14.

☐ If no, go to Step 13.

Step 13a. Have project-level mitigation or control measures for CO, PM10, and/or PM2.5, included as part of the project's design concept and scope, been identified as a condition of the RTP or TIP conformity determination? AND/OR

Step 13b. Are project-level mitigation or control measures for CO, PM10, and/or PM2.5 included in the project's NEPA document? AND

Step 13c (applies only if Step 13a and/or 13b are answered "yes")**.** Has a written commitment been made as part of the air quality analysis to implement the identified measures?

☐ If yes to 13a and/or 13b and 13c, **a written commitment is made to implement the identified mitigation or control measures for CO, PM10, and/or PM2.5 through construction or operation of this project. These mitigation or control measures are identified in the project's NEPA document and/or as conditions of the RTP or TIP conformity determination (40 CFR 93.125(a)).** Go to Step 14.

☐ If no, go to Step 14.

Step 14. Does the project qualify for a Categorical Exclusion pursuant to 23 USC 326?

☐ If yes, go to step 15.

☐ If no, the project requires preparation of a Categorical Exclusion, EA, or EIS pursuant to 23 USC 327. Go to Step 16.

Step 15. Is any analysis required by steps 1-13 of this form?[5]

☐ If yes, then Caltrans prepares the appropriate analysis and documentation for the project file and makes the conformity determination through its signature on the CE form. No FHWA involvement is required. See the AQCA Annotated Outline. Go to Step 18.

☐ If no, then Caltrans makes the conformity determination through its signature on the CE form. No FHWA involvement is required. Go to Step 18.

Step 16. Is the project located in a non-attainment/maintenance area for **ozone only** and considered not regionally significant/non-exempt?

☐ If yes, go to Step 18.[6]

☐ If no, then **an AQCA is needed**. See the AQCA Annotated Outline. Caltrans submits a conformity determination request to FHWA for FHWA's conformity determination. Go to Step 17.

Step 17. Send FHWA Request for Conformity Determination package and FHWA Submittal Package Checklist to DOTP- Air Quality (rodney.tavitas@dot.ca.gov) and DEA-Air Quality (daisy.laurino@dot.ca.gov) for completeness review. Please direct technical questions to DOTP-Air Quality office. Headquarters staff will coordinate with FHWA on behalf of the district.

Date of FHWA air quality conformity determination: _____

Step 18. STOP as all air quality conformity requirements have been met.

SIGNATURE

Maya Hildebrand		June 7, 2022
AEP	Signature	Date

[5] Please note that not all projects that qualify for a categorical exclusion will be exempt from air quality conformity requirements. Many types of projects that may qualify for a CE (such as the addition of auxiliary lanes less than one-mile, weaving lanes less than one-mile, turning lanes less than one-mile, climbing lanes less than one-mile, parking, road diets, ramp metering, and even many bridge projects) MAY require some level of project level conformity analysis and may even require interagency consultation. Additionally, please note that for ALL projects the project file must include evidence that one of the three following situations apply: 1) Conformity does not apply to the project area; or 2) The project is exempt from all conformity analysis requirements; or 3) The project is subject to project-level conformity analysis (and possibly regional conformity analysis) and meets the criteria for a conformity determination. The project file must include all supporting documentation and this checklist.

[6] Project-level conformity analysis shows that the project will conform to the State Implementation Plan. Because the project area is Attainment/Unclassified for carbon monoxide (CO) and particulate matter (PM10 and PM2.5), no hot spot analysis is required for the project-level conformity determination by 40 CFR 93.116 and 93.123. The project comes from a conforming Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP). Include documentation of interagency consultation review in the final CE/EA/EIS, if applicable.

Fresno 168 Culvert Rehabilitation

On State Route 168 from the Fowler Avenue Overcrossing
to 0.10 mile east of Warbler Lane in Fresno County
06-FRE-168-PM R8.28-45.80
Project ID Number 0618000041/EA 06-0X220
State Clearinghouse Number 2023020102

Initial Study
with Mitigated Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

March 2023

General Information About This Document

Document prepared by: Cuauhtemoc Galvan, Environmental Planner

[The following text has been added since the draft environmental document was circulated.] The Initial Study with Proposed Mitigated Negative Declaration circulated for public review and comment for 30 days between February 3, 2023, and March 6, 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 Division, 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.

State Clearinghouse Number 2023020102
06-FRE-168-PM R8.28-45.80
Project ID Number 0618000041/EA 06-0X220

Drainage rehabilitation on State Route 168
from post miles R8.28 to 45.80 in Fresno County

INITIAL STUDY
with Mitigated 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
Environmental Division Chief, District 6
California Department of Transportation
CEQA Lead Agency

3/23/2023
Date

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

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

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: 2023020102

District-County-Route-Post Mile: 06-FRE-168-R8.28-45.80

EA/Project Number: EA 06-0X220 and Project ID Number 0618000041

Project Description

The California Department of Transportation (Caltrans) proposes to repair or replace 158 culverts and associated elements at various locations on State Route 168 in Fresno County from post mile R8.28 to post mile 45.80 from the Fowler Avenue Overcrossing to 0.10 mile east of Warbler Lane.

Determination

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

- A Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife will be obtained for the tree anemone *(Carpenteria californica).* Caltrans will mitigate with a replanting plan for any removed trees.
- A Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife will be obtained for the Central California Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*). Compensatory mitigation for 0.16 acre of temporary impacts for the Central California Distinct Population Segment of the California tiger salamander is proposed. The proposed mitigation will involve purchasing mitigation credits from the upcoming Sand Creek Mitigation Bank in Fresno County.
- Temporary and permanent impacts to 0.487 acre of potential Waters of the U.S./State may be impacted and require mitigation via in-lieu fees.

Philip Vallejo

Philip Vallejo
Environmental Division Chief, District 6
California Department of Transportation

3/22/2023

Date

Table of Contents

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to repair or replace 158 culverts and associated elements at various locations on State Route 168 in Fresno County between post mile R8.28 and post mile 45.80 from the Fowler Avenue Overcrossing in the City of Clovis to 0.10 mile east of Warbler Lane in Shaver Lake.

The project begins on State Route 168 at the Fowler Avenue Overcrossing in the City of Clovis and extends 65.9 miles to Warbler Lane in Shaver Lake. The route serves as a major route for commuting in the Fresno-Clovis Metropolitan Area and for recreation travel to Shaver Lake, Huntington Lake, and other destinations in the Sierra Nevada. The project segment on State Route 168 is a freeway from post mile R8.28 to post mile 11.8, then a two-lane conventional highway until the end of the project at post mile 45.80.

The project's construction cost is estimated to be $12,100,000. The project was programmed in the 2020 State Highway Operation and Protection Program with funding from the Drainage System Restoration Program.

Temporary lane and shoulder closures will be implemented during construction using one-way reversing traffic control on two-lane segments of State Route 168. Flaggers and a pilot car will be used to direct traffic through active construction sites. Construction area signs and other traffic control signs will also be used. Detours are not expected. Figure 1-1 shows the project vicinity map, and Figure 1-2 shows the project location map.

1.2 Purpose and Need

The purpose and need sections discuss the reasons for the project and provide structure for the development of alternatives.

1.2.1 Purpose

The purpose of the project is to maximize the service life of drainage elements by rehabilitating and upgrading or replacing existing culverts at various locations within the project limits.

1.2.2 Need

The project is needed to maintain proper drainage and extend the life of the culverts on State Route 168 for the following reasons:

- The culverts are perforated and heavily rusted.
- The culverts have damaged end treatments and joint separations.
- The culverts have reached or exceeded their design life.

1.3 Project Description

The project proposes to repair or replace 158 culverts and associated elements on State Route 168 in Fresno County from the Fowler Avenue Overcrossing in the City of Clovis to 0.10 mile east of Warbler Lane in Shaver Lake. The project includes a Build Alternative and a No-Build Alternative.

Figure 1-1 Project Vicinity Map

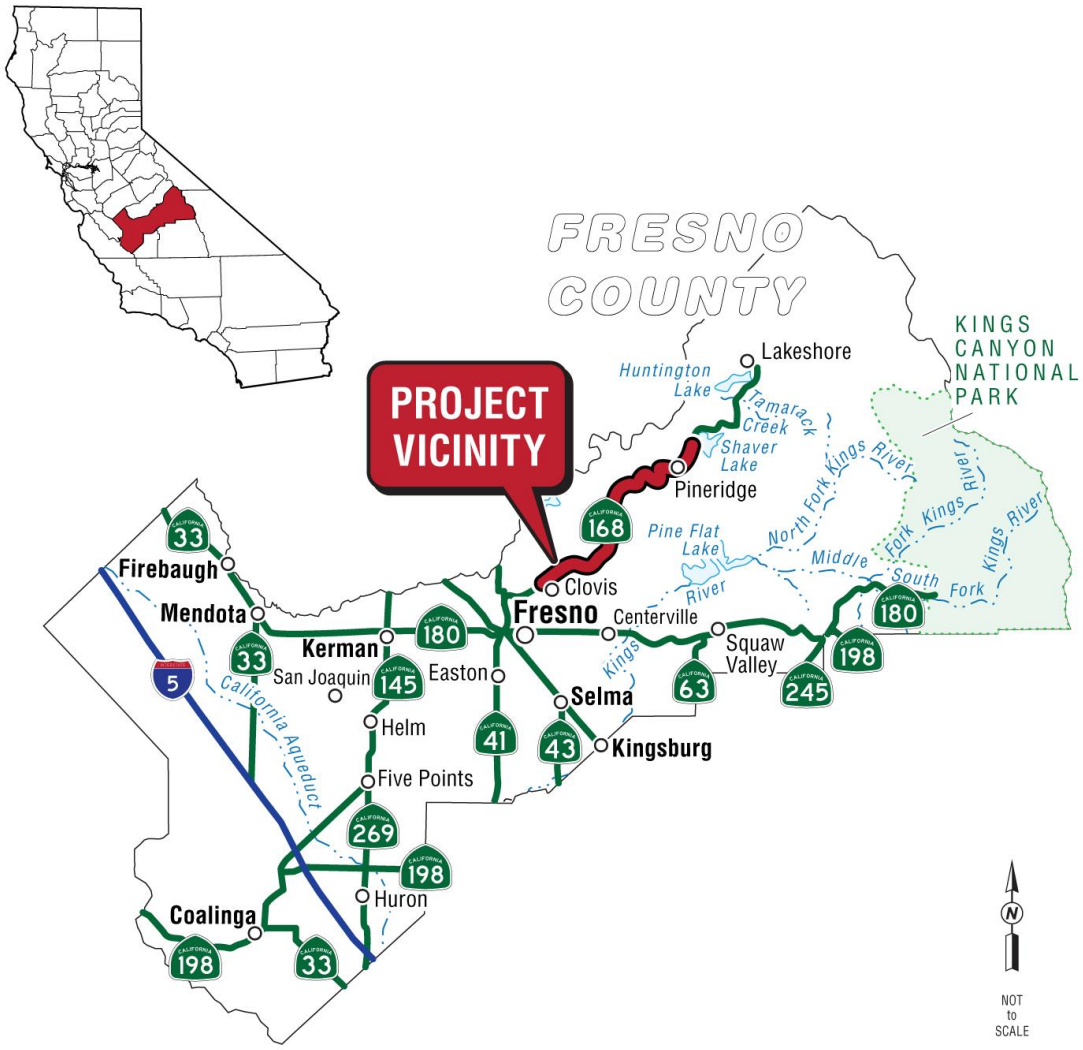
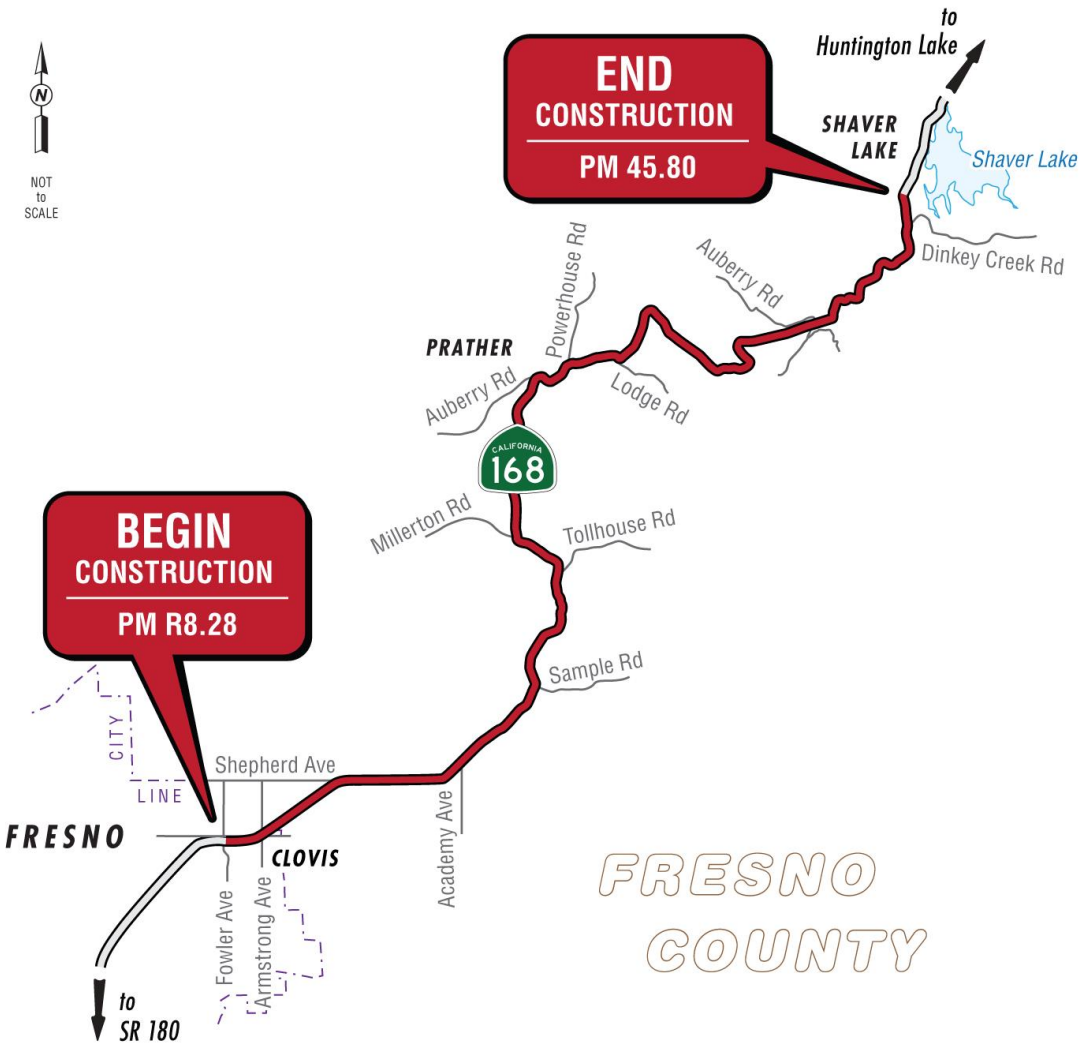


