State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4593
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

October 26, 2020

Alexis Rutherford
County of Fresno
2220 Tulare Street, 6th Floor
Fresno, California 93721
ARutherford@fresnocountyca.gov

Subject: Complete Notification of Lake or Streambed Alteration
Notification No. 1600-2020-0116-R4
Bridge No. 42C0099 Ennis Road over Sand Creek
Sand Creek – Fresno County

Dear Ms. Rutherford:

On May 21, 2020, the California Department of Fish and Wildlife (Department) received your Notification of Lake or Streambed Alteration (Notification). The Department was required to make a completeness determination by September 25, 2020. The Department did not meet that date; therefore, as of September 26, 2020, your Notification is complete by operation of law.

The Department will submit a draft Lake or Streambed Alteration Agreement (Agreement) to you within 60 calendar days from the date the Notification became complete, if the Department determines that an Agreement is required for the project. An Agreement will be required if the Department determines that your project could substantially adversely affect an existing fish or wildlife resource. Therefore, the Department has until November 24, 2020, to issue you a draft Agreement or inform you that an Agreement is not required.

Please be advised that you may not proceed with any work until the Department executes an Agreement, informs you that an Agreement is not needed, or does not provide you with a draft Agreement within 60 days of the date your Notification was complete by operation of law.

If you have any questions regarding this matter, please contact the Lake and Streambed Alteration Office at (559) 243-4593 or R4LSA@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Linda Connolly
BDDB84BB1205430...
Linda Connolly
Senior Environmental Scientist Supervisor

State of California – Department of Fish and Wildlife
NOTIFICATION OF LAKE OR STREAMBED ALTERATION
FISH AND GAME CODE SECTION 1602
DFW 2023 (REV. 01/01/19) Page 1

FOR DEPARTMENT USE ONLY				
Date Received	*Amount Received*	*Amount Due*	*Date Complete*	*Notification No.*
	$	$		
Assigned to:				

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the instructions and submit ALL required enclosures, attachments, and fee(s) to the CDFW regional or field office that serves the area where the project will occur. Attach additional pages to notification, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Steven E. White, PE, PLS, Director, Department of Public Works and Planning
Business/Agency	Fresno County
Mailing Address	2220 Tulare St. 6th Floor
City, State, Zip	Fresno, CA 93721
Phone Number	(559) 600-4537
Email	stwhite@fresnocountyca.gov

2. CONTACT PERSON (*Complete only if different from applicant.*)

Name	Alexis Rutherford
Business/Agency	Fresno County
Mailing Address	2220 Tulare St. 6th Floor
City, State, Zip	Fresno, CA 93721
Phone Number	559-600-4530
Email	ARutherford@fresnocountyca.gov

While an applicant is legally responsible for complying with Fish and Game Code section 1602 et seq., an applicant may designate and authorize an agent (e.g., lawyer, consultant, or other individual) to act as a Designated Representative. The Designated Representative is authorized to sign the notification and any agreement on behalf of the Applicant.

Do you authorize the Contact Person above to represent you as your Authorized Designated Representative?

☑ Yes, I authorize.	☐ No, I do not authorize.

3. PROPERTY OWNER (*Complete only if different from applicant*)

Name	
Mailing Address	
City, State, Zip	
Phone Number	
Email	

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name	Bridge No 42C0099 Ennis Rd. over Sand Creek			
B. Agreement Term Requested	☑ Regular (*5 years or less*) ☐ Long-term (*greater than 5 years*)			
C. Project Term	Beginning (*year*)	2021	Ending (*year*)	2026

D. Seasonal Work Period

Season(s)*	Start Date (*month/day*)	End Date (*month/day*)	E. Number of Work Days
1	6/1	4/1	200
2			
3			
4			
5			

** Continue on additional page(s) if necessary*

5. AGREEMENT TYPE

Check the applicable box. If boxes B – F are checked, complete the specified attachment.

A.	☑ Standard *(Most construction projects, excluding the categories listed below)*	
B.	☐ Gravel/Sand/Rock Extraction (*Attachment A*)	*Mine I.D. Number:* _____
C.	☐ Timber Harvesting (*Attachment B*)	*THP Number:* _____
D.	☐ Water Diversion/Extraction/Impoundment (*Attachment C*)	*SWRCB Number:* _____
E.	☐ Routine Maintenance (*Attachment D*)	
F.	☐ Cannabis Cultivation (*Attachment E*)	
G.	☐ CDFW Grant Programs	*Agreement Number:* _____
H.	☐ Master	
I.	☐ Master Timber Operations	

6. FEES

See the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. ***Note: CDFW may not process this notification until the correct fee has been received.***

	A. Project Name	B. Project Cost	C. Project Fee
1	Bridge No 42C0099 Ennis Rd.	$2,000,000	$5,430.50
2			
3			
4			
5			
6			
7			
8			
9			
10			
		D. Base Fee *(if applicable)*	
		E. TOTAL FEE*	$5,430.50

** Check, money order, and Visa or MasterCard (select Environmental Fees from Menu) payments are accepted.*

7. PRIOR NOTIFICATION AND ORDERS

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, CDFW for the project described in this notification?

☐ Yes (*Provide the information below*) ☑ No

Applicant	Notification Number	Date

B. Is this notification being submitted in response to a court or administrative order or notice, or a notice of violation (NOV) issued by CDFW?

☐ Yes ☑ No (*Enclose a copy of the order, notice, or NOV. If the applicant was directed to notify CDFW verbally rather than in writing, identify the person who directed the applicant to submit this notification, the agency he or she represents, and describe the circumstances relating to the order.*)

Name of person who directed notification	Agency

Describe circumstances relating to order

☐ *Continued on additional page(s)*

8. PROJECT LOCATION

A. Address or description of project location.
(Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway.)

Bridge No 42C0099 Ennis Rd. over Sand Creek 0.3 Miles George Smith Rd. The proposed project is located in Fresno County at the Sand Creek Bridge on Ennis Road, located near Hummingbird Lane

From Fresno CA follow CA-180 East (30.8 miles) to George Smith Road near Squaw Valley CA, turn right on George Smith Road and travel south approximately 5.5 miles. Take a slight right onto Ennis Road and travel 0.6 miles. The Project site is located just south of Hummingbird Lane on Ennis Road.

Attached includes detailed description and project location maps.

☑ *Continued on additional page(s)*

B. River, stream, or lake affected by the project.	Sand Creek
C. What water body is the river, stream, or lake tributary to?	Kaweah River
D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes ☑ No ☐ Unknown
E. County	Fresno

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Tucker MTN	14s	25e	25	nw

☐ *Continued on additional page(s)*

K. Meridian (check one) ☐ Humboldt ☑ Mt. Diablo ☐ San Bernardino

L. Assessor's Parcel Number(s)

APNs include: 18538070, 18538006, 18538015, 18538016, 18538018.	APN map included in as attachment (figure 7)

☑ *Continued on additional page(s)*

M. Geographic coordinates (*Provide the latitude and longitude coordinates for the property where the project(s) will take place. CDFW utilizes decimal degrees and WGS 84 datum. Access Google Maps Help if you need assistance in finding your coordinates.*)

Latitude/Longitude	*Latitude:* 36.683699°	*Longitude:* -119.209294°
	Latitude: ## #####	*Longitude:* -### #####
	Latitude: ## #####	*Longitude:* -### #####
	Latitude: ## #####	*Longitude:* -### #####
	Latitude: ## #####	*Longitude:* -### #####

9. PROJECT CATEGORY

WORK TYPE	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR-MAINTAIN-OPERATE EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	☐	☐	☐
Bank stabilization – rip-rap/retaining wall/gabion	☐	☑	☐
Boat dock/pier	☐	☐	☐
Boat ramp	☐	☐	☐
Bridge	☐	☑	☐
Channel clearing/vegetation management	☐	☑	☐
Culvert	☐	☐	☐
Debris basin	☐	☐	☐
Dam	☐	☐	☐
Filling of wetland, river, stream, or lake	☐	☐	☐
Geotechnical survey	☐	☐	☐
Habitat enhancement – revegetation/mitigation	☐	☐	☐
Levee	☐	☐	☐
Low water crossing	☐	☐	☐
Road/trail	☐	☑	☐
Sediment removal: pond, stream, or marina	☐	☐	☐
flood control	☐	☐	☐
Storm drain outfall structure	☑	☐	☐
Temporary stream crossing	☐	☐	☐
Utility crossing: horizontal directional drilling	☐	☐	☐
jack/bore	☐	☐	☐
open trench	☐	☐	☐
Water diversion without facility	☐	☐	☐
Water diversion with facility	☐	☑	☐
Other *(specify)*:	☐	☐	☐

10. PROJECT DESCRIPTION

A. Describe the project in detail. Include photographs of the project location and immediate surrounding area.

- Written description of all project activities with detailed step-by-step description of project implementation.
- Include any structures (e.g., rip-rap, culverts) that will be placed or modified in or near the stream, river, or lake, and any channel clearing.
- Specify volume, and dimensions of all materials and features (e.g., rip rap fields) that will be used or installed.
- If water will be diverted or drafted, specify the purpose or use and include Attachment C.
- Enclose diagrams, drawings, design plans, construction specifications, and maps that provide all of the following: site specific construction details; dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, stockpile areas, areas of temporary disturbance, and where the equipment/machinery will access the project area.
  - A helpful resource to assist in the development of quality PDF maps in Google Earth. See Using Google Earth to Map your Property (PDF).

The proposed project consists of replacing the functionally obsolete two-lane Sand Creek Bridge located on Ennis Road near Hummingbird Lane with a new two lane bridge that meets current standards. The bridge replacement includes: re-grading and hydroseeding of native plants along the slope embankments on Ennis Road and Hummingbird Lane, installation of the 24" storm drain pipe, installation of guardrail systems, and the relocation of PG&E electrical poles. Any additional revegetation required by CDFW

☑ *Continued on additional page(s)*

B. Specify the equipment and machinery that will be used to complete the project.

Scrapers, excavators, back hoes, loaders are examples of earth moving equipment that would be used during construction. measures would be taken to minimize soil disturbance including compliance with NPDES, SWPPP, BMP's, and County grading requirements Ordinance Code, Chapter 15.28.

☐ *Continued on additional page(s)*

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).	☐ Yes ☑ No (*Skip to box 11*)
D. Will the project require work in the wetted portion of the channel?	☐ Yes (*Enclose a plan to divert water around work site*) ☑ No

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

The proposed project will require a direct disturbance to the Sand Creek and the surrounding riparian habitat associated with construction activities at this bridge site. The new bridge will be built in largely the same location as the original bridge, but the realignment will set the abutments well outside the channel and the bridge will span the creek. There will be no permanent impact to the channel from construction of the new bridge. Temporary impacts to the channel during construction of the new bridge will be limited to 0.01 acres of temporary impact within the same footprint as the temporary impact associated with the existing bridge removal.

Construction of the new bridge will require the removal of the existing bridge and abutments within the bank of the channel. Once the abutments are removed the bank of the channel will be graded to a natural slope consistent with the adjacent undisturbed slopes. Areas of the bank that were graded/resurfaced will be revegetated to ensure long term stability of the bank. Area of construction and disturbance shall be returned to pre-construction contours and revegetated with native species.

☑ *Continued on additional page(s)*

B. Will the project affect any vegetation? ☑ Yes (*Complete the tables below*) ☐ No (*Include aerial photo with date supporting this determination*)

Vegetation Type	Temporary Impact	Permanent Impact
Riparian and Aquatic Habitats	Linear feet: 30.00 Total area: 0.01	Linear feet: 0.00 Total area: 0.00
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
See attached memo dated 9/6/17 - FIELD SURVEY OF TREES MARKED FOR REMOVAL		

☑ *Continued on additional page(s)*

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

☑ Yes (*List each species and/or describe the habitat below*) ☐ No ☐ Unknown

Woodland, herbaceous-dominated, and aquatic habitats. There are numerous special-status species known to occur within the region. See Attached report for NES, and CEQA IS/MND

☑ *Continued on additional page(s)*

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

Biological Assessment performed by Steve McMurtry Principal Biologist. CEQA IS/MND, NES (Minimal Impacts) and Aquatic Resources Reports are all Attached ☑ *Continued on additional page(s)*

E. Has a biological study been completed for the project site?

☑ Yes (*Enclose the biological study*) ☐ No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.

F. Has one or more technical studies (e.g., engineering, hydrologic, geological, or geomorphological) been completed for the project or project site?

☐ Yes *(Enclose the study(ies))* ☑ No

Note: One or more technical studies may be required to evaluate potential project impacts to a lake or streambed.

G. Have fish or wildlife resources or waters of the state been mapped or delineated on the project site?

☑ Yes (*Enclose the mapped results*) ☐ No

*Note: **Check "yes" if fish and wildlife resources or waters of the state on the project site have been mapped or delineated. "'Wildlife' means and includes all wild animals, birds, plants, fish, amphibians, reptiles and related** ecological communities, including the habitat upon which the **wildlife depends." (Fish & G. Code, § 89.5.) If "yes" is** checked, submit the mapping or delineation. If the mapping or delineation is in digital format (e.g., GIS shape files or KMZ), you must submit the information in this format for CDFW to deem your notification complete. **If "no" is checked,** or the resolution of the mapping or delineation is insufficient, CDFW may request mapping or delineation (in digital or non-digital format), or higher resolution mapping or delineation for CDFW to deem the notification complete.*

12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment, hazardous, or other deleterious materials from entering watercourses during and after construction.

Best management practices would be incorporated into all construction activities including the preparation of a SWPPP. See attached Water Quality Technical Memorandum, and Natural Environment Study for additional information on construction BMP's, and Avoidance and Minimization Measures for fish, wildlife and plant resources. Direct and indirect adverse environmental impacts and mitigation and avoidance measures are summarized on pages 8-16.

☑ *Continued on additional page(s)*

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

Direct and indirect adverse environmental impacts and mitigation and avoidance measures are summarized on pages 8-16. Avoidance, Minimization Measures, and BMP's are included as a project component and will be included during project implementation from the following attached Project studies and reports:

Aquatic Resources Delineation (See Pages 11-12 for Avoidance and Minimization Measures)

Natural Environment Study (see Pages 20-24 for Avoidance and Minimization Measures)

Water Quality Technical Memorandum (see Pages 10-13 for Avoidance, Minimization Measures, and BMPs)

CEQA MND

☑ *Continued on additional page(s)*

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

The Permittee will perform mitigation onsite through bank stabilization, and riparian restoration. The project itself will remove abutments from the bank/channel, which will result in a temporary impact to 0.01 acres. The 0.01 acres will be restored. New abutments will be installed outside of the bank/channel. The net result will be a beneficial impact to the bank/channel with restoration of riparian and stream function as the new bridge will span the channel. See attached reports for additional information related to mitigation and avoidance measures.

☑ *Continued on additional page(s)*

13. PERMITS

List any local, State, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A.	FEDERAL CLEAN WATER ACT, SECTION 401	☑ Applied	☐ Issued
B.	NPDES GENERAL CONSTRUCTION PERMIT	☑ Applied	☐ Issued
C.		☐ Applied	☐ Issued

D. Unknown whether ☐ local, ☐ State, or ☐ federal permit is needed for the project. (*Check each box that applies*)

☑ *Continued on additional page(s)*

14. ENVIRONMENTAL REVIEW

A. Has a CEQA lead agency been determined?	☑ Yes (*Complete boxes B, C, D, E, and F*) ☐ No (*Skip to box 14.G*)		
B. CEQA Lead Agency	Fresno County		
C. Contact Person	Alexis Rutherford	D. Phone Number	559-600-4530

E. Has a draft or final document been prepared for the project pursuant to CEQA and/or NEPA?

☑ Yes (*Check the box below for each CEQA or NEPA document that has been prepared and enclose a copy of each.*)
☐ No (*Check the box below for each CEQA or NEPA document listed below that will be or is being prepared.*)

☐ Notice of Exemption	☑ Mitigated Negative Declaration	☐ NEPA document (*type*):
☑ Initial Study	☐ Environmental Impact Report	
☐ Negative Declaration	☐ Notice of Determination *(Enclose)*	
☐ THP/ NTMP	☐ Mitigation, Monitoring, & Reporting Plan	

F. State Clearinghouse Number (*if applicable*)	2017061045

G. **If the project described in this notification is not the "whole project" or action pursuant to CEQA, briefly describe the entire project** (Cal. Code Regs., tit. 14 § 15378).

The project described in this notification and attached materials is the "whole project" or action pursuant to (Cal. Code Regs., tit. 14, § 15378).

☐ *Continued on additional page(s)*

H. Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4?

☑ Yes (*Enclose proof of payment*) ☐ No (*Briefly explain below the reason a CEQA filing fee has not been paid)*

Note: The CEQA filing fee is in addition to the notification fee. If a CEQA filing fee is required, the Lake or Streambed Alteration Agreement may not be finalized until paid.

15. SITE INSPECTION

Check one box only.

☐ In the event CDFW determines that a site inspection is necessary, I hereby authorize a CDFW representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant CDFW such entry.

☑ I request CDFW to first contact (*insert name*) Alexis Rutherford at (*insert phone number or email address*) arutherford@fresnocountyca.gov or (559) 600-4530 to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay CDFW's determination as to whether a Lake or Streambed Alteration Agreement is required and/or CDFW's issuance of a draft agreement pursuant to this notification.

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☑ Yes (Please enclose the information via digital media with the completed notification form.)

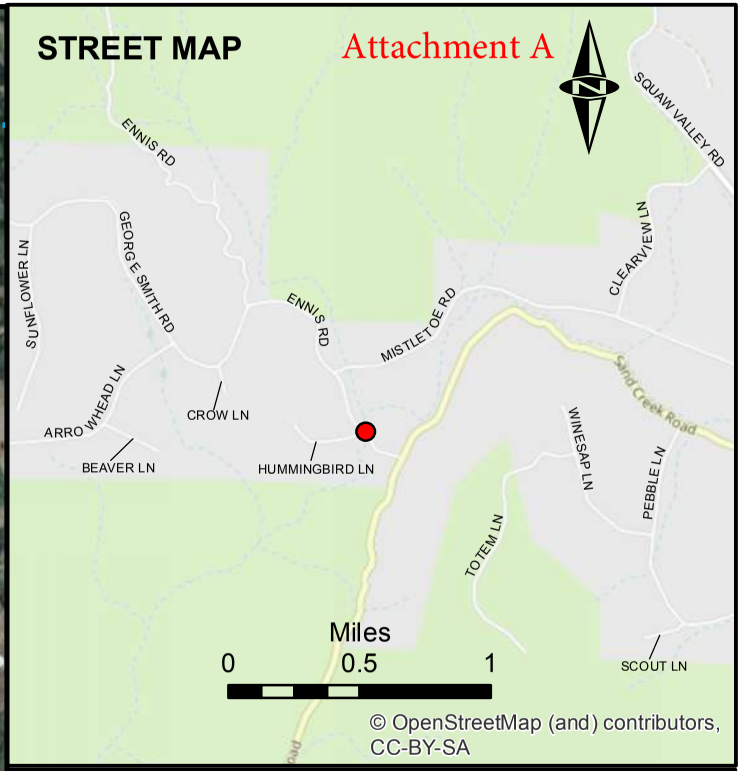
☐ No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, CDFW may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless CDFW has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

Signature of Applicant or Applicant's Authorized Representative — Date 5/7/2020

Print Name



	DATE:	SCALE IN FEET
DESIGNED: D.N.	09/27/2016	Feet 0 100 200
DRAWN: D.N.	09/27/2016	
STATE BRIDGE NO. 42C0099		

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS & PLANNING

HIGHWAY BRIDGE PROGRAM
SAND CREEK BRIDGE ON ENNIS ROAD
BRLO-5942(238)

RESPONSIBLE PARTIES

Applicant:

Steven E. White
Fresno County
2220 Tulare Street, 7th Floor
Fresno, CA 93721
(559) 600-4078
swhite@fresnocountyca.gov

Agent:

Alexis Rutherford
Fresno County
2220 Tulare Street, 7th Floor
Fresno, CA 93721
(559) 600-4530
ARutherford@fresnocountyca.gov

STREAMBED ALTERATION AGREEMENT

The applicant seeks authorization from the California Department of Fish and Wildlife (CDFW) for the construction activities and is requesting a Streambed Alteration Agreement from the Department of Fish and Wildlife for the disturbance of land associated with the replacement of Bridge No 42C0099 Ennis Rd. over Sand Creek. The net change in surface area covered is 0.01 acres (i.e. existing bridge 0.01 ac and new bridge 0.02 acres); however, as mentioned below, the new bridge will span the channel so there will not be any permanent physical impact within the channel.

PROJECT NAME

Bridge No 42C0099 Ennis Rd. over Sand Creek.

PROJECT LOCATION

The proposed project is located in Fresno County at the Sand Creek Bridge on Ennis Road, located near Hummingbird Lane. Figures 1 and 2 show the Regional Location and Project Vicinity of the project site. The Latitude/Longitude coordinates are (Lat/Long: 36°41'1.28"N / 119°12'33.55"W).

Color photographs of the project site are provided in the attached Aquatic Resources Delineation, and aerial views of the project site are included on Figure 5.

Directions to the Project Site

From Fresno CA follow CA-180 East (30.8 miles) to George Smith Road near Squaw Valley CA, turn right on George Smith Road and travel south approximately 5.5 miles. Take a slight right onto Ennis Road and travel 0.6 miles. The Project site is located just south of Hummingbird Lane on Ennis Road.

PROJECT DESCRIPTION AND PURPOSE

The proposed project is programmed in the Fresno County Regional Transportation Plan and the Federal Transportation Improvement Program (FTIP), with obligated Highway Bridge Replacement and Rehabilitation Program (HBRR) funds. The proposed project is in the Preliminary Engineering phase. Fresno County Department of Public Works and Planning is serving as the lead agency for

California Environmental Quality Act review. The California Department of Transportation is serving as the lead agency for National Environmental Policy Act review.

The purpose of the proposed improvement is to improved operational efficiency, safety, and replacing the functionally obsolete two-lane Sand Creek Bridge located on Ennis Road near Hummingbird Lane, with a new two-lane bridge that meets current standards. The realignment of Ennis Road, Hummingbird Lane and private driveways, bridge replacement of Sand Creek Bridge, slope protection within Sand Creek, re-grading and re-establishment of vegetation along the slope embankments on Ennis Road and Hummingbird Lane, installation of the 24" storm drain pipe, installation of guardrail systems, and the relocation of PG&E electrical poles will be accomplished within the proposed Area of Potential Effect (APE) (Figure 3). As a result of the Preliminary Study Report dated December 2015, the County has selected the bridge alternative for a Cast-in-place Prestressed Concrete Box Girder Bridge with a seat type abutment on spread footing. Construction is anticipated to be completed in two stages, with a full bridge closure while maintaining access to Hummingbird Lane from the north segment of Ennis Road and driveways for local residents at all times. The existing structure (Structure Number: 42C0099) was built in 1975 and is owned and operated by the County Highway Agency. It is approximately 7.10 meters in width and 9.4 meters in length with two travel lanes. Ennis Road is a minor collector street. As of 2010 the Sand Creek Bridge has an average daily traffic (ADT) of approximately 675 with roughly 2% being truck traffic.

ENVIRONMENTAL CONDITIONS

The study area is located within the eco-region known as the Sierra Nevada foothills, which covers the western slope of the Sierra Nevada Range. The Sierra Nevada foothills are generally characterized by rolling terrain and include various habitat types ranging from coniferous forest, oak woodland, and annual grassland. The natural vegetation within vicinity of the study area includes oaks, shrubs, and herbaceous plants. The soils in the region are varied, but generally consist of well-drained silt and gravelly loams divided into two physiographic regions, the Lower and Middle Foothills and the Mountainous Uplands. The study area is located in the Lower Foothill physiographic region at an elevation of approximately 952 feet mean sea level (msl). This area is predominately annual grassland and oak woodland. Figure 4 provides a USGS map and Figure 5 presents an aerial photo of the site.

Existing and Surrounding Land Uses

The land uses in the project area are characterized as agricultural exclusive 5 to 160 acre parcels (AE-5 and AE-160), and include primarily grazing and pasturelands.

Topography

The Project Site is located in the Lower Foothill physiographic region at an elevation of approximately 952 feet mean sea level (msl). Figure 4 provides a USGS map of the Project Site and surrounding area.

Soils

The USDA/NRCS Web Soil Survey indicates the presence of one soil series occurring within the project site. Table 1 identifies the soils found on the project site.

TABLE 1: USDA SOIL SERIES INFORMATION

UNIT SYMBOL	NAME	*PERCENT OF AOI*
108	Fallbrook very rocky sandy loam, 3-30% slopes	100

SOURCE: USDA/NRCS, WEB SOIL SURVEY, 2017.

Fallbrook very rocky sandy loam, 3-30% slopes. This series consists of deep, well drained soils that formed in material weathered from granitic rocks. They consist of fine-loamy, mixed, superactive, thermic Typic Haploxeralfs. Extensive areas are used for grazing, but there is important production of irrigated avocados, citrus, truck crops and nonirrigated small grain and hay in some areas. Uncultivated areas are mainly annual grasses and forbs with considerable chaparral, chamise, flattop buckwheat and other shrubs. This series is found in the foothills on the east side of the San Joaquin Valley and foothills in the west part of southern California. This soil series is not included on the National Resources Conservation Service (NRCS) National Hydric Soils List.

The A horizon is dark brown to yellowish brown (10YR 5/3, 5/4, 4/3; 7.5YR 5/4, 4/4, 5/6). It is loam, fine sandy loam or sandy loam. It has less than 1 percent organic matter in all parts or in some pedons only the uppermost 1 to 3 inches has 1 to 2 percent organic matter. The lower boundary of the A horizon is clear or gradual and most pedons have transitional A3 horizons or B1 horizons, or both.

The B2t horizon is dominantly reddish brown (5YR 4/3, 5/4, 4/4), but ranges to light brown or brown (7.5YR 6/4, 5/4, 4/4). It is heavy loam, clay loam, or sandy clay loam and usually has 18 to 25 percent clay and ranges up to about 30 percent. Base saturation is 80 to 100 percent. Lower boundary of the B2t horizon is gradual or clear with a transitional B3 horizon or a C horizon of soil material.

Vegetation

The Biological Study Area (BSA) includes the Project Impact Area (PIA) and approximately 100 feet beyond the County ROW. There are four distinct physical conditions present within the BSA. These include: woodland, herbaceous-dominated, aquatic, and rural developed. Of these conditions, the woodland, herbaceous-dominated, and aquatic habitats contain biological diversity, while the rural developed area contains very limited to no diversity.

The region is characterized by oak woodland communities, annual grassland communities, riparian communities, and ruderal and rural developed areas. Scattered oak woodlands within the region are dominated by interior live oaks (*Quercus wislizeni*), and blue oaks (*Quercus douglasii)*. California annual grasslands in the region consist of non-native annual grasslands, ruderal vegetation, and other disturbed areas. Much of the vegetation found in this community consists of low-growing herbaceous vegetation with native and nonnative annual grasses and forbs. Annual grasslands within the BSA have low species abundance, diversity, and structural heterogeneity due to the

extensive grazing that occurs in the vicinity. Ruderal vegetation within the BSA is largely limited to the roadway shoulders and areas substantially disturbed by human activities and is characterized by compacted soil, non-native annual herbaceous vegetation, and a considerable amount of bare ground.

HYDROLOGY

Watershed Description

Table 2 lists the hydrologic areas/subareas that are within the proposed Sand Creek Bridge planning area. Watershed information is summarized in Table 2 and illustrated on Figures 5 and 6.

TABLE 2: WATERSHED INFORMATION

WATERSHED	HYDROLOGIC AREA/SUB AREA NAME	HYDROLOGIC AREA/SUB AREA ID	HA/HAS (ACRES)
(HUC-8)	Tulare Lake/Upper Kaweah	18030007	974,563
(HUC-10)	Sand Creek	1803000708	42,265
(HUC-12)	Upper Sand Creek	180300070801	19,839

SOURCE: CALWATER 2.1.1, NATIONAL RESOURCES CONSERVATION SERVICE, IWMC.

The Tulare Lake/Upper Kaweah Watershed comprises the drainage area of the San Joaquin Valley south of the San Joaquin River. The Tulare Lake Watershed is essentially a closed basin since surface water drains north into the San Joaquin River only in years of extreme rainfall. The Watershed includes six groundwater basins: Kern County, Tulare Lake, Tule, Kaweah, Kings and Westside basins.

The eastern portion of Fresno County including the Sierra Nevada Foothills Ecoregion has many creeks that eventually feed into the Kings River or the San Joaquin River. Several foothill creeks in the southern portion of Fresno County including Sand Creek are tributaries to the Kaweah River.

Streamflow within Sand Creek was measured by the U.S. Geological survey at station (USGS 11212000 Sand Creek) downstream from the project site. This station has been discontinued however, max flow data from 1997 (Jan. 02, 1997) indicated that the maximum historical flow was 411 cubic feet per second (CFS). Additionally, two field measurements were taken in 1992 (04-08 and 02-19) that recorded a streamflow of 0.82 CFS and 3.86 CFS, respectively.

Water Source and Drainage Pattern and Connectivity

Sand Creek is a tributary to the Kaweah River. Sand Creek rises on the northern slopes of Goldstein Peak (elevation 2,814 feet). From its origin Sand Creek flows in a northwesterly direction about five miles, then turns and flows southwest about eight miles to discharge onto the floor of the valley between Primero and Curtis Mountains at an elevation of approximately 430 feet. From this point Sand Creek is channelized between Orosi and Cutler to the vicinity of Cottonwood Creek about six miles southeast of Dinuba. Surface flows within the project site are derived primarily from precipitation during the rainy season, which is generally October through April. Annual rainfall varies from and averages 8 to 12 inches in this region.

FEMA Flood Zones

The Site Is Not Mapped within the FEMA-100 Year Flood Area.

AQUATIC RESOURCES DELINEATION

The Riverine System includes all wetlands and deepwater habitats contained within a channel. A channel is "an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water".

Intermittent. This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

Riverine, Intermittent, Streambed - R4SB: Within the boundary of the APE, Sand Creek traverses 382 feet flowing generally from north to south. The total size of the riverine system within the APE is approximately 0.24 acres. Sand Creek enters the APE at approximately elevation 946 feet and exits the APE at approximately 936 feet, for a total elevational drop of 10 feet. This riverine system is predominately an intermittent drainage within the Sierran foothill and receives the majority of its flows during the winter and spring rainy season. This drainage is not a winter snowmelt drainage. The 2017 (non-drought) and 2016 (drought) seasons showed considerably different flows as a result of the significant different in precipitation.

Table 3 provides a summary of delineated features present within the study area. A jurisdictional map is provided in the Appendix.

TABLE 3: SUMMARY OF DELINEATED FEATURES

AQUATIC RESOURCE NAME	AQUATIC RESOURCES CLASSIFICATION		SIZE (ACRE)	SIZE (LINEAR FEET)
	COWARDIN	LOCATION (LAT/LONG)		
RIVERINE				
Sand Creek	R4SB-Riverine, Intermittent, Streambed	36.6836, / 119.2092	0.24	382

SOURCES: DE NOVO PLANNING GROUP, INC., 2017.

FIELD INVESTIGATION

An initial biological survey of the BSA was conducted on December 18, 2015 by Steve McMurtry, Principal Biologist with De Novo Planning Group. Habitat was recorded. The BSA was inspected for the presence, or potential for presence of wildlife. This included inspecting the trees for signs of remnant nests to the extent possible. The Sand Creek was inspected for its aquatic habitat functions, including the habitat quality for fish and amphibians. The area beneath the bridge was examined for signs of bats and swallows. Mr. McMurtry is a Principal Biologist with approximately 15 years of experience in the Central Valley and Sierra Nevada.

Additional biological surveys were conducted on April 5, May 10, and June 15, 2016 by Mr. McMurtry. The surveys were specifically timed to coincide with the blooming period for special status plants and the nesting period for raptors. Habitat was recorded, and the BSA was inspected for the presence, or potential for presence of wildlife. This included inspecting the trees for signs of

active nests. The Sand Creek was inspected for its aquatic habitat functions, including the habitat quality for fish and amphibians. The area beneath the bridge was examined for signs of bats and swallows.

Additionally, Caltrans Biologist Elmer Llamas performed a field review of the BSA to assess the habitat conditions and the potential for special status species to be present.

DIRECT AND INDIRECT ADVERSE ENVIRONMENTAL IMPACTS

Indirect Impacts

No indirect impacts are associated with this project.

Direct Impacts

The proposed bridge will be a single-span, cast in place concrete box girder approximately 100 feet in length and 24 feet in width with 24 foot wide approaches. The curves at the approaches will be softened and bridge alignment will be raised approximately 10 feet to increase site distance at the bridge. Construction of the new bridge will require the removal of the existing bridge and abutments within the bank of the channel. The removal of the existing abutments will be a temporary impact, in the sense that construction equipment will be required to enter the channel to remove the concrete. Because of the relatively small existing span of the bridge, it is anticipated that the full 0.01 acres of existing bridge will require a temporary disturbance. Once the abutments are removed the bank of the channel will be graded to a natural slope consistent with the adjacent undisturbed slopes. After the new bridge is installed, areas of the bank that were graded/resurfaced will be revegetated to ensure long term stability of the bank. There is no permanent disturbance associated with the removal of the existing bridge. The removal of the bridge will be a beneficial impact on the channel.

The new bridge will be largely in the same place as the existing bridge, but the new abutments will be placed well outside the channel, to eliminate the potential for a permanent impact to the channel. The new abutments were located outside the channel as an avoidance design measure and will have a beneficial impact on the channel compared to the existing bridge design. The net change in surface area covered is 0.01 acres (i.e. existing bridge 0.01 ac and new bridge 0.02 acres); however, as mentioned above, the new bridge will span the channel so there will not be permanent physical impact within the channel.

Table 4: Summary of Riverine Impacts (Permanent and Temporary)

Phase	Bridge Area	Permanent	Temporary	Grand Total
Existing Bridge Removal	0.01	0.00	0.01	0.01
New Bridge Construction	0.02	0.00	0.00	0.00

Source: De Novo Planning Group, Inc., 2017.

All areas temporarily impacted will be subject to restoration (re-grading the bed/bank and revegetating)

Below are the mitigation requirements outlined in the environmental review documents, which will serve as project commitments.

Aquatic Resources Delineation Avoidance, Minimization, and Mitigation Measures:

Measure 1: Permit Authorization for Effects to Jurisdictional Waters/Riparian Habitat: Prior to any effects to jurisdictional areas, the County shall prepare a formal wetland delineation that quantifies the exact acreage of permanent and temporary effects to wetland and the associated riparian habitat. The wetland delineation shall be submitted to the USACE for verification. The County shall then consult the USACE, RWQCB, and CDFW for the appropriate authorizations, including mitigation requirements, as follows:

- Section 404 Compliance: The project requires a NWP 14 Linear Transportation Projects to be issued by the USACE.[1]
- Section 401 Compliance: The project requires a Section 401 Water Quality certification to be issued by the RWQCB.
- Section 1600 Compliance: The project requires a Section 1600 Streambed Alteration Agreement to be issued by the CDFW.

The County shall ensure that riparian areas that require temporary disturbance are restored.

Measure 2: The removal of the existing bridge will cause a temporary impact of 0.01 acres of Sand Creek. There will be no permanent impact to the channel from construction of the new bridge. Temporary impacts to the channel during construction of the new bridge will be limited to same footprint as the temporary impact associated with the existing bridge removal. As such, the total impact to the channel will be 0.01 acres of temporary impact. All areas temporarily impacted will be subject to restoration (re-grading the bed/bank and revegetating. It is recommended that the implementing agency compensate for the impact to the channel at a ratio acceptable to the USACE and CDFW. The ratio shall not be less than 1:1, but will be defined by the regulatory agency through the permitting process (404 and 1600 permits).

Measure 3: Prior to construction, the project proponent shall install orange construction barrier fencing to identify environmentally sensitive areas around all delineated and verified wetland(s). This requirement shall only apply to delineated areas that are within 100 feet of the construction zone.

Natural Environmental Study (NES) Avoidance, Minimization, and Mitigation Measures:

[1] The project is anticipated to be eligible for a Nationwide Permit (NWP) 14 Linear Transportation Projects. (A Preconstruction Notification is required only for projects over 0.1 acres therefore, a non-notifying PCN is anticipated).

Measure 1 – Avoidance: In order to avoid affects to nesting raptors and migratory birds, project activities will occur, where possible, outside the nesting season. The nesting season is generally February 15-September 1.

Measure 2 – Pre-construction Survey: If project activities must occur during the nesting season (February 15-September 1), a qualified biologist will conduct pre-construction surveys within the BSA for active raptor and migratory bird nests within 30 days of the onset of these activities. If no active nests are found within the BSA, no further mitigation is required.

Measure 3 – Establish Buffers: Should any active nests be discovered within the BSA, the biologist will determine the appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.

Measure 4 – Bats: Evidence of bats have been found within the bridge. Construction should seek to avoid the maternal roosting period if possible (generally May – August). If their period can not be accomodated, exclusionary devices will be installed prior to the maternal roosting period so the bats cannot use the bridge for maternal roosting during the construction period. If construction is planned outside the maternal roosting period (generally September – February), exclusionary devices will be installed at least seven days before work can commence. By waiting the seven days, the bats can exit the bridge and relocate to another location in the vicinity. Once these devices have been installed, they must be maintained and kept in good working order. Work on the bridge deck can occur anytime without work window restrictions.

Measure 5 – California tiger salamander: The County shall implement the following measures:

- Retain a biologist to conduct a preconstruction survey
- Installation of drift fences around the perimeter of the project impact area to prevent any CTS from moving into the area
- Retain a biologist to monitor the BSA during construction to ensure that no CTS are harmed
- Retail a biologist to provide construction worker education for CTS

Measure 6 – Foothill yellow-legged frog and western pond turtle: Preconstruction surveys for foothill yellow-legged frog (Rana boylii) (CSC) and western pond turtle (Emys marmorata) (CSC) shall be conducted no more than 14 days prior to the beginning of ground disturbance and/or construction activities. Written results of preconstruction surveys must be maintained by the County within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If these species are discovered, the County shall consult with the CDFW to obtain the appropriate guidance to avoid this species.

Measure 7 – San Joaquin kit fox: The project shall implement the following "Standardized Recommendations for Protection of the Endangered San Joaquin kit fox Prior to or During Ground Disturbance" (USFWS 2011):

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Wildlife (CDFW) shall be contacted as noted under measure 13 referenced below.

3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.

6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.

10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to preproject conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Wildlife (CDFW), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance.

12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or wildlife biologist. The Service should be contacted.

13. The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species.

14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Measure 8 – Permit Authorization for Effects to Jurisdictional Waters/Riparian Habitat: Prior to any effects to jurisdictional areas, the County shall prepare a formal wetland delineation that quantifies the exact acreage of permanent and temporary effects to wetland and the associated riparian habitat. The wetland delineation shall be submitted to the USACE for verification. The County shall then consult the USACE, RWQCB, and CDFW for the appropriate autorizations, including mitigation requirements, as follows:

- Section 404 Compliance: The project requires a NWP 14 Linear Transportation Projects to be issued by the USACE. [2]
- Section 401 Compliance: The project requires a Section 401 Water Quality certification to be issued by the RWQCB.
- Section 1600 Compliance: The project requires a Section 1600 Streambed Alteration Agreement to be issued by the CDFW.

The County shall ensure that riparian areas that require termporary disturbance are restored.

