

**Meeting of the Central Valley Flood Protection Board
March 22, 2013
Staff Report – Encroachment Permit No. 18809
California Department of Transportation, District 10
San Joaquin County**

1.0 – ITEM

Consider approval of Permit No. 18809.

2.0 – APPLICANT

California Department of Transportation, District 10

3.0 – LOCATION

The project is located in San Joaquin County, California. The approximate site coordinates are 38.09182 degrees north latitude, 121.18132 degrees west longitude (See Attachment A for Site Location Map).

4.0 – DESCRIPTION

The California Department of Transportation District 10 (Caltrans) is proposing to remove and reconstruct the bridge approach steel rails with Quad Guard systems at the State Route 88 Bear Creek Bridge (Bridge No. 29-62). The project is a safety improvement of the bridge, and includes removing and replacing the bridge approaches and bridge rails with Quad Guard Systems (crash cushion), realigning the levee access roads by placing fill behind the levees on the land side only, and extending the drainage systems.

Realigning the levee access roads requires Caltrans to purchase easements from the adjacent property owners. These easements will be owned by the Sacramento San Joaquin Drainage District (SSJDD). Caltrans has proposed to purchase these easements directly in the name of SSJDD, rather than purchasing them for Caltrans and then having to do transfer the easements in the future (See Attachment B).

The realigned levee access road slopes are proposed to be constructed with a slope angle of 2h:1v. Hydro-seeding is proposed to be performed on these slopes to prevent slope erosion. All works proposed will be performed within the Caltrans right-of-way.

5.0 – PROJECT ANALYSIS

The following project analyses were performed by the Board staff.

5.1 – Authority of the Board

Title 23, §6 - Need for a Permit and §130 - Patrol Roads and Access Ramps.

5.2 – Hydraulic Analysis

Since the project does not impact the waterway, no hydrology or hydraulics analyses are required.

5.3 – Geotechnical Analysis

No geotechnical analysis is required for this project as geotechnical impacts during installation of Quad Guard systems are considered insignificant.

5.4 – Access Roads

Due to the installation of four Quad Guard systems, access to levee maintenance is partially blocked (impaired) at the four corners of the intersection of Bear Creek and the State Highway 88. Caltrans has proposed to realign the access roads for levee maintenance at these four corners by placing backfill against the landside slope of the existing levee (See Attachment B – Plate D3). The realigned levee access road slopes are proposed to be constructed with a slope angle of 2h:1v. Hydro-seeding is proposed to be performed on these slopes to prevent slope erosion.

The realigned access roads will be paved with asphalt concrete surfacing over aggregate base within the Caltrans right of way. Beyond the Caltrans right of way the surfacing of the access roads will be aggregate base extending to conform to the existing roads. Fencing and gates will be replaced and drainage systems will be extended.

Caltrans has also agreed to buy additional easements in the name of SSJDD at these four corners for easy access for operations and maintenance. This is discussed in Section 9.0.

5.5 – Quad Guard System

Caltrans proposes to upgrade the bridge approach guard railing by installing Quad Guard Model QS2406Y crash cushions, manufactured by Energy Absorption Systems Inc. The Quad Guard is basically a crash cushion, a safety mechanism that offers the latest technology for shielding hazards. Each Quad Guard System consists of crushable, energy-absorbing cartridges surrounded by a framework of steel Quad Beam panels. The Quad Guard Systems have successfully passed the complete National Cooperative Highway Research Program (NCHRP) 350, Level 3 matrix test.

The bridge is located on a narrow two-lane highway with little to no shoulder. Placement of Metal Beam Guard Rail (MBGR) approach railing or standard sand filled crash cushions is not feasible due to the longitudinal and lateral restrictions. The Quad Guard Model QS2406Y crash cushion was chosen because it provides protection with a minimal footprint and accommodates the limitations for crash cushion placement at the project location. It is the appropriate type crash cushion to be used in this area. There is no equally suitable alternative that exist that allow placement of standard plan crash cushions or bridge approach guard railing. It is in the State's best interest to allow the use of the Quad Guard Model QS2406Y crash cushion to provide the public and Caltrans staff with the safest environment feasible (See Attachment D for a picture of Quad Guard system).