Figure 1-2 Project Location Map



1.4 Project Alternatives

A Build Alternative and a No-Build Alternative are being considered for the project.

1.4.1 Build Alternatives

The Build Alternative will repair or replace 158 culverts and associated elements on State Route 168 in Fresno County. Construction will occur on State Route 168 at various locations, starting at post mile R8.28 and ending at post mile 45.8. The project will repair eroded embankments at five locations. The roadbed and embankment will be rebuilt at the following culvert locations:

- Location 55 (post mile T32.59)
- Location 137 (post mile 42.13)
- Location 142 (post mile 42.55)
- Location 144 (post mile R42.90)
- Location 148 (post mile R43.30)

Temporary construction easements and permanent right-of-way easements will be required and identified during the design phase of the project. Table 1.1 shows the proposed work at culvert locations.

Table 1.1 Culvert Locations and Proposed Work

Location Number	Post Mile	Proposed Work
1	R8.13	Replace section
2	R9.00	Replace
3	R11.98	Replace section
4	15.40	Replace and encase
5	15.76	Replace
6	15.91	Replace
7	16.01	Replace and encase
8	16.21	Replace
9	16.35	Replace
10	17.15	Replace
11	17.21	Replace
12	17.30	Replace and encase
13	17.49	Replace and encase
14	17.67	Replace and encase
15	17.72	Replace at lower flow line
16	17.85	Replace and encase
17	T25.68	Replace
18	T25.81	Replace
19	R26.00	Replace
20	R26.06	Replace
21	T26.48	Replace section
22	T26.62	Replace
23	T26.66	Replace
24	T26.77	Replace
25	26.86	Replace and encase
26	T26.94	Replace
27	T26.94	Replace
28	T27.08	Culvert lining
29	T27.34	Replace
30	T27.43	Replace
31	T27.53	Replace
32	T27.63	Replace
33	T27.79	Replace
34	T27.85	Culvert lining (box culvert)

Location Number	Post Mile	Proposed Work
35	T28.11	Abandon existing pipe and install a new culvert
36	T28.11	Replace
37	T28.29	Replace
38	T28.40	Replace
39	R28.87	Line a deep culvert and add a shallow culvert
40	R28.94	Line a deep culvert and add a shallow culvert
41	R28.98	Replace
42	T29.07	Replace
43	T29.12	Replace
44	T29.36	Replace
45	R30.08	Culvert lining
46	T30.66	Replace
47	T31.04	Replace
48	T31.38	Replace
49	T31.67	Replace
50	T31.74	Replace
51	T31.81	Replace
52	T31.89	Replace
53	T32.07	Replace
54	T32.17	Replace section
55	T32.59	Repair and stabilize the embankment
56	L28.52	Culvert lining
57	L28.63	Replace flared end section
58	L28.75	Replace
59	L28.83	Culvert lining, repave flow line
60	L29.03	Culvert lining
61	L29.69	Culvert lining
62	L29.69	Culvert lining
63	L29.69	Culvert lining
64	L30.56	Replace
65	L30.56	Replace
66	L30.63	Replace
67	L30.77	Culvert lining
68	L30.79	Culvert lining
69	L30.82	Culvert lining
70	L31.04	Culvert lining
71	L31.09	Culvert lining
72	L31.23	Culvert lining
73	L31.35	Culvert lining
74	L31.38	Culvert lining
75	L31.50	Culvert lining
76	L31.60	Culvert lining
77	L32.72	Culvert lining
78	L32.78	Culvert lining
79	L32.82	Culvert lining
80	R32.96	Culvert lining
81	R33.00	Culvert lining
82	R33.12	Culvert lining
83	R33.12	Culvert lining
84	R33.26	Replace
85	R33.32	Culvert lining
86	R33.34	Culvert lining

Location Number	Post Mile	Proposed Work
87	R33.50	Culvert lining
88	R33.65	Pave invert
89	R33.79	Culvert lining
90	R33.83	Culvert lining
91	R33.88	Replace, line a deep culvert, and add a shallow culvert
92	R33.99	Replace
93	R34.09	Culvert lining
94	R34.14	Replace
95	R34.23	Replace
96	R34.32	Replace
97	R34.37	Line a deep culvert and add a shallow culvert
98	R34.37	Replace
99	R34.40	Culvert lining
100	R34.40	Culvert lining
101	R34.58	Culvert lining
102	R34.74	Culvert lining
103	R34.92	Culvert lining
104	R34.99	Culvert lining
105	R35.05	Culvert lining
106	R35.12	Culvert lining
107	R35.18	Culvert lining
108	R35.46	Culvert lining
109	R35.54	Culvert lining
110	R35.60	Culvert lining
111	R35.84	Culvert lining
112	R35.89	Culvert lining
113	R35.95	Culvert lining
114	R35.98	Culvert lining
115	R36.05	Culvert lining
116	R36.16	Culvert lining
117	R36.25	Culvert lining
118	R36.25	Culvert lining
119	39.51	Culvert lining
120	39.58	Replace a slotted pipe under the paved ditch and side gutter
121	39.58	Replace
122	39.63	Culvert lining
123	39.88	Culvert lining
124	40.03	Culvert lining, replace
125	40.23	Replace
126	40.30	Replace
127	40.45	Culvert lining
128	40.65	Culvert lining
129	40.73	Culvert lining
130	41.25	Replace
131	41.47	Culvert lining
132	41.55	Culvert lining
133	41.73	Culvert lining
134	41.86	Replace
135	41.86	Replace
136	42.04	Replace
137	42.13	Stabilize embankment
138	42.42	Culvert lining

Location Number	Post Mile	Proposed Work
139	42.42	Replace, line a deep culvert, and add a shallow culvert
140	42.42	Repave
141	42.44	Replace
142	42.55	Stabilize embankment
143	42.81	Culvert lining
144	R42.90	Culvert lining, stabilize the embankment
145	R42.90	Line culvert
146	R42.96	Replace
147	R43.10	Remove tree and regrade
148	R43.30	Culvert lining, stabilize the embankment
149	43.71	Culvert lining
150	44.02	Replace
151	44.45	Replace
152	44.85	Replace
153	45.14	Replace
154	45.44	Replace
155	45.50	Replace
156	45.50	Replace
157	45.50	Culvert lining
158	45.80	Culvert lining

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are listed later in this chapter under “Standard Measures and Best Management Practices Included in All Build Alternatives.”

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative will not address the current concerns of culvert deterioration; this will lead to drainage issues, flooding, and pavement failure.

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 would not meet the purpose and need of the project, which is to rehabilitate, upgrade or replace existing culverts to maintain and maximize the service life of drainage elements on State Route 168.

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

The project may include, but will not be limited to, the following Standard Special Provisions:

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—Preconstruction field surveys will be required to determine which special-status species or other resources of concern are within the action area and/or project footprint. Before ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors’ employees will attend a Worker Environmental Awareness Training conducted by a Caltrans-approved biologist.

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; Non-Standard Special Provisions Section 14-11.14—disposal and handling of treated wood waste.

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.

Paleontological—If unanticipated fossil discovery occurs during construction activities, Caltrans Standard Specifications Section 14-7.03 identifies the procedure to be implemented to protect the paleontological resource(s); this will be included in the bid package.

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

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1600 Lake and Streambed Alteration Agreement	The 1600 permit will be obtained before construction starts.
California Department of Fish and Wildlife	Incidental Take Permit 2081 for the tree anemone and California tiger salamander	The 2081 permit will be obtained during the design phase of the project.
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	The 401 certification (permit) will be obtained before construction starts.
U.S. Army Corps of Engineers	404 Clean Water Act	The 404 permit will be obtained before construction starts.
U.S. Fish and Wildlife Service	Biological Opinion	A Biological Opinion will be obtained during the Project Approval and Environmental Document phase.

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 Scenic Resource Evaluation/Visual Assessment dated July 2022, 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 Forest 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 May 2022, 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**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
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 May 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**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**No Impact**

2.1.4 Biological Resources

Considering the information in the Biological Assessment dated September 2022 and the Natural Environment Study dated September 2022, 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 with Mitigation Incorporated**
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?	**Less Than Significant Impact**
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?	**Less Than Significant Impact with Mitigation Incorporated**
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 from post mile R8.28 to post mile 45.80 on State Route 168 in Fresno County. The elevation of the project area ranges between 408 feet and 5,600 feet above mean sea level, consisting of the valley floor, foothills, and the Sierra Nevada. The Biological Study Area is defined as the action area, which is the area that will be directly affected by the project, plus the nearby areas to be indirectly affected by the project. The action area is about 15.96 acres of State Route 168, which includes the area within a 50-foot radius of each culvert inlet and/or outlet. Surrounding land uses include livestock grazing, recreation, and residential and commercial property. Habitat types within the project limits consist mostly of native and invasive grasslands, oak woodlands, foothill pine, and lower montane.

Wetlands and Other Waters

About 64 culverts are within the Upper San Joaquin River watershed, 10 culverts are within the Upper Kings River watershed, 27 culverts are within the Middle San Joaquin-Lower Chowchilla watershed, and 54 culverts are within the Upper Dry Creek watershed.

The National Wetlands Inventory classifies most of the proposed culverts as R4SB “blue line” waterways. R4SB describes a waterway as a streambed, intermittent riverine (temporary or seasonal rivers or streams that do not flow throughout the year). The proposed culverts receive water mainly from nearby runoff, road drainage, or heavy precipitation events. Culverts within the project limits help funnel runoff into Musick Creek, Jose Creek, Sycamore Creek, Tollhouse Creek, Dry Creek, Big Sandy Creek, Little Dry Creek, Sales Creek, and Dog Creek. The smaller tributaries eventually lead to Dog Creek or Dry Creek, which funnel into canals, ditches, or sloughs, ultimately transporting water to agricultural fields in dead ends.

Special-Status Plant Species

Five plant species of special concern identified in species queries were found to have historical records of occurrence or potentially suitable habitats near the action area. No observations were made during botanical surveys. Given the age and distance of historical observations in the project vicinity, the five species of special concern—Abrams’ onion (*Allium abramsii*), brassy bryum (*Bryum chryseum*), Ewan’s larkspur (*Delphinium hansenii ssp. ewanianum*), Fresno County bird’s beak (*Cordylanthus tenuis ssp. barbatus*) and spiny-sepaled button-celery (*Eryngium spinosepalum*)—have a very low potential to occur within the project footprint and be impacted by project activities. With implementation of avoidance and minimization measures, no habitat impacts are expected, and compensatory mitigation is not proposed.