Water Quality Technical Memorandum (WQTM) Avoidance, Minimization, and Mitigation Measures:

Fresno County Ordinance Code, Chapter 15.28 Grading and Excavation: The Fresno County grading and excavation ordinance establishes standards for grading and excavation within unincorporated Fresno County; sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

Storm Water Pollution Prevention Plan (SWPPP): Implementation of a SWPPP is the responsibility of the construction contractor's Qualified SWPPP Practitioner (QSP) or designee. As part of that responsibility, the effectiveness of construction BMPs must be monitored before and after storm events. Records of these inspections and monitoring results are submitted to the SWRCB/RWQCB as part of the annual report required by the Statewide Construction General Permit. Development of the SWPPP shall include and address the following standards and practices:

- The SWPPP shall include measures to avoid creating contaminants, minimize the release of contaminants, and water quality control measures to minimize contaminants from entering surface water or percolating into the ground.
- The SWPPP measures shall address both construction and operation periods.

[2] The project is anticipated to be eligible for a Nationwide Permit (NWP) 14 Linear Transportation Projects. (A Preconstruction Notification is required only for projects over 0.1 acres therefore, a non-notifying PCN is anticipated).

- The SWPPP shall include best management practices as appropriate, given the specific circumstances of the site and/or project. The RWQCB may request to comment and approve the SWPPP.
- A spill prevention and countermeasure plan shall be incorporated into the SWPPP.

Applicable Best Management Practices (BMPs) to be included in Stormwater Pollution Prevention Plan (SWPPP):

- Work within the channel of Sand Creek should be limited to avoid the rainy season.
- Land disturbing activities and the installation of erosion and sedimentation control devices shall be coordinated to reduce on-site erosion and off-site sedimentation. These measures may include mulches (above the mean high-water line only), soil binders and erosion control blankets, and silt fencing.
- Existing vegetation shall be protected where feasible to provide an effective form of erosion and sediment control, as well as watershed protection, dust and pollution control.
- The area of construction and disturbance should be limited to as small an area as feasible. Stabilizing material, such as water, shall be applied to the soil surface to prevent the movement of dust at the project site due to traffic, wind, and grading activities.
- Area of construction and disturbance shall be returned to pre-construction contours and revegetated with native species. Hydroseeding could be implemented as a temporary measure, if feasible.
- Provide berms along the tops of slopes to prevent water from running uncontrolled down the slopes and entering the creek channel.
- All construction related materials shall be hauled off-site after completion of construction.
- All erosion control measures and storm water control measures shall be properly maintained until the site has returned to a pre-construction state.
- All construction roadway areas shall be properly protected to prevent excess erosion, sedimentation, and water pollution.
- All vehicle and equipment maintenance procedures shall be conducted off-site. In the event of an emergency, any maintenance shall occur away from the stream channel.
- All concrete curing activities shall be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly.
- All construction materials, vehicles, stockpiles, and staging areas shall be situated outside of the stream channel and as far away from the watercourse as feasible. All stockpiles shall be covered, as quickly as feasible after the stockpiles are created.

Applicable Mitigation Measures included in the CEQA IS/MND

- ***Mitigation Measure 2.*** *In order to avoid impacts to nesting raptors and migratory birds, project activities will occur, where possible, outside the nesting season. The nesting season is generally February 15-September 1. If project activities must occur during the nesting season (February 15-September 1), a qualified biologist will conduct pre-construction surveys within the BSA** for active raptor and migratory bird nests within 30 days of the onset of these activities. If no active nests are found within the BSA, no further mitigation is required.*
- ***Mitigation Measure 3.*** *Should any active nests be discovered within the BSA**, the biologist shall determine the appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.*
- ***Mitigation Measure 4.*** *In order to avoid impacts to bats, construction should seek to avoid the maternal roosting period if possible (generally May – August). If that period cannot be accommodated, exclusionary devices shall be installed prior to the maternal roosting period so the bats cannot use the bridge for maternal roosting during the construction period. If construction is planned outside the maternal roosting period (generally September – February), exclusionary devices will be installed at least seven days before work can commence. By waiting the seven days, the bats can exit the bridge and relocate to another location in the vicinity. Once these devices have been installed, they must be maintained and kept in good working order. Work on the bridge deck can occur anytime without work window restrictions.*
- ***Mitigation Measure 5****. In order to avoid affects to the California Tiger Salamander (CTS), the following measures shall be implemented: a. Retain a biologist to conduct a preconstruction survey b. Install drift fences around the perimeter of the project impact area to prevent any CTS from moving into the area c. Retain a biologist to monitor the BSA** during construction to ensure that no CTS are harmed. d. Retain a biologist to provide construction worker education for CTS.*
- ***Mitigation Measure 6.*** *Preconstruction surveys for foothill yellow-legged frog (Rana boylii) and western pond turtle (Emys marmorata) shall be conducted no more than 14 days prior to the beginning of ground disturbance and/or construction activities. Surveys for the yellow-legged frog shall be conducted in accordance with "A Standardized Protocol for Surveying Aquatic Amphibians" (Fellers and Freel, 1995) and "The Declining Amphibian Task Force Fieldwork Code of Practice" (DAPTF 1998). Written results of preconstruction surveys must be maintained by the County within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If these species are discovered, the County shall consult with the CDFW to obtain the appropriate guidance to avoid this species. If take is unavoidable, the Applicant shall obtain an Incidental Take Permit, issued by the California Department of Fish and Wildlife.*

- ***Mitigation Measure 7.*** *The project shall implement the "Standardized Recommendations for Protection of the Endangered San Joaquin kit fox Prior to or During Ground Disturbance" (USFWS 2011).*
- ***Mitigation Measure 8.*** *The disturbance or removal of riparian and other vegetation shall not exceed the minimum necessary to complete operations (with the exception of non-native, invasive plant species) and shall only occur within the defined work area. Precautions shall be taken to avoid other damage to vegetation by people or equipment. The disturbed portions of the stream bed, banks or channel shall be restored to as near their original condition as possible (see Restoration below).*
- ***Mitigation Measure 9.*** *Native riparian shrubs and trees, and oak trees with trunks greater than or equal to four (4) inches diameter measured at breast height (DBH), if removed during Project activities shall be mitigated for by implementation of a Revegetation Plan described in Restoration below.*
- ***Mitigation Measure 10.*** *Restoration shall include the revegetation of all disturbed soils and new fill, including recontoured slopes and all other cleared areas, with riparian vegetation or other plants as appropriate. The Applicant shall have a qualified biologist prepare and implement a Revegetation Plan and submit it to the California Department of Fish and Wildlife for approval prior to commencement of the proposed work. The Revegetation Plan shall address the following: A. Compensation for removed trees by: * Identifying species damaged or removed during Project activities. * Describing how, where and when replacement shrubs and trees will be planted: - Riparian trees (i.e. willow, cottonwood, poplar, alder, ash, etc.) and shrubs shall be replaced in-kind, at a minimum replacement ratio of 4:1, and planted in the nearest suitable location to the area where they were removed. - Oaks having a DBH of greater than four (4) inches shall be replaced in-kind, at a minimum ratio of 4:1, and planted during the winter dormancy period in the nearest suitable location to the area where they were removed. Heritage trees greater than 24 inches DBH shall be replaced at a minimum 10:1 ratio. - Non-native, invasive plant species (i.e., arundo and tree-of-heaven) may be removed and replaced with native riparian species. * Proposing measures to be taken (i.e. irrigation methods if necessary and maintenance) to ensure a performance criteria of 75 percent survival of planted trees for a period of three (3) consecutive years and an additional two (2) years without assistance. B. Seeding and mulching exposed slopes, or stream banks not revegetated with riparian shrubs or trees, with a blend of a minimum of three (3) locally native grass species: * One (1) or two (2) sterile non-native perennial grass species may be added to the seed mix provided that the amount does not exceed 25 percent of the total seed mix by count. * Locally native wildflower and/or shrub seeds may also be included in the seed mix. * Seeding shall be completed as soon as possible, but no later than November 15 of the year construction ends. * A seed mixture shall be submitted to the Department for approval prior to application. At the discretion of the California Department of Fish and Wildlife, all exposed areas where seeding is considered unsuccessful after 90 days shall receive appropriate soil preparation and a second application of seeding, straw, or mulch as soon as is practical on a date mutually agreed upon.*

- ***Mitigation Measure 11.*** *Where suitable vegetation cannot be reasonably expected to become established, non-erodible materials shall be used for such stabilization. Any installation of non-erodible materials not described in the original Project description shall be coordinated with the Department. Coordination may include the negotiation of additional Agreement Provisions for this activity.*
- ***Mitigation Measure 12.*** *Applicant shall submit annually a Restoration Monitoring Report. The Restoration Monitoring Report shall be submitted to the California Department of Fish and Wildlife in December of each year until the performance criteria described in the Revegetation Plan is met. The report shall assess the revegetation status, effectiveness of maintenance methods, whether or not revegetation is expected to achieve the performance criteria, and shall propose additional measures that will be taken to achieve the performance criteria during the next year. Photo documentation of monitoring and maintenance for each year shall be part of the annual reports.*

HISTORIC PROPERTIES

Applied Earthworks (Æ) performed the Historic Property Survey Report for this project. A records search by the Southern San Joaquin Valley Information Center of the California Historical Resources Information System and Æ's review of inventories, registers, and other cultural resources lists available online did not reveal any previously recorded cultural resources within the APE. Constructed in 1975, Bridge 42C0099 is listed in the Caltrans Historic Bridge Inventory as Category 5, determined not eligible for the National Register of Historic Places. Archaeological surveys on November 9, 2015 and May 26, 2016, encountered no archaeological sites, features, or artifacts on the surface within the APE. Along with the findings of the field survey, the results of the records search, archival research, and Native American consultation strongly suggest that the likelihood of exposing buried intact archaeological remains during construction is low. Æ reached out to 16 Tribal Representatives and requested a Sacred Lands File search. No Tribe requested formal consultation under the provisions of AB 52 and there were no recorded sacred sites within or adjacent to the area of potential effects (APE) of the project. The small increase to the APE will not increase the potential for damage to known resources. The areas are located directly adjacent to the footprint of the previous APE, but are more distant from the shores of the creek, where resources are most likely to be present. On March 16, 2018, a staff member from Applied Earthworks performed an intensive pedestrian survey of the additional area and identified no archeological or historical built environment resources. (see attached CEQA IS/MND and HPSR/ASR Reports)

OTHER PERMITS/APPROVALS

Permits

FEDERAL NATIONWIDE PERMIT 14

The project is anticipated to be eligible for a Nationwide Permit (NWP) 14 Linear Transportation Projects. (A Preconstruction Notification is required only for projects over 0.1 acres therefore, a non-notifying PCN is anticipated)

FEDERAL CLEAN WATER ACT, SECTION 401

A request for Water Quality Certification is being processed/submitted to the Central Valley Regional Water Quality Control Board.

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)

General Construction Permit for Discharges of storm water associated with construction activities. A Storm Water Pollution Prevention Plan (SWPPP) shall be developed and implemented as part of the Construction General Permit.

Environmental Review/Approvals

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The proposed project is subject to the California Environmental Quality Act (CEQA). The County of Fresno has approved the proposed project and certified the IS/MND. A Notice of Determination (NOD) was submitted (See Attached NOD)

NATIONAL ENVIRONMENTAL POLICY ACT

The proposed project is subject to the National Environmental Policy Act (NEPA). Caltrans is serving as a federal lead agency under the FHWA memorandum of understanding.

MITIGATION

Based upon the estimates provided in this document, the amount mitigation by this project would be approximately 0.01 acres. The applicant proposes to implement onsite mitigation for these impacts through bank stabilization and riparian restoration.

FIGURE 1 - REGIONAL LOCATION

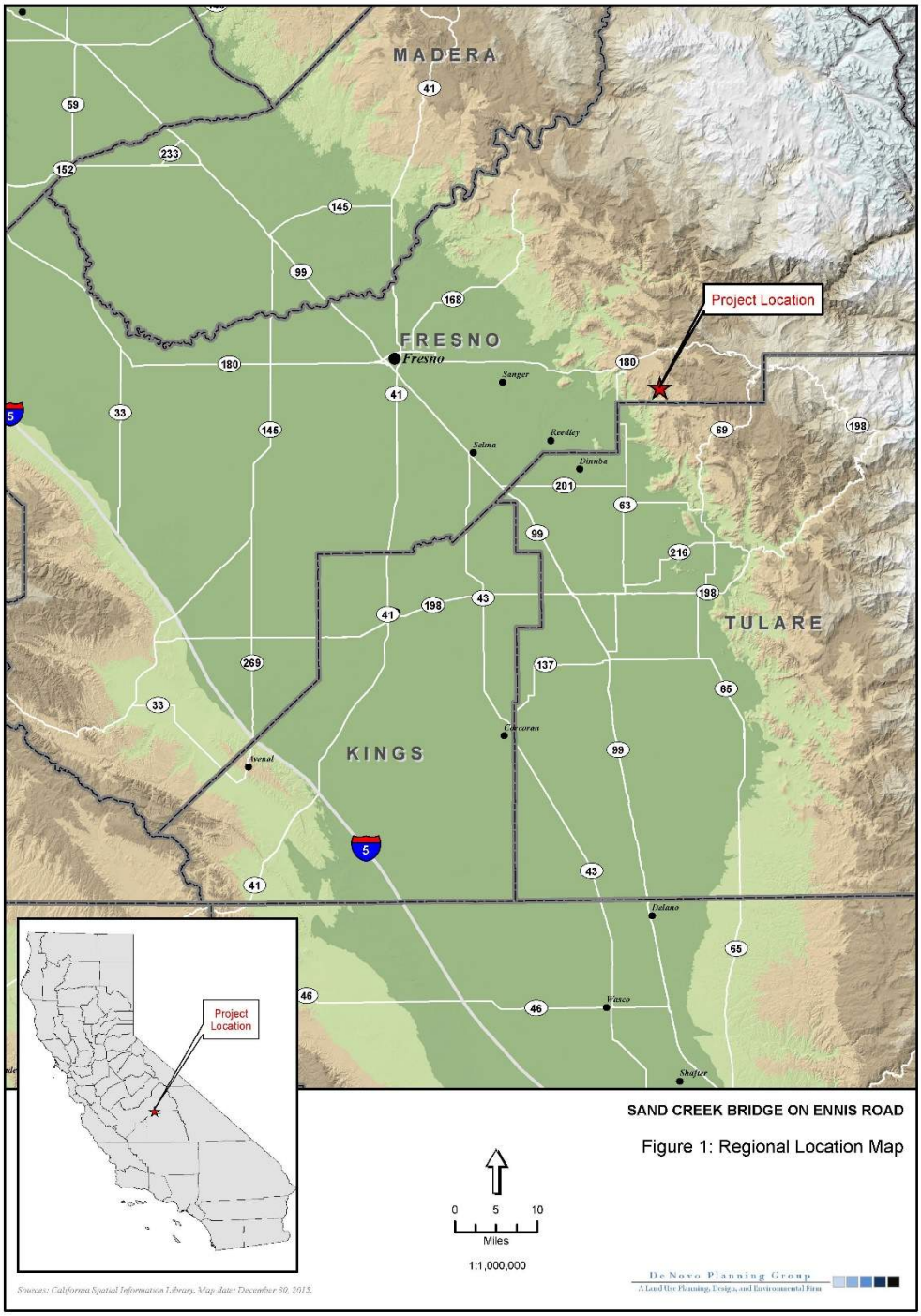


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FIGURE 2 - PROJECT VICINITY:

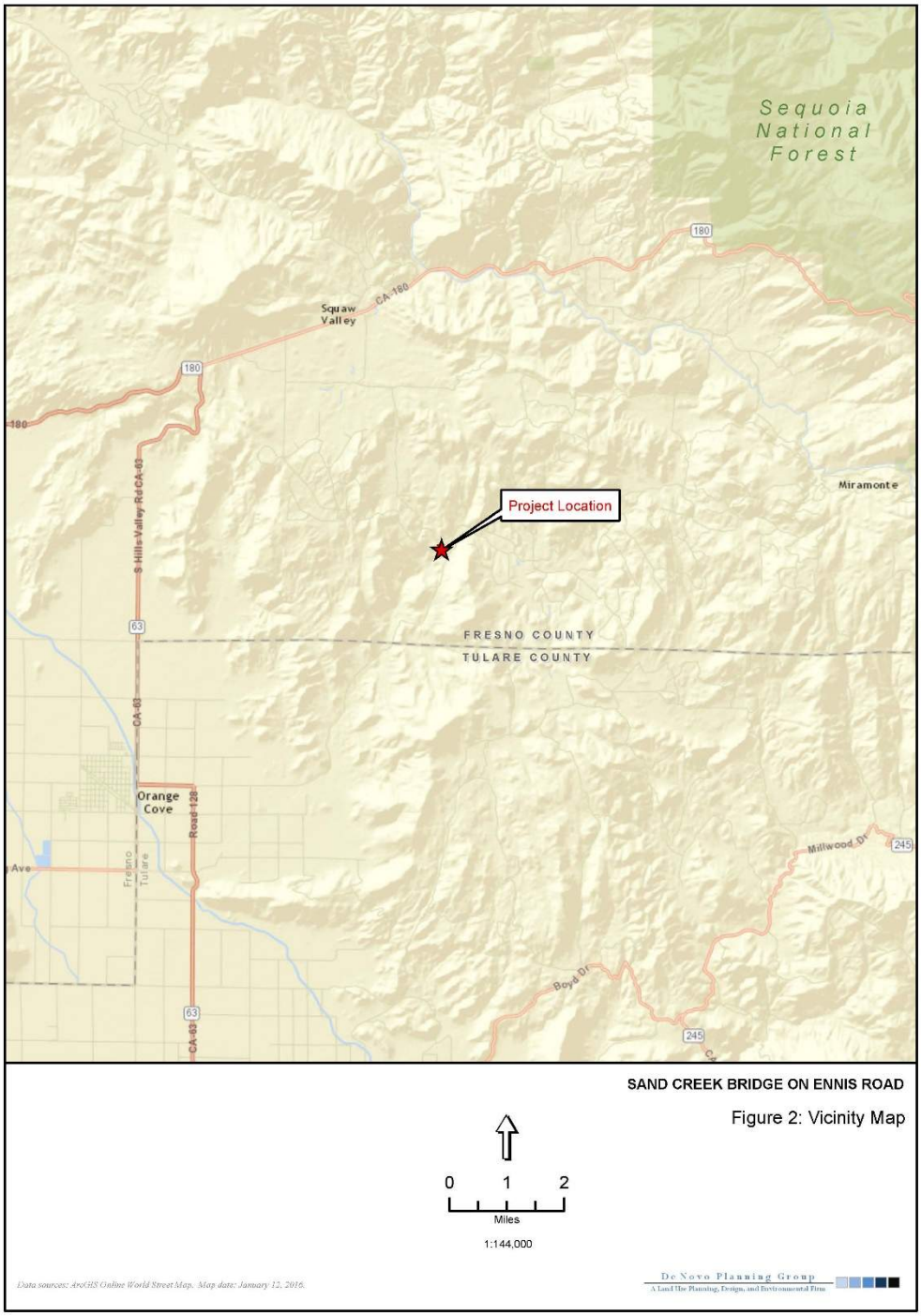

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FIGURE 3 -AREA OF POTENTIAL EFFECTS (APE)

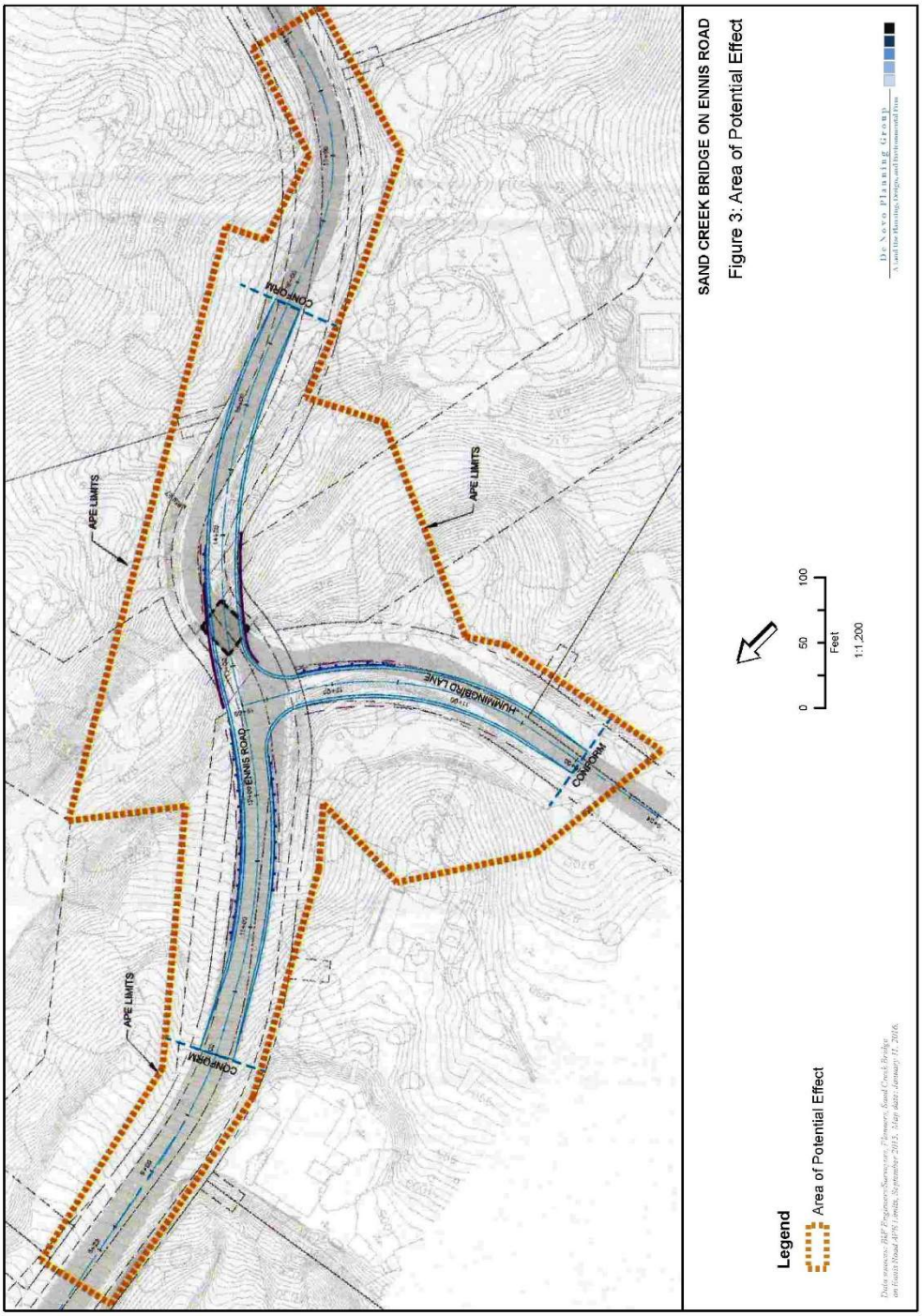

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FIGURE 4 - USGS TOPO

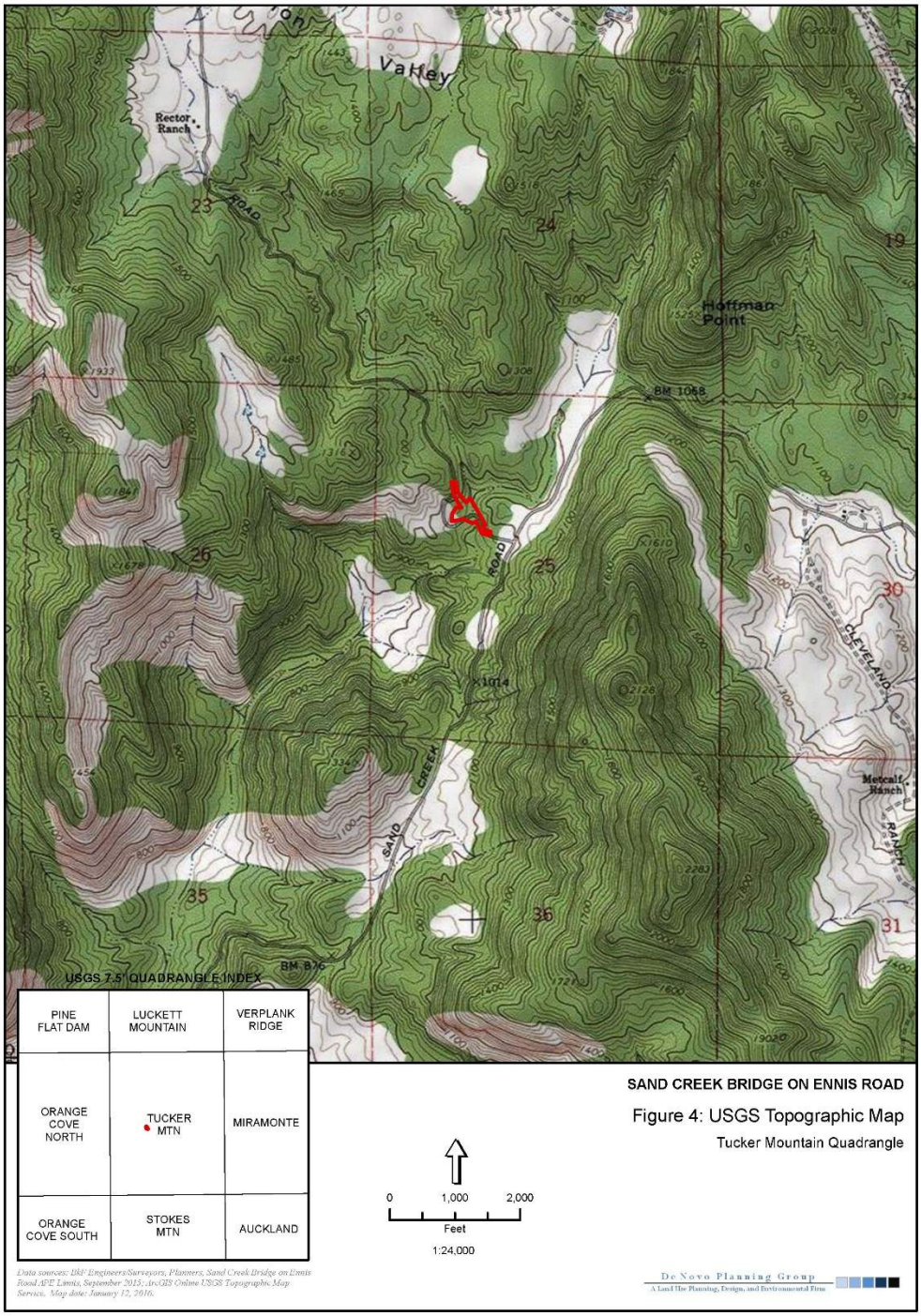

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FIGURE 5 - AERIAL MAP

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FIGURE 6 - WATERSHEDS AND DRAINAGES

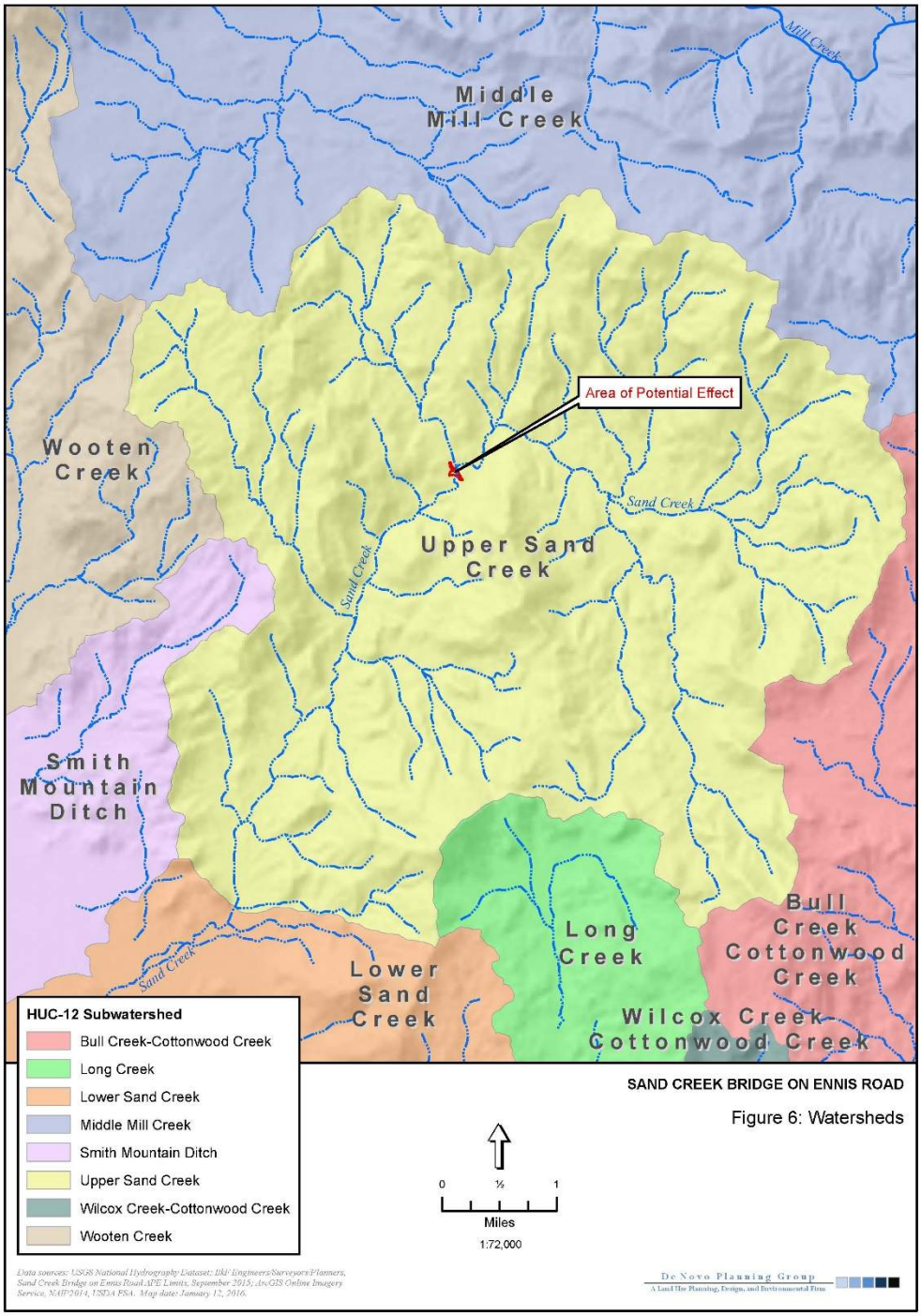

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FIGURE 7: LOCAL HYDROLOGY

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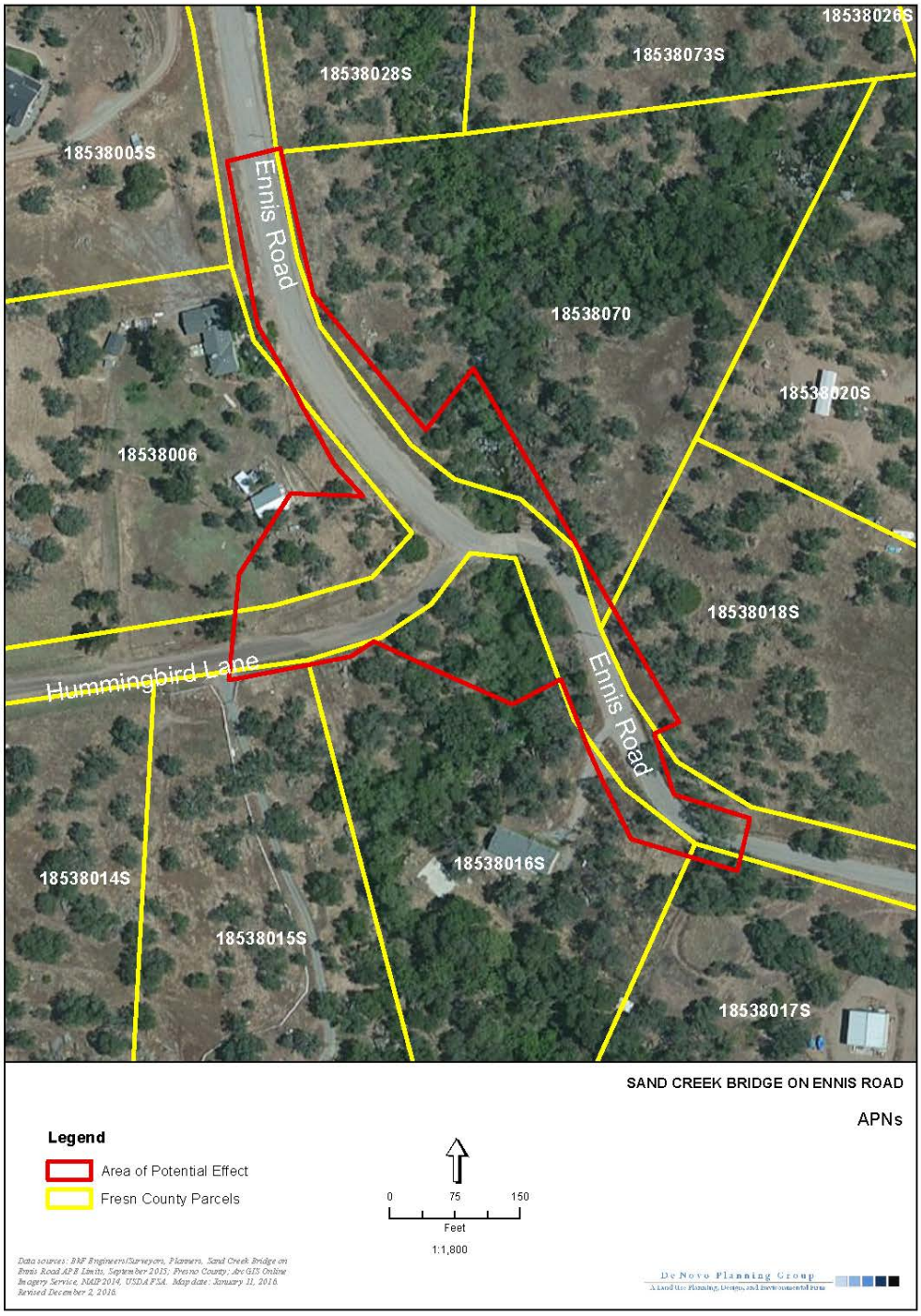
FIGURE 7: APN MAP



County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM

1. **Project title:**
   Initial Study No. 7217 - Sand Creek Bridge Replacement

2. **Lead agency name and address:**

   Fresno County Department of Public Works and Planning
   Development Services Division
   2220 Tulare Street, 6th Floor, Fresno CA 93721-2104

3. **Contact person and phone number:**
   Christina Monfette, (559) 600-4245

4. **Project location:**
   The bridge is located on Ennis Road, 0.3 miles south of George Smith Road

5. **Project Applicant's name and address:**
   Fresno County Design Division
   2220 Tulare Street, 6th Floor
   Fresno, CA 93721-2104

6. **General Plan designation:**
   Foothill Rural Residential (South Sierra Regional Plan)

7. **Zoning:**
   AE-5 (Exclusive Agricultural 5-acre minimum parcel size)

8. **Description of project: (Describe the whole action involved, including, but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**

   The proposed project consists of replacing and realigning the Sand Creek Bridge. The project will replace the existing functionally obsolete, single-span bridge with non-standard guard rail with a new bridge that meets current safety standards. Hummingbird Lane will be realigned near its intersection with Ennis Road to meet current standards. Closing Ennis Road during construction is anticipated. Staging is expected to occur on the existing roadway. The proposed bridge will be a single-span, cast in place concrete box girder approximately 100 feet in length and 24 feet in width with 24 foot wide approaches. The curves at the approaches will be softened and bridge alignment will be raised approximately 10 feet to increase site distance at the bridge.

   Verizon has buried copper facilities that will need to be identified and field verified prior final design. There are existing PG&E utility lines and joint utility poles along Ennis Road and Hummingbird Lane. The storm drain pipe that runs under Hummingbird Lane will need to be relocated to match the new Hummingbird Lane and Ennis Road Intersection. Utility relocation is anticipated. Temporary and permanent right of way acquisition is anticipated.

9. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

   The surrounding parcels range in size between three and six acres and consist of rural residential uses.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☐ Air Quality
- ☐ Cultural Resources
- ☐ Hazards and Hazardous Materials
- ☐ Land Use/Planning
- ☐ Noise
- ☐ Public Services
- ☐ Transportation/Traffic
- ☐ Mandatory Findings of Significance
- ☐ Agriculture and Forestry Resources
- ☐ Biological Resources
- ☐ Geology/Soils
- ☐ Hydrology/Water Quality
- ☐ Mineral Resources
- ☐ Population/Housing
- ☐ Recreation
- ☐ Utilities/Service Systems
- ☐ Greenhouse Gas Emissions

DETERMINATION OF REQUIRED ENVIRONMENTAL DOCUMENT:

On the basis of this initial evaluation:

☐ I find that the proposed project **COULD NOT** have a significant effect on the environment. **A NEGATIVE DECLARATION WILL BE PREPARED.**

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the Mitigation Measures described on the attached sheet have been added to the project. **A MITIGATED NEGATIVE DECLARATION WILL BE PREPARED.**

☐ I find the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required

☐ I find that as a result of the proposed project, no new effects could occur, or new Mitigation Measures would be required that have not been addressed within the scope of a previous Environmental Impact Report.

PERFORMED BY:

Christina Monfette, Planner

Date: 11/7/2018

REVIEWED BY:

H Mollring

Marianne Mollring, Senior Planner

Date: 11-8-18

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INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM
(Initial Study Application No. 6950 and Classified Conditional Use Permit Application No. 3489)

The following checklist is used to determine if the proposed project could potentially have a significant effect on the environment. Explanations and information regarding each question follow the checklist.

1 = No Impact

2 = Less Than Significant Impact

3 = Less Than Significant Impact with Mitigation Incorporated

4 = Potentially Significant Impact

I. AESTHETICS

Would the project:

2 a) Have a substantial adverse effect on a scenic vista?

2 b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

2 c) Substantially degrade the existing visual character or quality of the site and its surroundings?

1 d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

II. AGRICULTURAL AND FORESTRY RESOURCES

Would the project:

1 a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

1 b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

1 c) Conflict with existing zoning for forest land, timberland or timberland zoned Timberland Production?

1 d) Result in the loss of forest land or conversion of forest land to non-forest use?

1 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?

III. AIR QUALITY

Would the project:

2 a) Conflict with or obstruct implementation of the applicable Air Quality Plan?

2 b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

2 c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable Federal or State ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

2 d) Expose sensitive receptors to substantial pollutant concentrations?

2 e) Create objectionable odors affecting a substantial number of people?

IV. BIOLOGICAL RESOURCES

Would the project:

3 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 or U.S. Fish and Wildlife Service?

2 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?

2 c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

1 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?

1 e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

1 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?

V. CULTURAL RESOURCES

Would the project:

3 a) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Code Section 15064.5?

3 b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Code Section 15064.5?

3 c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?

3 d) Disturb any human remains, including those interred outside of formal cemeteries?

3 e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?

VI. GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

1 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?

1 ii) Strong seismic ground shaking?

1 iii) Seismic-related ground failure, including liquefaction?

1 iv) Landslides?

2 b) Result in substantial soil erosion or loss of topsoil?

2 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

1 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?

1 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?

VII. GREENHOUSE GAS EMISSIONS

Would the project:

2 a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

2 b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

1 a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

2 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?

1 c) Create hazardous emissions or utilize hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

1 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?

1 e) Result in a safety hazard for people residing or working in the project area for a project located within an Airport Land Use Plan or, where such a Plan has not been adopted, within two miles of a public airport or public use airport?

1 f) Result in a safety hazard for people residing or working in the project area for a project within the vicinity of a private airstrip?

1 g) Impair implementation of or physically interfere with an adopted Emergency Response Plan or Emergency Evacuation Plan?

1 h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

IX. HYDROLOGY AND WATER QUALITY

Would the project:

2 a) Violate any water quality standards or waste discharge requirements?

1 b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (*e.g.*, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

2 c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?

2 d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?