Special-Status Animal Species

Twelve animal species of special concern identified in species queries were found to have historical records of occurrence or potentially suitable habitats within the action area. No special-status animals were seen within the action

area during surveys. Given the age and distance of historical observations in the project vicinity, eight species of special concern—American badger *(Taxidea taxus)*, bald eagle *(Haliaeetus leucocephalus)*, Crotch's bumblebee *(Bombus crotchii)*, golden eagle *(Aquila chrysaetos)*, great grey owl *(Strix nebulosa)*, Northern California legless lizard *(Anniella pulchra)*, western mastiff bat *(Eumops perotis californicus)* and western spadefoot toad *(Spea hammondii)*—are not expected to be present within the action area or have a low potential to be present within the action area. With implementation of avoidance and minimization measures, no habitat impacts are expected, and compensatory mitigation is not proposed.

Threatened and Endangered Species

Tree Anemone (Carpenteria californica)

The tree anemone is a shrub that is endemic to California's chaparral and oak woodlands along streambanks between 1,115 and 4,400 feet in elevation. The plant species is typically shorter than 10 feet and has grayish bark with narrow, one-veined leaves. White flowers, a few inches wide, can be seen between May and July. The tree anemone has a 1B.2 California Rare Plant Rank, meaning the plant is rare, threatened, or endangered in California and elsewhere, and is state listed as a threatened species.

About 26 plants were seen along State Route 168 between post mile 29 and post mile 33 at the proposed culvert locations. Based on botanical surveys, it is estimated that roughly 976 square feet of the tree anemone will need to be trimmed to allow access to the culvert inlets and outlets.

San Joaquin Adobe Sunburst (Pseudobahia peirsonii)

The San Joaquin adobe sunburst is endemic to California and has a California Rare Plant Rank of 1B.1, meaning the plant is state endangered and federally threatened. The sunburst can stand between 7 and 27 inches tall with 2-inch-long woolly leaves. Yellow flowers grow on stems between March and May in grasslands or on bare dark clay soils. The nearest observation of a population was about 1.4 miles from the nearest proposed culvert location in 2010.

The species was not seen in the action area during botanical surveys, and there is low potential for the San Joaquin adobe sunburst to be present in the project footprint.

Swainson's Hawk (Buteo swainsoni)

The Swainson's hawk is listed as threatened by the State of California. Most of the California population of Swainson's hawk is found in the Great Valley. During the summer months, this species eats mostly insects, smaller birds, and small mammals while occasionally eating reptiles, amphibians, and other invertebrates. Swainson's hawks prefer open habitats for foraging, such as in fallow or alfalfa fields and rangeland habitats. Although much of their native

grassland habitat has been converted to agricultural land, this species has adapted to the changing environment. These hawks roost in scattered tree stands near suitable foraging areas and are often seen following field tractors that stir up small mammals in the field. Due to habitat conversion and the introduction of non-native grasses, perennial grasslands were replaced with annual grasslands (with low prey populations), as well as with agricultural crops.

Breeding habitat for this species is commonly associated with riparian areas in California. Nesting usually begins in late March, and the young usually leave the nest by July. Nests are typically made from sticks, bark, and fresh leaves and are usually placed near the top of a tree, which may be solitary or in a small grove along a stream. If a preferred nesting site is not available, Swainson's hawks occasionally nest on power poles or transmission towers or even in orchard trees. Nesting Swainson's hawks are somewhat tolerant of human activity. Nest sites are often near roads and houses and frequently near the edge of cultivated fields.

On March 23, 2021, a potential Swainson's hawk nest was seen near post mile 17.67 on the north side of State Route 168. Past Caltrans projects on State Route 168 have identified active nests between Thompson Avenue and Academy Avenue, but these areas are more than 500 feet away from the nearest culvert. Potential nesting trees are present within the action area and surrounding areas of 42 culverts.

Swainson's hawks are likely to nest in suitable trees within or next to the action area of 42 culverts during the breeding season.

Central California Distinct Population Segment of the California Tiger Salamander (Ambystoma californiense)

The California tiger salamander is listed as federally threatened and state threatened and is on the California Department of Fish and Wildlife watch list.

The population distribution in the Central Valley ranges from low-elevation grassland to oak woodland plant communities of the valley and foothills. The salamander can also range from the Central Valley floor to the Coast Ranges to the Sierra Nevada foothills.

The California tiger salamander's diet depends on its life stage and can range from invertebrates to water fleas, frog tadpoles, and even other California tiger salamander larvae. Mature salamanders can also consume spiders, earthworms, moths, and other insects.

California tiger salamanders live in annual grasslands and open woodlands with burrows, typically created by ground squirrels or gophers, and vernal pools or ponds for breeding. They use these burrow systems year-round, especially during the dry months. During rainy months, California tiger salamanders leave their summer burrows to migrate to nearby pools or ponds

to breed. They breed only once or twice in their lifetime, and their success rate is very low.

No California tiger salamanders were seen during surveys; however, surveys were conducted during the summer dormancy period, making the probability of observation low. Although no salamanders were seen, burrows suitable for the species were noted within Caltrans' right-of-way. There is suitable upland habitat at 34 culvert locations (0.16 acre).

Due to highway maintenance of the Caltrans right-of-way, it is unlikely for any California tiger salamanders to spend summers in burrows in the right-of-way.

Southern Sierra Nevada Evolutionarily Significant Unit of the Pacific Fisher (Pekania pennanti pop. 2)

The Pacific fisher is listed as federally endangered and state threatened.

Fishers prefer large patches of mixed conifer forests between 3,500 feet and 8,000 feet in elevation with high canopy cover and larger trees, rock piles, and downed logs for denning, resting, and hunting on the forest floor. Their home range varies from 3 to 5 square miles. They are solitary, but the male's home range typically overlaps with the home ranges of several females.

Mating occurs between late March and early April, but implantation is delayed until the February of the following year. One to four kits are born in late April and are weaned after 4 to 5 months.

Fishers are omnivores and will feed on a variety of small animals, insects, berries, fruits, mushrooms, and even porcupines.

The proposed critical habitat encompasses Tuolumne, Mariposa, Madera, Fresno, Tulare, and Kern counties, for a proposed total of 595,495 acres. The action area is within the proposed Unit 4 Subunit A Blue Canyon, which accounts for 62,137 acres of critical habitat (USFWS 2021). However, only 2.07 acres of proposed critical habitat overlaps the project location and encompasses 18 culverts.

In 2020, the Creek Fire burned 41,075.5 acres of 62,137 acres of proposed critical habitat. The burned area overlaps 11 of the proposed culverts within the proposed critical habitat. According to the Monitoring Trends in Burn Severity data (2020), of the 11 culverts, 6 have been moderately burned and 5 have been lowly burned. Suitable large trees, downed trees, and snags are no longer present around the action area due to fire clean up and safety.

According to the Fisher Reproductive Habitat Suitability Model (Thompson et al. 2021), the proposed project has 29 culvert locations that fall within "moderate" habitat suitability and 10 culvert locations that fall within "high" habitat suitability. Moderate and high habitat suitability were calculated via

various vegetation parameters, topography, hydrology, and climate. The following post mile locations are within the Fisher Reproductive Habitat Suitability Model:

- Moderate: 45.50, 44.85, 43.71, R43.30, R43.10, 42.55, 42.44, 42.42, 42.13, 41.86, 41.73, 40.73, 40.65, 40.30, 40.03, 39.63, 39.58, 39.51, R36.25, R35.60, R35.54, R35.46, R35.18, R35.12, R35.05, R34.92, R34.58, R33.34, R33.32

- High: R42.96, R42.90, 42.81, 42.04, 41.55, 41.47, 41.25, 40.45, 40.23, 39.88

Vernal Pool Fairy Shrimp (Branchinceta lynchi)

The vernal pool fairy shrimp is listed as federally threatened. This species can be found in vernal pools or vernal pool-like habitats within California. Their habitat includes a range of pool types, from small clear sandstone rock to large turbid alkaline grassland valley pools.

The vernal pool fairy shrimp feeds on algae and various bacteria. Since it has no antipredator defenses, it is a vital food source for various animals and migrating birds.

Several observations of fairy shrimp have been made in the last 20 years along State Route 168 between Academy Avenue and Thompson Avenue, an area that overlaps only one culvert. On January 20, 2022, three vernal pool fairy shrimp adult males were collected from a pool 0.75 mile from one of the proposed culvert locations.

No critical habitat has been designated for the vernal pool fairy shrimp within the action area. The closest designated habitat is 4.23 miles north of the action area.

Environmental Consequences

Wetlands and Other Waters

The National Wetlands Inventory classifies most of the culverts as R4SB “blue line” waterways. These waterways are described as streambed, intermittent riverine. The culverts receive water mostly from nearby runoff, road drainage, or heavy rain events, and they funnel runoff into a network of surrounding creeks, which in some cases get funneled into canals, ditches, or sloughs and eventually to agricultural fields.

It is expected that impacts may occur to waterways that may be considered jurisdictional under the authority of the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife. As a result of potential impacts to Waters of the U.S., the following permits will be obtained:

- 404 Nationwide Permit from the U.S. Army Corps of Engineers

- 401 Waste Discharge Requirement Permit from the Regional Water Quality Control Board
- 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife

An Aquatic Resources Delineation Report has been prepared and will be submitted to the U.S. Army Corps of Engineers for a jurisdictional determination.

Any impacts on Other Waters will be temporary, and there will be no net loss.

Special-Status Plant Species

Culvert maintenance and replacement work are expected to cause minor impacts to natural vegetation communities. Impacts in these locations will be limited to clearing minor amounts of plant materials, light pruning of shrubs, and limited tree removal, where necessary, to access culvert inlets and outlets. Barrel lining and joint sealing will require minor vegetation trimming, and resprouting is expected for all plant species. Soil disturbance will be limited to foot traffic around the culverts. Replacing culverts will impact an area of 100 square feet, depending on topography and culvert condition. Excavating culvert trenches will remove all vegetation from the trench line; however, most work will occur on the already paved travel way. No permanent loss of habitat is expected from the proposed work activities. With implementation of avoidance and minimization measures, any impacts will be temporary.

Special-Status Animal Species

Temporary indirect impacts on special-status animal species may occur over two to three days per culvert location. Work will occur only during the day, which will make direct impacts on the species unlikely. Potential impacts are expected to be minor and include collapsing potential dens, removing potential prey that may deter species from the area, and impacting potential foraging and nesting habitat. Because no permanent impacts are expected, these special-status animal species are not expected to be significantly impacted by the project with implementation of standard avoidance and minimization measures.

Threatened and Endangered Species

Tree Anemone

About 26 individuals were seen during botanical surveys along State Route 168 between post mile 29 and post mile 33 at several culvert locations. Tree removal will occur, and the number of trees to be removed will be determined in the design phase of the project. Trimming of 0.02 acre of the state-listed tree anemone (threatened) is proposed, and a replanting mitigation plan is being discussed with the California Department of Fish and Wildlife.

San Joaquin Adobe Sunburst

Although no San Joaquin adobe sunbursts were found during botanical surveys, low precipitation levels may have limited the germination rate for the year. Potential growing habitat is still present within the action area that could support the sunburst.

Temporary impacts to 0.06 acre across 13 culvert locations are expected because of construction traffic, foot traffic, and vegetation clearing and grubbing. With implementation of avoidance and minimization measures, no permanent impacts are expected. Caltrans has determined that the project may affect but is not likely to adversely affect the San Joaquin adobe sunburst.

Swainson's Hawk

Vegetation clearing and grubbing to access culvert inlets and outlets is expected to temporarily impact 0.19 acre of Swainson's hawk foraging habitat. However, impacts at each of the 42 culverts are expected to last 2 to 3 days, and vegetation is expected to recover within one to two seasons after construction. Given the relatively low intensity of the proposed work, the short duration of work at each culvert site, and the high baseline level of disturbance, no permanent impacts to Swainson's hawks are expected with implementation of avoidance and minimization measures.

Central California Distinct Population Segment of the California Tiger Salamander

Temporary and minor permanent impacts to potential California tiger salamander habitat are expected. A total of 0.16 acre of temporary impacts across 34 culvert locations to upland habitats, such as burrows, leaf litter cover, and foraging habitat, are expected due to off-pavement equipment use, foot traffic, and the clearing and grubbing of vegetation. These culverts are located between Academy Avenue and Sample Road, and Millerton Road and Prather.

Caltrans has determined that the project may affect and is likely to adversely affect the California tiger salamander.

Southern Sierra Nevada Evolutionarily Significant Unit of the Fisher

Due to the fisher's solitary nature and avoidance of humans, direct impacts to the species are not anticipated. Potential foraging and denning habitat are present within the action area; however, the close proximity to State Route 168 may deter the species from using resources, regardless of construction activities. Effects to modeled suitable habitat for the fisher (39 culvert locations) from the project will be temporary and account for less than 0.083 acre. Also, construction within the Fisher Reproductive Habitat Suitability Model will avoid the fisher denning season (March 1 through June 30).