1 e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

1 f) Otherwise substantially degrade water quality?

1 g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

1 h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

1 i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

1 j) Cause inundation by seiche, tsunami, or mudflow?

X. LAND USE AND PLANNING

Would the project:

1 a) Physically divide an established community?

3 b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

1 c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?

XI. MINERAL RESOURCES

Would the project:

1 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?

1 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?

XII. NOISE

Would the project:

2 a) Expose persons to or generate noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies?

2 b) Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?

2 c) Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

2 d) Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

1 e) Expose people residing or working in the project area to excessive noise levels, for a project located within an Airport Land Use Plan or, where such a Plan has not been adopted, within two miles of a public airport or public use airport?

1 f) Expose people residing or working in the project area to excessive noise levels, for a project within the vicinity of a private airstrip?

XIII. POPULATION AND HOUSING

Would the project:

1 a) Induce substantial 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)?

1 b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

1 c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

XIV. PUBLIC SERVICES

Would the project:

Result in substantial adverse physical impacts associated with the provision of new or physically-altered governmental facilities, or the 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:

1 a) Fire protection?

1 b) Police protection?

1 c) Schools?

1 d) Parks?

1 e) Other public facilities?

XV. RECREATION

Would the project:

1 a) 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?

1 b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

XVI. TRANSPORTATION / TRAFFIC

Would the project:

2 a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

2 b) Conflict with an applicable Congestion Management Program including, but not limited to, level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?

1 c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks?

2 d) Substantially increase hazards due to a design feature (*e.g.*, sharp curves or dangerous intersections) or incompatible uses (*e.g.*, farm equipment)?

2 e) Result in inadequate emergency access?

2 f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:

1 a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

1 b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

1 c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

1 d) Have sufficient water supplies available to service the project from existing entitlements and resources, or are new or expanded entitlements needed?

1 e) 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?

1 f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

1 g) Comply with federal, state, and local statutes and regulations related to solid waste?

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

3 a) Have the potential to 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, 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?

1 b) 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.)

1 c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Documents Referenced:

This Initial Study is referenced by the documents listed below. These documents are available for public review at the County of Fresno, Department of Public Works and Planning, Development Services Division, 2220 Tulare Street, Suite A, Fresno, California (corner of M & Tulare Streets).

Fresno County General Plan Policy Document, Background Report, and Final EIR, Fresno County Zoning Ordinance
Important Farmland 2014 Map, State Department of Conservation
Historic Property Survey prepared by Applied Earthworks, Inc. (K. Asselin (6/2016); reviewed by J. Whitehouse (6/2016))
Hazardous Waste Initial Site Assessment prepared by Haro Environmental (E. Haro (11/2015); reviewed by T. Nelligan (11/2015)
Natural Environment Study prepared by S. McMurty (8/2016); approved by Elmer Llamas (8/2016) and S. Gunn (8/2016)
Water Quality Technical Memo prepared by S. McMurty (2/2016); approved by S. Gunn (3/2016)
BSK Associates Final Report A6H0673 (8/25/16) prepared by Michelle Kawaguchi

County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

EVALUATION OF ENVIRONMENTAL IMPACTS

APPLICANT: County of Fresno Department of Public Works and Planning, Design Division

APPLICATION NOS.: Initial Study Application No. 7217

DESCRIPTION: The County of Fresno (County), with funding from the Federal State Transportation Improvement Program (FSTIP), proposes to replace Bridge 42C0099 over Sand Creek on Ennis Road in Fresno. The project is 0.3 miles south of George Smith Road near the community of Squaw Valley. The County proposes to replace and realign the functionally obsolete, single-span structure with a bridge that meets current safety standards. Plans for the replacement bridge have not been finalized. The project will involve pole driving, structure demolition, and excavation and stream channel work. In addition, Hummingbird Lane will be realigned near its intersection with Ennis Road to meet current standards. Staging is expected to occur on the existing roadway and Ennis Road will be closed during construction. The existing Sand Creek Bridge on Ennis Road is a two-lane single-span wooden structure. The proposed bridge will be a single-span, cast in place concrete box girder approximately 100 feet in length and 24 feet in width with 24-foot wide approaches. The curves at the approaches will be softened and bridge alignment will be raised approximately 10 feet. Four PG&E power poles will be relocated as a result of this project. The existing storm drainpipe and other utilities may be relocated.

LOCATION: Ennis Road, 0.3 miles south of George Smith Road

This Initial Study was originally published on June 21, 2017. Since that time, revisions to the Mitigation Measures and Project Description represent a significant revision, which required the removal and addition of mitigation measures. Pursuant to CEQA Guidelines Section 15073.5, recirculation of the proposed Mitigated Negative Declaration is required.

I. AESTHETICS

A. Would the project have a substantial adverse effect on a scenic vista; or

B. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway; or

C. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

FINDING: LESS THAN SIGNIFICANT IMPACT:

The existing Sand Creek Bridge on Ennis Road was constructed in 1975. It is a two-lane single-span wooden structure approximately 30 feet in length and 23 feet in width, located at the bottom of a sag curve. The existing approach roadway is 11.6 feet wide including the shoulders. The proposed bridge will be a single-span, cast in place concrete box girder approximately 100 feet in length and 24 feet in width with 24-foot wide approaches.

The curves at the approaches will be softened and bridge alignment will be raised approximately 10 feet to increase sight distance at the bridge. The new bridge will be approximately 1 foot wider than the existing bridge. The length will be increased approximately 70 feet; however, this is a less than significant impact to the aesthetics at the site because the increase in bridge length will be paved and painted to match the existing road. The new bridge will be functionally the same as the old bridge, except that the new bridge will meet current safety standards.

Ennis Road is not designated a scenic or landscaped drive by the Fresno County General Plan. Four power poles will need to be relocated because of the realignment; their existing positions will be offset by one or two feet. Therefore, this will not cause a significant change from the baseline view along Ennis Road or Hummingbird Lane.

D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

FINDING: NO IMPACT:

There is no lighting proposed as part of this project. The bridge replacement will not create new sources of glare. The limited increase in the elevation of the bridge will not impact views because the bridge is currently at the valley of two inclines; the slope is uphill in both directions along Ennis Road and along Hummingbird Lane.

II. AGRICULTURAL AND FORESTRY RESOURCES

A. Would the project convert prime or unique farmlands or farmland of state-wide importance to non-agricultural use?

FINDING: NO IMPACT:

As part of the project, additional right-of-way may be acquired by the County. The land around the project site has been designated by the County of Fresno Important Farmlands Map (2014) as Grazing Land and Rural Residential land. Therefore, no prime or unique farmland, or farmland of state-wide importance would be converted to non-agricultural uses.

B. Would the project conflict with existing agricultural zoning or Williamson Act Contracts; or

C. Would the project conflict with existing zoning for or cause rezoning of forest land, timberland, or timberland zoned Timberland Production; or

D. Would the project result in the loss of forest land or conversion of forest land to non-forest use; or

E. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural uses or conversion of forest land to non-forest use?

FINDING: NO IMPACT:

The scope of this project is limited to replacing the existing bridge that crosses Sand Creek at Ennis Road. Parcels in this area are between three and six acres, which is consistent with the AE-5 (Exclusive Agricultural 5-acre minimum parcel size) Zone District. None of the surrounding parcels are restricted by Williamson Act Contracts or zoned for Timberland production.

A review of historic aerial photographs, topographic maps, and city directory listings by Haro Environmental, Inc. indicate the project site was undeveloped as of 1924, and developed with Ennis Road in 1970. Surrounding land use has been converted from undeveloped land to rural residential as early as 1970 with development expanding slowly to the present configuration. Following completion of the project, the replacement of this bridge is not expected to contribute to the loss of additional agricultural or forest land.

III. AIR QUALITY

A. Would the project conflict with or obstruct implementation of the applicable Air Quality Plan; or

B. Would the project violate any air quality standard or contribute to an existing or projected air quality violation; or

C. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under a Federal or State ambient air quality standard; or

D. Would the project expose sensitive receptors to substantial pollutant concentrations; or

E. Would the project create objectionable odors affecting a substantial number of people?

FINDING: LESS THAN SIGNIFICANT IMPACT:

Construction has the potential for short-term effects on the local area; however, the project will not change the alignment or increase the number of through lanes, therefore, would not cause the continuous release of criteria pollutants to the area. The project will not increase capacity, or cause or contribute to any new localized Carbon Monoxide (CO) or Particulate Matter (PM)-10 violations or increase the frequency or severity of any existing CO or PM-10 non-attainment. The project specifications would require actions during construction to reduce particulate matter in accordance with the San Joaquin Valley Unified Air Pollution Control District's Regulation VIII, reducing the impact of construction to less than significant. The replacement bridge is not expected to release any objectionable odors.

IV. BIOLOGICAL RESOURCES

A. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special-status species?

FINDING: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED:

The Biological Study Area (BSA) includes the Project Impact Area (PIA) and approximately 100 feet beyond the County right-of-way. In addition, the BSA includes a 408-square foot temporary construction permit area and a 126-square foot area where a guy wire and pole will be installed. This additional area was added after the June 21, 2017 publication of the Notice of Intent and the original circulation of this document.

There are four distinct physical conditions present within the BSA. These include woodland, herbaceous-dominated, aquatic, and rural-developed. Of these conditions, the woodland, herbaceous-dominated, and aquatic habitats contain biological diversity, while the rural-developed area contains very limited to no diversity. The additional area is part of the woodland habitat and the mitigation originally proposed to reduce impacts to special-status species will be sufficient to address impacts to species in these areas.

There are numerous special-status species known to occur within the region. Some species require localized micro-habitats, while others are highly mobile and may occur throughout the region. The California Natural Diversity Database (CNDDB) documents eight special status species and habitats within a five-mile radius of the bridge site and 22 special status species documented within a ten-mile radius of the bridge site. The US Fish and Wildlife Service's Environmental Conservation Online System (ECOS) documents eight federally listed endangered, threatened, or candidate species that are known to or are believed to occur in project vicinity. It is unlikely, but conceivable, that San Joaquin kit fox (Vulpes macrotis mutica) could be in the vicinity of the bridge site, and construction activities could therefore disrupt individuals. This species has not been

observed within a ten-mile radius of the BSA and the field surveys did not reveal the presence of this species or any denning sites in the immediate vicinity; however, this species is highly mobile and could travel through the BSA in the future. With the implementation of avoidance measures, preconstruction surveys, and establishment of buffers if necessary, there would be no adverse effect.

The proposed project is located in an area with documented occurrences of Cooper's hawk, and other raptors. A raptor (red-tailed hawk) was observed near the BSA. Appropriate foraging habitat for raptors, including Cooper's hawk, exists in the regional vicinity of the project site. Construction activities are not expected to remove foraging habitat for these protected birds, although construction activities could temporarily make the land within the BSA to be less desirable for foraging while construction occurs. There was no evidence of active or remnant raptor nests located in the BSA. With the implementation of appropriate avoidance and minimization measures, there would be no adverse effect on raptors, including Cooper's hawk.

Construction activities could affect nesting migratory birds within 250 feet of this bridge site. Migratory birds in this area are not used to high frequency of disturbance associated with the human activity because of the rural nature of the area and construction would temporarily elevate such activities. Construction activities could affect any migratory bird if they were using the BSA for foraging at the commencement of construction. The effect would be expected to be temporary and associated with the noise and activities required to rebuild the bridge. At the completion of construction, the migratory birds would have use of the BSA similar to the existing conditions. With the implementation of avoidance measures, preconstruction surveys, and establishment of buffers if necessary, there would be no adverse effect.

There are three CNDDB-documented special-status mammals (hoary bat, western red bat, and Yuma myotis) that occur within a ten-mile radius of the BSA. Bridges and other structures in the regions provide habitat for a variety of bat species, such as Mexican free-tailed (Tadarida brasiliensis), Big Brown bats (Eptesicus fuscus), and Myotis bats (Myotis sp). Bats will utilize the crevices in bridges for roosting. Bat mating and maternal roosting period is generally between May and August. When work on a bridge is performed between these months preconstruction surveys are necessary given that a bridge can be used by these sensitive species even if there is not a history of maternal roosting in the past. Additionally, it is very common for a bridge to be used for night or day roosting, and there was evidence of guano at the bridge. Exclusionary devices can be installed prior to construction to ensure that no bats are affected if the bridge is used for non-maternal roosting. With the implementation of preconstruction surveys, maternal avoidance measures, and installation of exclusionary devices if presence is discovered prior to construction, there would be no adverse effect on special status bats.

There are seven CNDDB documented special-status plant that occur within a ten-mile radius of the BSA. These include American manna grass (Glyceria grandis), aromatic canyon gooseberry (Ribes menziesii var. ixoderme), Kings River buckwheat (Eriogonum nudum var. regirivum), San Joaquin adobe sunburst (Pseudobahia peirsonii), San Joaquin Valley Orcutt grass (Orcuttia inaequalis), slender-stalked monkeyflower (Mimulus gracilipes), spiny-sepaled button-celery (Eryngium spinosepalum), and

Winter's sunflower (Helianthus winteri). A series of three surveys were performed in the appropriate blooming season for special status plants known to occur within the region (April, May, and June). At the conclusion of the three surveys, it was determined that none of these species was present within the biological study area.

* ***Mitigation Measures***

1. *In order to avoid impacts to nesting raptors and migratory birds, project activities will occur, where possible, outside the nesting season. The nesting season is generally February 15-September 1. If project activities must occur during the nesting season (February 15-September 1), a qualified biologist shall conduct pre-construction surveys within the* Biological Study Area (BSA) *for active raptor and migratory bird nests within 30 days of the onset of these activities. If no active nests are found within the BSA, no further mitigation is required.*

2. *Should any active nests be discovered within the BSA, the biologist shall determine the appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.*

3. *In order to avoid impacts to bats, construction should seek to avoid the maternal roosting period if possible (generally May – August). If their roosting period cannot be accommodated, exclusionary devices shall be installed prior to the maternal roosting period so the bats cannot use the bridge for maternal roosting during the construction period. If construction is planned outside the maternal roosting period (generally September – February), exclusionary devices will be installed at least seven days before work can commence. By waiting the seven days, the bats can exit the bridge and relocate to another location in the vicinity. Once these devices have been installed, they must be maintained and kept in good working order. Work on the bridge deck can occur anytime without work window restrictions.*

4. *In order to avoid impacts to the California Tiger Salamander (CTS), the following measures shall be implemented:*

    a. *Retain a biologist to conduct a preconstruction survey*

    b. *Install drift fences around the perimeter of the project impact area to prevent any CTS from moving into the area*

    c. *Retain a biologist to monitor the BSA during construction to ensure that no CTS are harmed.*

    d. *Retain a biologist to provide construction worker education for CTS.*

5. *Preconstruction surveys for foothill yellow-legged frog (Rana boylii) and western pond turtle (Emys marmorata) shall be conducted no more than 14 days prior to*

the beginning of ground disturbance and/or construction activities. Surveys for the yellow-legged frog shall be conducted in accordance with "A Standardized Protocol for Surveying Aquatic Amphibians" (Fellers and Freel, 1995) and "The Declining Amphibian Task Force Fieldwork Code of Practice" (DAPTF 1998). Written results of preconstruction surveys must be maintained by the County within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If these species are discovered, the County shall consult with the CDFW to obtain the appropriate guidance to avoid this species. If take is unavoidable, the Applicant shall obtain an Incidental Take Permit, issued by the California Department of Fish and Wildlife.

6. *The project shall implement the "Standardized Recommendations for Protection of the Endangered San Joaquin kit fox Prior to or During Ground Disturbance" (USFWS 2011).*

B. Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

FINDING: LESS THAN SIGNIFICANT IMPACT:

Riparian and aquatic habitat in the region is primarily comprised of Sand Creek, and other drainages. Riparian and aquatic habitat in the region are closely associated to one another. These areas are inundated either permanently with flow, or intermittently with storm events. Purely aquatic habitats generally do not support rooted-emergent or woody plant species, while riparian habitat is located along the edges of aquatic habitat. The riparian and aquatic habitat within the BSA is located within Sand Creek.

Sand Creek, which flows directly through the BSA, contains extensive riparian habitat. The riparian habitat is average quality for the foothill region, being that it is largely undisturbed. The proposed project will require a direct disturbance to the Sand Creek and the surrounding riparian habitat associated with construction activities at this bridge site. These activities would require compliance with Section 404 of the Clean Water Act. The exact engineering has not yet been completed so the exact acreage of riparian habitat affected cannot be calculated. Formal wetland delineation must be prepared once the engineering plans (i.e. the exact alignment) is known. Restoration of temporary effects to the riparian habitat must be implemented prior to completion of the construction activities.

C. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?

FINDING: LESS THAN SIGNIFICANT IMPACT:

Sand Creek is jurisdictional water. Streamflow within Sand Creek was measured by the U.S. Geological survey at station (USGS 11212000 Sand Creek) downstream from the BSA. This station has been discontinued, however, max flow data from 1997 (Jan. 02,

1997) indicated that the maximum historical flow was 411 CFS. Additionally, two field measurements were taken in 1992 (04-08 and 02-19) that recorded a streamflow of 0.82 CFS and 3.86 CFS respectively. The data shows significant variations in flows, which will affect the high water mark within the creek channel. The Sand Creek is a jurisdictional facility and any fill activity associated with construction activities at this bridge site would require compliance with Section 404 of the Clean Water Act. It is anticipated that the project activities are eligible for a nationwide permit authorized by the Clean Water Act (NWP 14 Linear Transportation Projects).

It should also be noted that any work performed at the BSA would require a Section 401 Water Quality certification to be issued by the Regional Water Quality Control Board and a Section 1600 Streambed Alteration Agreement to be issued by the California Department of Fish and Wildlife.

D. Would the project 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?

FINDING: NO IMPACT:

There are no CNDDB-documented special-status fish documented within a ten-mile radius of the BSA. Sand Creek does not contain protected anadromous fish such as Chinook salmon or steelhead. There is one USFWS documented special-status fish within region: Delta smelt. This species is found in the freshwater-saltwater mixing zone of estuaries (i.e. Delta system), except during its spawning season, when it migrates upstream into the freshwater of the San Joaquin and Sacramento Rivers following winter "first flush" flow events (generally March to May). This species is not known to inhabit the small Sierra Nevada foothill tributaries and is not present in Sand Creek.

There are three CNDDB documented special-status invertebrates within a five-mile radius of the BSA: mid-valley fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp. The USFWS also lists longhorn fairy shrimp and vernal pool tadpole shrimp within the region. These species require vernal pool habitat, which is not present within the BSA. During the field survey no special-status invertebrates were observed, nor are they expected to be present based on the habitat conditions of the BSA.

There are two CNDDB documented special-status amphibians that occur within a five-mile radius of the BSA, and an additional three that occur within a ten-mile radius. This includes the California tiger salamander and western spadefoot. The USFWS lists the California tiger salamander (CTS) and California red-legged frog within the region. None of these species are documented within the BSA of the bridge site and none were observed during field surveys.

CTS are not documented in the BSA, but are documented approximately 1.4 miles to the west and within the Sand Creek drainage. There is a very well documented presence of CTS within the 527-acre Sand Creek Conservation Bank, which contains 23 acres of naturally occurring vernal pools and vernal swales. The BSA does not contain suitable aquatic breeding habitat given that the stream is an intermittent fast-

flowing stream during the rainy season. While CTS can potentially travel up to a mile to reach suitable habitat, the steep terrain, fast flowing streams, lack of occurrences within the BSA, and lack of upland and aquatic habitat within the BSA makes it unlikely that the species would disperse within the BSA.

There is also a well-documented presence of western spadefoot within the 527-acre Sand Creek Conservation Bank. The BSA does not contain appropriate aestivation or aquatic breeding habitat. There are no indications that western spadefoot disperses up the Sand Creek drainage through the BSA to potential aestivation habitat in surrounding lands; however, dispersal range for this species is not well documented. The known breeding sites are located 1.4 miles to the west of the BSA. The BSA is within the range of elevations where this species generally occurs.

The California red-legged frog (CRLF) is federally listed as threatened and a state species of special concern. Populations are known to exist in isolated localities in the Sierra Nevada, north Coast, and northern Transverse Ranges from sea level to elevations of 5,200 feet. The known occurrences of CRLF in Fresno County are limited to the western portion of the County in the Diablo range. This species is not documented within 10 miles of the BSA and none was observed during field surveys.

The northern leopard frog (state species of special concern) occurs east of Sierra Nevada-Cascade crest near permanent or semi-permanent water in variety of habitats. They are aquatic species typically found along shoreline cover. Submerged and emergent aquatic vegetation are important habitat characteristics. There are no documented occurrences of this species within a five-mile radius and the BSA is not within the native range of this species.

E. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

F. Would the project Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local regional, or state habitat conservation plan?

FINDING: NO IMPACT:

The project will not be in conflict with any local policies or ordinances protecting biological resources, and the site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan.

V. CULTURAL RESOURCES

A. Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; or

B. Would the project cause of substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5; or

C. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

D. Would the project disturb any human remains, including those interred outside of formal cemeteries; or

E. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?

FINDING: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED:

Applied Earthworks (*Æ*) performed the Historic Property Survey Report for this project. A records search by the Southern San Joaquin Valley Information Center of the California Historical Resources Information System and *Æ*'s review of inventories, registers, and other cultural resources lists available online did not reveal any previously recorded cultural resources within the APE.

Constructed in 1975, Bridge 42C0099 is listed in the Caltrans Historic Bridge Inventory as Category 5, determined not eligible for the National Register of Historic Places.

Archaeological surveys on November 9, 2015 and May 26, 2016, encountered no archaeological sites, features, or artifacts on the surface within the APE. Along with the findings of the field survey, the results of the records search, archival research, and Native American consultation strongly suggest that the likelihood of exposing buried intact archaeological remains during construction is low. *Æ* reached out to 16 Tribal Representatives and requested a Sacred Lands File search. No Tribe requested formal consultation under the provisions of AB 52 and there were no recorded sacred sites within or adjacent to the area of potential effects (APE) of the project.

The small increase to the APE will not increase the potential for damage to known resources. The areas are located directly adjacent to the footprint of the previous APE, but are more distant from the shores of the creek, where resources are most likely to be present. On March 16, 2018, a staff member from Applied Earthworks performed an intensive pedestrian survey of the additional area and identified no archeological or historical built environment resources.

However, the potential exists for artifacts or cultural resources to be uncovered during ground-disturbing activities. Therefore, a mitigation measure requiring that all work halt if a find is uncovered will be included:

*** *Mitigation Measure***

1. In the event that cultural resources are unearthed during ground disturbing activities, all work shall be halted in the area of the find. An Archeologist shall be called to evaluate the findings and make any necessary mitigation recommendations. If human remains are unearthed during ground disturbing activities, no further disturbance is to occur until the Fresno County Sheriff-Coroner has made the necessary findings as to origin and disposition. All

normal evidence procedures should be followed by photos, reports, video, etc. If such remains are determined to be Native American, the Sheriff-Coroner must notify the Native American Commission within 24 hours. The applicant shall contact the Dumna Wo Wah Tribal Government by email at ledgerrobert@ymail.com

VI. GEOLOGY AND SOILS

A. Would the project expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving:

1. Rupture of a known earthquake?

2. Strong seismic ground shaking?

3. Seismic-related ground failure, including liquefaction?

4. Landslides?

FINDING: NO IMPACT:

The project site is not located along a known fault-line, according to the Department of Conservation's Fault Activity Map (2010). According to figure 9-5 of the Fresno County General Plan Background Report (FGGPBR), the project site is not located in an area of probable seismic hazards. According to figure 9-6 (FGGPBR), the project site is not located in an area of moderate or high landslide hazards.

B. Would the project result in substantial erosion or loss of topsoil; or

C. Would the project result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

FINDING: LESS THAN SIGNIFICANT IMPACT:

Grading and site preparation involved in construction of the Sand Creek Bridge could decrease vegetative cover and increase the potential for soil erosion, and thereby could cause a temporary increase in suspended solids in runoff to local receiving waters. Surfaces disturbed during construction would be paved or vegetated under operational conditions and the potential for erosion would be very low after construction has been completed. During operation, the improvements made could increase the overall amount of impervious surface in the project area, thereby increasing runoff. Standard conditions including the preparation of a Storm Water Pollution Prevention Plan (SWPPP), adherence to the Fresno County grading and earthmoving standards (Ordinance Code, Chapter 15.28 Grading and Excavation), and the implementation of Best Management Practices as required by the General Construction permitting process, would ensure that the impacts related to erosion and runoff and pollutants entering the watercourse would be reduced to less than significant levels.

D. Would the project be located on expansive soils, creating substantial risks to life or property?

FINDING: NO IMPACT:

Soils at the project area include the Fallbrook sandy loam series. These soils have layers impeding downward movement of water, are well drained, and have sandy loam surface textures and slow infiltration rates. According to Figure 7-1 (FGGPBR), the project site is not located in an area where soils exhibit moderately high to high expansion potential.

E. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative disposal systems where sewers are not available for wastewater disposal?

FINDING: NO IMPACT:

There are no septic tanks or alternative disposal systems proposed as part of this bridge replacement project.

VII. GREENHOUSE GAS EMISSIONS

A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

B. Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

FINDING: LESS THAN SIGNIFICANT IMPACT:

Once the new bridge is operational, there will be no greenhouse gas emissions. Emissions during construction are considered less than significant due to their temporary nature. The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

VIII. HAZARDS AND HAZARDOUS MATERIALS

A. Would the project create a significant public hazard through routine transport, use or disposal of hazardous materials?

FINDING: NO IMPACT:

The scope of this project is limited to the replacement of the existing bridge. There will be no routine transport, use, or disposal of hazardous materials associated with this project.

B. Would the project create a significant public hazard involving accidental release of hazardous materials into the environment?

FINDING: LESS THAN SIGNIFICANT IMPACT:

After the new bridge is completed, there is no additional operation or construction involving hazardous materials. Testing for lead and asbestos was completed by BKS Associated on July 14, 2016.

Two samples were taken from the soil at the northeastern corner of Sand Creek Bridge, one from a depth between 0-6 inches and one from a depth of 6-12 inches. Both samples were tested using method EPA 6010, which showed that the amount of lead in both samples was below the detectable limit of 50 mg/kg.

Two samples of the bridge structure, one from the northeast wing wall and one from the western edge of the bridge deck, were tested for asbestos via EPA 600/R-93/116 Method using polarized light microscopy. No asbestos was detected.

In compliance with Caltrans policies and procedures as described by the *Construction Manual*, paint removed from the bridge will be tested for the presence of lead prior to disposal. If testing determines that lead or other toxic substances are present, the paint will be disposed of at a hazardous waste facility.

With compliance to Caltrans regulations regarding the treatment and disposal of potentially hazardous materials, impacts to the accidental release of hazardous materials into the environment is less than significant.

C. Would the project create hazardous emissions or utilize hazardous materials, substances, or waste within one quarter-mile of a school?

FINDING: NO IMPACT:

The scope of this project is limited to the replacement of the existing bridge. There will be no routine transport, use, or disposal of hazardous materials associated with this project. The project will not create a significant public hazard involving accidental release of hazardous materials or release hazardous emissions or substances within one quarter-mile of a school.

D. Would the project be located on a hazardous materials site?

FINDING: NO IMPACT:

The National Pipeline Mapping System maintained by the Pipeline and Hazardous Materials Safety Administration was reviewed for the presence of gas and hazardous liquid transmission pipelines, and the results indicate there are no mapped pipelines located within a one-mile radius of the project area. A database search was requested from Environmental Data Resources, Inc. (EDR) which researched the Federal National Priority List (NPL); the Federal Delisted NPL Deletions; the Federal Comprehensive

Environmental Response, Compensation, and Liability Information System (CERCLIS); the Federal CERCLIS No Further Remedial Action Planned, Federal Corrective Action Reports; Federal Resource and Conservation Recovery Act (RCRA) generators list; state- and tribal-equivalent NPL and CERCLIS, state and tribal leaking storage tank lists, voluntary cleanup sites, and brownfields sites; US Brownfield lists; and local lists of landfill/solid waste disposal sites. The project site and other parcels in the vicinity were not listed on any of the sites researched.

E. Would a project located within an airport land use plan or, absent such a plan, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; or

F. Would a project located within the vicinity of a private airstrip result in a safety hazard for people residing or working in the project area?

FINDING: NO IMPACT:

The project site is not located within two miles of a public or private airport or within an airport land use plan. Reviews of aerial photos of the site do not indicate the presence of any private airstrips.

G. Would the project impair implementation of or physically interfere with an adopted Emergency Response Plan or Emergency Evacuation Plan; or

H. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

FINDING: NO IMPACT:

After construction, the new bridge will perform essentially the same function as the currently defunct bridge. Therefore, it will not impair implementation of or interfere with any Emergency Response Plan or Emergency Evacuation Plan. Additionally, the project will not expose people and structures to significant risk of loss, injury, or death involving wildland fires.

IX. HYDROLOGY AND WATER QUALITY

A. Would the project violate any water quality standards or waste discharge requirements or otherwise degrade water quality?

FINDING: LESS THAN SIGNIFICANT IMPACT:

During operation, the improvements made could increase the overall amount of impervious surface in the project area, thereby increasing runoff. The most common contaminants found in roadway runoff are heavy metals, inorganic salts, aromatic hydrocarbons, and suspended solids that accumulate on the road surface as a result of

regular roadway operation and maintenance activities. Ordinary operations and the wear and tear of vehicles result in the dropping of oil, grease, rust, hydrocarbons, rubber particles, and other solid materials on the roadway surface. These materials are washed off the roadway during rain events. Receiving surface waters are susceptible to contamination from these sources. Additionally, pollutants would tend to be flushed from impervious surfaces where they accumulate (e.g., paving) into drainage conveyances. Stormwater runoff from road surfaces would be expected to contain oils, grease, and debris.

Local, state, and federal agencies require the development of practical measures in response to the potential impacts of construction activities and ongoing project operations that discharge sediment and other undesirable elements to existing waterways. These include the required compliance with the National Pollutant Discharge Elimination System permit requirements, preparation of a Stormwater Pollution Prevention Plan (SWPPP), as well as County ordinances (e.g., erosion and grading ordinance). Project design features are currently unknown as the project is in the design phase, however, standard conditions include the application of Best Management Practices (BMPs) to include measures that can be incorporated into the design of the project to avoid, minimize, or reduce potential environmental impacts to Sand Creek.

B. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge so that there would be a net deficit in aquifer volume or a lowering of the local groundwater table?

FINDING: NO IMPACT:

There is no use of water proposed as part of this application. The bridge replacement will not result in a net deficit in aquifer volume or a lowering of the groundwater table.

C. Would the project substantially alter existing drainage patterns, including alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site; or

D. Would the project substantially alter existing drainage patterns, including alteration of the course of a stream or river, in a manner which would result in flooding on or off site?

FINDING: LESS THAN SIGNIFICANT IMPACT

The reconstruction of the bridge has the potential to affect the course of Sand Creek; however, the applicant must obtain a Streambed Alteration Agreement, issued by the CDFW, which will ensure that Sand Creek is not altered in such a manner as to cause on, or off-site flooding. This has been included as a project note for the Applicant’s reference.

E. Would the project create or contribute run-off which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted run-off?

F. Would the project otherwise substantially degrade water quality?

FINDING: NO IMPACT:

The new bridge will perform the same function as the original bridge and will not contribute to an increase in polluted run-off because there is no increase in traffic from the previous operational baseline of approximately 675 vehicles per day (2% truck traffic).

G. Would the project place housing within a 100-year floodplain; or

H. Would the project place structures within a 100-year flood hazard area that would impede or redirect flood flows?

FINDING: NO IMPACT:

There is no housing proposed with this application and the proposed bridge will be above the base flood elevation for Sand Creek.

I. Would the project expose persons or structures to levee or dam failure; or

J. Would the project cause inundation by seiche, tsunami or mudflow?

FINDING: NO IMPACT:

The project site is located in an area that is not at risk of inundation from the 100-year flood. According to Figure 9-8 (FCGPBR), the project site is not in an area at risk of inundation due to dam failure.

X. LAND USE AND PLANNING

A. Will the project physically divide an established community?

FINDING: NO IMPACT:

The project proposes to replace a functionally obsolete bridge with a new one that meets current safety standards. The project site is limited to the area surrounding the bridge, which includes the realignment of Hummingbird Avenue to meet safety standards. Functionally, the bridge serves as a road and connection between residences and businesses on both sides of Sand Creek and will not divide an established community.

B. Will the project conflict with any Land Use Plan, policy, or regulation of an agency with jurisdiction over the project?

FINDING: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED:

The Fresno County General Plan is a comprehensive, long-term policy framework that includes guidance for the protection of the county's natural resources. The following policies directly relate to the Sand Creek Bridge project:

- Policy OS-A.25: The County shall minimize sedimentation and erosion through control of grading, cutting of trees, removal of vegetation, placement of roads and bridges, and use of off-road vehicles. The County shall discourage grading activities during the rainy season unless adequately mitigated to avoid sedimentation of creeks and damage to riparian habitat.

- Policy OS-A.26: The County shall continue to require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff.

The project will be consistent with these policies with adherence to the proposed design, which requires that the applicant adopt BMPs as part of their federal permitting. The Draft Wetlands Report prepared for submission to the Army Corps of Engineers as part of the permitting process identifies that the existing bridge covers 832.64 square feet of Sand Creek and the new bridge will be built largely in the same location but will cover 916.62 square feet, which will result in a permanent increase of affected riparian habitat of 84 square feet. It is anticipated that approximately 15 trees will be removed as part of this project.

***** ***Mitigation Measures***

1. *The disturbance or removal of riparian and other vegetation shall not exceed the minimum necessary to complete operations (with the exception of non-native, invasive plant species) and shall only occur within the defined work area. Precautions shall be taken to avoid other damage to vegetation by people or equipment. The disturbed portions of the streambed, banks or channel shall be restored to as near their original condition as possible (see Restoration below).*

2. *Native riparian shrubs and trees, and oak trees with trunks greater than or equal to four (4) inches diameter measured at breast height (DBH), if removed during Project activities shall be mitigated for by implementation of a Revegetation Plan described in Restoration below.*

3. ***Restoration** shall include the revegetation of all disturbed soils and new fill, including recontoured slopes and all other cleared areas, with riparian vegetation or other plants as appropriate. The Applicant shall have a qualified biologist prepare and implement a Revegetation Plan and submit it to the California Department of Fish and Wildlife for approval prior to commencement of the proposed work. The Revegetation Plan shall address the following:*

   A. Compensation for removed trees by:

      * *Identifying species damaged or removed during Project activities.*

* *Describing how, where and when replacement shrubs and trees will be planted:*

    - *Riparian trees (i.e. willow, cottonwood, poplar, alder, ash, etc.) and shrubs shall be replaced in-kind, at a minimum replacement ratio of 4:1, and planted in the nearest suitable location to the area where they were removed.*

    - *Oaks having a DBH of greater than four (4) inches shall be replaced in-kind, at a minimum ratio of 4:1, and planted during the winter dormancy period in the nearest suitable location to the area where they were removed. Heritage trees greater than 24 inches DBH shall be replaced at a minimum 10:1 ratio.*

    - *Non-native, invasive plant species (i.e., arundo and tree-of-heaven) may be removed and replaced with native riparian species.*

* *Proposing measures to be taken (i.e. irrigation methods if necessary and maintenance) to ensure a performance criteria of 75 percent survival of planted trees for a period of three (3) consecutive years and an additional two (2) years without assistance.*

B. *Seeding and mulching exposed slopes, or stream banks not revegetated with riparian shrubs or trees, with a blend of a minimum of three (3) locally native grass species:*

    * *One (1) or two (2) sterile non-native perennial grass species may be added to the seed mix provided that the amount does not exceed 25 percent of the total seed mix by count.*

    * *Locally native wildflower and/or shrub seeds may also be included in the seed mix.*

    * *Seeding shall be completed as soon as possible, but no later than November 15 of the year construction ends.*

    * *A seed mixture shall be submitted to the Department for approval prior to application. At the discretion of the California Department of Fish and Wildlife, all exposed areas where seeding is considered unsuccessful after 90 days shall receive appropriate soil preparation and a second application of seeding, straw, or mulch as soon as is practical on a date mutually agreed upon.*

4. *Where suitable vegetation cannot be reasonably expected to become established, non-erodible materials shall be used for such stabilization. Any installation of non-erodible materials not described in the original Project description shall be coordinated with the*

Department. Coordination may include the negotiation of additional Agreement Provisions for this activity.

5. *Operator shall submit annually a Restoration Monitoring Report. The Restoration Monitoring Report shall be submitted to the Department in December of each year until the performance criteria described in the Revegetation Plan is met. The report shall assess the revegetation status, effectiveness of maintenance methods, whether or not revegetation is expected to achieve the performance criteria, and shall propose additional measures that will be taken to achieve the performance criteria during the next year. Photo documentation of monitoring and maintenance for each year shall be part of the annual reports.*

C. Will the project conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?

FINDING: NO IMPACT:

The project is not in conflict with any such plans. There are no Habitat Conservation Plans or Natural Community Conservation Plans applicable to this project.

XI. MINERAL RESOURCES

A. Would the project result in the loss of availability of a known mineral resource; or

B. Would the project result in the loss of availability of a locally important mineral resource recovery site designated on a General Plan?

FINDING: NO IMPACT:

The scope of this project is limited to the replacement of an old bridge. No known mineral resources will be removed and the location is not a recovery site designated by Figure 7-7(FCGPBR).

XII. NOISE

A. Would the project result in exposure of people to severe noise levels; or

B. Would the project result in exposure of people to or generate excessive ground-borne vibration or ground-borne noise levels; or

C. Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity; or

D. Would the project result in a substantial temporary or periodic increase in ambient noise levels?

FINDING: LESS THAN SIGNIFICANT IMPACT:

Following the construction activity, the operational aspect of the bridge will not generate severe noise levels or ground-borne vibration. No increase to the ambient noise is anticipated.

Demolition and construction of the bridge has the potential to affect adversely several nearby residences; however, construction will be performed during times when construction noise is exempted from the noise ordinance (Monday to Friday between 6 AM and 9 PM and Saturday/Sunday between 7 AM and 5 PM). Therefore, due to the temporary nature of construction and demolition and the existing exemptions to the noise ordinance, impacts to the increase in noise levels will be less than significant.

E. Would the project expose people to excessive noise levels associated with a location near an airport or a private airstrip; or

F. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

FINDING: NO IMPACT:

The project site is not located near a public or private airstrip.

XIII. POPULATION AND HOUSING

A. Would the project induce substantial population growth either directly or indirectly; or

B. Would the project displace substantial numbers of existing housing; or

C. Would the project displace substantial numbers of people, necessitating the construction of housing elsewhere?

FINDING: NO IMPACT:

The replacement of Sand Creek Bridge at Ennis road will not induce population growth. No increase to the use of the bridge is expected. The project will not displace substantial numbers of housing or people.

XIV. PUBLIC SERVICES

A. Would the project result in substantial adverse physical impacts associated with the provision of new or physically-altered public facilities in the following areas:

1. Fire protection;

2. Police protection;

3. Schools;

4. Parks; or

5. Other public facilities?

FINDING: NO IMPACT:

The replacement of the bridge will not require any changes or expansions to existing fire and police protection, schools, parks, or other public facilities.

XV. RECREATION

A. Would the project increase the use of existing neighborhood and regional parks; or

B. Would the project require the construction of or expansion of recreational facilities?

FINDING: NO IMPACT:

The project will not increase the use of existing neighborhood and regional parks or require the construction or expansion of facilities.

XVI. TRANSPORTATION/TRAFFIC

A. Would the project conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation; or

B. Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demands measures?

FINDING: LESS THAN SIGNIFICANT IMPACT:

It is possible that the bridge will be closed during construction. This temporary closure does not create a significant impact on the circulation system because area roads can accommodate a temporary increase in traffic. Drivers may detour through Mistletoe Road to cross Sand Creek. The additional time that results from this detour is not considered a significant impact on the circulation system.