The 2020 Creek Fire destroyed much of the proposed critical habitat physical and biological features within the action area (11 of the 18 locations within proposed critical habitat). Therefore, culvert work is unlikely to further significantly impact the overlapping 2.07 acres of burned proposed critical habitat. The project will temporarily impact 0.083 acre across 18 culvert locations within proposed critical habitat.

Due to human disturbance, recent fires, and the lack of old growth forests surrounding the action area, the likelihood of directly impacting a fisher is low. Minor impacts to potential habitat, outside of the proposed critical habitat may occur but will last only 2 to 3 days.

Caltrans has determined that the project may affect but is not likely to adversely affect the Southern Sierra Nevada Evolutionarily Significant Unit of the fisher.

Vernal Pool Fairy Shrimp

Direct project impacts on habitat are expected to be temporary and exclude vernal pools. Temporary impacts are expected to be 0.05 acre of roadside upland habitat and span across 11 culvert locations. These impacts will be caused by construction traffic, foot traffic, and vegetation clearing and grubbing to roadside depressions. These impacts will occur at each culvert location for only 2 to 3 days and will apply only to culverts at the lower elevations near Academy Avenue.

Due to temporary impacts being limited to 2 to 3 days at each culvert location and implementation of avoidance and minimization measures, it has been determined that the project may affect but is not likely to adversely affect the vernal pool fairy shrimp.

Avoidance, Minimization, and/or Mitigation Measures

Wetlands and Other Waters

The following avoidance, minimization, and/or mitigation measures are proposed for wetlands and other waters:

- It is expected that a total of 0.487 acre of potential Waters of the U.S. and Waters of the State may be temporarily and permanently impacted and may require mitigation via in-lieu fees.
- An Emergency Spill Prevention Plan and a Water Pollution Control Program will be prepared and include measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, and fuel) from entering waterways or sensitive upland habitats. The plans will be kept at the project site throughout construction.

Special-Status Plant Species

The following avoidance and minimization measures are proposed for the San Joaquin adobe sunburst, Abrams' onion, brassy bryum, Ewan's larkspur, Fresno County bird's beak, and spiny-sepaled button-celery:

- A Worker Environmental Awareness Training will be conducted by qualified biologists for all work personnel to inform them of the special-status species potentially within the work area, protective measures, reporting procedures, and consequences of violating environmental laws and permit requirements.

- Focused botanical preconstruction surveys will be performed during the flowering season before work at all worksites where ground disturbance is expected and suitable habitat for listed species exists. San Joaquin adobe sunburst surveys shall be aimed at 13 locations between Academy Avenue and Sample Road. Surveys shall be conducted no more than one year prior to start of construction.

- If populations of special-status plants are discovered near worksites, populations will be delineated and protected by an environmentally sensitive area buffer clearly designated by high visibility fencing or flagging.

- For work sites where construction will begin after the flowering period, if special-status plant populations are discovered in the worksite, the topsoil will be removed, where feasible, and stored safely near the work area and replaced after construction is finished to maintain the existing seed bank and ensure the continued growth of that population.

- For work sites where construction begins after the flowering period, if special-status plant populations are discovered in the worksite, a 25-foot no disturbance buffer shall be established. If work must occur within the buffer, Caltrans shall consult with the U.S. Fish and Wildlife Service.

Special-Status Animal Species

The following avoidance and minimization measures are proposed for the American badger, bald eagle, Crotch's bumblebee, golden eagle, great grey owl, Northern California legless lizard, western mastiff bat, and western spadefoot toad:

- A qualified biologist will conduct preconstruction surveys 30 days before any ground disturbance.

- A qualified biologist will conduct the surveys within 50 feet of the proposed culvert locations.

- A Worker Environmental Awareness Training will be presented to all contract workers, describing special-status species with the potential to occur in the area.

- Burrows within the right-of-way will be avoided when possible.

- Construction equipment staging areas should be surveyed and cleared by a qualified biologist before use and occur within pre-disturbed areas.

- A qualified biologist will conduct preconstruction surveys for the great grey owl two years before construction, which is estimated to begin in 2025. This will allow the full protocol survey to be completed before work starts.

- No work should occur if there is a 70 percent or greater chance of rain, if it is currently raining, or if it has rained greater than 0.25 inch within the last 48 hours.

Threatened and Endangered Species

The following avoidance, minimization, and/or mitigation measures are proposed for the tree anemone:

- A mitigation plan involving replacement planting for the tree anemone will be finalized before construction starts. The exact number of plants to be replaced is unknown at this time.

- Caltrans will apply for a Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife.

- If populations of tree anemone or other special-status plants are discovered near worksites, populations will be delineated and protected by an environmentally sensitive area buffer and will be clearly designated by high-visibility fencing or flagging.

The following avoidance and minimization measures are proposed for the Swainson's hawk:

- Protocol nesting surveys in accordance with the Recommended Timing and Methodology for Swainson's Hawk in California's Central Valley will be completed the season before construction to determine if any Swainson's hawks are nesting in the action area.

- If nesting pairs are identified within 500 feet of the project footprint, additional avoidance and minimization measures will be implemented to avoid direct impacts, such as Environmentally Sensitive Area fencing enclosing the nest tree, a 500-foot buffer surrounding the nest, and a biological monitor present during activities that occur within this buffer. In addition, a special provision for migratory birds and nesting raptors (including the Swainson's hawk) will be included in the construction

contract to ensure that no potential nesting migratory birds are affected during construction.

The following mitigation and avoidance and minimization measures are proposed for the Central California Distinct Population Segment of the California tiger salamander:

- Caltrans proposes to provide compensatory mitigation for adverse effects to the tiger salamander resulting from construction impacts to upland habitat. Caltrans will compensate for temporary effects to 0.16 acre of upland habitat using a 1-to-1 [acre-to-acre] compensation ratio. Prior to the start of work, Caltrans will verify the areas of impacts and proposed compensation; if the amount of affected habitat changes, Caltrans may need to consider reinitiating consultation. Prior to the start of groundbreaking, Caltrans proposes to purchase 0.16 acre of tiger salamander upland credits at an appropriate U.S. Fish and Wildlife Service-approved conservation bank whose service area covers the action area. If no banks are available, Caltrans instead may propose to preserve 0.16 acre of upland habitat at the Madera Pools Mitigation Site (once it is active), which is an advance permittee-responsible mitigation site developed by Caltrans specifically to address the impacts of its transportation projects.

- Caltrans will apply for a Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife for the California tiger salamander.

- A qualified biologist will conduct preconstruction surveys 30 days before any ground disturbance. These surveys shall be aimed at 39 locations below the town of Prather.

- No more than 14 days prior to the beginning of ground disturbance activities, a U.S. Fish and Wildlife Service-approved biologist will conduct a visual encounter preconstruction survey of both aquatic and upland habitats for the tiger salamander at the 39 culvert sites between North Academy Avenue and Sample Road, and between Millerton Road and Chinquapin Lane (south of the town of Prather). The survey will pay particular attention to detecting any burrows, crevices, and other cover sites that could be used as refugia by the species. All burrows that can be avoided by at least 50 feet will be flagged. The survey will take place prior to the installation of exclusion fencing to maximize the clearing of the construction zone and to minimize the risk of individuals becoming trapped within the fenced area. Caltrans will notify the U.S. Fish and Wildlife Service of the survey results. If construction stops for a period of two weeks or longer, a new preconstruction survey will be completed no more than 24 hours prior to work restarting. Surveys will be conducted within 50 feet of proposed culvert locations.

- Prior to the start of ground disturbance, Caltrans will submit to the Service the names and qualifications of suitable individuals for the Service's approval to monitor the project for the tiger salamander and to conduct burrow excavations as needed.

- A qualified biologist will conduct Worker Environmental Awareness Training for all contract workers. Information regarding the tiger salamander such as how to identify the species, the importance of avoiding impacts to the species, the laws that protect them and what to do if an individual is encountered during construction will be discussed. New construction personnel who are added to the project after the training is first conducted will also 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 U.S. Fish and Wildlife Service upon request.

- All small rodent burrows will be avoided by 50 feet at the 39 locations within suitable upland habitat for the California tiger salamander. If avoidance is not possible, Caltrans will receive confirmation from the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service to excavate burrows.

- Prior to the start of work, and following preconstruction surveys and any burrow excavations, Caltrans will install temporary silt fencing (or other exclusion fencing of a type/design that will not entangle the tiger salamander), between the designated work limits of the culvert sites and the adjacent vernal pool complexes where the species has been documented previously (between North Academy Avenue and Sample Road). This will preclude construction equipment, vehicles, and personnel from encroaching on Environmentally Sensitive Areas outside of these limits and prevent the species from entering active work zones. All fencing will be inspected regularly, maintained in good condition throughout construction, and removed following project completion.

- All areas of suitable habitat for the species that are situated outside of the work areas will be designated as Environmentally Sensitive Areas. High-visibility markings will be used to identify the limits of these areas to preclude encroachment by work crews and equipment.

- A U.S. Fish and Wildlife Service-approved biologist will be present onsite to monitor for the tiger salamander during the installation, replacement, and removal of the exclusion fencing at the 13 sites between North Academy Avenue and Sample Road, during initial ground-disturbing activities and vegetation removal work at the 34 culvert sites between North Academy Avenue and Sample Road, and between Millerton Road and Chinquapin Lane (south of the town of Prather), and in suitable habitat following a rain event greater than 0.25 inch. When not present on-

site, the U.S. Fish and Wildlife Service-approved biologist will be available on-call during all construction periods if the species is detected.

  - If a live tiger salamander is encountered at any point during preconstruction or construction activities, work will stop in the vicinity of the individual and will not resume until the U.S. Fish and Wildlife Service-approved biologist has monitored the individual and allowed it to move away unharmed without being disturbed. If this is not possible, and the individual is trapped within the construction zone and/or is at imminent risk of injury or death due to project work, the U.S. Fish and Wildlife Service-approved biologist will capture and move the individual to appropriate habitat outside the construction area and as close as possible to its capture location, where it will not be affected by construction. Caltrans will notify the U.S. Fish and Wildlife Service in writing of any tiger salamander observations or encounters.

- No construction activities will be conducted in upland areas where migrating tiger salamanders may occur if it is raining, there is a greater than 70 percent chance of rain based on the National Oceanic and Atmospheric Administration's National Weather Service forecast on any given workday, or a rain event greater than 0.25 inch has occurred within the past 48 hours. Prior to resuming work following a rain event, a U.S. Fish and Wildlife Service-approved biologist will conduct a new preconstruction visual encounter survey of all active work areas (including staging areas) to confirm that no tiger salamanders are present.

- All construction pipes or similar structures that are stored overnight at the 34 culvert sites between North Academy Avenue and Sample Road and between Millerton Road and Chinquapin Lane (south of Prather) will be inspected thoroughly for the tiger salamander before capping, installing, burying, moving, or using the structures to ensure that animals have not taken refuge inside. Prior to being moved or used, vehicles and other equipment that could provide shelter or cover also will be inspected for animal presence. If an individual is discovered during these inspections, work in the immediate area will stop, the U.S. Fish and Wildlife Service-approved biologist will be notified, and the structure or vehicle will not be disturbed until the individual leaves of its own accord. If the individual does not leave, the biologist will relocate it outside of the construction area in accordance with the relocation plan proposed by Caltrans.

- To prevent the inadvertent entrapment of the tiger salamander or other wildlife during construction at the 34 culvert sites between North Academy Avenue and Sample Road and between Millerton Road and Chinquapin Lane (south of Prather), all excavated, steep-walled openings (holes, basins, trenches) more than 6 inches deep either 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. These

openings will be checked daily for trapped individuals. Before any such openings are filled, they will be inspected thoroughly and if at any time a trapped or injured species is discovered, Caltrans will stop work immediately in the area, bring in the U.S. Fish and Wildlife Service-approved biologist, and contact the U.S. Fish and Wildlife Service.

- Staging of equipment and materials will be restricted to previously disturbed areas and will not occur adjacent to vernal pool complexes. A U.S. Fish and Wildlife Service-approved biologist will survey all potential staging and storage areas prior to their being established. Staging areas will be delineated by fencing or flagging.

- To avoid entangling the tiger salamander and other wildlife, erosion control methods will not use plastic, monofilament, jute, or similarly tightly woven fiber netting or other such materials. Acceptable substitutes include coconut coir matting, tackifier hydroseeding compounds, or other similar materials.

- An Emergency Spill Prevention Plan/Water Pollution Control Plan will be prepared containing measures to minimize the risk of fluids and other materials (oils, transmission and hydraulic fluids, cement, fuel) from entering waterways and sensitive upland areas.

- All project-related vehicles will observe a daytime speed limit of no more than 20 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 covering vehicle use and speed limits.

- 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 preclude attracting predator species.

- No herbicides or rodenticides will be used on the project site during construction, especially in proximity to aquatic habitat.

- To eliminate the potential for disturbance or injury to, or death of, the species resulting from the presence of pets and firearms, neither (except for firearms carried by, and working animals handled by, authorized law enforcement officials) will be allowed on the project site.