C. Would the project result in a change in air traffic patterns?

FINDING: NO IMPACT:

The replacement of the bridge will not cause a change in air traffic patterns. The proposed increase in the bridge's height will not conflict with any passing air traffic.

D. Would the project substantially increase traffic hazards due to design features; or

E. Would the project result in inadequate emergency access; or

F. Would the project conflict with adopted plans, policies, or programs regarding public transit, bicycle or pedestrian facilities or otherwise decrease the performance or safety of such facilities?

FINDING: LESS THAN SIGNIFICANT IMPACT:

After construction activities, when the bridge is operational, it will serve the same function as the bridge it replaced. There will be no changes to the existing traffic on the road or impacts to the performance of the circulation system. No roads will be removed and no traffic hazards will be created.

XVII. UTILITIES AND SERVICE SYSTEMS

A. Would the project exceed wastewater treatment requirements; or

B. Would the project require construction of or the expansion of new water or wastewater treatment facilities?

FINDING: NO IMPACT:

No wastewater will be generated as part of this proposal.

C. Would the project require or result in the construction or expansion of new storm water drainage facilities?

FINDING: NO IMPACT:

The expansion of the bridge is predominately along its length, which is currently paved. The increase the impervious surfaces is not large enough to require the construction or expansion of new storm water drainage facilities.

D. Would the project have sufficient water supplies available from existing entitlements and resources, or are new or expanded entitlements needed; or

E. Would the project result in a determination of inadequate wastewater treatment capacity to serve project demand; or

F. Would the project be served by a landfill with sufficient permitted capacity; or

G. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

FINDING: NO IMPACT:

The project will not produce any wastewater or solid waste in the course of normal operation.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

A. Does the project have the potential to 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, 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 prehistory or history?

   FINDING: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED:

   The replacement of the existing bridge will require the disturbance of natural landscape, which may cause adverse impacts to local endangered plant and animal communities. No impacts to fish were identified. With adherence to the mitigation measures listed under "Biological Resources," the impacts will be less than significant. Construction activities may cause adverse impacts on important examples of the major periods of California prehistory or history. This impact is less than significant with the inclusion of the Mitigation Measure detailed under "Cultural Resources."

   * ***Mitigation Measures***

      1. See Sections IV and V.

B. Does the project have impacts that are individually limited, but cumulatively considerable; or

C. Does the project have environmental impacts which will cause substantial adverse effects on human beings, either directly or indirectly?

   FINDING: NO IMPACT:

   Following construction activities, which generate less than significant impacts, the project will not contribute to any cumulatively considerable impact or cause substantial adverse effects on human beings.

CONCLUSION/SUMMARY

Based upon this Initial Study, staff has concluded that the project will not have a significant effect on the environment. It has been determined that there would be no impacts to Agricultural and Forestry Resources, Mineral Resources, Recreation, Public Services, Population and Housing, and Utilities and Service Systems. Potential impacts related to Aesthetics, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Noise, Hydrology and Water Quality, and Transportation/Traffic have been determined to be less than significant. Potential impacts relating to Biological Resources, Cultural Resources, Land Use and Planning, and Hazards and Hazardous Waste have determined to be less than significant with compliance with the Mitigation Measures identified above.

A Mitigated Negative Declaration is recommended and is subject to approval by the decision-making body. The Initial Study is available for review at 2220 Tulare Street, Suite A, Street Level, located on the southeast corner of Tulare and “M” Street, Fresno, California.

CMM
Y:\Projects - Road & Bridge Folders\HBP - Sand Creek on Ennis (I11112)\CEQA, NEPA\CEQA IS-MND-MMRP-NOI-NOD\Board January 2019\IS 7217 Writeup.docx

E201910000008

FILED

JAN 10 2019 TIME 2:15pm

FRESNO COUNTY CLERK

By [signature] DEPUTY

File original and one copy with:	Space Below For County Clerk Only.
Fresno County Clerk **2221 Kern Street** **Fresno, California 93721**	

CLK-2046.00 E04-73 R00-00

Agency File No:		County Clerk File No:
IS 7217	**LOCAL AGENCY PROPOSED MITIGATED NEGATIVE DECLARATION**	E-

Responsible Agency (Name):	Address (Street and P.O. Box):	City:	Zip Code:
Fresno County	2220 Tulare St. Sixth Floor	Fresno	93721

Agency Contact Person (Name and Title):	Area Code:	Telephone Number:	Extension:
Christina Monfette, Planner	559	600-4245	N/A

Applicant (Name):	Project Title:
Fresno County Design Division	IS 7217: Sand Creek Bridge Replacement

Project Description:

The County of Fresno (County), with funding from the Federal State Transportation Improvement Program (FSTIP), proposes to replace Bridge 42C0099 over Sand Creek on Ennis Road in Fresno. The project is 0.3 miles south of George Smith Road near the community of Squaw Valley. The County proposes to replace and realign the functionally obsolete, single-span structure with a bridge that meets current safety standards. Plans for the replacement bridge have not been finalized. The project will involve pole driving, structure demolition, and excavation and stream channel work. In addition, Hummingbird Lane will be realigned near its intersection with Ennis Road to meet current standards. Staging is expected to occur on the existing roadway and Ennis Road will be closed during construction. The existing Sand Creek Bridge on Ennis Road is a two-lane single-span wooden structure. The proposed bridge will be a single-span, cast in place concrete box girder approximately 100 feet in length and 24 feet in width with 24-foot wide approaches. The curves at the approaches will be softened and bridge alignment will be raised approximately 10 feet. Four PG&E power poles will be relocated as a result of this project. The existing storm drainpipe and other utilities may be relocated.

Justification for Negative Declaration:

Based upon this Initial Study, staff has concluded that the project will not have a significant effect on the environment. It has been determined that there would be no impacts to Agricultural and Forestry Resources, Land Use and Planning, Mineral Resources, Recreation, Public Services, Population and Housing, and Utilities and Service Systems. Potential impacts related to Aesthetics, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Noise, Hydrology and Water Quality, and Transportation/Traffic have been determined to be less than significant. Potential impacts relating to Biological Resources, Cultural Resources, and Hazards and Hazardous Waste have determined to be less than significant with compliance with the Mitigation Measures identified above.

FINDING:

The proposed project will not have a significant impact on the environment.

Newspaper and Date of Publication:	Review Date Deadline:
Fresno Business Journal – November 14, 2018	Board of Supervisors – January 8, 2019

Date:	Type or Print Signature:	Submitted by (Signature):
1/10/19	Christina Monfette Planner	[signature]

State 15083, 15085

County Clerk File No.: _____

LOCAL AGENCY
MITIGATED NEGATIVE DECLARATION

E201910000008

County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

NOTICE OF DETERMINATION

To: ☐ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

☒ County Clerk, County of Fresno
2221 Kern Street
Fresno, CA 93721

From: Fresno County Department of Public Works and Planning, Development Services
2220 Tulare Street (corner of Tulare and "M") Suite "A", Fresno, CA 93721

Subject: Filing of Notice of Determination in compliance with Section 21152 of the Public Resource Code

Project: Initial Study Application No. 7217

Location: The subject parcel is located Ennis Road, 0.3 miles south of George Smith Road

Description: The County proposes to replace and realign the functionally obsolete, single-span bridge (Bridge 42C0099) with nonstandard guardrail with a bridge that meets current standards. The project will involve pole driving, structure demolition, and excavation and stream channel work. In addition, Hummingbird Lane will be realigned near its intersection with Ennis Road to meet current standards. Closing Ennis Road during construction is anticipated.

This is to advise that the County of Fresno (☒ Lead Agency ☐ Responsible Agency) has approved the above described project on January 8, 2019, and has made the following determination:

1. The project ☐ **will** ☒ **will not** have a significant effect on the environment.
2. ☒ An Environmental Impact Report (EIR) **was not** prepared for this project pursuant to the provisions of CEQA. / ☒ A Mitigated Negative Declaration **was** prepared for this project pursuant to the provisions of CEQA.
3. Mitigation Measures ☒ **were** ☐ **were not** made a condition of approval for the project.
4. A statement of Overriding Consideration ☐ **was** ☒ **was not** adopted for this project.

This is to certify that the Initial Study with comments and responses and record of project approval is available to the General Public at Fresno County Department of Public Works and Planning, 2220 Tulare Street, Suite A, Corner of Tulare and "M" Streets, Fresno, California.

1/10/19
Date

Christina Monfette, Planner
(559) 600-4245/cmonfette@co.fresno.ca.us

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Incomplete Letter and Responses

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4593
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 22, 2020

Alexis Rutherford
County of Fresno
2220 Tulare Street, 6th Floor
Fresno, California 93721
ARutherford@fresnocountyca.gov

Subject: Incomplete Notification of Lake or Streambed Alteration
Notification No. 1600-2020-0116-R4
Bridge No. 42C0099 Ennis Road over Sand Creek
Sand Creek – Fresno County

Dear Ms. Rutherford:

On May 21, 2020, the California Department of Fish and Wildlife (Department) received your Notification of Lake or Streambed Alteration (Notification). On June 22, 2020, the Department determined that your Notification is incomplete because the information checked below is either missing or insufficient. To complete your Notification, please review the Notification instructions and provide the following Notification sections, along with a copy of this letter, to the Department at the above address.

- ☒ *Section 4:* Agreement term requested
- ☐ *Section 5:* Agreement type
- ☒ *Section 6:* Notification fee
- ☐ *Section 7:* Prior notification order
- ☐ *Section 8:* Project location, map, and directions from nearest highway
- ☐ *Section 8:* USGS quad map name, township/range, section, and ¼ section
- ☒ *Section 10:* Complete project description
- ☒ *Section 10:* Project diagrams, plans, maps
- ☒ *Section 11A-D:* Project impacts
- ☐ *Sections 11E-G:* Biological or hydrologic studies; resource mapping
- ☒ *Section 12:* Measures to protect fish, wildlife, and plants
- ☐ *Section 13:* Permits required
- ☐ *Section 14:* Environmental review documents
- ☐ *Section 17*: Signature and date

☐ Notification Attachment: A ☐ B ☐ C ☐ D ☐ E ☐

Section 4: Please provide clarification regarding the proposed project term and seasonal work period. In the signed paper notification the work period is June 1 to April 1, during the term of 2021 to 2026, for 200 work days. In the electronic copy the work period is June 1 to June 1, during the work term of 2020 to 2024, for 100 work days. Please clarify this inconsistency.

Section 6: A notification fee is required for each individual project, i.e., replacement of the bridge on the stream, installation of the 24 inch storm drain pipe, and relocation of the Pacific Gas and Electric Company (PG&E) electrical poles. The fee appears to be based on one project that includes the bridge, the storm drain, and the electrical pole relocation together. Please itemize the cost for each project and the corresponding fee. The total notification fee that is required is the sum of each of the project fees. The signed paper notification indicates that the project cost is $2,000,000 and the electronic notification indicates the cost is $1,393,00. Please provide the correct project cost. If a balance is due, please provide it with the additional information requested below. If fees have been overpaid, a refund will be issued.

The Notification indicates that Fresno County will perform the electrical pole work. Please note that project authorization as notified would not provide third-party authorization; therefore, any activity not conducted by County of Fresno directly would be considered to be done by the County's agent, and the County would hold full liability for all related activities, with regard to monitoring and ensuring compliance before, during, and after the electrical pole work is completed. Alternately, the County and PG&E could notify as co-applicants with shared liability of all project activities, or PG&E could notify separately for its project. If you have questions regarding this item please contact the staff person listed below.

Section 10: As required in the instructions, please provide a detailed written step-by-step description of all activities. This includes demolition and removal of the old bridge, vegetation removal, construction of the new bridge, construction of the storm drain, and relocation of the electrical poles. The notification indicates that work will be completed in two stages; please describe what will be done during each stage. Please provide dimensions and volumes of all materials to be installed, i.e., the bridge and storm drain. Please provide construction plans and diagrams that provide dimensions and extent of activity in the bed, channel, bank, and floodplain.

Please provide a map (i.e., over an aerial photo) of the project site that depicts the extent of each project activity, including but not limited to bridge demolition, excavation, grading, new bridge construction, vegetation impacts, storm drain construction, and electrical pole relocation; and related activity areas such as staging, stockpiling, parking, and access areas. Please provide photos of the project area and surrounding area.

Please provide a comprehensive list of the equipment and machinery required to complete the project.

Section 11: There is some discrepancy between the impact quantities listed in this section and in Table 4 of the first supplemental attachment in the supporting Notification materials. The supplemental attachment lists 0.01 acres of riverine impacts for bridge removal and 0.02 acres for new bridge construction and the notification lists only 0.01 acres and 30 linear feet of vegetation impacts. Please provide clarification. Please also provide all impacts for each project separately, such as area of any permanent and temporary disturbance, volume of soil displaced, vegetation impacts, and fill quantities associated with the bridge demolition and replacement, storm drain construction, and electrical pole relocation.

Section 12: Section 12.C describes riparian restoration. Within Section 10, the project description states, “Any additional revegetating required by CADFW would be administered under a separate construction contract.” Please note that for any replanting that is proposed for the project, to return sites that are temporarily impacted to re-project condition, details are needed to describe that aspect of the project, and costs must be included in the notification fee calculations. Proposed planting plans may include species and approximate number of each, methods of site preparation and planting, and any management or maintenance necessary for establishment of plantings.

Please note that you may not proceed with your project until your Notification is deemed complete, and you have obtained a Lake or Streambed Alteration Agreement, if required. If you have any questions regarding this matter or need additional information, please consult the “Notification Instructions” and/or “Questions and Answers” that were included in the notification materials and are available online at https://www.wildlife.ca.gov/Conservation/LSA. If you have questions, please contact Jim Kitch, Environmental Scientist, at (559) 243-4014 extension 233 or by email at James.Kitch@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Linda Connolly
BDDB84BB1205430...

Linda Connolly
Senior Environmental Scientist Supervisor

Response to Incomplete Notification No. 1600-2020-0116-R4
Bridge No. 42C0099 Ennis Road over Sand Creek
Sand Creek – Fresno County

Incomplete Notification Responses

Section 4:

The work period is June 1 to April 1, during the term of 2021 to 2026 for 200 workdays.

Section 6:

Fresno County will not be installing a new storm drainpipe; the existing pipe will be relocated to match the new Hummingbird Lane and Ennis Road intersection. The relocation is required in order to accommodate the proposed road alignment and remains part of the Project's overall scope of work.

The relocation of the Pacific Gas and Electric Company electrical poles will not be part of the County's project. PG&E will be responsible to notify for its project separately and pay the corresponding fee directly to CDFW Central Region.

The total cost of the County's project is approximately $2,000,000.

Section 10:

CLEARING AND GRUBBING

Clearing and grubbing will occur before performing earthwork in the area. Earthwork activities include, but are not limited to, grading, excavation, slope stabilization, backfill and compaction, etc. Only areas within the excavation and embankment slope lines will be cleared and grubbed. Please see Attachment B – Project Activity Map for grading limits where clearing and grubbing will be performed. The Contractor will clear the creek of vegetation by removing shrubs, dead vines, bushes, and approximately 15 trees (see Tree Removal exhibit). The Contractor will grub the area to remove all existing low-lying vegetation. Typical excavator, chainsaw, and other suitable machinery may be used to complete clearing and grubbing. All excavated materials will be hauled off-site.

Clearing and grubbing is in compliance with section 17-2.03 Caltrans Standard Specifications, 2015 edition as follows:

- Clear all construction areas above the original ground of all vegetation, organic materials, concrete, masonry, and debris.
- Grub all construction areas to the necessary depth, typically 3 to 6 inches below existing ground, to remove all existing stumps, roots, and other objectionable material.

BRIDGE REMOVAL

The existing bridge will be removed in its entirety. Bridge removal activities will be implemented in compliance with Caltrans Standard Specifications, 2015 edition. A demolition plan depicting the proposed methods of bridge removal accompanied by substantiating calculations signed by an engineer will be approved before starting the demolition process.

Existing bridge demolition and removal work sequence will be as follows:

1. Remove existing metal bridge railing.
2. Cut existing reinforced concrete deck and plywood subfloor through its full thickness and dispose using pavement removal buckets mounted on hydraulic excavators.
3. Each member of the existing superstructure will be removed individually using small cranes.
4. Existing abutments, wing walls, and foundations will be demolished and removed by breaking up the concrete into pieces using a backhoe or possibly using an excavator mounted with breakers.

5. Backfill voids and grade to existing topography in areas where bridge structure was removed. Light compaction equipment will be used for the backfill compaction.
6. Thorough sweeping and hauling out of demolished material or debris in areas upstream and downstream of the bridge.
7. Haul out demolished materials to an approved disposal site.

RELOCATE STORM DRAINPIPE

The existing storm drain located underneath Hummingbird Lane and intersects Ennis Road shown in Attachment F will need to be relocated to match the new alignment and drainage of Ennis Road. The storm drainpipe will be installed with the new roadway fill at the time of the grading and will not require separate work. During Stage 1 of construction, a 24"x24" catch basin will be constructed and connected to the existing storm drainpipe to act as temporary drainage. During Stage 2 of construction, the temporary drainage system will be removed and the pipe will be relocated to match the new road alignment.

FALSEWORK

Falsework will be constructed in accordance to Section 48-2 of Caltrans Standard Specifications, 2015 edition. The contractor is responsible for designing and constructing safe and adequate falsework. The contractor will also be required to submit falsework shop drawings and calculations for approval of the engineer before proceeding. The contractor typically utilizes conventional joist and plywood construction.

- Plywood sheathing sits atop the joists, which are generally 2x4 or 4x4 material.
- Ledgers support the joists and are typically supported by deck support brackets or hangers.
- The contractor may stage small equipment underneath the bridge deck to install falsework. This will likely take place the during dry season when water is not present.
- After concrete is placed and cured, the contractor will remove the falsework, clean up the area of debris and haul off site using dump trucks.

SUBSTRUCTURE CONSTRUCTION

Substructure construction consists of wingwall, abutment, and bridge footing construction. Concrete wingwalls are attached to each side of each abutment. Each footing sits at the bottom of each abutment, with a total volume of approximately 70 cy of concrete. The total volume of concrete for the abutments and wingwalls is approximately 236 cy (see Attachment A – Volume Quantity. Map). The total cut for substructure construction is 514 cy. Please see page 19-22 of Attachment C – Construction Plans for further details on the wingwall, abutment, and bridge footing construction.

The Contractor will perform substructure construction as follows:

1. Excavate existing ground to the bottom of the bridge footing and abutment to the depth specified in the plans.
2. Contractor will form and install rebar, vertical dowels, or anchors and pour the bridge footings.
3. Contractor will then form and pour the associated abutment and wingwall. Contractor would use a concrete pump truck, crane, and forklift.
4. Once the bridge footings are constructed and cured, the area will be backfilled with approximately 81 cy of lean concrete.
5. After the abutments and wingwalls are constructed and cured, the area surrounding the wingwalls and abutments will be backfilled with soil. The area will then be compacted in

preparation for approach slab construction and graded to a natural slope consistent with the adjacent undisturbed slopes.

6. Approach concrete slabs will then be constructed and cured.

	Length	Height	Thickness
Abutment 1	**40'**	**12'**	**4' 4"**
Abutment 2	**44'**	**12'**	**4'4"**
Wingwall	**20'**	**12'**	**1'**

	Length	Width	Height
Bridge Footing	**40'**	**11'**	**2'**

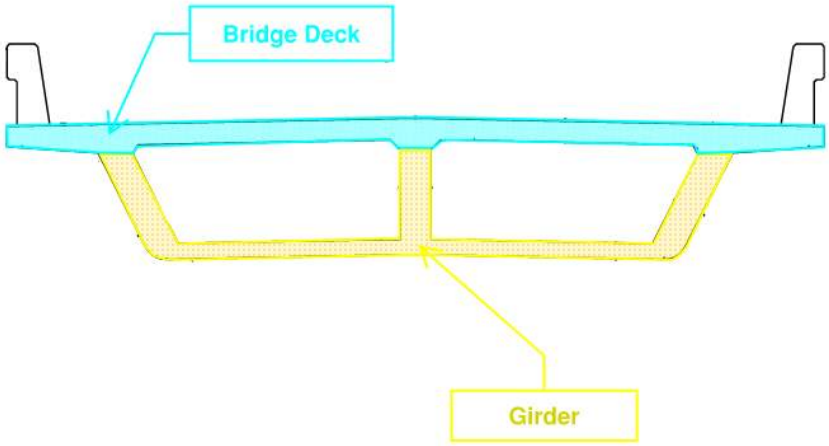
SUPERSTRUCTURE/NEW BRIDGE CONSTRUCTION

The bridge superstructure will be a Cast-in-place Prestressed Concrete Box Girder Bridge with a seat type abutment on spread footing. The proposed bridge will span the creek. It is approximately 100 ft in length, 24 ft in width, with 24 ft wide approaches. The curves at the approaches will be softened and the bridge will be raised approximately 10 ft to increase site distance at the bridge. The box girder is approximately 90 ft in length and 20 ft wide, with a total volume of approximately 66 cy of concrete. Please see Attachment A – Volume Quantities Map and Attachment C – Construction Plans Sand Creek for further details.

The Contractor will perform superstructure construction as follows:

1. For the cast-in-place prestressed concrete box girder, the contractor will utilize conventional wood framing and plywood construction to form the girder and deck structures.
2. Rebar will be installed, and concrete will be poured. The concrete will be placed using a concrete pump and concrete paving machine.
3. After concrete is placed and cured, the contractor will remove the falsework, clean up the area of debris, and haul off site using dump trucks.

	Length	Width
Proposed Bridge	**100'**	**24'**
Bridge Deck	**100'**	**24'**
Box Girder	**90'**	**20'**
Approach Slab	**20'**	**24'**



SLOPE PROTECTION

Approximately 9,500 sqft of slope protection will be installed along the slopes of the channel, upstream and downstream of the bridge. The slope protection consists of articulated concrete blocks that are 8 ½ inches thick. No excavation is necessary to install the slope protection. Instead, the grade will be raised at a 2:1 ratio to accommodate the vertical profile of the road.

The Contractor will install slope protection as follows:

1. Any earthwork must comply with Caltrans Standard Specifications, Section 19.
2. The area must be free of loose or extraneous material and sharp objects that may damage the geotextile (filter fabric).
3. Subgrade Preparation
    - All subgrade preparation shall be performed in accordance with the current version of ASTM D 6884, *Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems*.
    - The slope shall be graded to a smooth plane surface to ensure that intimate contact is achieved between the slope face and the filter fabric, and between the filter fabric and the entire bottom surface of the individual ACBs.
    - Termination trenches or aprons shall be done in accordance to the lines, grades and dimensions shown in the Contract Drawings. The termination trench hinge-point at the top of the slope shall be uniformly graded so that no dips or bumps greater than 0.5 inches over or under the local grade occur. The width of the termination trench hinge-point shall also be graded uniformly to assure intimate contact between all ACBs and the underlying grade at the hinge-point.
    - Immediately prior to placing the filter fabric and ACB mats, the prepared subgrade shall be inspected by the contractor as well as the County's Resident Engineer. No fabric or blocks shall be placed thereon until that area has been approved by each of these parties.
4. Placement of Filter Fabric
    - All placement and preparation should be performed in accordance with the current version of ASTM D 6884, *Standard Practice for Installation of Articulating Concrete Block*

(ACB) Revetment Systems. Filter Fabric, or filtration geotextile, as specified elsewhere, will be placed within the limits of ACBs shown on the Contract Drawings.

- The filter fabric will be placed directly on the prepared area, in intimate contact with the subgrade, and free of folds or wrinkles. The filter fabric will be placed so that the upstream strip of fabric overlaps the downstream strip.
- The longitudinal and transverse joints will be overlapped at least one and a half (1.5) feet for dry installations and at least three (3) feet for below-water installations. The filter fabric will extend at least one (1) foot beyond the top and bottom revetment termination points, or as required by the Contractor and the County's Resident Engineer.

5. Placement of Articulating Concrete Blocks/MATS
    - ACB placement and preparation should be performed in accordance with the current version of ASTM D 6884, *Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems*. ACB block/mats will be constructed within the specified lines and grades shown on the Contract Drawings.
    - The subgrade shall be prepared in such a manner as to produce a smooth plane surface prior to placement of the ACBs or mats. No individual block within the plane of placed ACBs will protrude more than 0.5 inches. ACBs should be flush and develop intimate contact with the subgrade section, as approved by the County's Resident Engineer.
    - If assembled and placed as large mattresses, the ACB mats will be attached to a spreader bar or other approved device to aid in the lifting and placing of the mats in their proper position by the use of a crane or other approved equipment. The mats will be placed side-by-side, so that the mats abut each other, and/or end-to-end.
    - Mat seams or openings between mats greater than two (2) inches will be backfilled with approximately 96 cy of non-shrink grout, concrete (4000 PSI). Whether placed by hand or in large mattresses, distinct changes in grade that results in a discontinuous revetment surface in the direction of flow will require backfill at the grade change location so as to produce a continuous surface.
    - The cells or openings in the ACBs will be backfilled and compacted with suitable material, as specified by the Contractor. Backfilling and compaction will be completed in a timely manner so that no more than 500 feet of exposed mats exist at any time.
    - Finishing requirements will be specified by the Contractor.

CONSTRUCTION

Construction is anticipated to be completed in two stages, with a full bridge closure while maintaining access to Hummingbird Lane from the north segment of Ennis Road and driveways for local residents at all times. See pages 13 and 14 of attached construction plans for additional details.

Stage 1 Activities

- Clearing and grubbing.
- Demolish existing bridge.
- Install temporary k-rail, barricades, surface mounted channelizers, and temporary signs.
- Construct pipe culvert warped wingwall and storm drain. Construct 24" x 24" catch basin and connect to existing 24" storm drain for temporary drainage.

- Construct new roadway section and new bridge along Ennis Road. Grade slope embankments along Ennis Road east of Hummingbird Lane
- Install fabric filter or use other means and methods to retain exposed soil. Install Midwest guardrail system along Ennis Road.
- Regrade existing driveways to meet new finished grade or surface per plan. Driveway shall remain accessible during construction.
- Construct temporary AC pavement where needed to meet a 16 ft wide roadbed along Ennis Road and Hummingbird Lane.
- Construct south bound side of roadway section of Ennis Road. Construct west bound side of roadway section of Hummingbird Lane. Construct access road, then grade slope embankments. Install the crash cushion and Midwest guardrail system.

Stage 2 Activities

- Switch existing traffic to the west side of Ennis Road; permanent asphalt concrete constructed during Stage 1.
- Demolish temporary catch basin connection constructed in Stage 1. Demolish existing storm drain system, then construct storm drain and outlet protection.
- Demolish temporary asphalt concrete pavement. Construct north bound side of Ennis Road. Construct east bound side of Hummingbird Lane, then grade slope embankments along Ennis Road.
- Install Midwest guardrail system along Ennis Road and Hummingbird Lane.

CONSTRUCTION STAGING

The staging area shown in Attachment B will be used to store equipment and materials and to provide parking areas for construction workers and equipment for the duration of construction. This temporary staging area will be restored to conditions equivalent to existing conditions after project construction has been completed.

EQUIPMENT

Equipment	Purpose
Backhoes	Excavation; bridge demolition
Dump Trucks	Excavation
Water Truck	Earthwork construction/clearing and grubbing
Excavator	Excavation; bridge demolition
Front-end Loader	Bridge demolition
Forklift	Construction of abutments and wing walls
Roller/Compactor	Backfill compaction
Grader	Construction of abutments and wing walls; RSP
Haul Truck	Earthwork construction/clearing and grubbing
Concrete Truck/Pump	Concrete placement
Small Crane	Construction of abutments and wing walls

Response to Incomplete Notification No. 1600-2020-0116-R4
Bridge No. 42C0099 Ennis Road over Sand Creek
Sand Creek – Fresno County

Section 11: Impacts

Vegetation Type	Temporary Impacts		Permanent Impacts	
	Acres	Linear Feet	Acres	Linear Feet
Riparian	0.01	30	0	0

It is clarified that construction of the new bridge will result in 0.01 ac of temporary impacts with no permanent impacts. The temporary impact is associated with the removal of the existing bridge pier. The project will affect riparian vegetation with the removal of 15 trees and low-lying vegetation. The table below is a breakdown of each tree anticipated to be removed. Please see Attachment D – Tree Removal Exhibit for further details.

Trees to be Removed	DBH (in)	Species
Tree 1	24	Interior live oak (*Quercus wislizeni*)
Tree 2	30	Interior live oak (*Quercus wislizeni*)
Tree 3	24	Interior live oak (*Quercus wislizeni*)
Tree 4	10	Blue oak (*Quercus douglasii*)
Tree 5	18	Interior live oak (*Quercus wislizeni*)
Tree 6	24	Interior live oak (*Quercus wislizeni*)
Tree 7	3 stems: 13', 8', 8'	Willow (*Salix* spp)
Tree 8	3 stems: 13", 8", 8"	Fremont's cottonwood (*Populus fremontii*)
Tree 9 & Tree 10 (tree 9 and 10 are one tree with multiple stems)	3 stems: 14", 14", 5"	Western Sycamore (*Platanus racemosa*)
Tree 11	4"	Blue oak (*Quercus douglasii*).
Tree 12	14"	Blue oak (*Quercus douglasii*)
Tree 13	4"	Blue oak (*Quercus douglasii*).
Tree 14 (Note there is a 6" Interior live oak (*Quercus wislizeni*) located between tree 14 and 15.)	10"	Interior live oak (*Quercus wislizeni*)
Tree 15	8"	Blue oak (*Quercus douglasii*)

Section 12:

Fresno County plans to submit a final revegetation plan for approval prior to commencement of the proposed work. Additionally, there is a mitigation measure to address restoration of the project area. Please see Attachment E – Mitigation Monitoring and Reporting Program (MMRP).

As stated in the MMRP under Land Use and Planning No. 10:

Restoration shall include the revegetation of all disturbed soils and new fill, including recontoured slopes and all other cleared areas, with riparian vegetation or other plants as appropriate. A qualified biologist shall prepare and implement a Revegetation Plan and submit it to the California Department of Fish and Wildlife for approval prior to commencement of the proposed work. The Revegetation Plan shall address the following:

A. Compensation for removed trees by:
   - Identifying species damaged or removed during Project activities.
   - Describing how, where and when replacement shrubs and trees will be planted:
     - Riparian trees (i.e. willow, cottonwood, poplar, alder, ash, etc.) and shrubs shall be replaced in-kind, at a minimum replacement ratio of 4:1, and planted in the nearest suitable location to the area where they were removed.
     - Oaks having a DBH of greater than four (4) inches shall be replaced in-kind, at a minimum ratio of 4:1, and planted during the winter dormancy period in the nearest suitable location to the area where they were removed. Heritage trees greater than 24 inches DBH shall be replaced at a minimum 10:1 ratio.
     - Non-native, invasive plant species (i.e., arundo and tree-of-heaven) may be removed and replaced with native riparian species.
   - Proposing measures to be taken (i.e. irrigation methods if necessary and maintenance) to ensure a performance criteria of 75 percent survival of planted trees for a period of three (3) consecutive years and an additional two (2) years without assistance.

B. Seeding and mulching exposed slopes, or stream banks not revegetated with riparian shrubs or trees, with a blend of a minimum of three (3) locally native grass species:
   - One (1) or two (2) sterile non-native perennial grass species may be added to the seed mix provided that the amount does not exceed 25 percent of the total seed mix by count.
   - Locally native wildflower and/or shrub seeds may also be included in the seed mix.
   - Seeding shall be completed as soon as possible, but no later than November 15 of the year construction ends.
   - A seed mixture shall be submitted to the Department for approval prior to application. At the discretion of the California Department of Fish and Wildlife, all exposed areas where seeding is considered unsuccessful after 90 days shall receive appropriate soil preparation and a second application of seeding, straw, or mulch as soon as is practical on a date mutually agreed upon.

Section 12:

Fresno County plans to submit a final revegetation plan for approval prior to commencement of the proposed work. Additionally, there is a mitigation measure to address restoration of the project area. Please see Attachment E – Mitigation Monitoring and Reporting Program (MMRP).

As stated in the MMRP under Land Use and Planning No. 10:

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    - Proposing measures to be taken (i.e. irrigation methods if necessary and maintenance) to ensure a performance criteria of 75 percent survival of planted trees for a period of three (3) consecutive years and an additional two (2) years without assistance.
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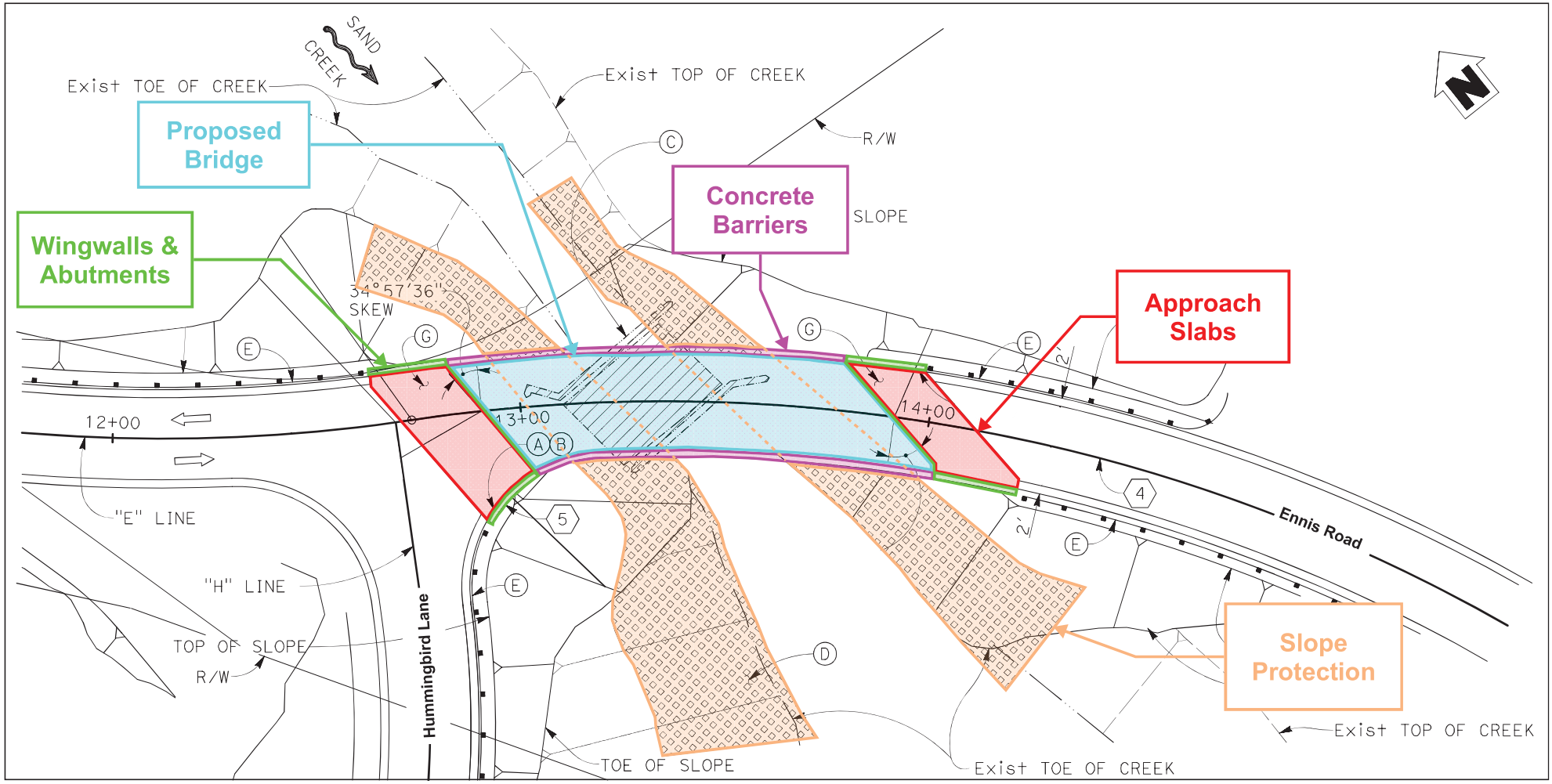
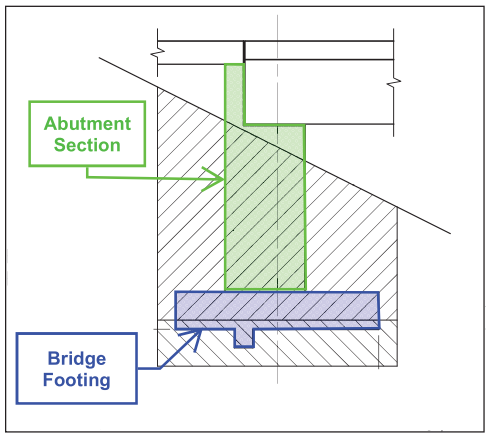


Bridge Footing & Abutment Section Detail



Legend

- Proposed Bridge
  L = 100 ft; W = 24 ft
  Bridge Deck Fill = 71 cy Concrete
  Girder Fill = 66 cy Concrete
- Approach Slabs (2)
  L = 20 ft; W = 24 ft
  Total Fill= 58 cy of Concrete
- Slope Protection
  Total Area = 9,500 sqft
  Total Fill = 249 cy of Articulated Concrete Blocks
- Wingwalls (4) & Abutments (2)
  Total Cut = 412 cy Soil
  Total Fill = 236 cy Concrete
  Total Backfill = 222 cy Soil
- Concrete Barriers
  Total Length = 271 LF
- Bridge Footing (2)
  Total Cut = 102 cy Rock
  Total Fill = 70 cy Concrete
  Total Backfill = 81 cy Lean Concrete

Sand Creek Bridge on Ennis Road (42C0099) Volume Qty. Map

LEGEND

1" = 25'

- HMA OVERLAY/ DRIVEWAY - 0.223 AC.
- DIRT GRADING (CUT) - 0.095 AC.
- DIRT GRADING (FILL) - 0.095 AC.
- ROCK SLOPE PROTECTION.
- AGG. BASE DRIVEWAY - 0.015 AC.
- EXISTING BRIDGE TO BE DEMOLISHED

TREES IMPACT

PROJECT

SAND CREEK BRIDGE REPLACEMENT

ON ENNIS ROAD

BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING

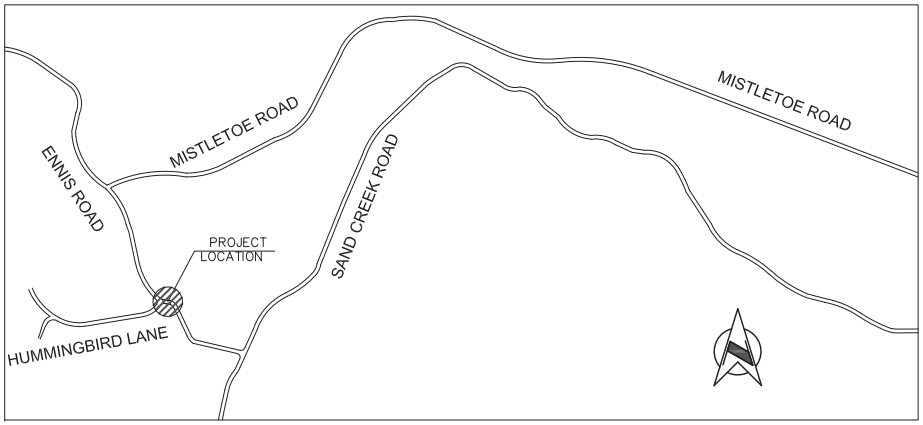
PROJECT ACTIVITIES MAP

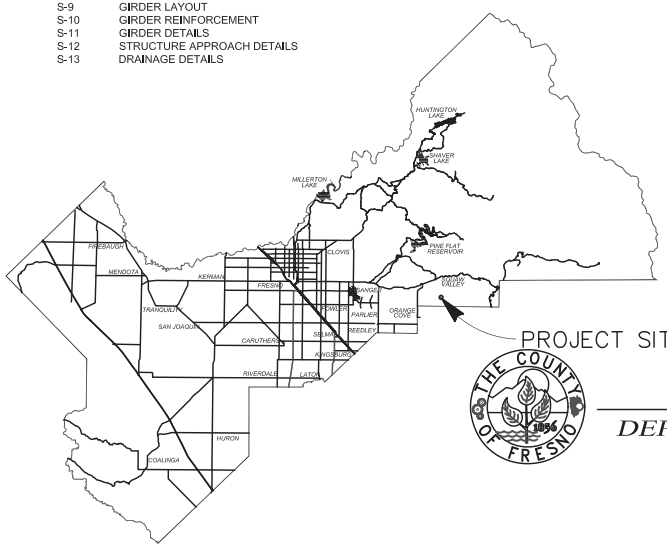
PLANS FOR CONSTRUCTION

FEDERAL BRIDGE REPLACEMENT PROJECT

SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

BRIDGE NO: 42C0099





0 500' 1000'

BENCH MARK AND DATUM

MONUMENT	COORDINATES NORTHING	COORDINATES EASTING	ELEVATION	DESCRIPTION/LOCATION
HN1G	2002915.567	6372176.001	252.141	COORDINATE VALUES WERE GPS DERIVED IN CALIFORNIA STATE PLAN COORDINATES, ZONE 4, EPOCH 2011 (NAD83) USING CSDS CONTINUALLY MONITORING STATION "HN1G", LOCATED IN HANFORD, CA. VERTICAL DATUM = NAVD88

NOTE: ALL DIMENSIONS HEREON ARE GRID DISTANCES. TO CONVERT FROM GRID TO GROUND, MULTIPLY THE GRID DISTANCE BY THE COMBINED SCALE FACTOR OF 0.999897'.