Additional measures may be outlined in the Incidental Take Permit from the California Department of Fish and Wildlife.

The following avoidance and minimization measures are proposed for the Southern Sierra Nevada Evolutionarily Significant Unit of the Pacific fisher:

- A qualified biologist will conduct Worker Environmental Awareness Training for all contract workers. The training will describe special-status species with the potential to occur in the area.

- A qualified biologist will conduct preconstruction surveys 30 days before any ground disturbance. These surveys shall be aimed at 22 locations between Cressman Road and Shaver Lake.

- Surveys will be conducted within 50 feet of proposed culvert locations.

- Staging areas for construction equipment will be surveyed and cleared by a qualified biologist prior to use and occur within pre-disturbed areas.

- All culverts east of post mile 33.32 will be constructed with a diameter of 18 inches or larger to allow for fishers to cross through, except for one culvert at post mile 45.50, which is proposed for lining work, not replacement work.

- Caltrans will follow a limited operating period to avoid disturbing active dens. No work shall occur in modeled suitable reproductive habitat between post mile 33.32 to 45.80 (39 culvert locations) from March 1 to June 30. This will avoid potential impacts to the fisher denning season.

- Caltrans will provide escape ramps in any openings (holes, basins, trenches, etc.) that are left open overnight to prevent the fisher from being trapped inadvertently. These openings will be checked daily for trapped individuals. Before any such openings are filled, they will be inspected thoroughly and if at any time a trapped or injured fisher is discovered, Caltrans will stop work immediately in the area and contact the U.S. Fish and Wildlife Service.

The following avoidance and minimization measures are proposed for the vernal pool fairy shrimp:

- A qualified biologist will conduct preconstruction surveys 30 days before any ground disturbance. These surveys shall occur south of Sample Road and during the wet season prior to beginning construction (estimated to occur January to March 2025).

- During preconstruction surveys, any vernal pools or other suitable aquatic features located near the proposed work areas will be delineated and flagged for avoidance.

- Caltrans will work during the dry season at 14 culvert sites situated in proximity to vernal pool complexes (between North Thompson Avenue and Sample Road) to avoid construction in wetted areas.

- Prior to the start of construction, a qualified biologist will conduct an updated assessment of suitable aquatic features present in and/or near the action area. A qualified biologist who holds a Section 10(a)(1)(A) permit will conduct a wet season survey for the species in the closest appropriate wet season prior to the start of construction, covering the western end of the project (southwest of Sample Road). If the species is detected in any feature that will be affected by the project, Caltrans will contact the U.S. Fish and Wildlife Service to discuss the initiation of formal consultation for the species.
- A Worker Environmental Awareness Training will be presented to all contract workers describing special-status species with potential to occur in the area.
- Surveys will be conducted within 50 feet of proposed culvert locations.
- Staging areas for construction equipment will be surveyed and cleared by a qualified biologist prior to use and occur within pre-disturbed areas.
- No work will occur if there is a 70 percent or greater chance of rain, if it is currently raining, or if it has rained greater than 0.25 inch within the last 48 hours.
- Work in vernal pools next to State Route 168 will be prohibited.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report dated May 2022 and the Archaeological Survey Report dated April 2021, 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?	**Less Than Significant Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**Less Than Significant Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

Affected Environment

This project begins in the San Joaquin Valley cities of Clovis and Fresno and continues east to Shaver Lake and Huntington Lake. The elevation within the project limits ranges from 375 feet to 5,600 feet above sea level. The project area lies within areas with mixed agricultural parcels, private residences, and multiple-use lands administered by the U.S. Forest Service.

The archaeological survey area for the project focuses on culvert work locations, extends 50 feet beyond and to either side of each culvert end section, and lies in private and publicly owned lands. The archaeological survey area consists of the existing paved surface, the Caltrans right-of-way, and potential easements on State Route 168 at specific locations from post mile R8.28 to post mile 45.8. The area of potential effect for this project is discontinuous through the project's post miles and focuses mainly on culvert work. Caltrans staff conducted archaeological field surveys of the project area between October 2020 and April 2021.

A records search was conducted using the Southern San Joaquin Valley Information Center, a background literature search, a topographic and historical map review, and a Caltrans cultural resources database. The records search revealed that 118 studies were conducted within 0.25 mile of the 158 culvert locations. Of those studies, 115 were conducted within the archaeological survey areas of the project. A total of 160 archaeological sites have been recorded within 0.25 mile of the culvert locations. No sites have been recorded within any of the archaeological survey areas at the culvert locations. Three archaeological sites were identified between 82 feet and 114 feet from two culvert locations, which led to the need for field surveys.

No new archaeological sites were recorded during pedestrian (walk-through) surveys at any of the 158 culvert locations. Field surveys resulted in the finding of cultural materials at one location that suggests that at least a portion of the area of potential effect is next to a known pre-contact archaeological site. Boundaries for this known site have since been updated.

Environmental Consequences

There are three known prehistoric archaeological sites within 82 feet to 114 feet of two culvert locations. Shovel Test Unit investigations were conducted at each culvert location. The investigations at one culvert location resulted in the finding of cultural materials from a nearby known archaeological site. As a result, work at this culvert location changed from a replacement to a lining job to avoid potential impacts to these cultural resources.

Redeposited soil from a fourth prehistoric site was reported to have been spread along the shoulders of State Route 168 near Shaver Lake, according to official records. Under the National Environmental Policy Act, the soil is valued by local Native American communities and is protected as a cultural resource.

The area where the soil was redeposited will be monitored during construction by Caltrans archaeological monitors and a Native American monitor.

Because known archaeological sites were next to proposed construction, an extended phase one program of work was completed to determine if subsurface deposits from these sites were present within the area of direct impact.

Because the extended phase one study resulted in a negative finding for buried archaeological resources within the project's area of direct impact, which is also the area of potential effect, there will not be an adverse impact on archaeological resources. Implementation of an Environmentally Sensitive Area Action Plan will be required to protect the resources outside of the project's area of direct impact. The Environmentally Sensitive Area Action Plan consists of delineating an Environmentally Sensitive Area on construction plans and implementing archaeological, combined with Native American, monitoring during construction.

One archaeological site is considered eligible for inclusion in the National Register of Historic Places for the purpose of this project only because it will be protected in its entirety from any potential effects through the establishment of an Environmentally Sensitive Area.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will follow all measures in the Environmentally Sensitive Area Action Plan. Before starting any ground-disturbing activities within the area of potential effects, the resident engineer or a representative, the construction contractor, and a Caltrans archaeologist will meet at site locations in and near the project area to discuss all Environmentally Sensitive Area boundaries. They will also review the monitoring requirements for each of the Environmentally Sensitive Areas during construction.

To ensure project activities will not change and result in an adverse effect on archaeological sites, Environmentally Sensitive Areas will be mapped in the construction contract plans, and these areas should be protected and avoided with high-visibility fencing during construction. Both archaeological and Native American monitors will be present during construction.

Other measures include the following:

- The contractor should notify the resident engineer 10 days before working in areas that are to be monitored.
- The Caltrans archaeologist should be notified at least 5 days before the start of ground-disturbing activities.
- If the archaeological or Native American monitor identifies a resource considered potentially significant, the monitor should immediately inform the

responsible Caltrans Professionally Qualified Staff and the resident engineer. The resident engineer, or his or her representative, will stop all construction activities temporarily within 60 feet of the archaeological find. The find will then be assessed to determine if it is a significant cultural resource that was exposed or adversely affected by construction operations.

2.1.6 Energy

Considering the information in the Energy Memorandum dated August 2022, 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 May 2022, California Department of Conservation Landslide Map visited May 2022, Alquist-Priolo Earthquake Fault Zoning Map visited May 2022, and Caltrans Paleontological Identification/Evaluation Report dated November 2020, 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**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
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 and Greenhouse Gas Emissions Memorandum dated July 2022, 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 will repair or replace 158 culverts and associated elements along State Route 168. State Route 168 is an urban freeway throughout Fresno and Clovis and a conventional highway east of Clovis. Land use along State Route 168 varies widely, ranging from residential, commercial, and vacant

land. The state route is heavily used during peak hours as it stretches near Auberry, Prather, Tollhouse, and Shaver Lake.

The Fresno Council of Governments guides transportation and housing development in the project area. Chapter 3 of the Sustainable Communities Strategy discusses the emission reduction strategy for the region. The Sustainable Communities Strategy strives to reduce air emissions from passenger vehicles and light-duty truck travel by better coordinating expenditures with forecasted development patterns and helping to meet greenhouse gas targets for the region.

Environmental Consequences

Greenhouse gas emissions for non-capacity-increasing projects like the Fresno 168 Culvert Rehabilitation project are considered less than significant under the California Environmental Quality Act 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 (CAL-CET) v1.1. The estimated emissions will be 1,372 pounds of carbon dioxide over 180 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

The following measures will be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project:

- Alternative fuels, such as renewable diesel, to be used for construction equipment.
- Recycled water is to be used where possible to reduce the amount of potable water used by construction activities.
- Improving the fuel efficiency of construction equipment will be achieved by maintaining equipment in proper working condition, using the right sized equipment for the job, and using equipment with new technologies when possible.
- A Caltrans environmental construction liaison will conduct preconstruction training for contractors. The training will include information regarding methods to reduce greenhouse gas emissions related to construction.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Hazardous Waste Initial Site Assessment dated March 2022, 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 0.25 mile of an existing or proposed school?	**No Impact**
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 2 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 Memorandum dated March 2022 and the Location Hydraulic Study dated August 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**
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 Fresno County 2021 General Plan Annual Progress Report dated April 2022, Shaver Lake Community Plan dated 1978,

and the County of Fresno Zoning Map, 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 Fresno County 2021 General Plan Annual Progress Report dated April 2022, 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 Compliance Study dated March 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?	**No Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**No Impact**

Question—Would the project result in:	CEQA Significance Determinations for Noise
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 2 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**

2.1.14 Population and Housing

The project will replace or rehabilitate 158 culverts along State Route 168. The project will require partial right-of-way acquisitions, but no residents or businesses will be relocated or displaced. Considering the scope and location of the project within a mostly rural setting, 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 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 project will not affect parks or recreational facilities or trigger the need for more recreational facilities to be built, 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 Fresno Council of Governments' Regional Transportation Plan/Sustainable Communities Strategy 2018-2042 dated July 2017 and the Caltrans Transportation Management Plan Data Sheet dated May 2022, 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 Historic Property Survey Report dated May 2022 and the Archaeological Survey Report dated April 2021, the following significance determinations have been made:

Will 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 that the project is a culvert rehabilitation project and will not trigger the need for utilities and service systems, 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 stormwater 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 mapping and Caltrans District 6 Climate Change Vulnerability Assessment mapping accessed July 2022, 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?	**Less Than Significant 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?	**Less Than Significant 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**

Affected Environment

Wildfires can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

The California Department of Forestry and Fire Protection's Fire Hazard Severity Zone mapping tool shows that the project limits run through moderate, high, and very high fire hazard severity zones. The Caltrans District 6 Climate Change Vulnerability Assessment mapping of roadways exposed to wildlife risk shows that State Route 168 in the project area runs through areas that will have a medium, high, and very high wildlife concern from 2025 to 2085.

Environmental Consequences

The project will not introduce any new structures or operations that will worsen the risk of wildlife. The potential for fire varies with the type of roadside vegetation and configuration of the pavement edge. For example, grasses on a cut slope with a dike at the base are less likely to be ignited by a cigarette or spark than grasses on a flat traversable roadside. Similarly, perennial or low-growing annual grasses present fewer fire risks than tall annual grasses. The consequences of a fire spreading to a nearby forest may be more serious than a fire spreading in a desert, chaparral, or grassland.

Fire-resistant culvert materials will be selected to ensure that drainage facilities are as fire-resistant as possible. The project will not impair emergency response vehicles or emergency evacuation plans. Operationally, the project is not expected to increase the risk of wildfires or worsen the impacts of wildfire.

Avoidance, Minimization, and/or Mitigation Measures

The following Caltrans Best Management Practices will be implemented during construction activities:

- The contractor will obtain the emergency phone numbers of the California Department of Forestry and Fire Protection unit headquarters, the U.S. Forest Service ranger district office, and the U.S. Department of the Interior Bureau of Land Management field offices. These phone numbers will be submitted to the resident engineer before the start of job site activities. The agency's names and emergency phone numbers must be posted at a prominent place at the job site.

- Locate flammable materials at least 50 feet away from equipment service, parking, and gas or oil storage areas. Each small mobile or stationary engine site must be cleared of flammable material for a radius of at least 15 feet from the engine.

- Before clearing and grubbing, clear a firebreak at the outer limits of the areas to be cleared and grubbed. Where clearing and grubbing limits allow, use a minimum firebreak width of 20 feet. Each area to be cleared and grubbed must be cleared and kept clear of flammable material, such as dry grass, weeds, brush, downed trees, oily rags and waste, paper, cartons, and plastic waste.

- Establish setbacks and/or buffers from areas identified as vulnerable to climate change stressors, such as wildfire.

- Stabilize slopes to lower chances of landslides on slopes at risk from more frequent or intense wildfire and precipitation.

- Furnish a pickup truck and drier that will be available for fire control during working hours. The truck must be equipped with the following:

    - Ten shovels, 10 axes, and two 5-gallon water-filled backpack fire pumps.
    - A 100-gallon tank of water with a gasoline-powered pump and 100 feet of a 0.75-inch hose on a reel.

- Furnish the following fire tools:

  - One shovel and one fully charged fire extinguisher (Underwriters Laboratories rated at 4B:C) or more on each truck, personnel vehicle, tractor, grader, or other heavy equipment.
  - One shovel and one 5-gallon water-filled backpack fire pump for each welder.
  - One shovel or one chemical-pressurized fire extinguisher, fully charged, for each gasoline-powered tool, including chain saws, soil augers, and rock drills. The fire tools must always be within 25 feet from the point of operation of the power tool. Each fire extinguisher must be of the type and size required by Public Resources Code Section 4431 and 14 California Code of Regulations Section 1234.
- In addition to being available at the worksite, the truck and operator must patrol the construction area from noon until at least 30 minutes after job site activities have ended. If the fire danger rating is “very high” or “extreme” or if a “fire weather watch” or “red flag warning” is issued, the truck and operator must patrol the construction area while work is being done and for at least 30 minutes after job activities have ended.

- The California Department of Forestry and Fire Protection, the U.S. Forest Service, and the Bureau of Land Management have established the following adjective class ratings for five levels of fire danger for use in public information releases and fire protection signing: “low,” “moderate,” “high,” “very high,” and “extreme.” Obtain the fire danger rating daily for the project area from the nearest California Department of Forestry and Fire Protection unit headquarters, U.S. Forest Service ranger district office, or Bureau of Land Management field office. Monitor the National Weather Service’s daily forecasts for “fire weather watches” and “red flag warnings” covering the project’s locations.

- Arrangements have been made with the California Department of Forestry and Fire Protection, the U.S. Forest Service, and the Bureau of Land Management to notify Caltrans when the fire danger rating is “very high” or “extreme.” This information will be given to the resident engineer, who will notify the contractor for dissemination and action in the area affected. If a discrepancy between this notice and the fire danger rating obtained from the nearest office of the California Department of Forestry and Fire Protection or the U.S. Forest Service exists, the contractor must conduct operations according to the higher of the two fire danger ratings.

- If the fire danger rating is “extreme” or a “red flag warning” is issued, take the precautions specified for a “very high” fire danger rating or a “fire weather watch” issuance, except:

  - Smoking is allowed only in automobiles and cabs of trucks equipped with an ashtray.

  - Work that could start a fire requires that properly equipped fire guards be assigned to such operation for the duration of the work.

- The resident engineer may suspend work completely or in part due to hazardous fire conditions. The days during this suspension will be nonworking days. If field and weather conditions become such that the work is suspended, Section 7-1.02M(2) will not be enforced for the period of the suspension.

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**
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
www.dot.ca.gov

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 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 February 3, 2023, to March 6, 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.

A public notice was posted in English in The Fresno Bee on February 3, 2023. It stated the public review and comment period for the draft environmental document would run from February 3, 2023, to March 6, 2023, 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.

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.

Alexandra Owens
Office of Planning and Research (OPR)
State Clearinghouse

Response to comment 1: Thank you for circulating the Initial Study with Proposed Mitigated Negative Declaration for the Fresno 168 Culvert Rehabilitation 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.

List of Technical Studies Bound Separately (Volume 2)

Air Quality Memorandum, May 2022

Climate Change and Greenhouse Gas Emissions Memorandum, July 2022

Noise Compliance Study, March 2021

Water Compliance Memorandum, March 2022

Biological Assessment, September 2022 (revised February 2023)

Location Hydraulic Study, August 2022

Natural Environment Study, September 2022 (revised February 2023)

Energy Memorandum, August 2022

Historical Property Survey Report

- Historic Property Survey Report, May 2022
- Archaeological Survey Report, April 2021

Hazardous Waste Initial Site Assessment, March 2022

Scenic Resource Evaluation/Visual Assessment, July 2022

Paleontological Identification/Evaluation Report, November 2020

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 101, Fresno, California 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: Fresno 168 Culvert Rehabilitation
General location information: On State Route 168 in Fresno County
District number-county code-route-post mile: 06-FRE-168-PM R8.28-45.80
Project ID number: 0618000041/EA 06-0X220

ATTACHMENT E

Transportation Management Plan Data Sheet

DISTRICT 6 - TRANSPORTATION MANAGEMENT PLAN

DATA SHEET

(TMP Elements and Costs)

CO/RTE	FRE	168	***PM***	R8.25/45.8	***PROJ. NO.***	0618000041
					EA. NO.	0X220
PROJECT NAME	Fre 168 Culvert Rehab					
PROJECT LIMIT	In Fresno County on State Route 168 from Fowler Avenue Overcrossing in Clovis to Warbler Lane in Shaver Lake					
PROJECT DESCRIPTION	Drainage system restoration work for 158 culverts including replacing, repairing, relining culverts and end treatments. Existing guardrail will be upgraded at culvert replacement locations. Grading and embankment reconstruction work is proposed at 5 locations within the project limits.					

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: **180** Working Days

Total Working Days to Construct the Project: **180** Working Days

TMP DATASHEET

Date:	*May 17, 2022*			***Cnty/Rte:***	*FRE* *168*
Design Senior:	*Abdul Baker*			***PM:***	*R8.25/45.8* *168*
Branch:	*A*	***Office of Design:***	*1*	***Project/EA No:***	*0618000041* *0X220*

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	$18,000
☐	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	$0
☐	Fixed CMS	
☑	Portable CMS (BEES #**128650**)	$54,000
☐	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**)	
4.	**Construction Strategies (In Addition to Elements Identified on Item B)**	
☑	Lane Requirement Chart	$0
☐	Construction Staging	
☐	Traffic Handling Plans	
☐	Full Facility Closures	
☐	Local Road Closures	
☐	Lane Modifications	
☑	One-Way Reversing Operation	$0

4.	**Construction Strategies (In Addition to Elements Identified on Item B)**	
☐	Two-way Traffic On One Side	
☑	Reversible Lanes	$0
☐	Ramp/Connector Closure	
☐	Night Work	
☐	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	
☐	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	**$72,000**

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.
7. This revised TMP Data Sheet supersedes the previous TMP Data Sheet dated January 8, 2019.
*The estimated cost will depend on the Design Engineer's and Office of Traffic Design's Estimate.

PREPARED BY:	**OFFICE OF TRAFFIC OPERATIONS**	**DATE:**
Gisela Gomez		May 17, 2022

ATTACHMENT F

Storm Water Data Report - Signed Cover Sheet

Dist-County-Route: 06-Fre-168
Post Mile Limits: R8.28/45.8
Type of Work: Repair, Replace and Reline Culverts
Project ID (EA): 0618000041 (06-0X2200)
Program Identification: 20.10.201.151
Phase: ☐ PID ☒ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Central Valley Region (5–Fresno Office)
Total Disturbed Soil Area: 15.28 acres PCTA: Exempt
Alternative Compliance (acres): ____ ATA 2 (50% Rule)? Yes ☐ No ☒
Estimated Const. Start Date: 09/13/2024 Estimated Const. Completion Date: 12/01/2025
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): _____
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.

E. Ataelgeed 06/21/2022
Eltahir Ataelgeed, Registered Project Engineer Date

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

David Troop 06/21/2022
David Troop, *District Construction SW Coordinator* *Date*

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

Jeannie Wiley 6-22-22
Mary J Wiley, *Project Manager* *Date*

6/24/22
Rene Sanchez, *Designated Maintenance Representative* *Date*

6-27-22
Brad Cole, *Designated Landscape Architect Representative* *Date*

[Stamp Required at PS&E only]

Mazin Al Ali 06/27/2022
Mazin Al-Ali, *Regional SW Coordinator or Designee* *Date*

ATTACHMENT G

Cost Estimate

PROJECT

PR COST ESTIMATE

EA: 06-0X220 PR: 0618000041

EA: 06-0X220

PR: 0618000041

District-County-Route **06-Fre-168**

PM: **R8.28/45.8**

Type of Estimate : Project Report (PR)

Program Code : 20.XX.201.151

Project Limits : In Fresno County on Route 168 from Fowler Ave Overcrossing in Clovis to Warbler Lane in Shaver Lake.

Project Description: Repair and Replace Culverts

Scope : Repair and Replace Culverts

Alternative : 1

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 10,575,467	$ 11,558,342
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 10,575,467	$ 11,558,342
TOTAL RIGHT OF WAY COST	$ 764,093	$ 842,412
TOTAL CAPITAL OUTLAY COSTS	$ 11,340,000	$ 12,401,000
PA/ED SUPPORT	$ 4,100,000	$ 4,500,000
PS&E SUPPORT	$ 1,600,000	$ 1,900,000
RIGHT OF WAY SUPPORT	$ 1,354,000	$ 1,700,000
CONSTRUCTION SUPPORT	$ 2,200,000	$ 2,700,000
TOTAL SUPPORT COST	$ 9,254,000	$ 10,800,000
TOTAL PROJECT COST	$ 20,600,000	$ 23,250,000

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	4	/	2023
Estimated Construction Start (Month/Year)	9	/	2025
Number of Working Days =	180		
Estimated Mid-Point of Construction (Month/Year)	4	/	2026
Estimated Construction End (Month/Year)	10	/	2026
Number of Plant Establishment Days	0		

Estimated Project Schedule

PID Approval	February-19
PA/ED Approval	April-23
PS&E	July-24
RTL	March-25
Begin Construction	September-25

Reviewed by District O.E. or Cost Estimate Certifier

Office Engineer / Cost Estimate Certifier **Date** **Phone**

Approved by Project Manager

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

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	129,000
2	**Pavement Structural Section**	$	85,800
3	**Drainage**	$	5,093,695
4	**Specialty Items**	$	167,000
5	**Environmental**	$	224,200
6	**Traffic Items**	$	1,339,640
7	**Detours**	$	-
8	**Minor Items**	$	351,967
9	**Roadway Mobilization**	$	739,131
10	**Supplemental Work**	$	323,825
11	**State Furnished**	$	363,800
12	**Time-Related Overhead**	$	378,000
13	**Roadway Contingency**	$	1,379,409
	TOTAL ROADWAY ITEMS	**$**	**10,575,467**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | 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.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19010X	Roadway Excavation (Type X) ADL	CY		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	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		=	$	-
16010X	Clearing & Grubbing	LS	1	x	10,000.00	=	$	10,000
170101	Develop Water Supply	LS		x		=	$	-
198010	Imported Borrow	CY	3,400	x	35.00	=	$	119,000
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit						

TOTAL EARTHWORK SECTION ITEMS	**$**	**129,000**

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	390	x	170.00	=	$	66,300
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		=	$	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY	150	x	130.00	=	$	19,500
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON		x		=	$	-
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530	Minor Concrete (Textured Paving)	CY		x		=	$	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		=	$	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY		x		=	$	-
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		=	$	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	**$**	**85,800**

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
710132	Remove Culvert	EA/LF	4,673	x	45.00	=	$	210,285
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510090	Structural Concrete (Box Culvert)	CY	31	x	3,000.00	=	$	93,000
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
520107	Bar Reinforcing Steel (Box Culvert)	LB	3,710	x	2.00	=	$	7,420
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
650014	18"Reinforced Concrete Pipe	LF	1,775	x	450.00	=	$	798,750
650018	24" Reinforced Concrete Pipe	LF	2,538	x	500.00	=	$	1,269,000
650022	30" Reinforced Concrete Pipe	LF	361	x	550.00	=	$	198,550
650026	36" Reinforced Concrete Pipe	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Th	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
705204	18" Concrete Flared End Section	LF	47	x	1,400.00	=	$	65,800
705206	24" Concrete Flared End Section	LF	58	x	2,500.00	=	$	145,000
705208	30" Concrete Flared End Section	LF		x		=	$	-
705210	36" Concrete Flared End Section	LF	4	x	3,000.00	=	$	12,000
710366	Concrete Invert Paving	CY	12	x	7,000.00	=	$	84,000
710376	12" Cured In Place Pipe Liner	LF	121	x	180.00	=	$	21,780
710380	18" Cured In Place Pipe Liner	LF	323	x	200.00	=	$	64,600
710384	24" Cured In Place Pipe Liner	LF	6,194	x	215.00	=	$	1,331,710
710388	30" Cured In Place Pipe Liner	LF	660	x	270.00	=	$	178,200
710390	36" Cured In Place Pipe Liner	LF	288	x	325.00	=	$	93,600
710394	48" Cured In Place Pipe Liner	LF	238	x	500.00	=	$	119,000
710394x	48" Cured In Place Pipe Liner (oval)	LF	262	x	500.00	=	$	131,000
705204	Rock Slope Protection (150LB, Class III, Method B)	CY	400	x	600.00	=	$	240,000
72901X	Rock Slope Protection Fabric (Class 8)	SQYD	1,200	x	25.00	=	$	30,000
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 $ 5,093,695