Adopted by the County of Fresno Board of Supervisors
_____, 20__

Brian Pacheco	Chairman	1st	District
Sal Quintero	Vice Chairman	3rd	District
Andreas A. Borgeas		2nd	District
Ernest Buddy Mendes		4th	District
Nathan Magsig		5th	District

Jean M. Rousseau
County Administrative Officer

APPROVED _____

Steven E. White, Director
Department of Public Works and Planning

CALIFORNIA CONTRACTOR'S LICENSES REQUIRED FOR THIS PROJECT					
CLASS A, GENERAL ENGINEERING					
C-8, CONCRETE					
DRAWING NO.	ROAD NO.	BRIDGE NO.	FISCAL YR.	SHEET NO.	TOTAL
#####	########## ##########	N/A	########	#	##
CONTRACT NO. ########					

RECORD DRAWING	
CONTRACTOR	
NAME	
ADDRESS	
CITY	STATE ZIP
PHONE	
DATE AWARDED	
DATE STARTED	
DATE COMPLETED	
RESIDENT ENGINEER	
NAME	SIGNATURE
NAME	SIGNATURE

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

DESIGN PHASE:
90% PRELIMINARY PLANS

ABBREVIATIONS

AB	AGGREGATE BASE
BB	BEGIN BRIDGE
BC	BEGIN CURVE
BEG	BEGIN
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
℄	CENTERLINE
CA	CALIFORNIA
CP	CATCH POINT
CSDS	CALIFORNIA SURVEYING AND DRAFTING SERVICES
DIA	DIAMETER
E	EAST/EASTING
EA	EACH
EB	END BRIDGE
EC	END CURVE
EL	ELEVATION
ELEC	ELECTRICAL
EP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVEL WAY
EX.	EXISTING
FG	FINISHED GROUND
FR	FIBER ROLLS
FS	FINISHED SURFACE
FT	FEET
G	GRADE
GB	GRADE BREAK
H	HEIGHT
HMA	HOT MIX ASPHALT
INTER	INTERSECTION
L	LENGTH
LF	LINEAR FEET
LN	LANE
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
MIN	MINIMUM
MOD	MODIFIED
MPH	MILES PER HOUR
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTHING
NTS	NOT TO SCALE
O.C.	ON CENTER
OG	ORIGINAL GROUND
OH	OVERHEAD
P	PAVEMENT
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PR.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PUE	PUBLIC UTILITY EASEMENT
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RD	ROAD
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH
SD	STORM DRAIN
SHLD	SHOULDER
STD	STANDARD
T	TANGENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
TYP	TYPICAL
W	WEST/WIDTH
WWLOL	WING WALL LAYOUT LINE

Note:
These plans shall be supplemented by the Standard Plans dated May 2015.

CONSTRUCTION NOTES

1. PROTECT IN PLACE UTILITY POLE
2. CONSTRUCT 3" HMA OVER 9" AB
3. PROTECT IN PLACE OVERHEAD LINES
4. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS RSP A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12A LAYOUT PER CALTRANS RSP A77Q1.
5. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS RSP A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12AA LAYOUT PER CALTRANS RSP A77Q4.
6. RELOCATE UTILITY POLE AND OVERHEAD LINE (BY OTHERS)
7. REMOVE EXISTING TREE
8. PROTECT IN PLACE SHED STRUCTURE
9. INSTALL TRANSITIONAL RAILING TYPE WB-31 PER CALTRANS STD PLAN RSP A77U4
10. INSTALL PIPE CULVERT WINGWALL PER CALTRANS STD PLAN D86B
11. INSTALL 24" RCP CULVERT PER CALTRANS STD PLAN A62D
12. CONSTRUCT 10" CLASS II AGGREGATE BASE
13. INSTALL MUTCD STANDARD TYPE E WHITE RETROREFLECTOR (2-SIDED) GUARDRAIL DELINEATOR; SPACING TO BE EVERY 20 FT
14. PROTECT IN PLACE GATE
15. REMOVE ASPHALT CONCRETE PAVEMENT
16. REMOVE EXISTING METAL BEAM GUARDRAIL
17. REMOVE EXISTING WOOD POST AND WIRE FENCE
18. REMOVE EXISTING 24" STORM DRAIN PIPE
19. CONSTRUCT HOT MIX ASPHALT DIKE TYPE C PER CALTRANS STANDARD PLAN RSP A87B PER PLACEMENT AS INDICATED ON CALTRANS STANDARD PLAN A77N4

SIGNING NOTES

E	PROTECT IN PLACE EXISTING SIGN UNLESS OTHERWISE NOTED
1	INSTALL SIGN AND POST AS INDICATED
2	REMOVE EXISTING SIGN

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

		RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

REGISTERED PROFESSIONAL ENGINEER CHRIS RIDEOUT 44922 Exp 3-31-20 CIVIL STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
CONSTRUCTION NOTES AND ABBREVIATIONS
DRAWING NO. T-2 SHEET NO. 2 TOTAL 28

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BkF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.398.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING
AERIAL SITE CONTROL PLAN
DRAWING NO. A-1 SHEET NO. 3 TOTAL **28**

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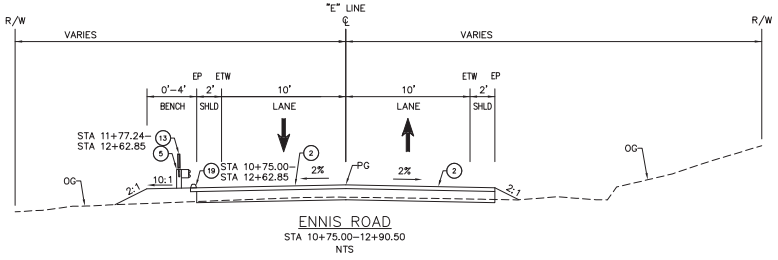
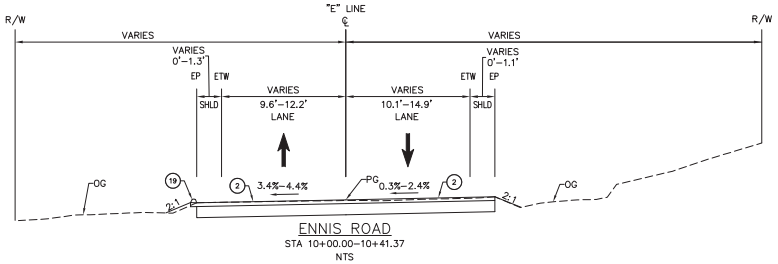
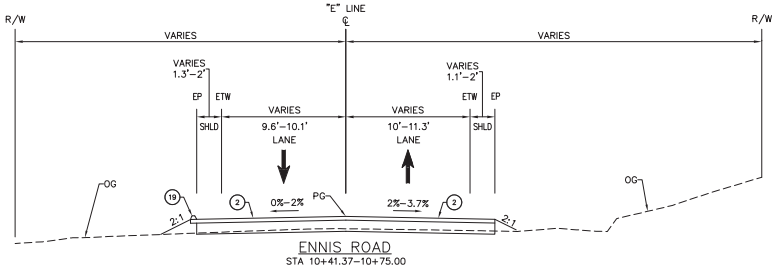


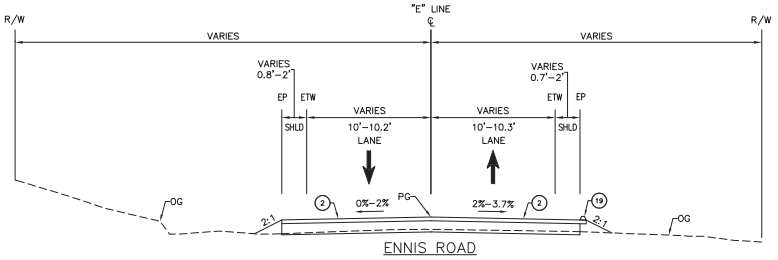
ENNIS ROAD
STA 10+75.00–12+90.50
NTS



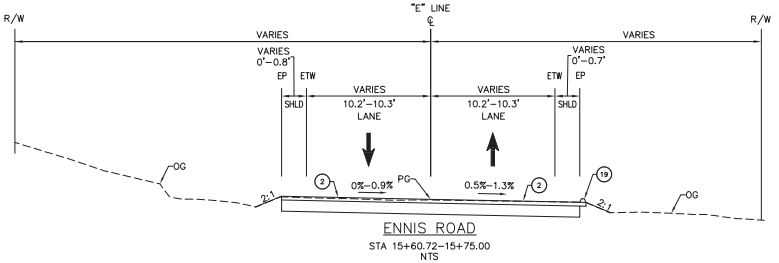
ENNIS ROAD
STA 10+00.00–10+41.37
NTS



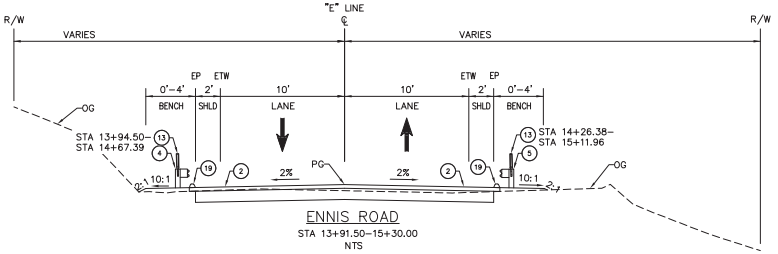
ENNIS ROAD
STA 10+41.37–10+75.00
NTS



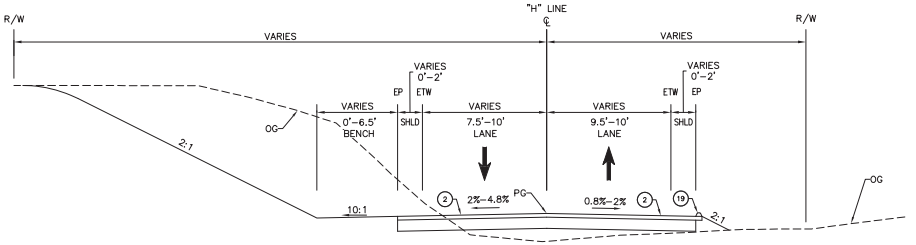
ENNIS ROAD
STA 15+30.00–15+60.72
NTS



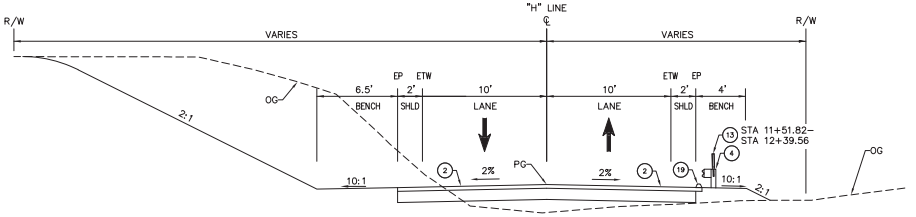
ENNIS ROAD
STA 15+60.72–15+75.00
NTS



ENNIS ROAD
STA 13+91.50–15+30.00
NTS



HUMMINGBIRD LANE
STA 10+00.00–10+50.00
NTS



HUMMINGBIRD LANE
STA 10+50.00–12+22.33
NTS

CONSTRUCTION NOTES:

(2) CONSTRUCT 3" HMA OVER 9" AB

(4) CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS RSP A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12A LAYOUT PER CALTRANS RSP A77Q1.

(5) CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS RSP A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12AA LAYOUT PER CALTRANS RSP A77Q4.

(13) INSTALL MUTCD STANDARD TYPE E WHITE RETROREFLECTOR (2–SIDED) GUARDRAIL DELINEATOR; SPACING TO BE EVERY 20 FT

(19) CONSTRUCT HOT MIX ASPHALT DIKE TYPE C PER CALTRANS STANDARD PLAN RSP A87B PER PLACEMENT AS INDICATED ON CALTRANS STANDARD PLAN A77N4

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BkF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.398.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING
COUNTY OF FRESNO

TYPICAL SECTIONS
DRAWING NO. X–1 SHEET NO. 4 TOTAL 28

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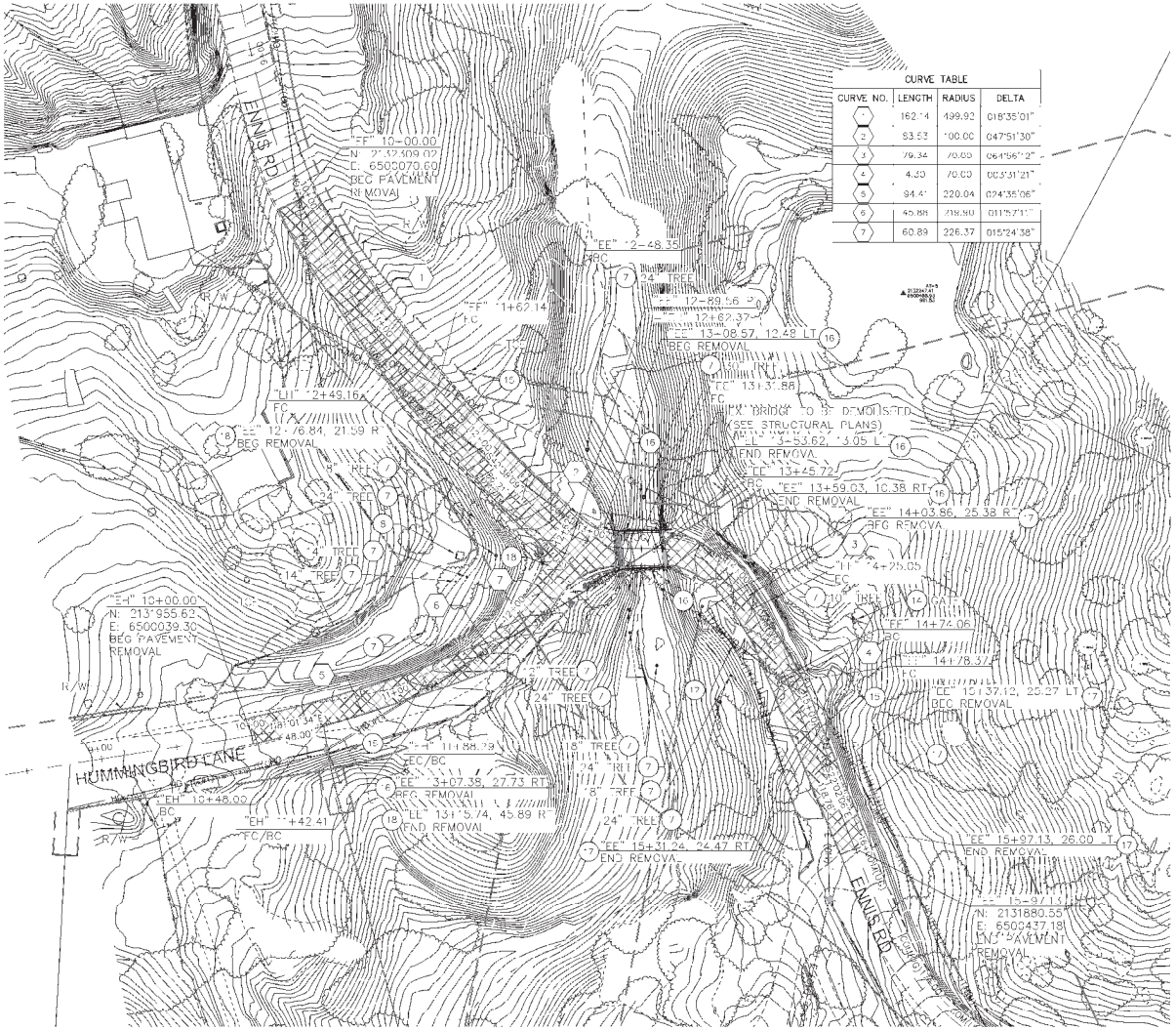


0 20 40 80 120
(IN FEET)
1 INCH = 40 FT.

CONSTRUCTION NOTES:

7 REMOVE EXISTING TREE
8 PROTECT IN PLACE SHED STRUCTURE
14 PROTECT IN PLACE GATE
15 REMOVE EXISTING ASPHALT CONCRETE PAVEMENT
16 REMOVE EXISTING METAL BEAM GUARDRAIL
17 REMOVE EXISTING WOOD POST AND WIRE FENCE
18 REMOVE EXISTING 24" STORM DRAIN PIPE

LEGEND

OH — LX. OVERHEAD ELECTRICAL
OT — EX. OVERHEAD TELECOMMUNICATIONS
ROW
TOF
EX. TREE
EX. UTILITY POLE
EX. ASPHALT CONCRETE PAVEMENT REMOVAL
EX. FENCE REMOVAL
EX. STORM DRAIN REMOVAL

NOTES:

1. FOR BRIDGE DEMOLITION, SEE STRUCTURAL PLANS.
2. SEE SHEET L-1 FOR EXISTING UTILITY DISPOSITIONS.
3. SEE SHEET SS-1 FOR EXISTING SIGNING REMOVAL AND IMPROVEMENTS.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING	DATE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	
DRAWN: LS	3/13/2020		
CHECKED: CR	3/13/2020		

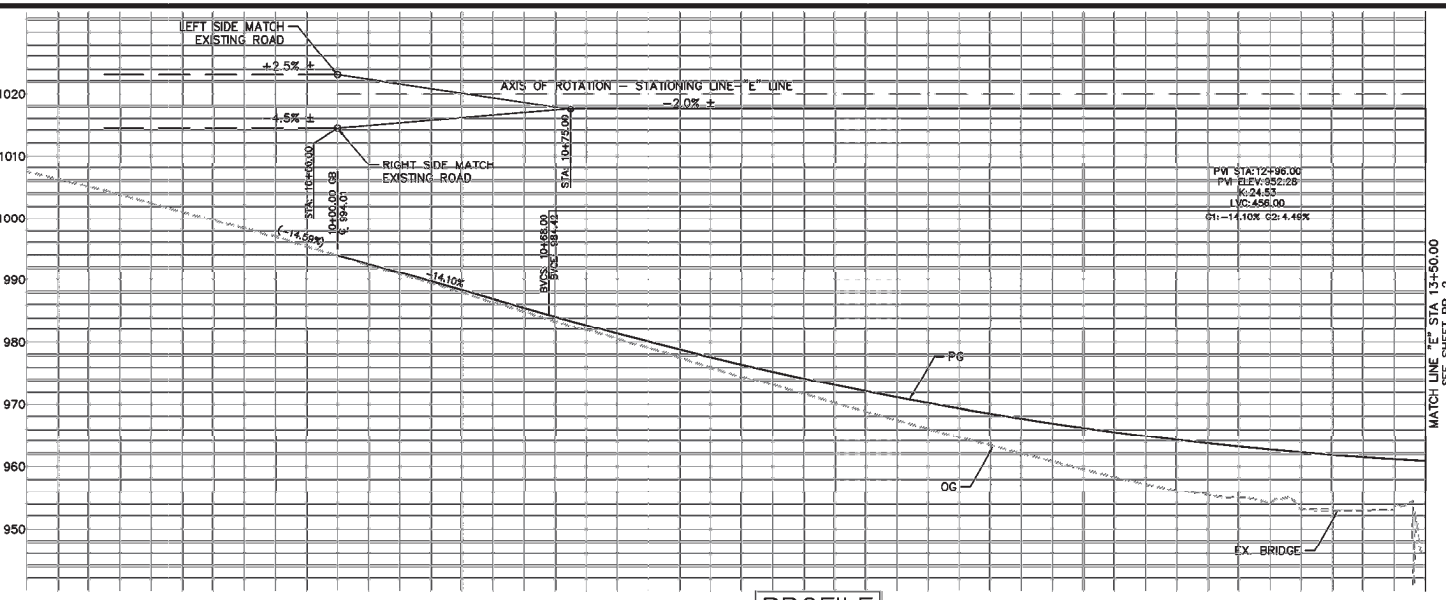
FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. | BRIDGE NO. 42C0099

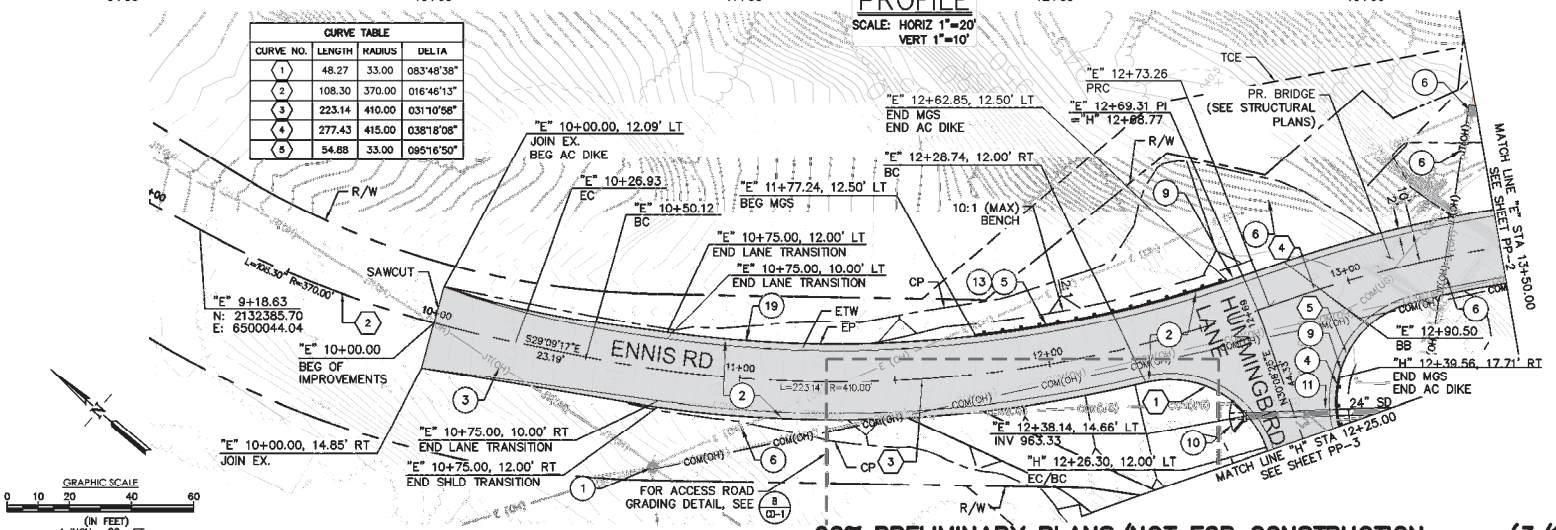
DEPARTMENT OF PUBLIC WORKS AND PLANNING
DEMOLITION PLAN
DRAWING NO. DM-1 | SHEET NO. 5 | TOTAL 28



PROFILE

SCALE: HORIZ 1"=20'
VERT 1"=10'

CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
1	48.27	33.00	083°48'38"
2	108.30	370.00	016°46'13"
3	223.14	410.00	031°10'58"
4	277.43	415.00	038°18'08"
5	54.88	33.00	095°16'50"



CONSTRUCTION NOTES:

1. PROTECT IN PLACE UTILITY POLE
2. CONSTRUCT 3" HMA OVER 9" AB
3. PROTECT IN PLACE OVERHEAD LINES
4. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN RSP A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12A LAYOUT PER CALTRANS STD. PLAN RSP A77Q1.
5. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN RSP A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12AA LAYOUT PER CALTRANS STD. PLAN RSP A77Q4.
6. RELOCATE UTILITY POLE AND OVERHEAD LINE (BY OTHERS)
9. INSTALL TRANSITIONAL RAILING TYPE WB-31 PER CALTRANS STD PLAN RSP A77U4
10. INSTALL PIPE CULVERT WARPED WING WALL PER CALTRANS STD. PLAN D86B
11. INSTALL 24" RCP CULVERT PER CALTRANS STD. PLAN A62D
13. INSTALL MUTCD STANDARD TYPE E WHITE RETROREFLECTOR (2-SIDED) GUARDRAIL DELINEATOR; SPACING TO BE EVERY 20 FT
19. CONSTRUCT HOT MIX ASPHALT DIKE TYPE C PER CALTRANS STANDARD PLAN RSP A87B PER PLACEMENT AS INDICATED ON CALTRANS STANDARD PLAN A77N4

LEGEND

- EX. UTILITY POLE
- E (OH) — EX. OVERHEAD ELECTRICAL
- R/W
- TCE
- PR. DAYLIGHT
- PR. BENCH
- PR. MGS
- PR. PAVEMENT

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

PROJECT

SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

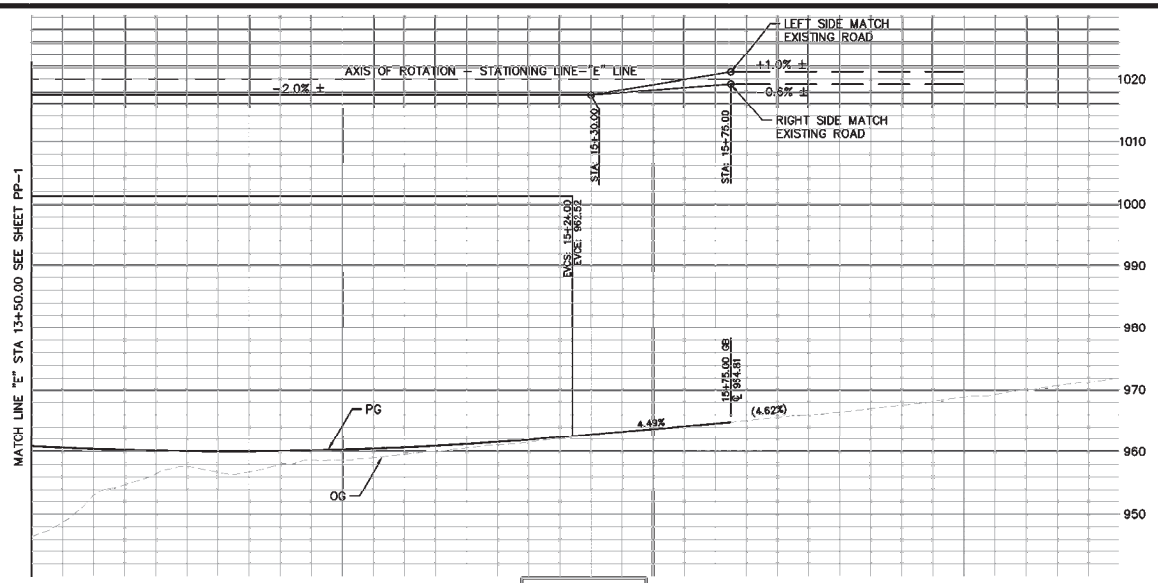
ROAD NO. BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING

PLAN AND PROFILE
ENNIS ROAD STA 9+00.00-13+50.00

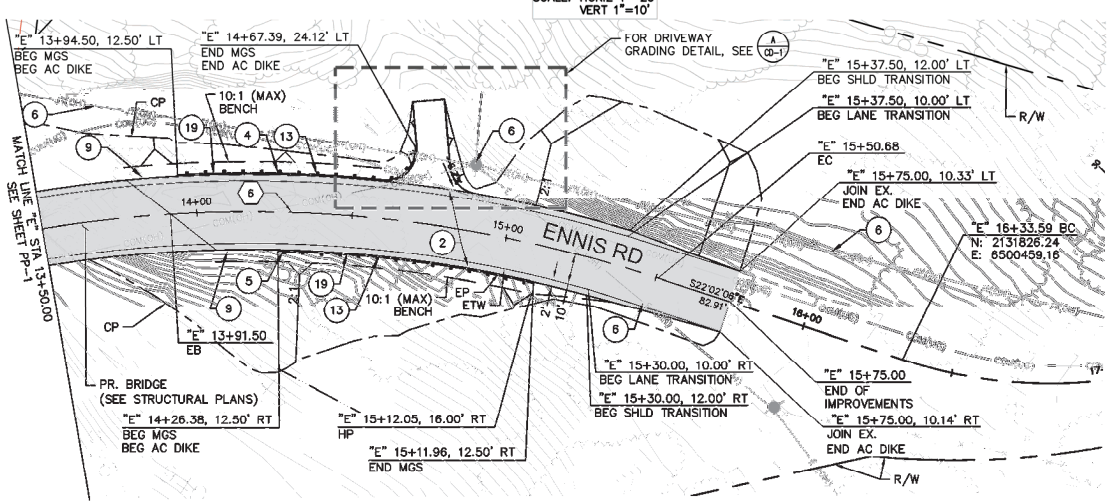
DRAWING NO. PP-1 SHEET NO. 6 TOTAL 28

P:\ENG14\2014107O_FRESNO-SAND_CREEK_BRIDGE_ON_ENNIS_ROAD\ENG\SHEETS\PP-1



PROFILE

SCALE: HORIZ 1"=20'
VERT 1"=10'



CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
6	277.43	415.00	038°18'08"

GRAPHIC SCALE
0 10 20 40 60
(IN FEET)
1 INCH = 20 FT.

CONSTRUCTION NOTES:

1. PROTECT IN PLACE UTILITY POLE
2. CONSTRUCT 3" HMA OVER 9" AB
4. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12A LAYOUT PER CALTRANS STD. PLAN RSP A77Q1.
5. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12AA LAYOUT PER CALTRANS STD. PLAN RSP A77Q4.
6. RELOCATE UTILITY POLE AND OVERHEAD LINE (BY OTHERS)
9. INSTALL TRANSITIONAL RAILING TYPE WB-31 PER CALTRANS STD PLAN RSP A77U4
13. INSTALL MUTCD STANDARD TYPE E WHITE RETROREFLECTOR (2-SIDED) GUARDRAIL DELINEATOR; SPACING TO BE EVERY 20 FT
19. CONSTRUCT HOT MIX ASPHALT DIKE TYPE C PER CALTRANS STANDARD PLAN RSP A87B PER PLACEMENT AS INDICATED ON CALTRANS STANDARD PLAN A77N4

LEGEND

- EX. UTILITY POLE
- E (OH) — EX. OVERHEAD ELECTRICAL
- R/W
- TCE
- PR. DAYLIGHT
- PR. BENCH
- PR. MGS
- PR. PAVEMENT

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

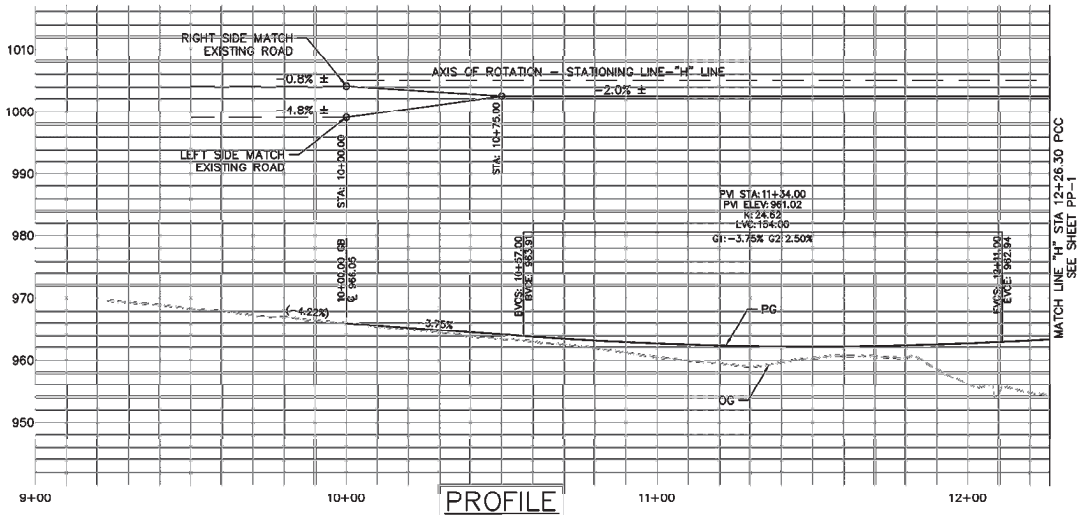
FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING
PLAN AND PROFILE
ENNIS ROAD STA 13+50.00-17+00.00
DRAWING NO. PP-2 SHEET NO. 7 TOTAL 28

P:\ENG14\20141070_FRESNO-SAND_CREEK_BRIDGE_ON_ENNIS_ROAD\ENG\SHEETS\PP-1



PROFILE

SCALE: HORIZ 1"=20'
VERT 1"=10'

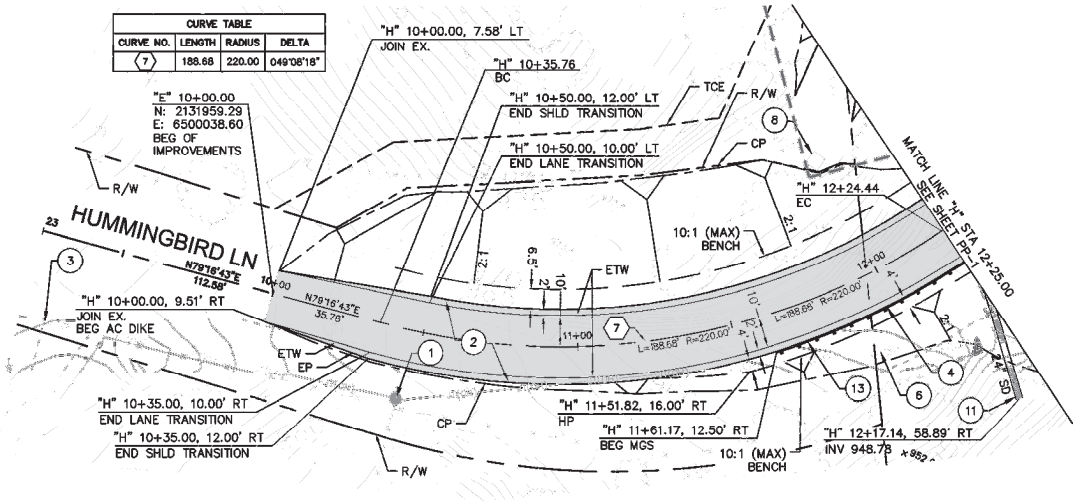
CONSTRUCTION NOTES:

1. PROTECT IN PLACE UTILITY POLE
2. CONSTRUCT 3" HMA OVER 9" AB
3. PROTECT IN PLACE OVERHEAD LINES
4. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12A LAYOUT PER CALTRANS STD. PLAN RSP A77Q1.
6. RELOCATE UTILITY POLE AND OVERHEAD LINE (BY OTHERS)
8. PROTECT IN PLACE SHED STRUCTURE
11. INSTALL 24" RCP CULVERT PER CALTRANS STD. PLAN A62D
13. INSTALL MUTCD STANDARD TYPE E WHITE RETROREFLECTOR (2-SIDED) GUARDRAIL DELINEATOR; SPACING TO BE EVERY 20 FT
19. CONSTRUCT HOT MIX ASPHALT DIKE TYPE C PER CALTRANS STANDARD PLAN RSP A87B PER PLACEMENT AS INDICATED ON CALTRANS STANDARD PLAN A77N4

LEGEND

- EX. UTILITY POLE
- E (OH) — EX. OVERHEAD ELECTRICAL
- R/W
- TCE
- PR. DAYLIGHT
- PR. BENCH
- PR. MGS
- PR. PAVEMENT

CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
7	188.68	220.00	049°08'18"



GRAPHIC SCALE
0 10 20 40 60
(IN FEET)
1 INCH = 20 FT.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BkF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.398.7700

PROJECT

SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

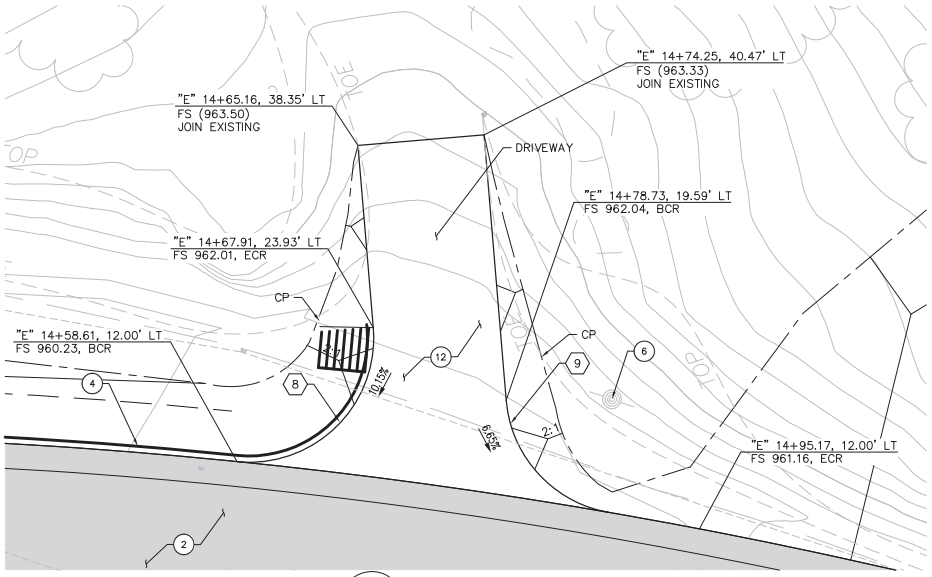
ROAD NO. BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING

PLAN AND PROFILE
HUMMINGBIRD LANE STA 10+00.00-12+25.00

DRAWING NO. PP-3 SHEET NO. 8 TOTAL 28

P:\ENG14\20141070_FRESNO-SAND_CREEK_BRIDGE_ON_ENNIS_ROAD\ENG\SHEETS\PP-1



CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
8	17.54	10.00	100°30'28"
9	13.17	10.00	075°26'17"
10	19.98	80.00	014°18'30"

CONSTRUCTION NOTES:

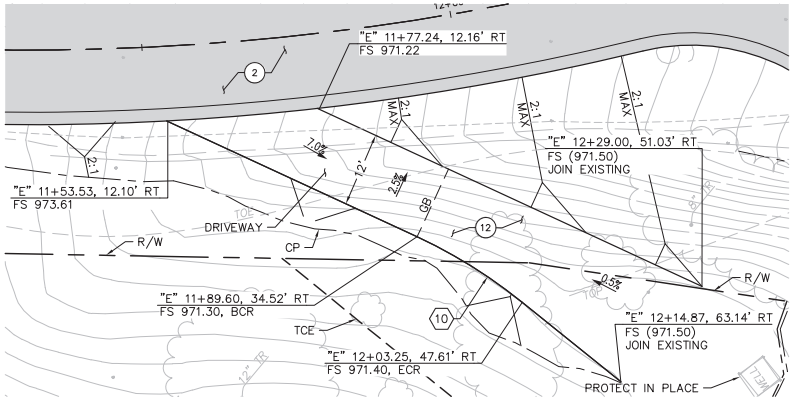
2. CONSTRUCT 3" HMA OVER 9" AB
4. CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 12A LAYOUT PER CALTRANS STD. PLAN RSP A77Q1.
6. RELOCATE UTILITY POLE AND OVERHEAD LINE (BY OTHERS)
12. CONSTRUCT 10" CLASS II AGGREGATE BASE

LEGEND

R/W
PR. TCE
PR. DAYLIGHT
PR. BENCH
PR. MGS
PR. PAVEMENT

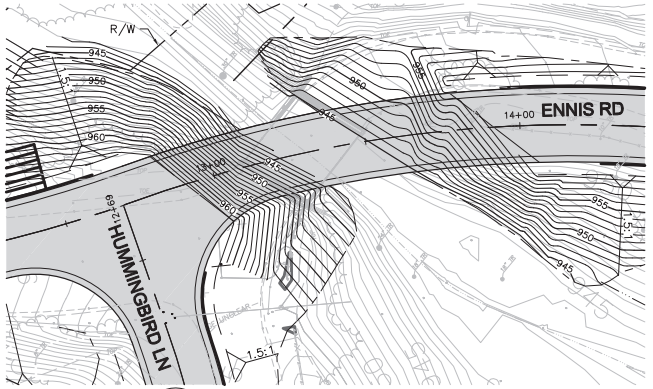
GRAPHIC SCALE
0 2.5 5 10 15
(IN FEET)
1 INCH = 5 FT.