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS	1	x	6,000.00	=	$	6,000
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	3,000.00	=	$	3,000
141120	Treated Wood Waste	LB		x		=	$	-
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF	2,000	x	20.00	=	$	40,000
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832001	Midwest Guard Railing	LF	2,000	x	50.00	=	$	100,000
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA	4	x	4,500.00	=	$	18,000
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS $ 167,000

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
	Archaeological Monitoring	LS	1	x	20,000	=	$	20,000		
130670	Temporary Reinforced Silt Fence	LF		x		=	$	-		
141000	Temporary Fence (Type ESA)	LS	1	x	28,080	=	$	28,080		esa = 2340 @ $4.00
						Subtotal Environmental Mitigation			*$*	*48,080*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS		x		=	$	-		
20XXXX	Irrigation System	LS		x		=	$	-		
204099	Plant Establishment Work	LS		x		=	$	-		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	QFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of	LF		x		=	$	-		
						Subtotal Landscape and Irrigation			*$*	*-*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA		x		=	$	-		
210350	Fiber Rolls	LF		x		=	$	-		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	QFT/ACRE		x		=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT		x		=	$	-		
210600	Compost	SQFT		x		=	$	-		
210630	Incorporate Materials	SQFT		x		=	$	-		
						Subtotal Erosion Control			*$*	*-*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	6,000	=	$	6,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	30,000	=	$	30,000		
130330	Storm Water Annual Report	EA	1	x	2,000	=	$	2,000		
130310	Rain Event Action Plan (REAP)	EA	1	x	500	=	$	500		
130320	Storm Water Sampling and Analysis Day	EA	15	x	1,500	=	$	22,500		
130520	Temporary Hydraulic Mulch	SQYD		x		=	$	-		
130550	Temporary Hydroseed	SQYD		x		=	$	-		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		=	$	-		
130570	Temporary Cover	SQYD	100	x	12	=	$	1,200		
130640	Temporary Fiber Roll	LF	1,000	x	6	=	$	6,000		
130730	Temporary Concrete Washout	LS	1	x	4,000	=	$	4,000		
130710	Temporary Construction Entrance	EA		x		=	$	-		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA	9	x	200	=	$	1,800		
130620	Temporary Gravel Bag Berm	LF	500	x	8	=	$	4,000		
130680	Temporary Silt Fence	LF	120	x	5	=	$	600		
130730	Street Sweeping	LS	1	x	85,000	=	$	85,000		
131103	Water Quality Sampling And Analysis Day	EA	10	x	500	=	$	5,000		
131104	Water Quality Sampling Report	EA	5	x	1,500	=	$	7,500		
						Subtotal NPDES			*$*	*176,100*
						TOTAL ENVIRONMENTAL			**$**	**224,200**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS	1	x	6,000	=	$	6,000		
066596	Additional Water Pollution Control**	LS	1	x	6,000	=	$	6,000		
131103	Storm Water Sampling and Analysis Day	LS	1	x	1,500	=	$	1,500		
XXXXXX	NOI/NOT (Stormwater)	LS	1	x	1,325	=	$	1,325		
						Subtotal Supplemental Work for NDPS			*$*	*14,825*

*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
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS		x		=	$	-
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Ele	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	LS		x		=	$	-

Subtotal Traffic Electrical $ -

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA		x		=	$	-
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (	SQFT		x		=	$	-
120090	Construction Area Signs	LS	1	x	316,000.00	=	$	316,000
84XXXX	Permanent Pavement Delineation	LS	1	x	12,640.00	=	$	12,640

Subtotal Traffic Signing and Striping $ 328,640

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS		x	63,000.00	=	$	-

Subtotal Traffic Management Plan $ -

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	1	x	1,011,000.00	=	$	1,011,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ 1,011,000

TOTAL TRAFFIC ITEMS **$ 1,339,640**

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	TON/CY		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 (Type X)	LF		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1 through 7 $ 7,039,335

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items

	ADA Items			0.0%	=	$	-

8B - Bike Path Items

	Bike Path Items			0.0%	=	$	-

8C - Other Minor Items

	Other Minor Items			5.0%	=	$	351,967
	Total of Section 1-7	$	7,039,335	x 5.0%	=	$	351,967

TOTAL MINOR ITEMS **$ 351,967**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	7,391,302	x 10%	=	$	739,131

TOTAL MOBILIZATION **$ 739,131**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS	1	x	1,400	=	$	1,400
066094	Value Analysis	LS	1	x		=	$	-
066070	Maintain Traffic	LS	1	x	253,600	=	$	253,600
090205	Dispute Resolution Board on Site Meeting	EA	1	x	30,000	=	$	30,000
090210	Hourly Off-Site Dispute Resolution Board - RI	HR	1	x	4,000	=	$	4,000
066015	Federal Trainee Program	LS		x		=	$	-
066610	Partnering	LS	1	x	20,000	=	$	20,000
066204	Remove Rock and Debris	LS		x		=	$	-
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	14,825
	Total Section 1-8	$	7,391,302			=	$	-

TOTAL SUPPLEMENTAL WORK **$ 323,825**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS	1	x	341,000	=	$341,000
066063	Traffic Management Plan - Public Information	LS	1	x	18,000	=	$18,000
066901	Water Expenses	LS		x		=	
8609XX	Traffic Monitoring Station (X)	LS		x		=	
066841	Traffic Controller Assembly	LS		x		=	
066840	Traffic Signal Controller Assembly	LS		x		=	
066062	COZEEP Contract	LS	1	x		=	
066838	Reflective Numbers and Edge Sealer	LS		x		=	
066065	Tow Truck Service Patrol	LS		x		=	
066916	Annual Construction General Permit Fee	LS	1	x	4,800	=	$4,800
XXXXXX	Some Item	Unit		x		=	
	Total Section 1-8	$	7,391,302			=	

TOTAL STATE FURNISHED **$363,800**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $7,391,302 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $8,818,058 (used to check if project is greater than $5 million excluding contingency)

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

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	180	X	$2,100	=	$378,000

TOTAL TIME-RELATED OVERHEAD **$378,000**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency : (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total recommended percentages includes any quantified risk based contingency from the risk register.

Total Section 1-12	$	9,196,058	x	15%	=	$1,379,409

TOTAL CONTINGENCY **$1,379,409**

II. STRUCTURE ITEMS

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Name	xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Name	xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$100		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES		**$0**
TOTAL COST OF BUILDINGS		**$0**
Structures Mobilization Percentage	10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)
Total recommended percentages includes any quantified risk based contingency from the risk register.

Structures Contingency Percentage	10%	**$0**
TOTAL COST OF STRUCTURES		**$0**

Estimate Prepared By: _____ _____

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

EA: 06-0X220 PR: 0618000041

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	295,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	280,205
C)	C1)	Utility Relocation (State Share)	$	87,500
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	101,388
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$764,093**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$842,412**
N)	**RIGHT OF WAY SUPPORT**	**$1,700,000**

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 H

Risk Register

Risk Register for 06-0X220, Fresno 168 Culvert Rehab

Form v3.2 last modified 07/10/2018 CB

Risk Checkpoint:	PAED
Date:	4/17/2023
Project Nickname:	Fresno 168 Culvert Rehab
EA:	06-0X220
Co-Rt, Post Miles:	Fre-168-R8.2/45.8
Project Manager:	Jeannie Wiley
FY & Program (SHOPP or STIP):	2020 (SHOPP) Long Lead
Total Costs (Capital & Support):	$28,970k
RTL Target:	3/3/2025