A / CD-1 DRIVEWAY GRADING DETAIL
SCALE: 1"=5'



GRAPHIC SCALE
0 5 10 10 30
(IN FEET)
1 INCH = 10 FT.

B / CD-1 ACCESS ROAD GRADING DETAIL
SCALE: 1"=10'



GRAPHIC SCALE
0 10 20 40 60
(IN FEET)
1 INCH = 20 FT.

C / CD-1 SLOPE AND CREEK GRADING DETAIL
SCALE: 1"=20'

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING	DATE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	
DRAWN: LS	3/13/2020		
CHECKED: CR	3/13/2020		

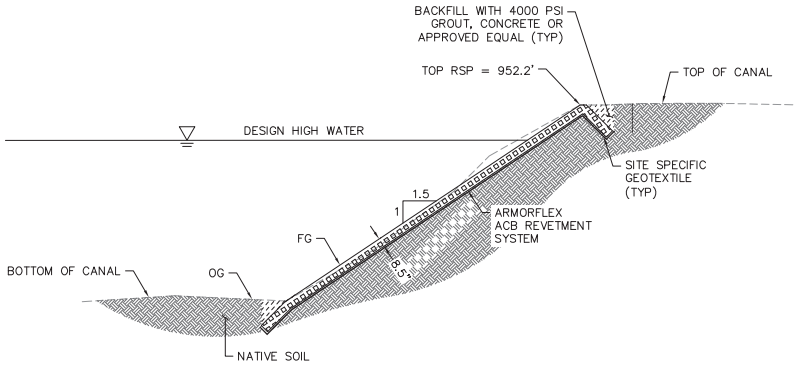
FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING
CONSTRUCTION DETAILS
DRAWING NO. CD-1 SHEET NO. 9 TOTAL 28



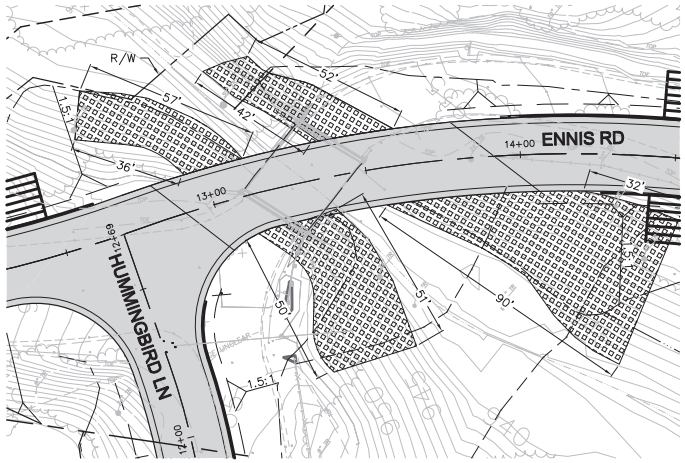
SECTION A–A
SCALE: NTS

NOTES:

1. INFORMATION FOR ROCK SLOPE PROTECTION IS BASED ON THE REPORT TITLED "PRELIMINARY DESIGN HYDRAULIC STUDY FOR ENNIS ROAD BRIDGE OVER SAND CREEK (BRIDGE 42C0099), FRESNO COUNTY, CALIFORNIA," PREPARED BY AVILA AND ASSOCIATES, DATED OCTOBER 31, 2016.
2. FOR BRIDGE GENERAL PLAN, SEE STRUCTURAL SHEET S–1.

LEGEND

- R/W
- PR. TCE
- PR. DAYLIGHT
- PR. BENCH
- PR. MGS
- PR. PAVEMENT
- ARMOR FLEX SLOPE PROTECTION



D
CD–2

SLOPE PROTECTION DETAIL
SCALE: 1"=20'

GRAPHIC SCALE
0 10 20 40 60
(IN FEET)
1 INCH = 20 FT.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

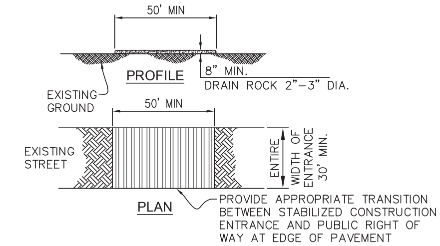
BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

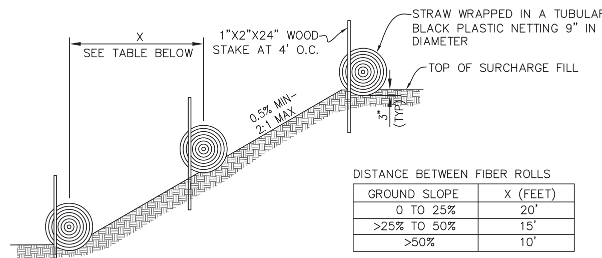
DEPARTMENT OF PUBLIC WORKS AND PLANNING
CONSTRUCTION DETAILS
DRAWING NO. CD–2 SHEET NO. 10 TOTAL **28**

EROSION CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE EFFECTIVE FOR CONSTRUCTION IN DISTURBED AREAS THAT WILL NOT BE WORKED FOR 14 DAYS.
2. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS, THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT–LADEN RUNOFF FROM ENTERING SAND CREEK.
3. ALL FIBER ROLLS SHALL BE REMOVED AFTER COMPLETION OF CONSTRUCTION.
4. CONTRACTOR SHALL REVISE EROSION CONTROL PLAN TO ACCOMMODATE CONSTRUCTION SCHEDULE AND PHASING.
5. FOR TEMPORARY DRAINAGE INLET PROTECTION, SEE CALTRANS STANDARD PLAN T62. INLET PROTECTION LOCATION WILL CHANGE DEPENDING ON CONSTRUCTION STAGE.



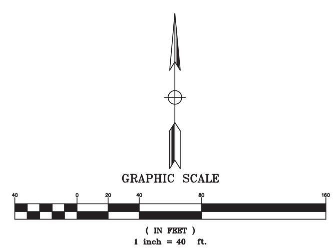
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



DISTANCE BETWEEN FIBER ROLLS

GROUND SLOPE	X (FEET)
0 TO 25%	20'
>25% TO 50%	15'
>50%	10'

FIBER ROLL DETAIL
NOT TO SCALE



90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE		PROJECT		DEPARTMENT OF PUBLIC WORKS AND PLANNING
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN	BkF 4670 Willow Rd., Ste 250 Pleasanton, CA 94588 925.396.7700	SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD	THE COUNTY OF FRESNO 1856	EROSION CONTROL
DRAWN: LS	3/13/2020							
CHECKED: CR	3/13/2020					ROAD NO. BRIDGE NO. 42C0099		DRAWING NO. EC–1 SHEET NO. 11 TOTAL 28

REGISTERED PROFESSIONAL ENGINEER CHRIS RIDEOUT 44922 Exp 3-31-20 CIVIL STATE OF CALIFORNIA

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SIGNING NOTES:

E	PROTECT IN PLACE EXISTING SIGN UNLESS OTHERWISE NOTED
1	REMOVE EXISTING SIGN
2	INSTALL SIGN AND POST AS INDICATED. EXISTING SHALL BE REMOVED AND DISPOSED

LEGEND

- EX. UTILITY POLE
- E (OH) — EX. OVERHEAD ELECTRICAL
- R/W
- PR. TCE
- PR. DAYLIGHT
- PR. BENCH
- PR. MGS
- EX. SIGN
- PR. SIGN

GRAPHIC SCALE
0 10 20 40 60
(IN FEET)
1 INCH = 20 FT.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING	DATE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	
DRAWN: LS	3/13/2020		
CHECKED: CR	3/13/2020		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

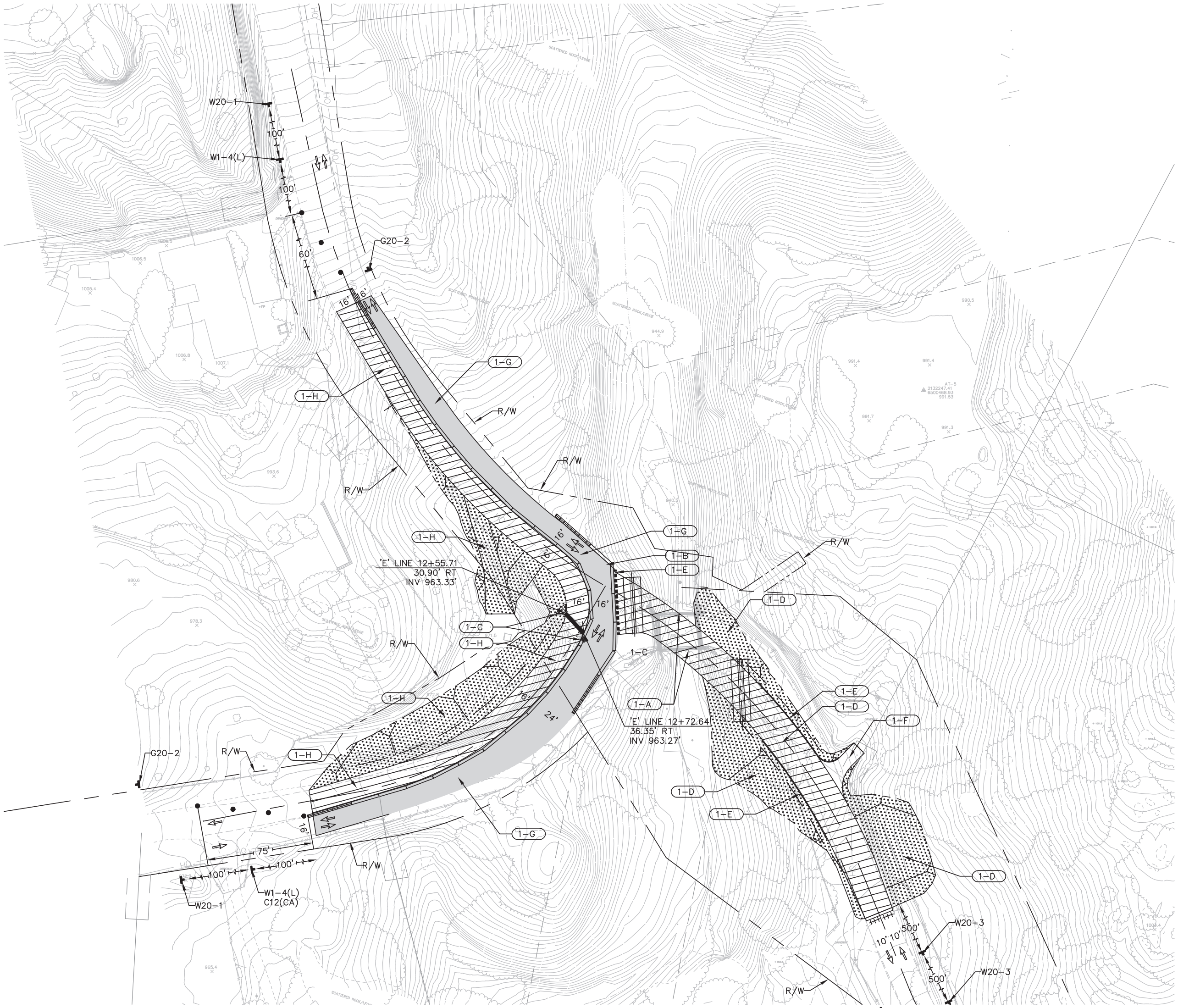
PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0099

DEPARTMENT OF PUBLIC WORKS AND PLANNING

SIGNING PLAN

DRAWING NO. SS-1 | SHEET NO. 12 | TOTAL 28



NOTE:

1. CONTRACTOR SHALL PREPARE AND SUBMIT TRAFFIC CONTROL PLANS FOR COUNTY APPROVAL.
2. CONTRACTOR SHALL PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.

LEGEND

- SURFACE MOUNTED CHANNELIZER
- CONSTRUCTION AREA
- GRADE EMBANKMENT PER PLAN
- TEMPORARY OR PERMANENT ASPHALT CONCRETE AS NOTED IN STAGE CONSTRUCTION CALL-OUTS.
- K-RAIL (10-FOOT OR 20-FOOT SEGMENTS)
- ABSORB 350
- TYPE II BARRICADE
- TYPE III BARRICADE
- GEOTEXTILE FABRIC
- TRAFFIC DIRECTION
- MIDWEST GUARDRAIL SYSTEM
- 24"x24" CATCH BASIN
- TEMPORARY ROADSIDE SIGN

STAGE 1 CONSTRUCTION

- 1-A DEMOLISH EXISTING BRIDGE
- 1-B INSTALL TEMPORARY K-RAIL, BARRICADES, SURFACE MOUNTED CHANNELIZERS AND TEMPORARY SIGNS.
- 1-C CONSTRUCT PIPE CULVERT WARPED WINGWALL AND STORM DRAIN. CONSTRUCT 24"x24" CATCH BASIN AND CONNECT TO EXISTING 24" STORM DRAIN FOR TEMPORARY DRAINAGE.
- 1-D CONSTRUCT NEW ROADWAY SECTION ALONG ENNIS ROAD. CONSTRUCT NEW BRIDGE ALONG ENNIS ROAD. GRADE SLOPE EMBANKMENTS ALONG ENNIS ROAD EAST OF HUMMINGBIRD LANE, AS SHOWN PER PLANS.
- 1-E INSTALL GEOTEXTILE FABRIC OR OTHER MEANS AND METHOD (APPROXIMATELY H=10 FEET) TO RETAIN EXPOSED SOIL. INSTALL MIDWEST GUARDRAIL SYSTEM ALONG ENNIS ROAD.
- 1-F REGRADE EXISTING DRIVEWAYS TO MEET NEW FINISHED GRADE OR SURFACE PER PLAN. DRIVEWAY SHALL REMAIN ACCESSIBLE DURING CONSTRUCTION.
- 1-G CONSTRUCT TEMPORARY AC PAVEMENT WHERE NEEDED TO MEET A 16 FT WIDE ROAD BED ALONG ENNIS ROAD AND HUMMINGBIRD LANE.
- 1-H CONSTRUCT SOUTH BOUND SIDE OF ROADWAY SECTION OF ENNIS ROAD. CONSTRUCT WEST BOUND SIDE OF ROADWAY SECTION OF HUMMINGBIRD LANE. CONSTRUCT ACCESS ROAD. GRADE SLOPE EMBANKMENTS AS SHOWN ON PLANS. INSTALL CRASH CUSHION AND MIDWEST GUARDRAIL SYSTEM.

N

GRAPHIC SCALE
0 20 40 80 120
(IN FEET)
1 INCH = 40 FT.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

REGISTERED PROFESSIONAL ENGINEER
CHRIS RIDEOUT
44922
Exp 3-31-20
CIVIL
STATE OF CALIFORNIA

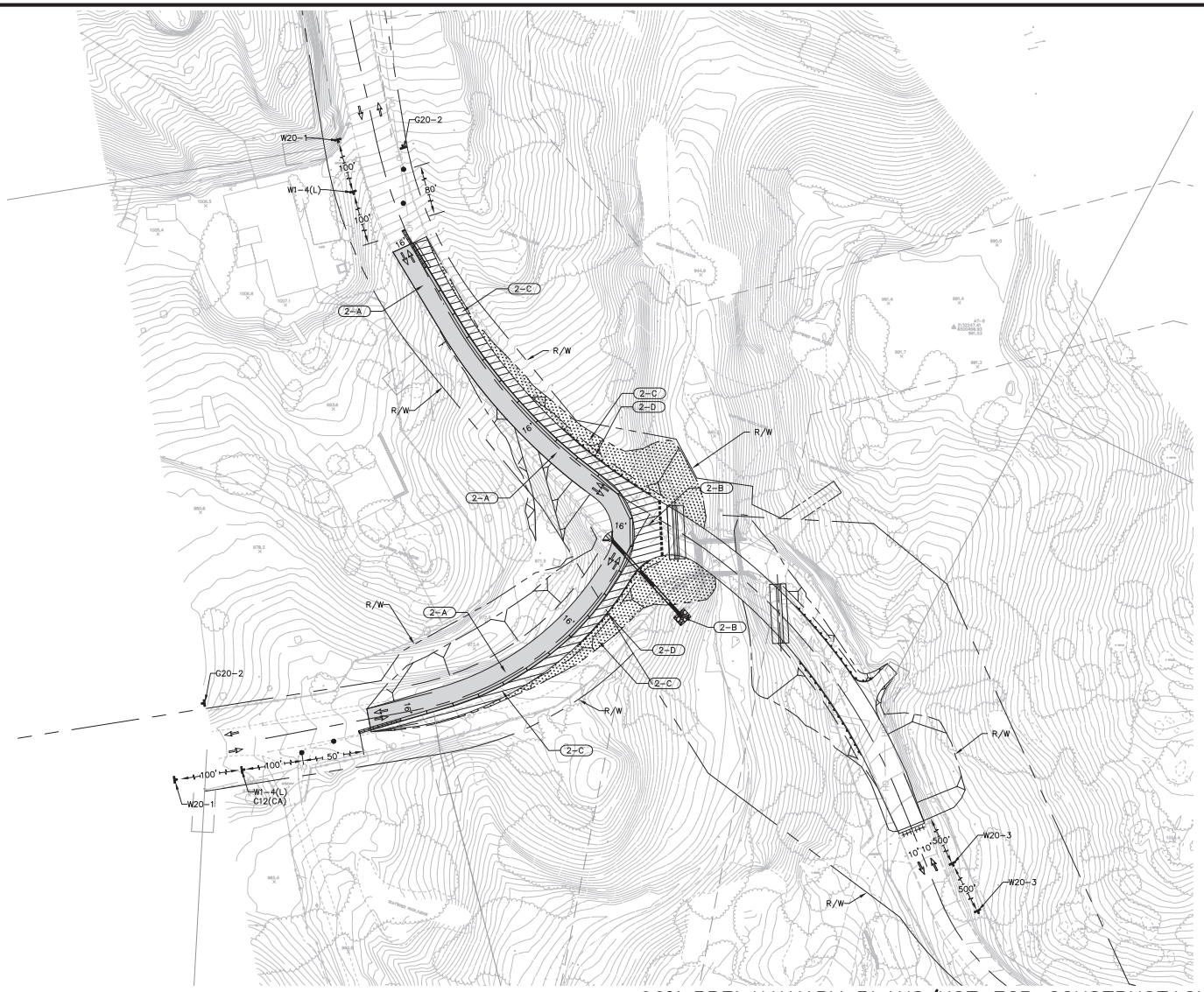
PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

STAGE CONSTRUCTION - STAGE1

DRAWING NO. SC-1 SHEET NO. 13 TOTAL 28



NOTE:

1. CONTRACTOR SHALL PREPARE AND SUBMIT TRAFFIC CONTROL PLANS FOR COUNTY APPROVAL.
2. CONTRACTOR SHALL PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.

LEGEND

- SURFACE MOUNTED CHANNELIZER
- CONSTRUCTION AREA
- GRADE EMBANKMENT PER PLAN
- TEMPORARY OR PERMANENT ASPHALT CONCRETE AS NOTED IN STAGE CONSTRUCTION CALL-OUTS.
- K-RAIL 910-FOOT OR 20-FOOT SEGMENTS)
- ABSORB 350
- TYPE II BARRICADE
- TYPE III BARRICADE
- GEOTEXTILE FABRIC
- TRAFFIC DIRECTION
- MIDWEST GUARDRAIL SYSTEM
- TEMPORARY ROADSIDE SIGN

STAGE 2 CONSTRUCTION

(2-A) SWITCH EXISTING TRAFFIC TO WEST SIDE OF ENNIS ROAD, PERMANENT ASPHALT CONCRETE CONSTRUCTED DURING STAGE 1.

(2-B) DEMOLISH TEMPORARY CATCH BASIN CONNECTION CONSTRUCTED IN STAGE 1. DEMOLISH EXISTING STORM DRAIN SYSTEM. CONSTRUCT STORM DRAIN AND OUTLET PROTECTION.

(2-C) DEMOLISH TEMPORARY ASPHALT CONCRETE PAVEMENT. CONSTRUCT NORTH BOUND SIDE OF ENNIS ROAD. CONSTRUCT EAST BOUND SIDE OF HUMMINGBIRD LANE. GRADE SLOPE EMBANKMENTS ALONG ENNIS ROAD AS SHOWN ON PLANS.

(2-D) INSTALL MIDWEST GUARDRAIL SYSTEM ALONG ENNIS ROAD AND HUMMINGBIRD LANE.

GRAPHIC SCALE
0 20 40 80 120
(IN FEET)
1 INCH = 40 FT.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING		SCALE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: LS	3/13/2020			
CHECKED: CR	3/13/2020			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BKF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.396.7700

REGISTERED PROFESSIONAL ENGINEER CHRIS RIDDICK 44622 Exp 3-31-20 CIVIL STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

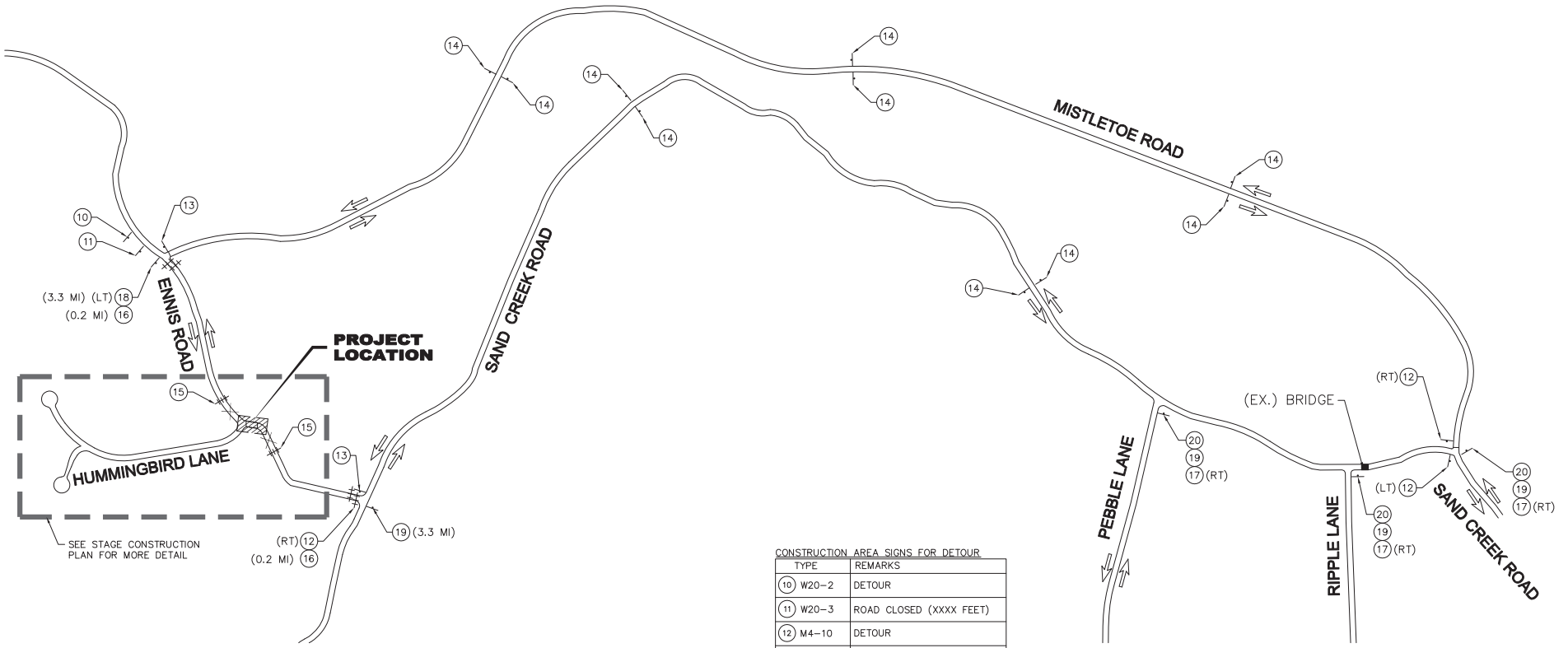
ROAD NO. BRIDGE NO. 42C0099

COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

STAGE CONSTRUCTION - STAGE 2

DRAWING NO. SC-2 SHEET NO. 14 TOTAL **28**



CONSTRUCTION AREA SIGNS FOR DETOUR

TYPE	REMARKS
10 W20-2	DETOUR
11 W20-3	ROAD CLOSED (XXXX FEET)
12 M4-10	DETOUR
13 M4-8A	END DETOUR
14 M4-8	DETOUR
15 R11-2	ROAD CLOSED
16 R11-3a	ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
17 W1-6	"ARROW"
18 M4-9	DETOUR
19 SC3 (CA)	DETOUR
20 MOD	ROAD CLOSED AHEAD ON ENNIS ROAD LOCAL TRAFFIC ONLY USE MISTLETOE ROAD

NOTES:

1. LOCATION OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.
2. ALL SIGNS ARE STATIONARY MOUNTED.
3. SIGNAGE SHALL COMPLY WITH 2014 CA MUTCD.

LEGEND:

- PROPOSED ROADSIDE SIGN
- ROADWAY CLOSURE
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE

N

GRAPHIC SCALE
0 150 300 600 900
(IN FEET)
1 INCH = 300 FT.

90% PRELIMINARY PLANS/NOT FOR CONSTRUCTION (3/13/2020)

	DATE	RECORD DRAWING	DATE
DESIGNED: SA	3/13/2020	RESIDENT ENGINEER	
DRAWN: LS	3/13/2020		
CHECKED: CR	3/13/2020		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

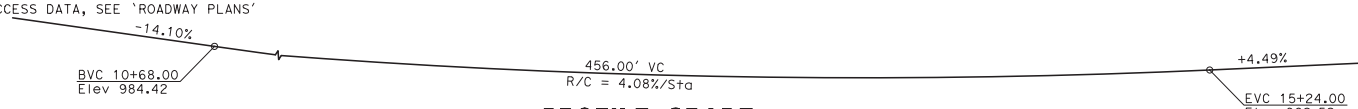
BkF
4670 Willow Rd., Ste 250
Pleasanton, CA 94588
925.398.7700

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD
ROAD NO. BRIDGE NO. 42C0099

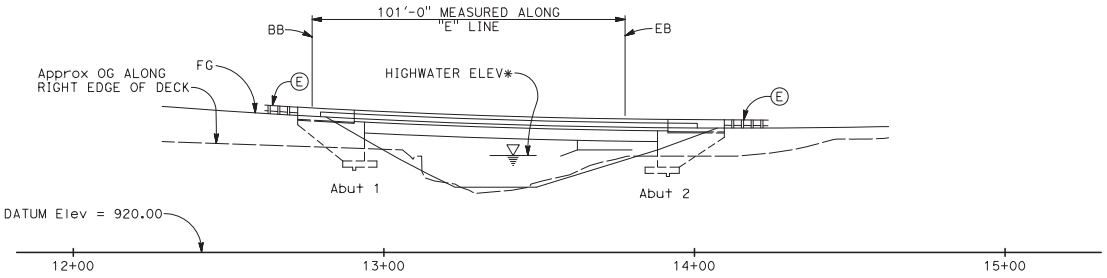
DEPARTMENT OF PUBLIC WORKS AND PLANNING
DETOUR PLAN
DRAWING NO. DE-1 SHEET NO. 15 TOTAL 28

P:\ENG14\20141070_FRESNO-SAND_CREEK_BRIDGE_ON_ENNIS_ROAD\ENG\SHEETS\DETOUR.DWG

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, SEE 'ROADWAY PLANS'

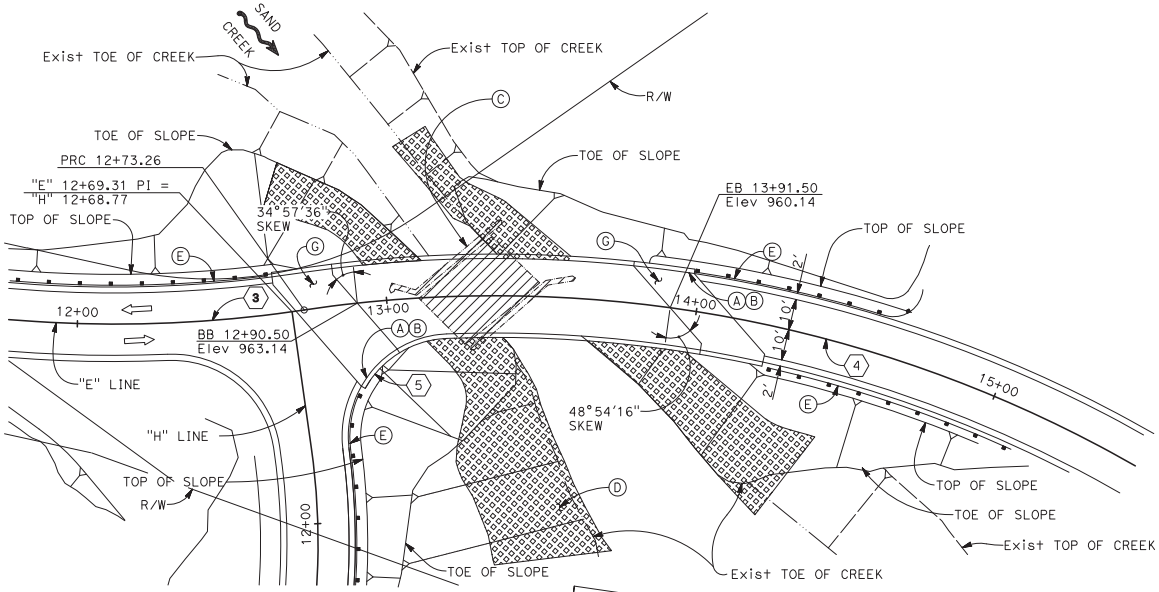


PROFILE GRADE
NO SCALE



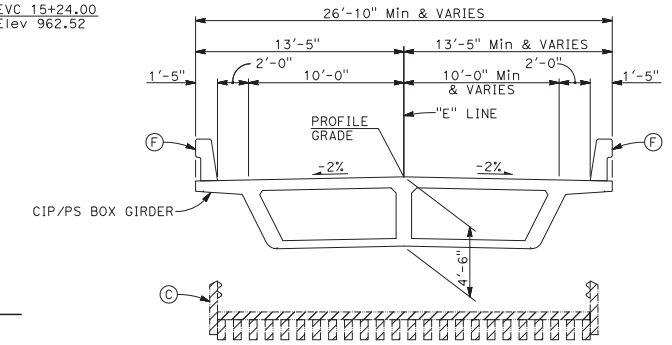
DEVELOPED ELEVATION
1" = 20'

* SEE "HYDROLOGIC SUMMARY" ON "FOUNDATION PLAN" SHEET



PLAN
1" = 20'

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL



TYPICAL SECTION
1/4" = 1'-0"

(3) Curve Data Layout Line
R = 410'
Δ = 31°10'58"
T = 114.41'
L = 223.14'

(4) Curve Data Layout Line
R = 415'
Δ = 38°18'08"
T = 144.12'
L = 277.43'

(5) Curve Data Layout Line
R = 31.58'
Δ = 58°29'25"
T = 17.18'
L = 32.24'

NOTES:
- (A) Paint "BRIDGE No. 42C0697"
- (B) Paint "SAND CREEK BRIDGE"
- (C) Remove existing Sand Creek Bridge
- (D) Rock Slope Protection, see "ROADWAY PLANS"
- (E) MGS, See "ROADWAY PLANS"
- (F) Concrete Barrier Type 732
- (G) Structure Approach Slab
1. For "GENERAL NOTES", see "DECK CONTOURS" sheet
2. For "SPREAD FOOTING DATA TABLE", see "FOUNDATION PLAN" sheet

LEGEND:
- Bridge Removal
- Indicates Existing Structure
- Indicates Traffic Direction

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/4/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: DM	10/8/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

REGISTERED PROFESSIONAL ENGINEER — STEVEN G SLUMPER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

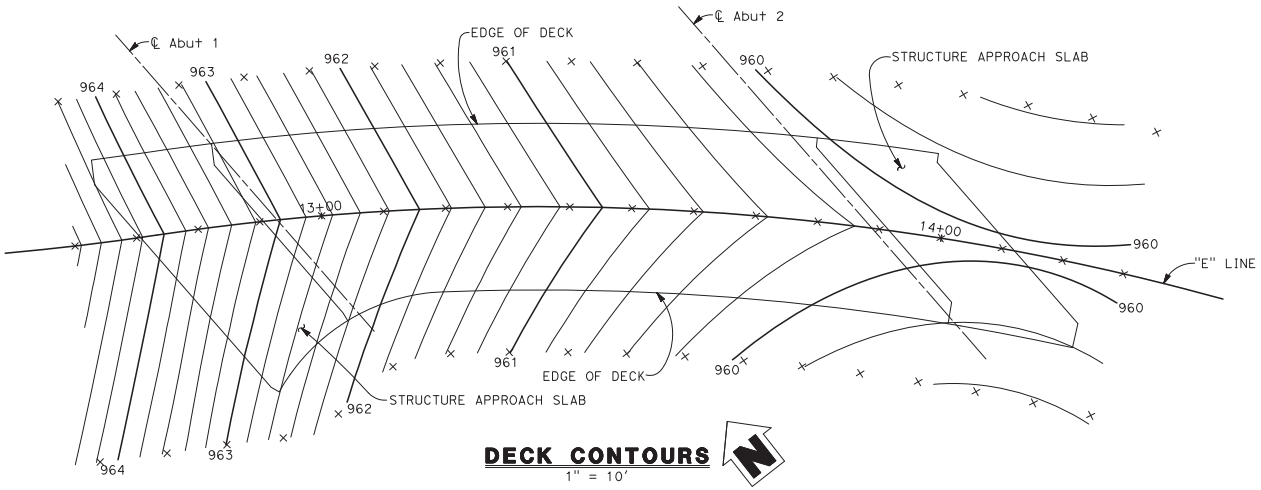
PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

DEPARTMENT OF PUBLIC WORKS AND PLANNING
GENERAL PLAN

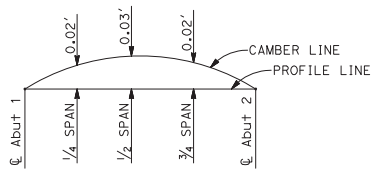
DRAWING NO. S-1 | SHEET NO. 16 | TOTAL 28

(20151345)
2015134



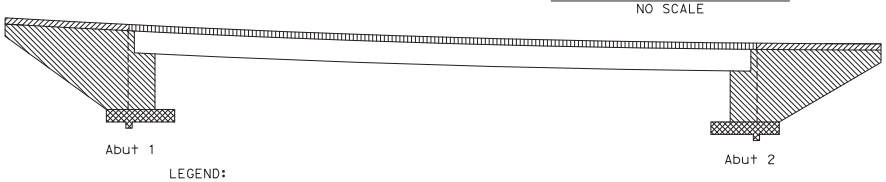
DECK CONTOURS
1" = 10'

NOTES:
1. Contours indicate top of deck elevation.
2. × Indicates 10 foot intervals measured along "E" Line.
3. Contour interval = 0.2'
4. Contours do not include camber or falsework settlement.



NOTE:
Camber does not include allowance for falsework settlement

CAMBER DIAGRAM
NO SCALE



LEGEND:
- STRUCTURAL CONCRETE, BRIDGE (f'c = 4.0 ksi AT 28 DAYS)
- STRUCTURAL CONCRETE, BRIDGE
- STRUCTURAL CONCRETE, BRIDGE FOOTING
- STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER) (f'c = 4.0 ksi AT 28 DAYS)
- STRUCTURAL CONCRETE, APPROACH SLAB

CONCRETE STRENGTH AND TYPE LIMITS
NO SCALE

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

LEGEND:
- B7-11 / U42 — Indicates Standard Plan sheet No. / Indicates Detail No.
- A / S5 — Indicates Section No. / Indicates sheet No. shown on
- 1 / S6 — Indicates Detail No. / Indicates sheet No. shown on

GENERAL NOTES
LOAD & RESISTANCE FACTOR DESIGN

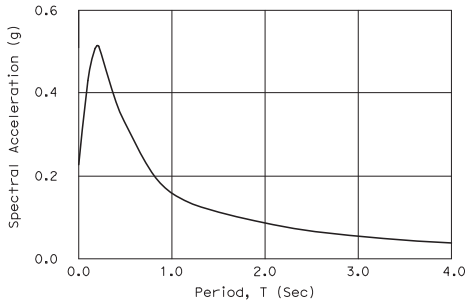
DESIGN: AASHTO LRFD Bridge Design Specifications, 6th Edition and California Amendments, preface dated January 2014

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.7

DEAD LOAD: Includes 35 psf for future wearing surface.