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	Construction	Scope Change	As a result of culvert lining inspection, additional culvert replacement may increase, which would lead to increase in schedule and cost.	Approximately 20% of relining will change to replacement.	Contractor discovers after inspection of culvert that replacement is needed instead of lining.	4-High (51-70%)	8 - High ($800k - $1600k)	32	Avoid	Have the cost of an additional 20% for full replacement built into cost estimate and working days.	Alberto Lopez	9/28/2018	4-Con Cap		O ML P	O ML P
								60%	8 - High (3-6 months)	32					3-Con Sup		O ML P	O ML P
Active	2	Opportunity	Construction	Scope Change	As a result of culvert lining inspection, culvert repair/replacement may not be necessary, which would lead to decrease in schedule and cost.	Approximately 5% of relining will not be required.	Contractor discovers after inspection of culvert that culvert is in good condition and does not need repair	3-Moderate (31-50%)	1 - Very Low (Insignificant)	3	Accept	The contractor will be issued a CCO to remove culvert repair from contract.	Alberto Lopez	9/28/2018	4-Con Cap		O ML P	O ML P
								40%	1 - Very Low (Insignificant)	3					3-Con Sup		O ML P	O ML P
Retired	3	Opportunity	Right of Way	TCE reduction	As a result of right of way surveys being completed, some locations may not require TCEs which will reduce Phase 9 costs and may have a positive impact on schedule.	It is assumed that 20 of the culvert locations will need TCEs	Right of way survey findings	2-Low (11-30%)	1 - Very Low (Insignificant)	2	Accept	The RWDS will be updated to reflect the new schedule and costs.	David Sherman	9/28/2018	2-RW Sup		O ML P	O ML P
								20%	4 - Moderate (1-3 months)	8					9-RW Cap		O ML P	O ML P
Active	4	Threat	Right of Way	TCE reduction	As a result of property owner not signing contract, no TCE will be acquired, which would change scope of work.	All owners will sign contract to allow work on their property.	The property owner does not sign the contract	1-Very Low (1-10%)	2 - Low (<$400k)	2	Accept	A Supplemental Report will document the culvert(s) will be removed from the scope of work due to a TCE not being provided to execute the work needed.	David Sherman	9/28/2018	2-RW Sup		O ML P	O ML P
								5%	1 - Very Low (Insignificant)	1					9-RW Cap		O ML P	O ML P
Retired	5	Threat	Right of Way	TCE Increase	As a result of hydraulic investigation, additional right of way may be required, which would increase cost and delay schedule	Assuming no right away will be required.	Hydraulic investigation results.	1-Very Low (1-10%)	1 - Very Low (Insignificant)	1	Mitigate	Design will look at other methods for replacement/repair that would minimize impact to right of way.	David Sherman	9/28/2018	2-RW Sup		O ML P	O ML P
								5%	1 - Very Low (Insignificant)	1					9-RW Cap		O ML P	O ML P
Retired	6	Opportunity	Design	Culvert elimination	As a result of hydraulic investigation, a culvert repair/replacement will no longer be required, which would lead to decrease in cost.	Assuming this will not be encountered.	Hydraulic investigation results.	1-Very Low (1-10%)	1 - Very Low (Insignificant)	1	Accept	A Supplemental Report will document the removal of culvert locations from scope of work	Design	9/28/2018	1-PS&E Sup		O ML P	O ML P
								5%	1 - Very Low (Insignificant)	1					4-Con Cap		O ML P	O ML P
Retired	7	Opportunity	Surveys	Accessibility of Culvert Locations	Field site investigations were not performed due to limited PID resources, therefore, resource estimates and schedule are conceptual at this stage. This project is located in foothill and mountaineous terrain so some of the locations might be difficult to survey due to accessibility issues.	Survey resources are estimated at the high range. This estimate may change in the PA&ED phase due to field site investigations.	Field site investigations findings.	1-Very Low (1-10%)	1 - Very Low (Insignificant)	1	Mitigate	Surveys should review all the sites to be surveyed to make a better assessment of what resources will be needed and how long it will take to survey all the locations	Scott Reinhart	9/28/2018	2-RW Sup		O ML P	O ML P
								5%							9-RW Cap		O ML P	O ML P
Retired	8	Threat	Right of Way	TCE Increase	As a result of right of way surveys being completed, more locations may require TCEs , which will increase Phase 9 costs and may have a negative impact on cost and schedule.	Based on preliminary research, It is estimated that 20 TCEs will be needed.	Right of way survey findings	3-Moderate (31-50%)	4 - Moderate ($400k - $799.2k)	12	Mitigate	More research should be done in PA&ED phases to more accurately determine total number of parcels.	David Sherman	9/28/2018	2-RW Sup		O ML P	O ML P
								40%	8 - High (3-6 months)	24					9-RW 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)
Retired	9	Threat	Environmental	Permits to Enter	As a result of having permits to enter be the first order of work and in order to conduct field studies, any delay in schedule in obtaining the permits will cause a delay in schedule.	It is anticipated that 6 months will be required to obtain permits to enter.	Permit to enter has not been obtained for all of the parcels.	2-Low (11-30%)	2 - Low (<$400k)	4	Avoid	Open the 0 phase early with State only funds in order to avoid any potential delay.	David Sherman	9/28/2018	0-PA&ED Sup		O ML P	O ML P
								20%	4 - Moderate (1-3 months)	8								
Retired	10	Threat	Utilities	Potholing	As a result of finding underground utilities during PAED phase, potholing and utility relocation may be required, which may increase R/W Capital and Support cost.	Utility presence is unknown at culvert locations.	Underground utilities found within the project limits.	3-Moderate (31-50%)	2 - Low (<$1537.5k)	6	Mitigate	Permit search and potholing will be done during PAED. Culverts will be designed to avoid utility relocation.	Ernie Penuna	1/15/2019				
								40%	4 - Moderate (1-3 months)	12								
Retired	11	Threat	Environmental	Carpenteria Mitigation	As a result of the draft mitigation plan for Carpenteria with Sierra Foothill Conservancy not being approved, work on the 4-lane section of SR 168 may be delayed, which would lead increased project timeline.	The mitigation plan will be approved by CDFW prior to beginning work.	CDFW denies the mitigation plan for Carpenteria	3-Moderate (31-50%)	2 - Low (<$1432.5k)	6	Mitigate	Purchase of mitigation property may be needed if CDFW denies the Co-Op with Sierra Foothill Conservancy.	Alyssa Kemp	11/7/2022				
								40%	4 - Moderate (1-3 months)	12								
Active	12	Threat	Environmental	60% Plans	As a result of Environmental not receiving the 60% plans by PSE or by 09/2023, permit submittal may be delayed, which would lead to increased project times due to late permits.	Environmental will receive 60% plans by PSE or 09/2023.	60% plans are not received by PSE or 09/2023.	3-Moderate (31-50%)	1 - Very Low (Insignificant)	3	Avoid	Have 60% design plans ready by 09/2023 or PSE to allow permits to be submitted.	Alyssa Kemp	11/7/2023				
								40%	4 - Moderate (1-3 months)	12								
Active	13	Threat	Design	Scope Change	As a result of the recommendations to line small diameter culverts, repair will not be possible if needed prior to lining due to access to pipes smaller than 24 inches which may lead to an alternative expensive strategy.	Approximately 20% of relining small diameter culverts will change to replacement.	Contractor discovers after inspection of culvert that repairs are needed before lining.	4-High (51-70%)	4 - Moderate ($1432.5k - $2862.135k)	16	Mitigate	Increase contingency item to 10%	Eltahir Ataelgeed	11/8/2022	0-PA&ED Sup		O ML P	O ML P
								60%	4 - Moderate (1-3 months)	16				1-PS&E Sup		O ML P	O ML P
Active	14	Threat	Design	Cost Estimate	As a result of current inflation rate, bids have the potential to come in higher than anticipated.	Prices escalated at 3%.	Inflation rate higher than 3% over the estimate year	2-Low (11-30%)	2 - Low (<$1432.5k)	4	Mitigate	Escalate to higher rate	Eltahir Ataelgeed	11/8/2022	4-Con Cap		O ML P	O ML P
								20%	2 - Low (<1 month)	4				4-Con Cap		O ML P	O ML P
Retired	15	Threat	Environmental	Biological Study Field Surveys	As a result of environmental biological studies survey needs, PA&ED delay may occur, which would lead to schedule delays and increase in support costs.	Biological surveys are agency mandated to be completed in one season and span from February 1st to September 30th.	PAED schedule does not accommodate completing surveys in one year.	2-Low (11-30%)	4 - Moderate ($400k - $799.2k)	8	Avoid	Build schedule for PA&ED to accommodate the seasonal surveys timeframe so that surveys can be completed in the first year.	Jeff Sorenson	9/28/2018	0-PA&ED Sup	$6k	O 100 hours ML 200 hours P 400 hours PERT 217 hours	O ML P
								20%	8 - High (3-6 months)	16				1-PS&E Sup	$5k	O 100 hours ML 200 hours P 300 hours PERT 200 hours	O ML P
Retired	16	Opportunity	Surveys	Number of parcels to prepare RW Appraisal Maps, appraise, and acquire	As a result of right of way investigations not being performed at the PID stage, it was assumed that 20 culverts will need TCEs, however, after assessment and survey of each culvert location is completed then right of way requirements will be known. The actual amount of parcels needed for the project will affect cost and schedule.	It is assumed 40 TCEs will be needed based off of sketchy site information.	Completion of surveys and mapping.	3-Moderate (31-50%)	4 - Moderate ($400k - $799.2k)	12	Mitigate	More research should be done in PA&ED phases to more accurately determine total number of parcels.	David Sherman	9/28/2018	2-RW Sup		O ML P	O ML P
								40%	8 - High (3-6 months)	24				9-RW Cap		O ML P	O ML P
Retired	17	Threat	Design	Cost Estimate	As a result of limited resources in PID, there is minimal functional units input, which may lead to over or under estimating the project cost.	Functional units recommendation will not change.	Functional units recommendations change significantly at PA/ED and PS&E.	4-High (51-70%)	8 - High ($800k - $1600k)	32	Mitigate	A Supplemental Report will document the cost changes.	Eltahir Ataelgeed	9/28/2018	1-PS&E Sup		O ML P	O ML P
								60%	8 - High (3-6 months)	32				4-Con Cap		O ML P	O ML P
Retired	18	Threat	Funding	Open 0 phase early using State Only Funds	As a result of maintaining the SHOPP delivery year of 2024/25, the Project Manager will request the District to open the 0 phase using state only funding and allocation is obtained at the May CTC meeting so Design can have an early start to provide the Environmental Request in order to achieve the M020 Begin Environmental scheduled for August 3, 2020.	Request for State Only Funds is approved by the District and allocation of the 0 phase is approved at the May CTC meeting.	Request for opening of the 0 phase using State Only Funds is denied.	2-Low (11-30%)	1 - Very Low (Insignificant)	2	Mitigate	If State only funds are not available for an early start then a PDT will be held to pursue other options for incorporating the 3-month delay into the schedule so that RTL may be achieved in the program delivery year.	Jeannie Wiley	1/15/2019				
								20%	8 - High (3-6 months)	16								

ATTACHMENT I

Communication Plan

INTRODUCTION AND BACKGROUND

The purpose of the Project Communication Plan (PCP) is to provide consistent and timely information to all project stakeholders. This plan will assist the project team in building an effective communication strategy to enhance communication throughout project delivery.

The project proposes to repair or replace 144 culverts and associated elements in Fresno County on State Route (SR) 168 at various locations from Post Mile (PM) R8.28 to PM 45.80, from Fowler Avenue (Ave) Overcrossing in Clovis to Warbler Lane in Shaver Lake.

PROJECT TEAM REPRESENTATIVES

The project development team (PDT) is comprised of the following representatives:

NAME	DIVISION / OFFICE	PHONE NUMBER
Ilda Thanas	Project Manager	(559) 383-5177
Abdul Baker	Design Manager	(559) 908-9448
Eltahir Ataelgeed	Design Project Engineer	(559) 383-5459
Scott Harlan	Asset Management	(559) 383-5241
Rene Sanchez	Maintenance	(559) 488-4225
Brent Haroldsen	Construction	(559) 246-6410
Shane Gun	Environmental	(559) 832-0051
Tom Fisher	Hydraulics	(559) 974-5061
Brad Cole	Landscape Architecture	(559) 974-4929
Raafat Shehata	Material Services	(559) 917-9276
Sara Blum	Right of Way	(559) 383-5194
Jon Russell	Surveys	(559) 284-4789
Andrey Chevychalov	Traffic Design	(559) 974-5082
Caleb Wu, Acting	Traffic Operations	(559) 383-5236
Nicolas Esquivel	Traffic Investigations	(559) 906-5654
Isidro Perez	Traffic Management	(559) 383-5246
Derran Reitz	Electrical	(559) 981-7534
Jason Miao	Maintenance Engineering	(559) 341-7990
Mandy Macias	Native American Coordinator	(559) 908-7706

Identified Stakeholders

The PDT identified the following entities as stakeholders:

Stakeholder	Contact Name	Contact Info	
Chukchansi Gold Resort & Casino	Michael Stone	info@chukchansigold.com	559-692-5277
Fresno County Public Works Director	Steven E. White	stwhite@fresnocountyca.gov	559-600-4537
Fresno County Sheriff's Office	John Zanoni, Sherriff	N/A	559-600-8402

Cal-Fire Fresno County Fire Protection District	Roger Raines, Battalion Chief	Roger.Raines@fire.ca.gov	559-855-2244
Fresno County Board of Supervisors Office	Nathan Magsig, District 5 Supervisor	District5@fresnocountyca.com	559-600-5000
Sierra National Forest	High Sierra Ranger District	N/A	559-855-5355

COMMUNITY INVOLVEMENT

Tribal Employment Rights Ordinance:

If it is determined during PA&ED that consultation is need, the District 6 Native American Cultural Resources Coordinator.

Public Participation:

Caltrans recognizes the importance of public participation as an essential element to the project. Provisions in the California Environmental Quality Act (CEQA) procedures include wide public involvement, formal and informal, consistent existing activities, and procedures, in order to receive and evaluate public reactions to environmental and project issues related to the agency's activities.

Under CEQA, the public is afforded input into Caltrans' decision-making process before and during the public review and comment period on environmental documents and is afforded the ability to challenge the CEQA decision during the legal challenge period. The public:

- Participates in the public scoping meeting.
- Review and comment on CEQA documents.
- Participates in public hearings; and
- Enforces CEQA through judicial action.

Based upon provided information, and the current knowledge of the community's concerns, the Project Manager consults with the Public Information Office regarding the following activities:

- Initial assessment of community interest.
- Mailing list development.
- Location of information repositories; and
- Other appropriate public participation activities.

METHODS OF COMMUNICATION

Communication Methods

- In-person meetings
- Email
- Phone
- WebEx

- Microsoft Teams

The Caltrans Project Manager will keep a detailed summary of the project status report, based on input from team members. This status is updated continuously. Components of the project status report may include meeting minutes and action item list. The action item list contains urgent and/or important issues and is discussed at team meetings. The project status is the responsibility of the Caltrans Project Manager to maintain and circulate before each meeting. Each team member and agency are ultimately responsible of tracking and being accountable for his/her action items from the meetings.

The Caltrans Project Manager, or the team member responsible for calling a meeting, shall either record or assign someone to record meeting minutes. The record shall include the date, time, subject matter, attendees and the issues and outcomes discussed. A copy of these minutes shall be emailed to all participants with the notation that they will become part of the official record if no objection to the content is made within 30 calendar days or sooner. Responses requesting changes to the minutes shall be filed with the final record.

Project Development Team (PDT) meetings are scheduled by the Project Manager and are held as needed. A listing of PDT members and contact information is provided in the section Project Team Representatives. Notices/invitations indicating date, time and location are sent out electronically through email by the Caltrans Project Manager or their appointee. Each agency is responsible for reviewing the agenda and previous meeting minutes/action items to determine the proper attendees for each meeting. Telephone connection to a PDT meeting can be arranged on an individual request basis. All PDT members will electronically receive PDT meeting minutes/action items, so they are able to stay up to date on the project. These meetings will constitute the primary means of communicating information to the project team and keeping the project team current with project status. All relevant project status information should be conveyed.

The Caltrans Project Manager will meet with the Caltrans Functional Units informally as needed to discuss and resolve issues.

PROJECT REPORTING INFORMATION

District 6 Project Management utilizes an online Project Reporting System. This web application is managed by the Central Region with the assistance of local IT and our Statewide partners. The intent is to provide timely, accurate and relevant project-related information to those involved in Statewide Project Delivery from multiple data sources, including Quality Management Reporting System (QMRS), Project Resource and Scheduling Management (PRISM) system, AMS Advantage software, California Transportation Improvement Program System (CTIPS), Geographic Information System (GIS), and more.

PROJECT RISKS AND COMMUNICATION

Risks on this project will be identified, quantified, appropriate response strategies developed by the PDT to minimize the likelihood and impact of negative events and to maximize the likelihood and impact of positive events in the project. Established risk management procedures would be implemented and risks register would be communicated appropriately with the PDT throughout the project lifecycle.

CONFLICT MANAGEMENT STRATEGY

All parties agree to work cooperatively to avoid and resolve conflicts at the lowest level possible. If disagreements emerge which cannot be resolved, the following procedure will be followed:

1. All parties involved must agree that an impasse exists
2. All parties involved must be able to respond in the affirmative to the following statements:
   - The position taken is legal and ethical
   - The position taken is good for our customers
   - The position taken makes efficient use of resources
   - Each party accepts full responsibility for the position he/she is taking
   - The position taken works towards meeting project delivery goals

When the parties at the lowest level are unable to come to a solution, the problem must be escalated to the next working level.

This Project communication management plan should be adhered to by the PDT. It is an appropriate approach and a plan for the project communications based on available information at this phase of the project. It would be used throughout the project life cycle to ensure the information needs and requirements of the project stakeholders are met.