LIVE LOAD: HL93 and permit design load

SEISMIC LOAD: Soil profile: C, Vs30 = 500 m IS
Moment magnitude: M6.2
Peak ground acceleration: 0.22g



ARS DESIGN CURVE
NO SCALE

CONCRETE: fy = 60 ksi
f'c = 3.6 ksi (except as shown on "CONCRETE STRENGTH & TYPE LIMITS" diagram)
n = 8

CALTRANS 2015 STANDARD PLANS

	A3A	ABBREVIATIONS (SHEET 1 OF 3)
	A3B	ABBREVIATIONS (SHEET 2 OF 3)
	A3C	ABBREVIATIONS (SHEET 3 OF 3)
	A10A	LEGEND-LINES AND SYMBOLS (SHEET 1 OF 5)
RSP	A10B	LEGEND-LINES AND SYMBOLS (SHEET 2 OF 5)
	A10C	LEGEND-LINES AND SYMBOLS (SHEET 3 OF 5)
	A10D	LEGEND-LINES AND SYMBOLS (SHEET 4 OF 5)
	A10E	LEGEND-LINES AND SYMBOLS (SHEET 5 OF 5)
	B0-1	BRIDGE DETAILS
RSP	B0-3	BRIDGE DETAILS
	B0-5	BRIDGE DETAILS
	B0-13	BRIDGE DETAILS
	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
	B7-1	BOX GIRDER DETAILS
RSP	B8-5	CAST-IN-PLACE POST-TENSIONED GIRDER DETAILS
RSP	B11-55	CONCRETE BARRIER TYPE 732
	B14-5	WATER SUPPLY LINE (DETAILS) (PIPE SIZES LESS THAN 4")

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/1/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: SMH	10/19/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

REGISTERED PROFESSIONAL ENGINEER — STEVEN G SLUMPER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT: SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

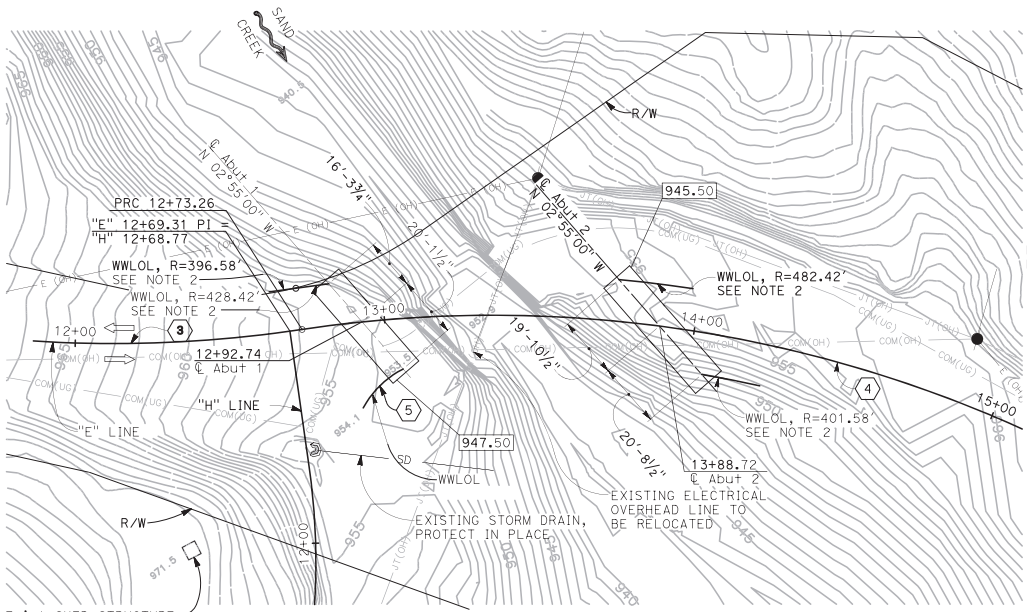
DEPARTMENT OF PUBLIC WORKS AND PLANNING

DECK CONTOURS

DRAWING NO. S-2 | SHEET NO. 17 | TOTAL 28

2015134 (201513452)

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, SEE 'ROADWAY PLANS'



FOUNDATION PLAN

1" = 20'

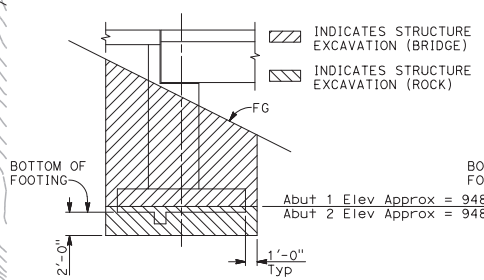
3 Curve Data Layout Line	4 Curve Data Layout Line	5 Curve Data Layout Line
R = 410'	R = 415'	R = 31.58'
△ = 31°10'58"	△ = 38°18'08"	△ = 58°29'25"
T = 114.41'	T = 144.12'	T = 17.18'
L = 223.14'	L = 277.43'	L = 32.24'

NOTES:
1. Verify utility locations with "ROADWAY PLANS".
2. WWLOL is concentric with "E" line.

LEGEND:

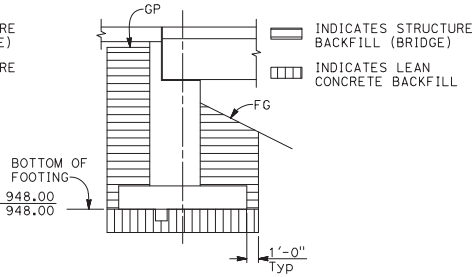
945.50 Indicates bottom of footing elevation

29.6 Indicates spot elevation



LIMITS OF PAYMENT FOR EXCAVATION

NO SCALE



LIMITS OF PAYMENT FOR BACKFILL

NO SCALE

HYDROLOGIC SUMMARY

(PROVIDED BY AVILA & ASSOCIATES - 10/31/2016)

DRAINAGE AREA: 18.2 SQUARE MILES	DESIGN FLOOD	DESIGN FLOOD
FREQUENCY (YEARS)	50	100
DISCHARGE (CUBIC FEET PER SECOND)	2770	3345
WATER SURFACE (ELEVATION AT BRIDGE)	950.2	951.2

FLOOD PLAIN DATA ARE BASED UPON INFORMATION AVAILABLE WHEN THE PLANS WERE PREPARED AND ARE SHOWN TO MEET FEDERAL REQUIREMENTS. THE ACCURACY OF SAID INFORMATION IS NOT WARRANTED BY BIGGS CARDOSA ASSOCIATES AND INTERESTED OR AFFECTED PARTIES SHOULD MAKE THEIR OWN INVESTIGATION.

SPREAD FOOTING DATA TABLE

LOCATION	SERVICE[2] PERMISSIBLE NET CONTACT STRESS (SETTLEMENT) (ksf)	STRENGTH / CONSTRUCTION[3] FACTORED GROSS NOMINAL BEARING RESISTANCE φ_b = 0.45 (ksf), SEE NOTE 4	EXTREME EVENT[3] FACTORED GROSS NOMINAL BEARING RESISTANCE φ_h = 1.00 (ksf)
ABUTMENT 1	9.0	28.0	N/A
ABUTMENT 2	9.0	28.0	N/A

NOTES:
1. Controlling load combination is the one resulting in the highest ratio of q_{gu}/q_R for foundations on soil, or $q_{g\,max}/q_R$ for foundation on rock.
2. Controlling load combination for Service Limit State is the one resulting in the highest ratio of q_{nu}/q_{pn} for foundations on soil, or $q_{g\,max}/q_R$ for foundations on rock.
3. Controlling load combination for Strength, Construction, and Extreme Event is the one resulting in the highest ratio of q_{gu}/q_R for foundations on soil, or $q_{g\,max}/q_R$ for foundations on rock.
4. The value below is the Gross Nominal Bearing Capacity. The Resistance Factor of 0.45 has not been applied.

BENCH MARK AND DATUM

MONUMENT	COORDINATES NORTHING	COORDINATES EASTING	ELEVATION	DESCRIPTION/LOCATION
HN1G	2002915.567	6372176.001	252.141	COORDINATE VALUES WERE GPS DERIVED IN CALIFORNIA STATE PLAN COORDINATES, ZONE 4, EPOCH 2011 (NAD83) USING CSDS CONTINUALLY MONITORING STATION "HN1G", LOCATED IN HANFORD, CA

SCOUR DATA TABLE

SUPPORT No.	LONG TERM (DEGRADATION AND CONTRACTION) SCOUR ELEVATION (ft)	SHORT TERM (LOCAL) SCOUR DEPTH (ft)
ABUTMENT 1	N/A	N/A
ABUTMENT 2	N/A	N/A

* FOUNDATION IS EMBEDDED INTO ROCK. NO SCOUR ANALYSIS REQUIRED.

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/15/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: DM	10/8/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

BCA

REGISTERED PROFESSIONAL ENGINEER — STEVEN G. SUMPER — No. S6280 Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT: SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

THE COUNTY OF FRESNO

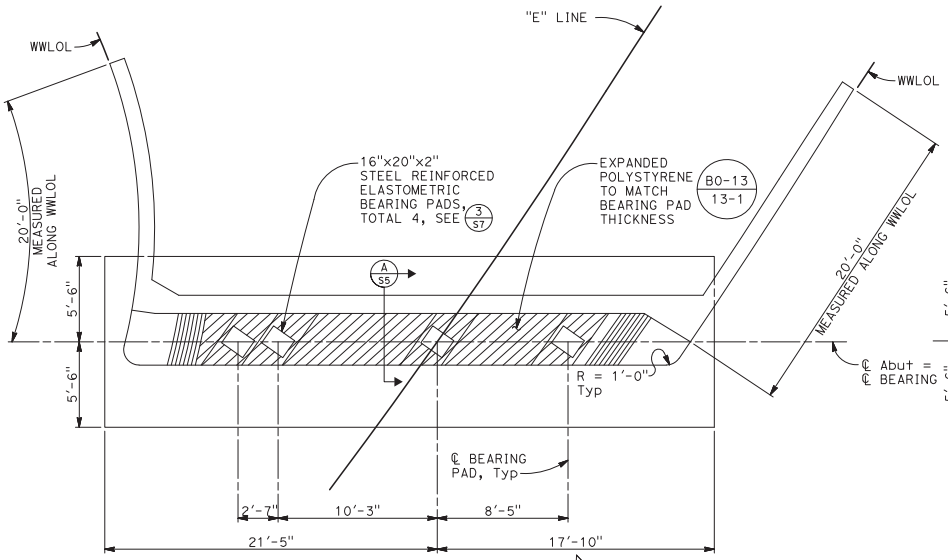
DEPARTMENT OF PUBLIC WORKS AND PLANNING

FOUNDATION PLAN

DRAWING NO. S-3 | SHEET NO. 18 | TOTAL 28

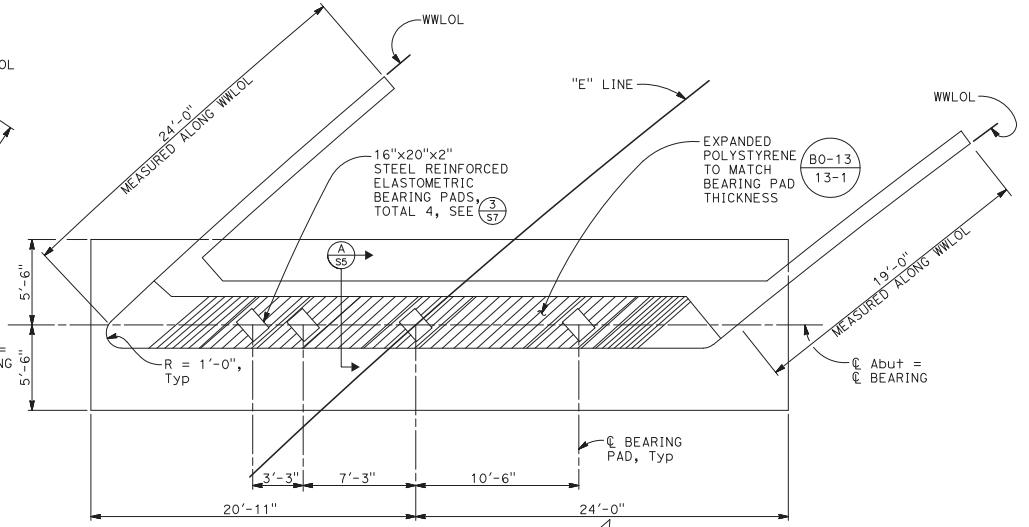
(201513453)

2015134



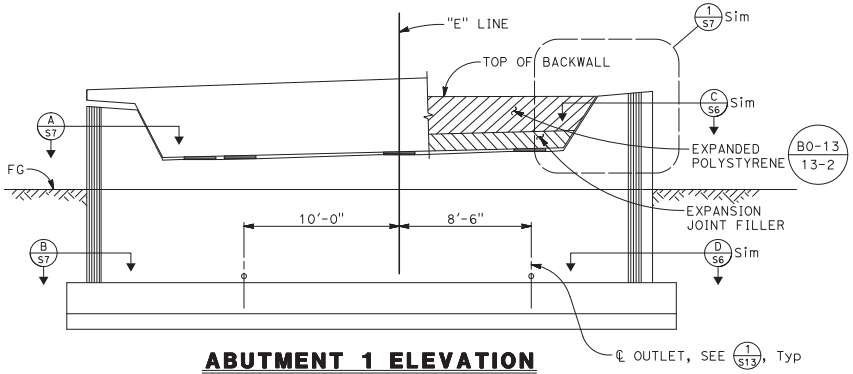
ABUTMENT 1 PLAN

1/4" = 1'-0"



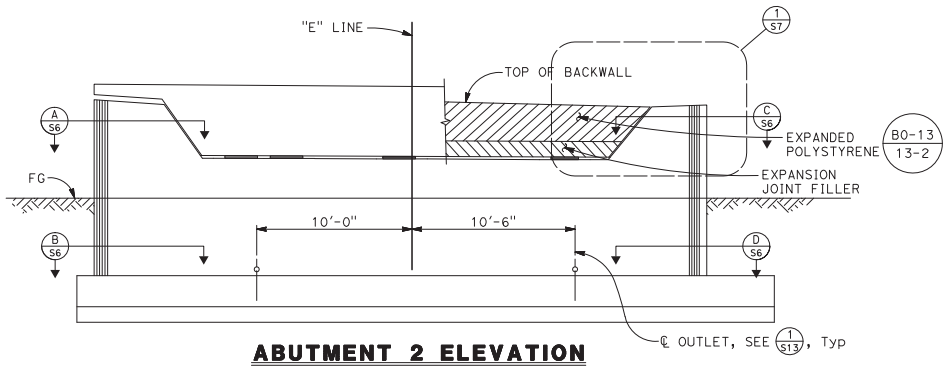
ABUTMENT 2 PLAN

1/4" = 1'-0"



ABUTMENT 1 ELEVATION

1/4" = 1'-0"



ABUTMENT 2 ELEVATION

1/4" = 1'-0"

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/15/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/1315	RESIDENT ENGINEER	
DRAWN: DM	10/13/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

REGISTERED PROFESSIONAL ENGINEER — STEVEN G. SUMPER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT: SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

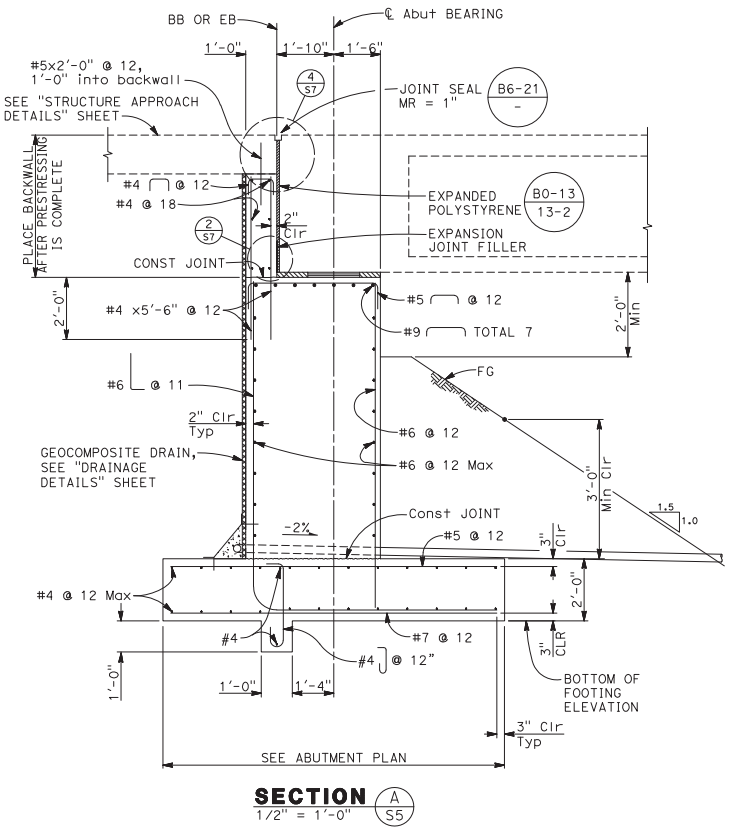
ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

DEPARTMENT OF PUBLIC WORKS AND PLANNING

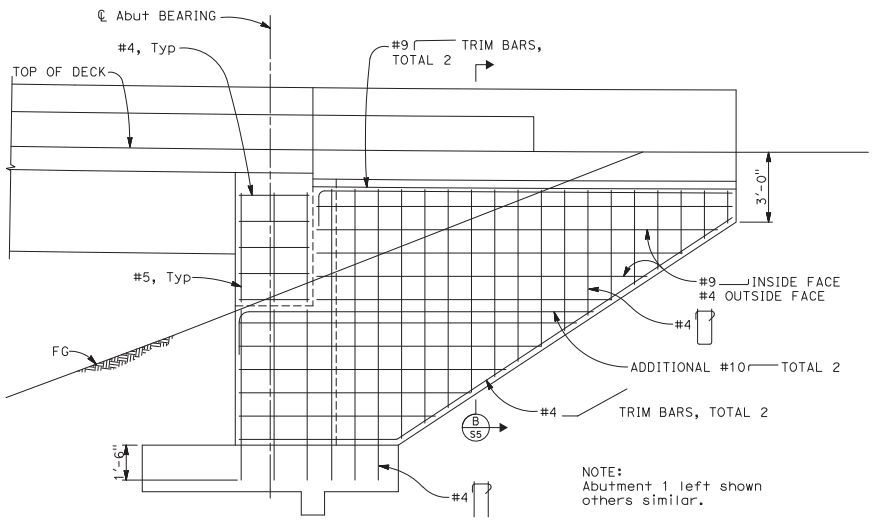
ABUTMENT LAYOUT

DRAWING NO. S4 | SHEET NO. 19 | TOTAL 28

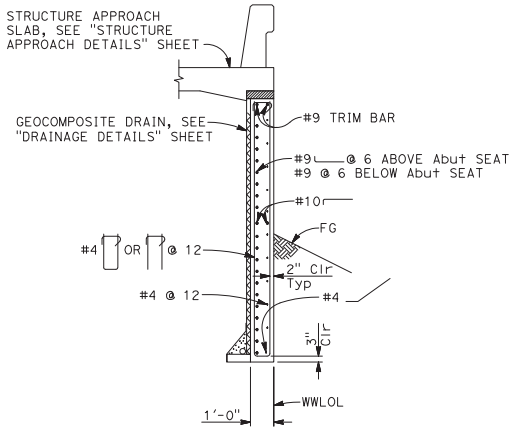
2015134



SECTION (A / S5)
1/2" = 1'-0"



ABUTMENT WINGWALL ELEVATION
3/8" = 1'-0"



SECTION (B / S5)
3/8" = 1'-0"

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/15/19)

	DATE	RECORD DRAWING		SCALE
DESIGNED: RBS	10/1315	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: DM	10/13/15			
CHECKED: ML	0214/17			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

BCA

REGISTERED PROFESSIONAL ENGINEER — STEVEN G. SUMPTER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

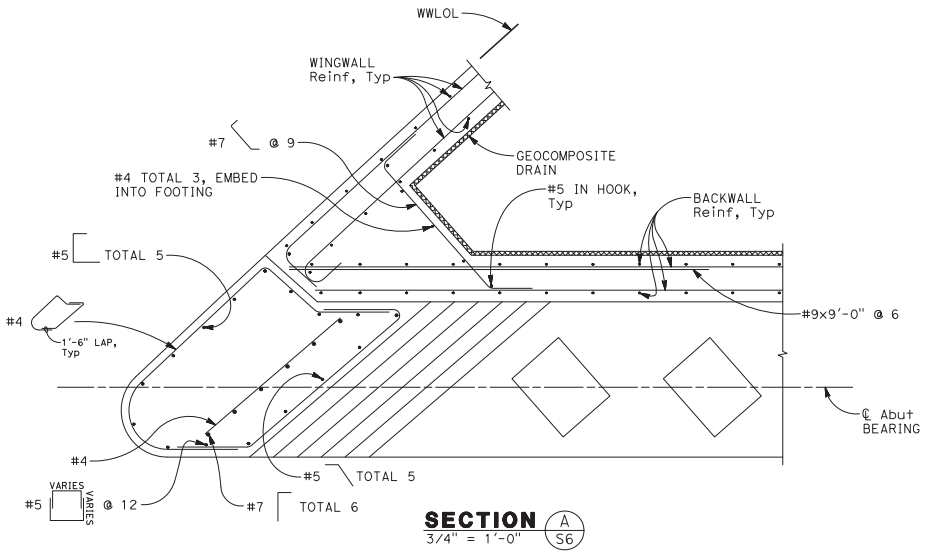
THE COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

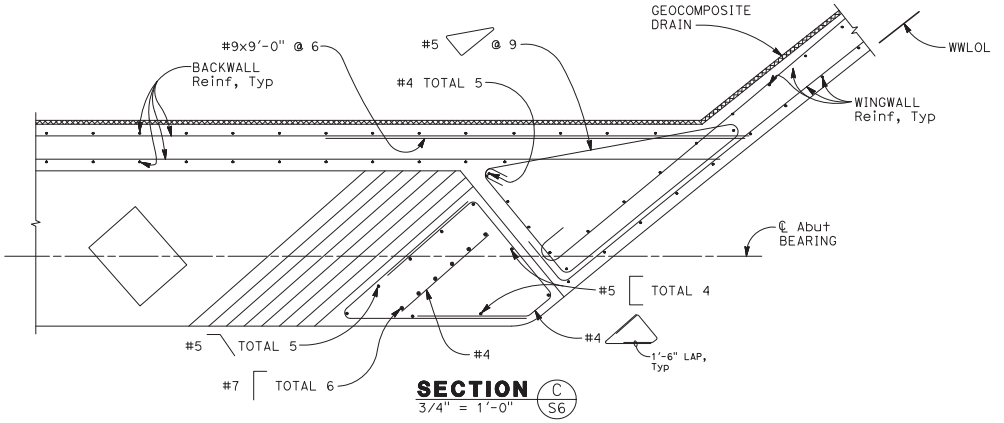
ABUTMENT DETAILS No. 1

DRAWING NO. S-5 | SHEET NO. **20** | TOTAL **28**

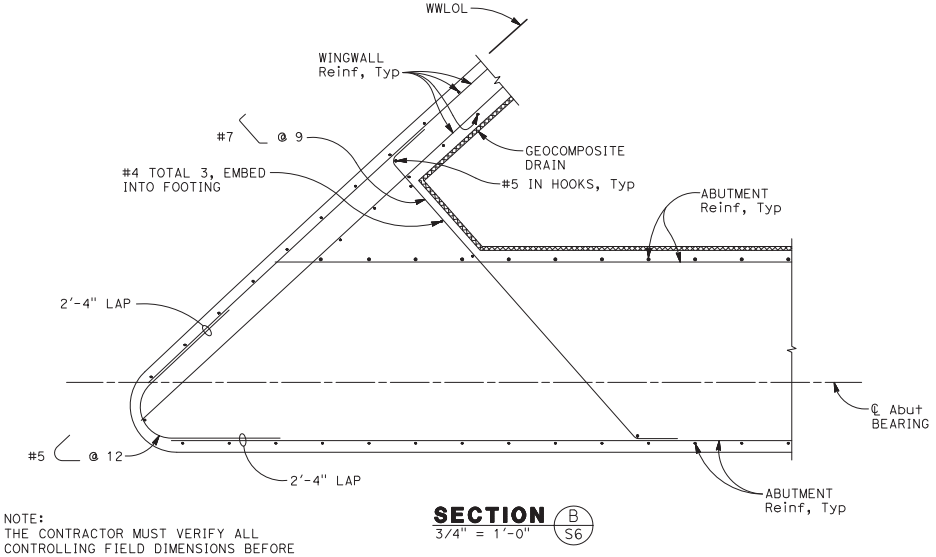
2015134 (2015134S)



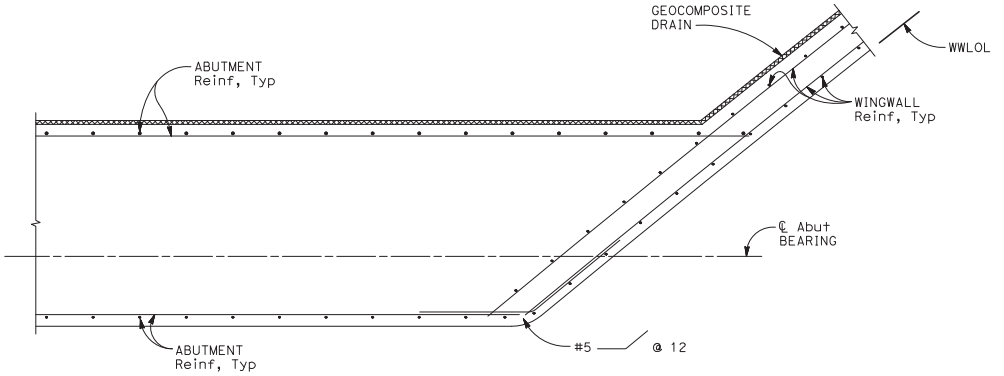
SECTION (A) S6
3/4" = 1'-0"



SECTION (C) S6
3/4" = 1'-0"



SECTION (B) S6
3/4" = 1'-0"



SECTION (D) S6
3/4" = 1'-0"

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/4/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/1315	RESIDENT ENGINEER	
DRAWN: DM	10/13/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

BCA

REGISTERED PROFESSIONAL ENGINEER — STEVEN G. SUMPER — No. S6280 Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT
ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

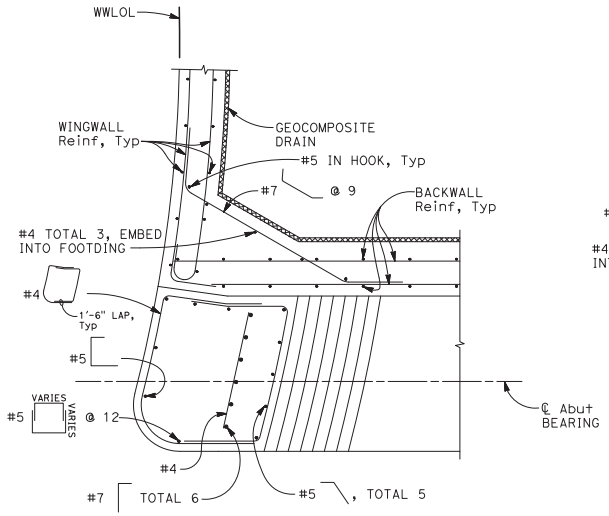
THE COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

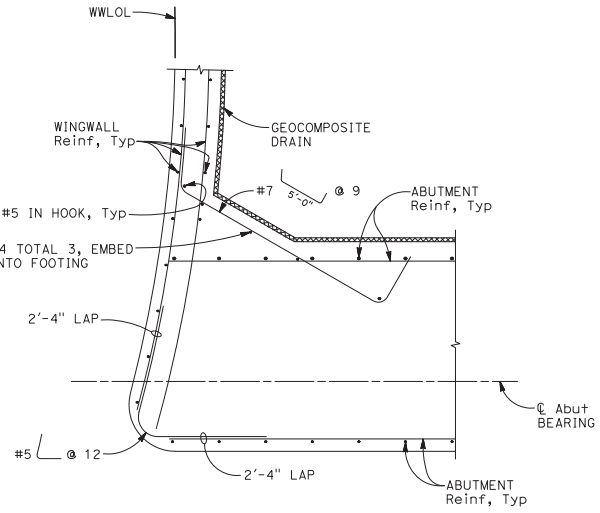
ABUTMENT DETAILS No. 2

DRAWING NO. S-6 | SHEET NO. 21 | TOTAL 28

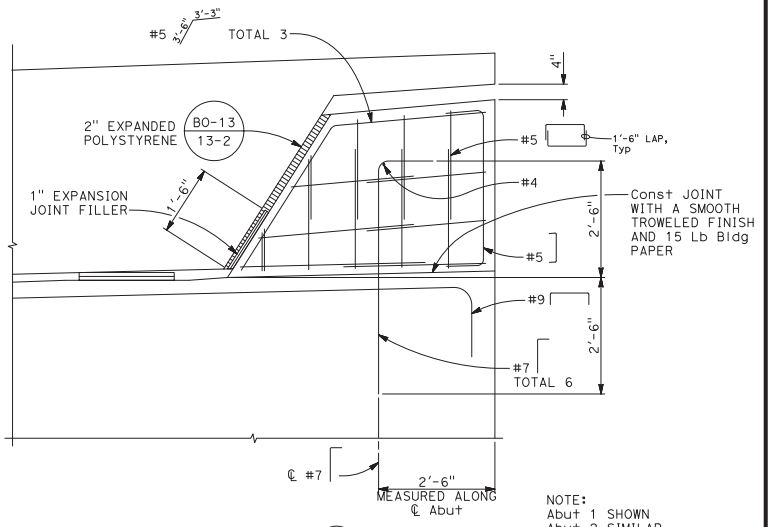
2015134 (2015134B)



SECTION A — 3/4" = 1'-0" — S7

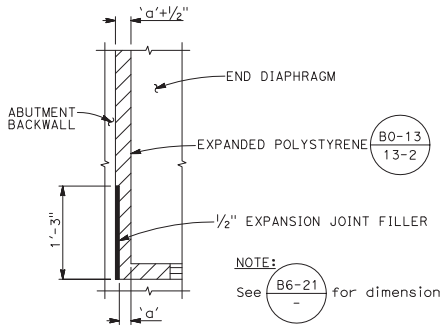


SECTION B — 3/4" = 1'-0" — S7

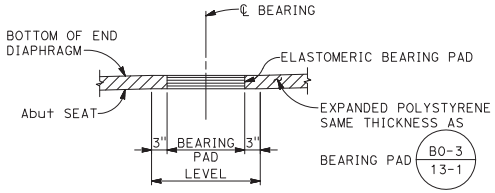


NOTE:
Abut 1 SHOWN
Abut 2 SIMILAR

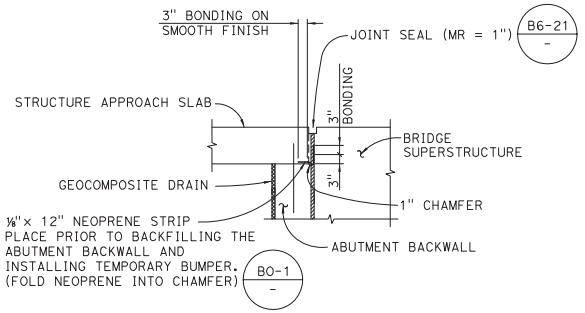
DETAIL 1 — 3/4" = 1'-0" — S7



DETAIL 2 — NO SCALE — S7



DETAIL 3 — 1" = 1'-0" — S7



JOINT PROTECTION DETAIL 4 — NO SCALE — S7

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/4/19)

	DATE	RECORD DRAWING		SCALE
DESIGNED: RBS	10/1315	RESIDENT ENGINEER	DATE	AS SHOWN
DRAWN: DM	10/13/15			
CHECKED: ML	0214/17			

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

BCA

REGISTERED PROFESSIONAL ENGINEER — STEVEN G. SUMPER — No. S6280 Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

THE COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

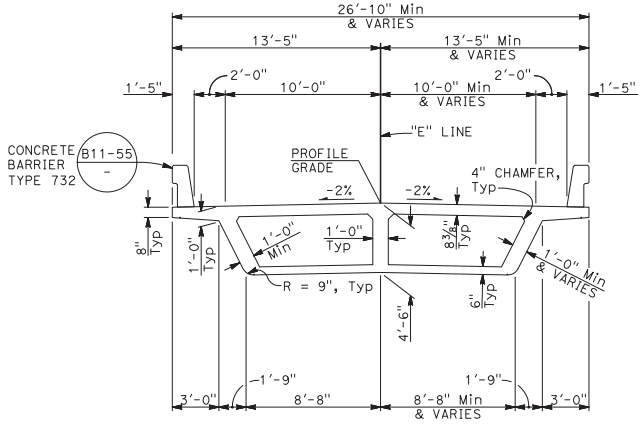
ABUTMENT DETAILS No. 3

DRAWING NO. S-7 | SHEET NO. 22 | TOTAL 28

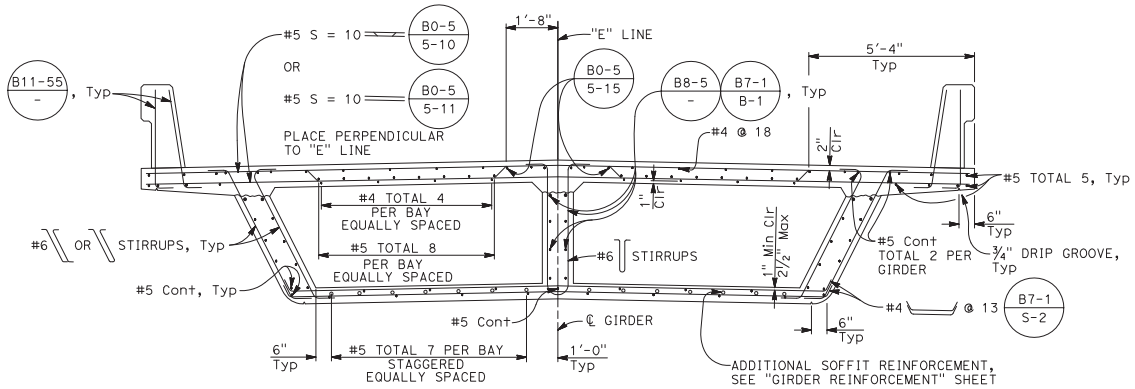
(20151347)

2015134

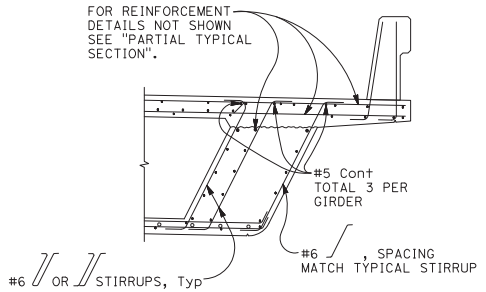
NOTES:
1. All dimensions are measured perpendicular to the "E" Line.
2. Transverse deck and soffit reinforcement shall be placed normal to the "E" Line and shall be spaced along "E" Line.



TYPICAL SECTION
1/4" = 1'-0"



PARTIAL TYPICAL SECTION
1/2" = 1'-0"



WHEN GIRDER FLARE IS GREATER THAN 1'-8"

PARTIAL TYPICAL SECTION
1/2" = 1'-0"

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/11/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: DM	10/8/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

REGISTERED PROFESSIONAL ENGINEER — STEVEN G. SLUYTER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT: SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

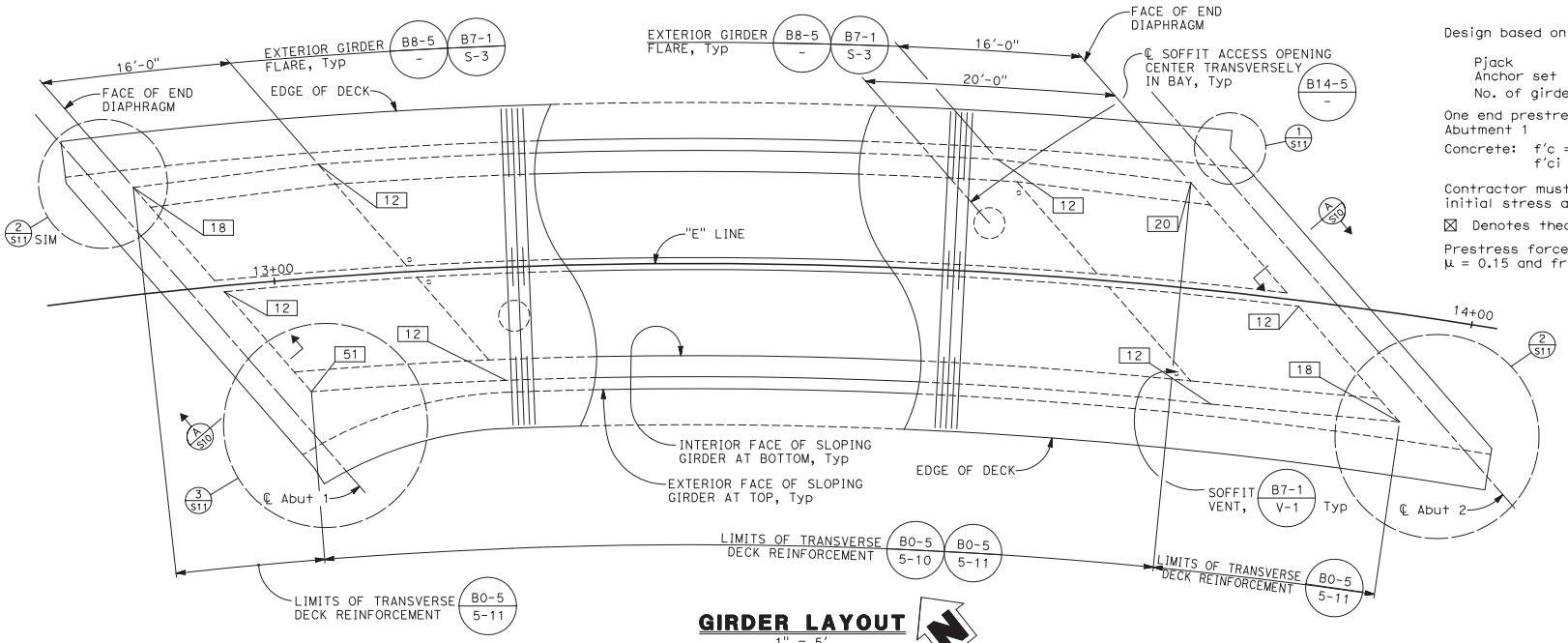
THE COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

TYPICAL SECTION

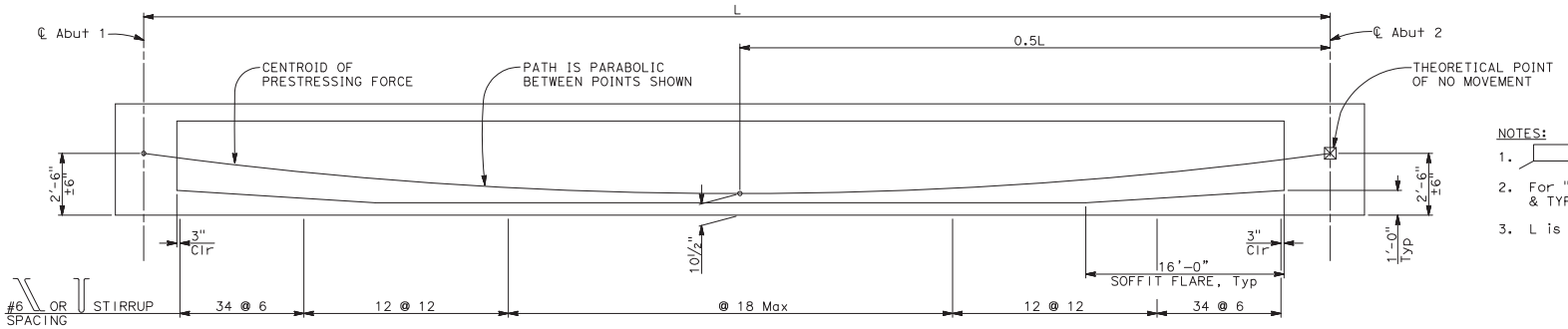
DRAWING NO. S-8 | SHEET NO. 23 | TOTAL 28

(2015134)



GIRDER LAYOUT

1" = 5'



LONGITUDINAL SECTION

NO SCALE

PRESTRESSING NOTES

Design based on 270 ksi Low Relaxation Strand:

Pjack	= 5900 kips
Anchor set	= ⅜ in
No. of girders	= 3

One end prestressing shall be performed from Abutment 1

Concrete: f'c = 4000 psi @ 28 days
f'ci = 3500 psi @ time of stressing

Contractor must submit elongation calculations based on initial stress at ☒ = 0.943 times jacking stress

☒ Denotes theoretical point of no movement

Prestress force design is based on friction coefficient μ = 0.15 and friction wobble coefficient k=0.0002/ft.

NOTES:

1. ☐ Indicates girder stem width in inches
2. For "CAMBER DIAGRAM" and "CONCRETE STRENGTH & TYPE LIMITS", see "DECK CONTOURS" sheet.
3. L is measured along the ℄ of each girder.

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/1/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: DM	10/8/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
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REGISTERED PROFESSIONAL ENGINEER — STEVEN G SLUYTER — No. S6280 Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT: SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

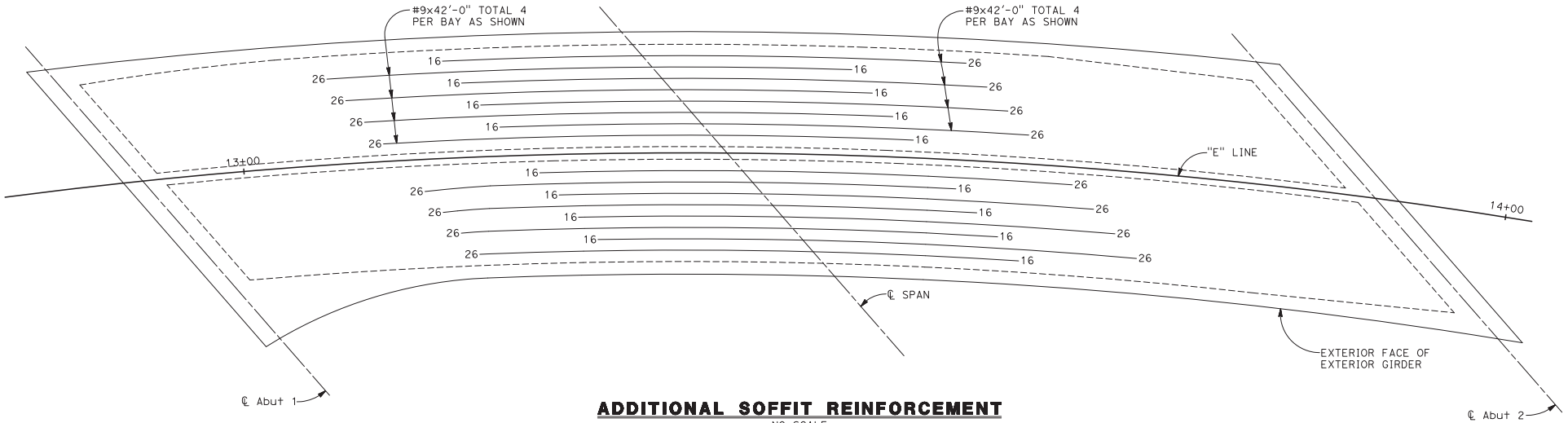
ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

DEPARTMENT OF PUBLIC WORKS AND PLANNING

GIRDER LAYOUT

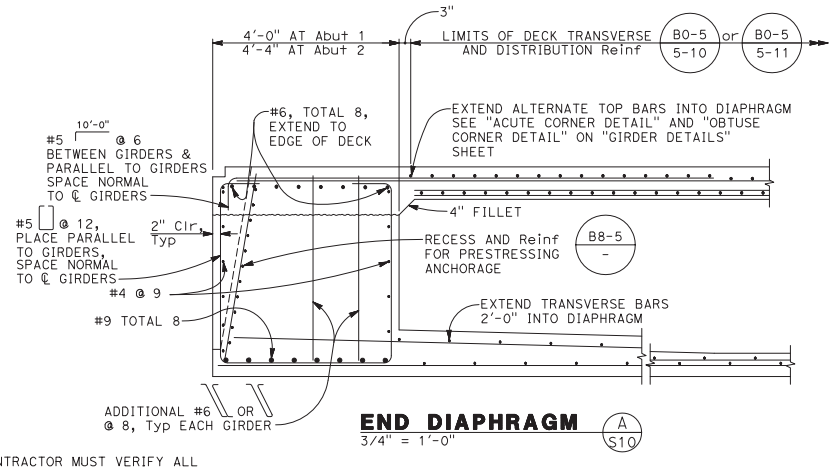
DRAWING NO. S-9 | SHEET NO. 24 | TOTAL 28

2015134 (2015134)



ADDITIONAL SOFFIT REINFORCEMENT

NO SCALE



END DIAPHRAGM

3/4" = 1'-0"

A
S10

NOTE:
THE CONTRACTOR MUST VERIFY ALL
CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL

NOTES:

1. Reinforcement shown is in addition to reinforcement on "TYPICAL SECTION" sheet.
2. All bars shall be evenly spaced within each bay.
3. Reinforcement shall be placed parallel to "E" Line.
4. Additional deck reinforcement not required. See "TYPICAL SECTION" sheet for all deck reinforcement.
5. No splices allowed in #9x42'-0" additional reinforcement.
6. Number at end of bar indicates distance in feet from ℄ Span.

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/1/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: DM	10/8/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

REGISTERED PROFESSIONAL ENGINEER — STEVEN G SUMPTER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT: SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

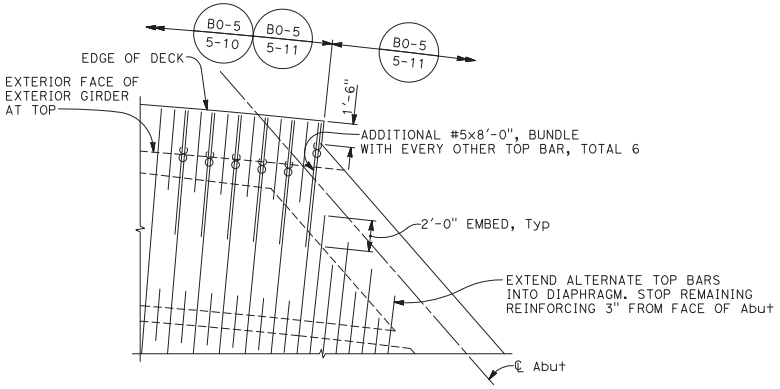
DEPARTMENT OF PUBLIC WORKS AND PLANNING

GIRDER REINFORCEMENT

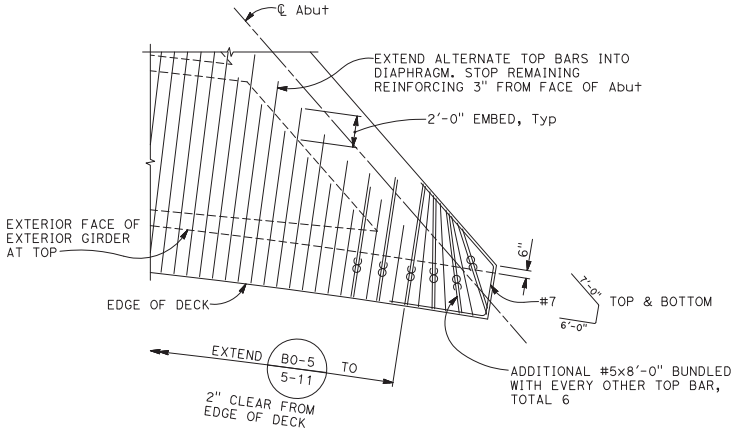
DRAWING NO. S-10 | SHEET NO. 25 | TOTAL 28

2015134

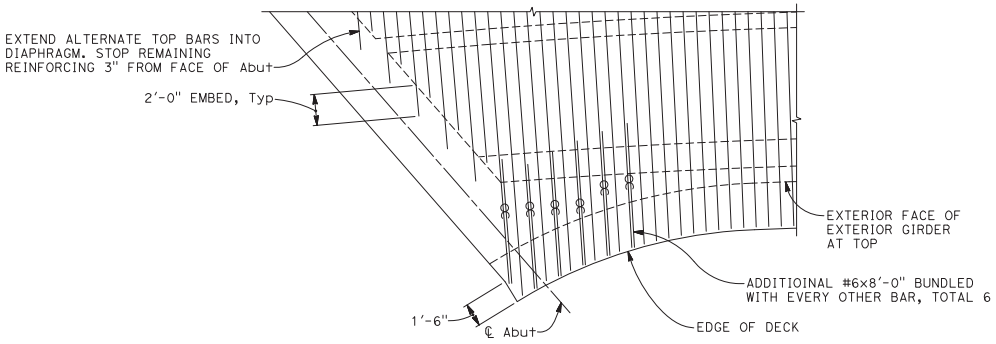
2015134510



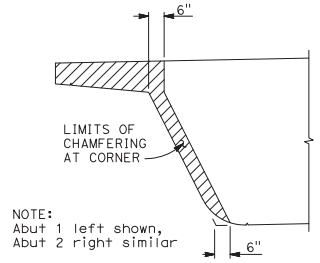
OBTUSE CORNER DETAIL 1/S11
NO SCALE



ACUTE CORNER DETAIL 2/S11
NO SCALE



OBTUSE CORNER DETAIL 3/S11
NO SCALE



SECTION A/S11
1/2" = 1'-0"

NOTE:
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CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/1/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/8/15	RESIDENT ENGINEER	
DRAWN: SMH	10/8/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

BCA

REGISTERED PROFESSIONAL ENGINEER — STEVEN G SLUYTER — No. S6280 — Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT
ON ENNIS ROAD

ROAD NO. BRIDGE NO. 42C0697, BRLO-5942(238)

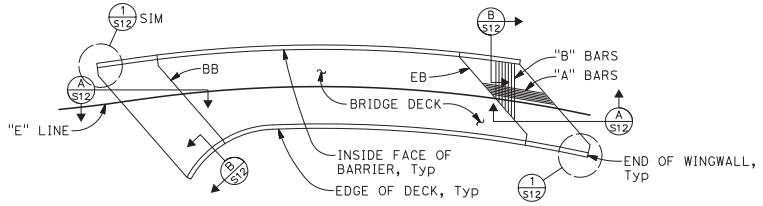
THE COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

GIRDER DETAILS

DRAWING NO. S-11 SHEET NO. 26 TOTAL 28

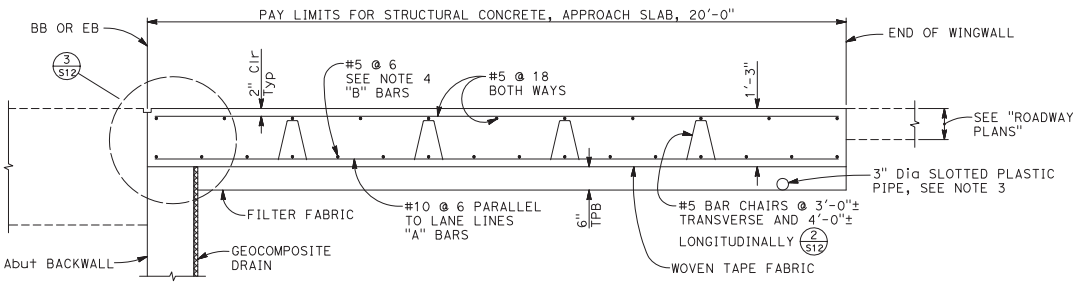
(2015134511) 2015134



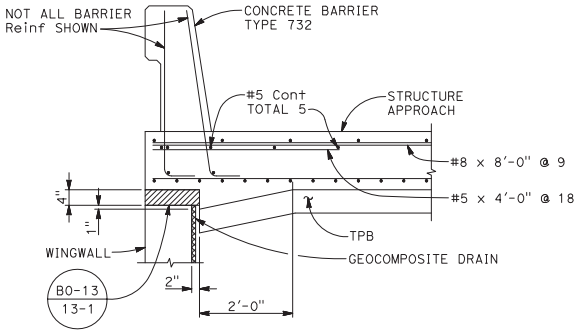
PLAN
1" = 20'

NOTES:
1. Longitudinal construction joints,when permitted by the Engineer, shall be located on lane lines.
2. For drainage details, see "DRAINAGE DETAILS" sheet.
3. Spacing of transverse reinforcement is measured along ℄ roadway.
4. Provide cross slope to match deck surface grade. See "TYPICAL SECTION" and "DECK CONTOURS" sheets.

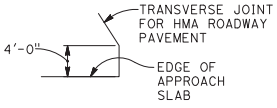
LEGEND:
Remove all polystyrene after concrete is cured.



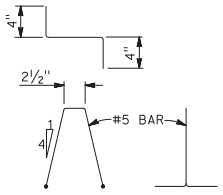
SECTION A
3/4" = 1'-0"
S12



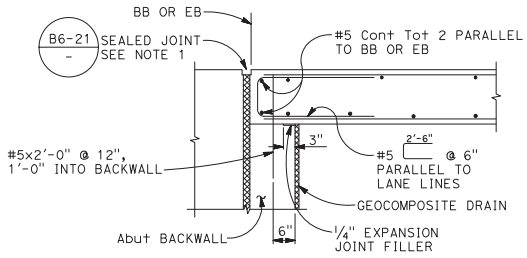
SECTION B
3/4" = 1'-0"
S12



DETAIL 1
NO SCLAE
S12



BAR CHAIR DETAIL 2
1 1/2" = 1'-0"
S12



SEAT TYPE ABUTMENT TIE DETAILS 3
3/4" = 1'-0"
S12

NOTE:
THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL

PLAN CHECK SET/NOT FOR CONSTRUCTION (11/4/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/13/15	RESIDENT ENGINEER	
DRAWN: DM	10/13/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

BCA

REGISTERED PROFESSIONAL ENGINEER RANDALL G SUPPER No. S6280 Exp.12/31/20 STRUCTURAL STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. BRIDGE NO. 42C0697, BRLO-5942(238)

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

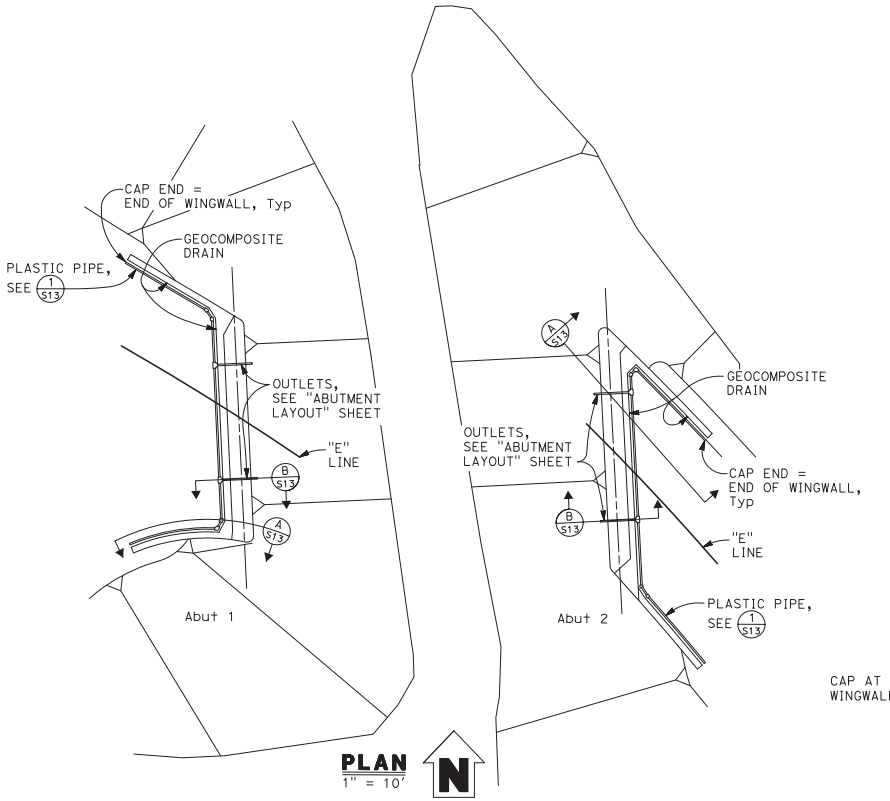
STRUCTURE APPROACH DETAILS

DRAWING NO. S-12 SHEET NO. 27 TOTAL 28

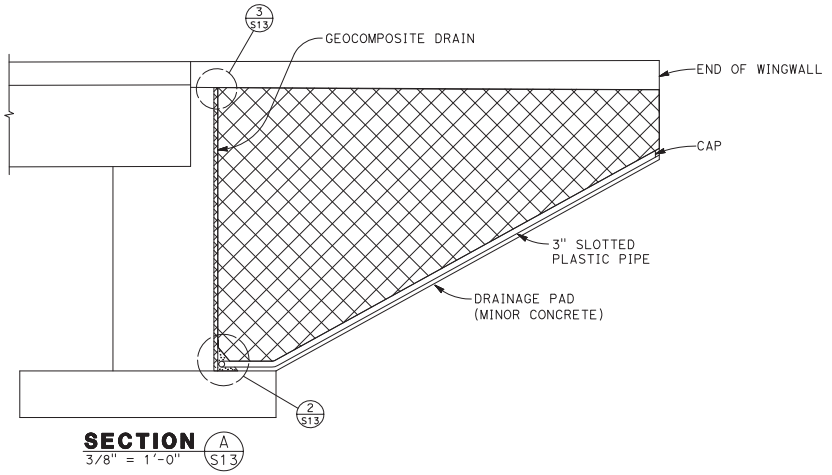
20151345(12)

20151345

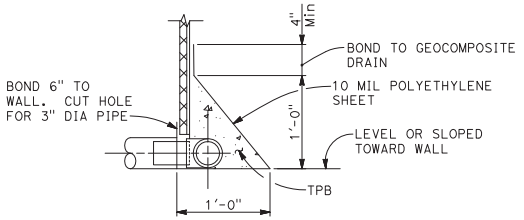
NOTES:
1. 4" dia drains at locations shown on abutment elevations. Exposed wall drains shall be located 3"± Min above finished grade.
2. Geocomposite drain, treated permeable base, and 3" dia slotted plastic pipe continuous behind abutment. Cap ends of pipe. Provide "Tee" connection at each 4" dia drain.
3. All bends in plastic pipe must have 3'-0" minimum radius. Plastic pipe used for bends is not required to be slotted.



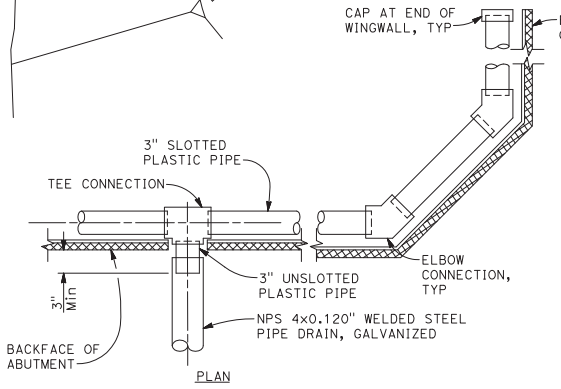
PLAN
1" = 10'



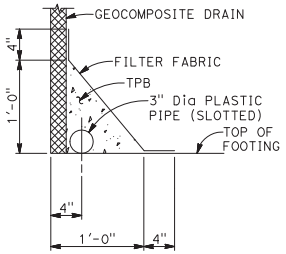
SECTION A/S13
3/8" = 1'-0"



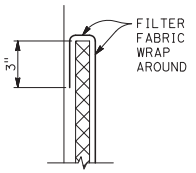
SECTION B/S13
1 1/2" = 1'-0"



DETAIL 1/S13
1 1/2" = 1'-0"



DETAIL 2/S13
1 1/2" = 1'-0"



DETAIL 3/S13
1 1/2" = 1'-0"

NOTE:
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PLAN CHECK SET/NOT FOR CONSTRUCTION (11/4/19)

	DATE	RECORD DRAWING	DATE
DESIGNED: RBS	10/1315	RESIDENT ENGINEER	
DRAWN: DM	10/13/15		
CHECKED: ML	0214/17		

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS DETERMINATION, SEE DOCUMENTS IN THE DEPARTMENT OF PUBLIC WORKS AND PLANNING.

SCALE: AS SHOWN

BIGGS CARDOSA ASSOCIATES INC
STRUCTURAL ENGINEERS
5250 N. Palm Avenue, Suite 211
Fresno, California 93704
559-449-8686

REGISTERED PROFESSIONAL ENGINEER — STEVEN G SLUMPER — No. S6280 Exp.12/31/20 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT
SAND CREEK BRIDGE REPLACEMENT ON ENNIS ROAD

ROAD NO. | BRIDGE NO. 42C0697, BRLO-5942(238)

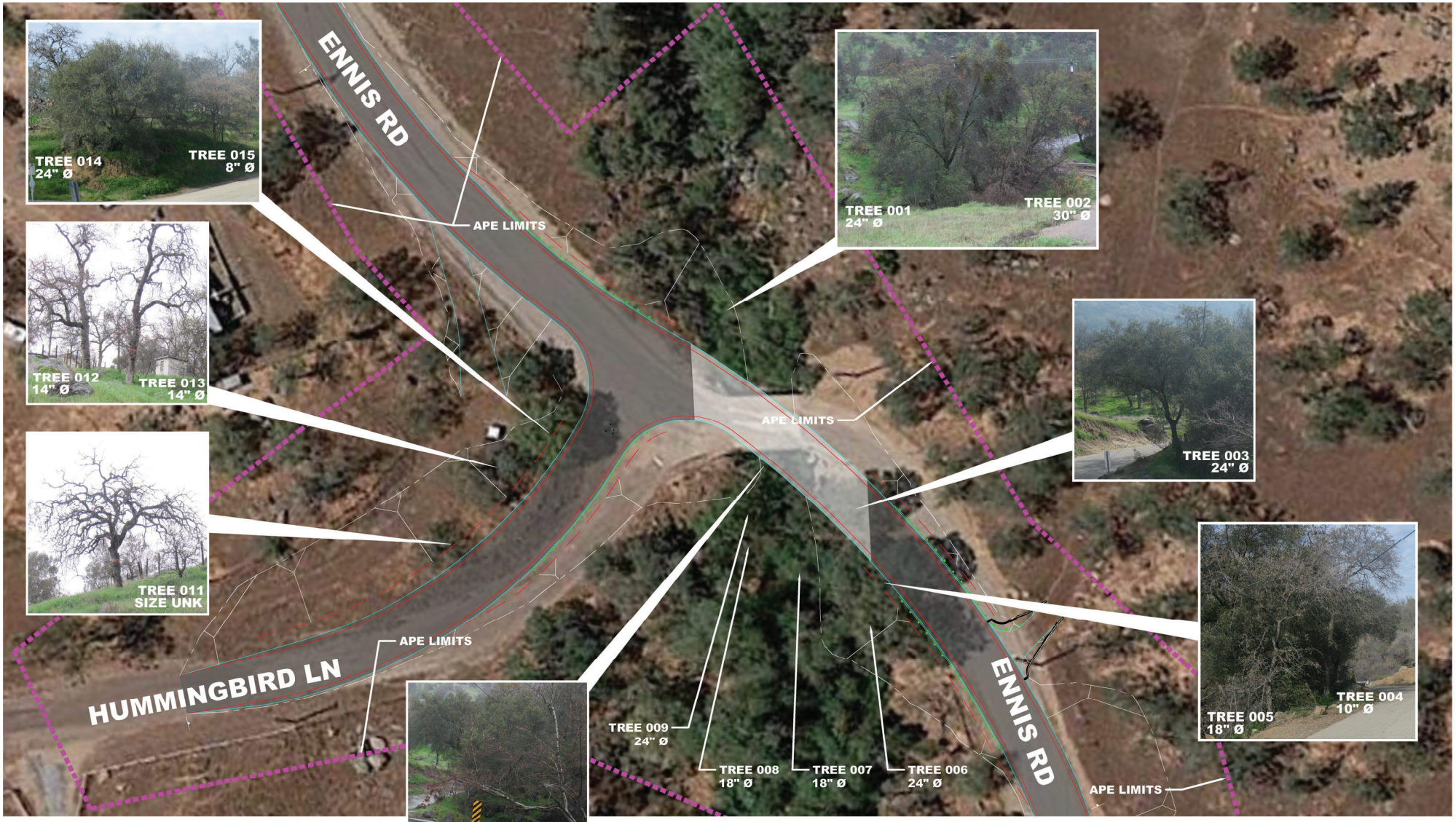
THE COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

DRAINAGE DETAILS

DRAWING NO. S-13 | SHEET NO. 28 | TOTAL 28

2015134 (2015134513)



GRAPHIC SCALE
20 0 20 40
(IN FEET)
1 IN = 20 FT
(FOR FULL SIZE 22x34)

N

THE COUNTY OF FRESNO 1856

BkF
ENGINEERS | SURVEYORS | PLANNERS
4675 MACARTHUR COURT, SUITE 400
NEWPORT BEACH, CA 92660
(949) 526-8460

SAND CREEK BRIDGE ON ENNIS ROAD
TREE REMOVAL EXHIBIT

JULY 26, 2017

Sand Creek Bridge Replacement Project
Mitigation Monitoring and Reporting Program
and Project Notes

Mitigation Measures					
Impact	**No.**	**Mitigation Measure Language**	**Implementation Responsibility**	**Monitoring Responsibility**	**Time Span**
Cultural Resources	1.	In the event that cultural resources are unearthed during ground disturbing activities, all work shall be halted in the area of the find. An Archeologist shall be called to evaluate the findings and make any necessary mitigation recommendations. If human remains are unearthed during ground disturbing activities, no further disturbance is to occur until the Fresno County Sheriff-Coroner has made the necessary findings as to origin and disposition. All normal evidence procedures should be followed by photos, reports, video, and etc. If such remains are determined to be Native American, the Sheriff-Coroner must notify the Native American Commission within 24 hours. The applicant shall contact the Dumna Wo Wah Tribal Government by email at ledgerrobert@ymail.com	Applicant	Fresno County Design Division, Department of Public Works and Planning	During all ground-disturbing activities
Biological Resources	2.	In order to avoid impacts to nesting raptors and migratory birds, project activities will occur, where possible, outside the nesting season. The nesting season is generally February 15-September 1. If project activities must occur during the nesting season (February 15-September 1), a qualified biologist will conduct pre-construction surveys within the BSA** for active raptor and migratory bird nests within 30 days of the onset of these activities. If no active nests are found within the BSA, no further mitigation is required.	Applicant	Fresno County Design Division, Department of Public Works and Planning	February 15 through September 1
	3.	Should any active nests be discovered within the BSA**, the biologist shall determine the appropriate construction setback distances based on applicable CDFW guidelines and/or the biology of the affected species. Construction-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.	Applicant	Fresno County Design Division, Department of Public Works and Planning	

Biological Resources	4.	In order to avoid impacts to bats, construction should seek to avoid the maternal roosting period if possible (generally May – August). If that period cannot be accommodated, exclusionary devices shall be installed prior to the maternal roosting period so the bats cannot use the bridge for maternal roosting during the construction period. If construction is planned outside the maternal roosting period (generally September – February), exclusionary devices will be installed at least seven days before work can commence. By waiting the seven days, the bats can exit the bridge and relocate to another location in the vicinity. Once these devices have been installed, they must be maintained and kept in good working order. Work on the bridge deck can occur anytime without work window restrictions.	Applicant	Fresno County Design Division, Department of Public Works and Planning	May through August
Biological Resources	5.	In order to avoid affects to the California Tiger Salamander (CTS), the following measures shall be implemented: a. Retain a biologist to conduct a preconstruction survey b. Install drift fences around the perimeter of the project impact area to prevent any CTS from moving into the area c. Retain a biologist to monitor the BSA** during construction to ensure that no CTS are harmed. d. Retain a biologist to provide construction worker education for CTS.	Applicant	Fresno County Design Division, Department of Public Works and Planning	Ongoing
Biological Resources	6.	Preconstruction surveys for foothill yellow-legged frog (Rana boylii) and western pond turtle (Emys marmorata) shall be conducted no more than 14 days prior to the beginning of ground disturbance and/or construction activities. Surveys for the yellow-legged frog shall be conducted in accordance with “A Standardized Protocol for Surveying Aquatic Amphibians” (Fellers and Freel, 1995) and “The Declining Amphibian Task Force Fieldwork Code of Practice” (DAPTF 1998). Written results of preconstruction surveys must be maintained by the County within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If these species are discovered, the County shall consult with the CDFW to obtain the appropriate guidance to avoid this species. If take is unavoidable, the Applicant shall obtain an	Applicant	Fresno County Design Division, Department of Public Works and Planning	Less than 14 days prior to the start of ground-disturbing activities

		Incidental Take Permit, issued by the California Department of Fish and Wildlife.			
Biological Resources	7.	The project shall implement the "Standardized Recommendations for Protection of the Endangered San Joaquin kit fox Prior to or During Ground Disturbance" (USFWS 2011).	Applicant	Fresno County Design Division, Department of Public Works and Planning	Ongoing
Land Use and Planning	8.	The disturbance or removal of riparian and other vegetation shall not exceed the minimum necessary to complete operations (with the exception of non-native, invasive plant species) and shall only occur within the defined work area. Precautions shall be taken to avoid other damage to vegetation by people or equipment. The disturbed portions of the stream bed, banks or channel shall be restored to as near their original condition as possible (see Restoration below).	Applicant	Fresno County Design Division, Department of Public Works and Planning	Ongoing
Land Use and Planning	9.	Native riparian shrubs and trees, and oak trees with trunks greater than or equal to four (4) inches diameter measured at breast height (DBH), if removed during Project activities shall be mitigated for by implementation of a Revegetation Plan described in Restoration below.	Applicant	Fresno County Design Division, Department of Public Works and Planning	Prior to operation
Land Use and Planning	10.	**Restoration** shall include the revegetation of all disturbed soils and new fill, including recontoured slopes and all other cleared areas, with riparian vegetation or other plants as appropriate. The Applicant shall have a qualified biologist prepare and implement a Revegetation Plan and submit it to the California Department of Fish and Wildlife for approval prior to commencement of the proposed work. The Revegetation Plan shall address the following: A. Compensation for removed trees by: * Identifying species damaged or removed during Project activities. * Describing how, where and when replacement shrubs and trees will be planted: - Riparian trees (i.e. willow, cottonwood, poplar, alder, ash, etc.) and shrubs shall be replaced in-kind, at a minimum replacement ratio of 4:1, and planted in the	Applicant	Fresno County Design Division, Department of Public Works and Planning	Prior to operation

		nearest suitable location to the area where they were removed. - Oaks having a DBH of greater than four (4) inches shall be replaced in-kind, at a minimum ratio of 4:1, and planted during the winter dormancy period in the nearest suitable location to the area where they were removed. Heritage trees greater than 24 inches DBH shall be replaced at a minimum 10:1 ratio. - Non-native, invasive plant species (i.e., arundo and tree-of-heaven) may be removed and replaced with native riparian species. * Proposing measures to be taken (i.e. irrigation methods if necessary and maintenance) to ensure a performance criteria of 75 percent survival of planted trees for a period of three (3) consecutive years and an additional two (2) years without assistance. B. Seeding and mulching exposed slopes, or stream banks not revegetated with riparian shrubs or trees, with a blend of a minimum of three (3) locally native grass species: * One (1) or two (2) sterile non-native perennial grass species may be added to the seed mix provided that the amount does not exceed 25 percent of the total seed mix by count. * Locally native wildflower and/or shrub seeds may also be included in the seed mix. * Seeding shall be completed as soon as possible, but no later than November 15 of the year construction ends. * A seed mixture shall be submitted to the Department for approval prior to application. At the discretion of the California Department of Fish and Wildlife, all exposed areas where seeding is considered unsuccessful after 90 days shall receive appropriate soil preparation and a second application of seeding, straw, or mulch as soon as is practical on a date mutually agreed upon.			

Land Use and Planning	11.	Where suitable vegetation cannot be reasonably expected to become established, non-erodible materials shall be used for such stabilization. Any installation of non-erodible materials not described in the original Project description shall be coordinated with the Department. Coordination may include the negotiation of additional Agreement Provisions for this activity.	Applicant	Fresno County Design Division, Department of Public Works and Planning	Prior to operation
Land Use and Planning	12	Applicant shall submit annually a Restoration Monitoring Report. The Restoration Monitoring Report shall be submitted to the California Department of Fish and Wildlife in December of each year until the performance criteria described in the Revegetation Plan is met. The report shall assess the revegetation status, effectiveness of maintenance methods, whether or not revegetation is expected to achieve the performance criteria, and shall propose additional measures that will be taken to achieve the performance criteria during the next year. Photo documentation of monitoring and maintenance for each year shall be part of the annual reports.	Applicant	Fresno County Design Division, Department of Public Works and Planning	

**The Biological Study Area (BSA) includes the Project Impact Area and approximately 100 feet beyond the County Right-of-Way.

Notes		
Hazards and Hazardous Waste	1.	As for all projects proposing excavation or grading, the potential exists for unknown hazardous contamination to be encountered during the project construction. Therefore, for any previously unknown hazardous waste/material encountered as part of construction of the proposed project, the procedures outlined in Appendix E (Caltrans Unknown Hazards Procedures) shall be followed.
Hydrology and Water Quality	2.	The project is anticipated to be eligible for a Nationwide Permit (NWP) 14 Linear Transportation Projects. A Pre-construction Notification is required only for projects over 0.1 acres under the NWP 14.
Hydrology and Water Quality	3.	The project requires a Section 401 Water Quality certification to be issued by the Regional Water Quality Control Board.
Hydrology and Water Quality	4.	The project requires a Section 1600 Streambed Alteration Agreement to be issued by the California Department of Fish and Wildlife.

Hydrology and Water Quality	5.	The Proposed Project requires a National Pollution Discharge Elimination System (NPDES) General Construction Permit for Discharges of storm water associated with construction activities. A Storm Water Pollution Prevention Plan (SWPPP) shall also be developed and implemented as part of the Construction General Permit.

CMM:
Y:\Projects - Road & Bridge Folders\HBP - Sand Creek on Ennis (I11112)\CEQA, NEPA\CEQA IS-MND-MMRP-NOI-NOD\Board January 2019\IS 7217 MMRP.docx

Response to Incomplete Notification No. 1600-2020-0116-R4
Bridge No. 42C0099 Ennis Road over Sand Creek, Fresno County
Attachment F - Site Photos

Photo #1 View of Sand Creek Bridge, facing north.

Photo #2 View of Ennis Road approaching Sand Creek Bridge, facing west.

Photo #3 View of Ennis Road east of Sand Creek Bridge, facing east.

Photo #4 View of the north side of Sand Creek Bridge, facing southwest.

Photo #5 View of the south side of Sand Creek Bridge, facing south.

Photo #6 View of beneath the south side of Sand Creek Bridge, facing northeast.

Photo #7 Existing storm drain under Hummingbird Lane (West approach of Sand Creek Bridge and Hummingbird Lane).

Change in Season Work Period Email

From:	Kitch, James@Wildlife
To:	Nobuhiro, Nicolette
Cc:	Wildlife R4 LSA; Rutherford, Alexis; Connolly, Linda@Wildlife
Subject:	RE: Notification No. 1600-2020-0116-R4 - Bridge No. 42C0099 Ennis Road over Sand Creek - Fresno County
Date:	Monday, November 9, 2020 1:40:15 PM
Attachments:	image001.png image002.png

Hello Nicolette,

I have received your request (below) to change only the work season and number of workdays.

When this response was submitted, our construction period was from June 1 – April 1 starting 2021-2026, with 200 working days. Since then, the construction time frame for this project has changed and construction will begin *April 15, 2021 to November 10, 2021 with 150 working days*. The five-year period remains unchanged (2021-2026).

I will make a note of this change and place it in the project file, thank you for the update.

If you have questions, let me know.

Jim Kitch
Environmental Scientist
Lake and Streambed Alteration Program
California Department of Fish and Wildlife
1234 E Shaw Ave
Fresno, CA 93710
During the COVID response I am best reached by email

Please note that CDFW staff are teleworking due to the COVID-19 pandemic, and do not have access to all the typical resources. Our program is short-handed and we have experienced additional staff losses due to COVID-related changes in workload and staffing, and with the effects of two furlough days each month, we anticipate longer than typical reponse times and delays for many projects. Thanks for your understanding.

From: Nobuhiro, Nicolette <nnobuhiro@fresnocountyca.gov>
Sent: Monday, November 9, 2020 7:44 AM
To: Kitch, James@Wildlife <James.Kitch@Wildlife.ca.gov>
Cc: Wildlife R4 LSA <R4LSA@wildlife.ca.gov>; Rutherford, Alexis <ARutherford@fresnocountyca.gov>
Subject: RE: Notification No. 1600-2020-0116-R4 - Bridge No. 42C0099 Ennis Road over Sand Creek - Fresno County

Good morning,

Yes, that is the only change. Please let me know if you have any questions.

Thank you,

Nicolette Nobuhiro | **Planner**
Department of Public Works and Planning | **Design Division**
2220 Tulare St. 7th Floor Fresno, CA 93721
Main Office: (559) 600-4078 Direct: (559) 600-0524
Your input matters! Customer Service Survey

From: Kitch, James@Wildlife <James.Kitch@Wildlife.ca.gov>
Sent: Friday, November 6, 2020 5:02 PM
To: Nobuhiro, Nicolette <nnobuhiro@fresnocountyca.gov>
Cc: Wildlife R4 LSA <R4LSA@wildlife.ca.gov>
Subject: RE: Notification No. 1600-2020-0116-R4 - Bridge No. 42C0099 Ennis Road over Sand Creek - Fresno County

Hello,

I received your request and will find out how to address it. Is this the only change you propose to make to the project description?

Thanks,

Jim Kitch
Environmental Scientist
Lake and Streambed Alteration Program
California Department of Fish and Wildlife
1234 E Shaw Ave
Fresno, CA 93710
During the COVID response I am best reached by email

Please note that CDFW staff are teleworking due to the COVID-19 pandemic, and do not have access to all the typical resources. Our program is short-handed and we have experienced additional staff losses due to COVID-related changes in workload and staffing, and with the effects of two furlough days each month, we anticipate longer than typical reponse times and delays for many projects. Thanks for your understanding.

From: Nobuhiro, Nicolette <nnobuhiro@fresnocountyca.gov>
Sent: Tuesday, November 3, 2020 9:56 AM
To: Kitch, James@Wildlife <James.Kitch@Wildlife.ca.gov>; Wildlife R4 LSA <R4LSA@wildlife.ca.gov>
Cc: Rutherford, Alexis <ARutherford@fresnocountyca.gov>
Subject: RE: Notification No. 1600-2020-0116-R4 - Bridge No. 42C0099 Ennis Road over Sand Creek -

Fresno County

Warning: This email originated from outside of CDFW and should be treated with extra caution.

Good morning,

I just wanted to follow up on the question from my previous email below regarding the change in construction period for this project. When this response was submitted, our construction period was from June 1 – April 1 starting 2021-2026, with 200 working days. Since then, the construction time frame for this project has changed and construction will begin *April 15, 2021 to November 10, 2021 with 150 working days*. The five-year period remains unchanged (2021-2026).

I am wondering how to proceed with this minor change? If you can please provide any guidance on this matter, it would be greatly appreciated.

Thank you,

Nicolette Nobuhiro| **Planner**
Department of Public Works and Planning | **Design Division**
2220 Tulare St. 7th Floor Fresno, CA 93721
Main Office: (559) 600-4078 Direct: (559) 600-0524
Your input matters! Customer Service Survey

From: Nobuhiro, Nicolette
Sent: Monday, October 26, 2020 11:55 AM
To: Wildlife R4 LSA <R4LSA@wildlife.ca.gov>; Kitch, James@Wildlife <James.Kitch@Wildlife.ca.gov>
Cc: Rutherford, Alexis <ARutherford@fresnocountyca.gov>
Subject: RE: Notification No. 1600-2020-0116-R4 - Bridge No. 42C0099 Ennis Road over Sand Creek - Fresno County

Hi Veronica,

Thank you for the update.

When this response was submitted, our construction period was from June 1 – April 1 starting 2021-2026, with 200 working days. Since then, the construction time frame for this project has changed and construction will begin *April 15, 2021 to November 10, 2021 with 150 working days*. The five-year period remains unchanged (2021-2026). Are you able to provide any guidance on how to proceed with this minor change?

Thanks so much for your help.

Nicolette Nobuhiro| **Planner**
Department of Public Works and Planning | **Design Division**