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

Comments and endorsements associated with this project from all pertinent agencies are shown below:

- The U.S. Army Corps of Engineers comment letter dated February 12, 2013 was received for this application. The letter indicates that the USACE District Engineer has no objection to the project, subject to conditions which have been incorporated into the permit as Exhibit A.
- The San Joaquin County Flood Control and Water Conservation District comment letter dated August 15, 2012 was received for this application. The

letter indicates that the District has no objection to the project, subject to conditions which have been incorporated into the permit as Exhibit B.

7.0 – CEQA ANALYSIS

Board staff has prepared the following California Environmental Quality Act (CEQA) determination:

The Board determined that the project is categorically exempt from CEQA under a Class 2 Categorical Exemption (CEQA Guidelines Section 15302) covering replacement or reconstruction of existing structures and a Class 4 Categorical Exemption (CEQA Guidelines Section 15304) covering minor alterations to land.

8.0 – SECTION 8610.5 CONSIDERATIONS

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board has considered all the evidence presented in this matter by Caltrans District 10 for Permit No. 18809.

The custodian of the file is Executive Officer Jay Punia at the Central Valley Flood Protection Board, 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

2. The best available science that related to the scientific issues presented by the Executive Officer, legal counsel, the Department or other parties that raise credible scientific issues.

In making its findings, the Board has used the best available science relating to the issues presented by all parties and the design is in compliance with these standards.

3. Effects of the decision on facilities of the State Plan of Flood Control, and consistency of the proposed project with the Central Valley Flood Protection Plan as adopted by Board Resolution 2012-25 on June 29, 2012:

This project has no adverse effects on facilities of the State Plan of Flood Control and is consistent with the Central Valley Flood Protection Plan.

4. Effects of reasonable projected future events including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

There are no other foreseeable projected future events that would impact this project.

9.0 – LAND RIGHT-OF-WAY CONCERNS

Realigning the levee access roads requires Caltrans to purchase easements from the adjacent property owners. These easements will be owned by the SSJDD. Caltrans has proposed to purchase these easements directly in the name of SSJDD, rather than purchasing them for Caltrans and having to transfer them in the future. The transfer process has been addressed through the permit Special Condition FOURTEEN.

10.0 – STAFF RECOMMENDATION

Staff recommends the Board adopt the CEQA Findings, approve Permit No. 18809, and direct the Executive Officer to take all actions necessary to execute the permit, and file a Notice of Exemption with the State Clearinghouse.

11.0 – LIST OF ATTACHMENTS

- A. Site Location Map
- B. Project Layout
- C. Draft Permit No. 18809
 - Exhibit A – USACE comment letter
 - Exhibit B – San Joaquin County FC and WCD letter
- D. Picture of Quad Guard System

Technical Review:	Deb Biswas, Engineer
Environmental Review:	James Herota, Staff Environmental Scientist
Document Review:	David R. Williams, PE – Projects Section Chief
	Eric R. Butler, PE – Projects and Environmental Branch Chief
	Len Marino, PE – Chief Engineer

ATTACHMENT - A

INDEX OF PLANS

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY IN SAN JOAQUIN COUNTY NEAR WATERLOO AT VARIOUS LOCATIONS FROM CALAVERAS RIVER BRIDGE TO BEAR CREEK BRIDGE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	88	6.1/8.9		



END CONSTRUCTION

Sta 423+25 "A" LINE PM 8.9

LOCATION 3
BEAR CREEK Br
Br No. 29-0062 PM 8.91

End Work

PM 433+25 "A" LINE

ROUTE 88 PM 6.08 Bk =
ROUTE 88 PM 6.08 Ahd

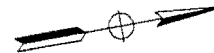
ROUTE 88 PM 8.90 Bk =
ROUTE 88 PM 8.91 Ahd

Begin Work
Sta 262+25 "A" LINE

BEGIN CONSTRUCTION
Sta 272+25 "A" LINE PM 6.1

LOCATION 2
MOSHIER CREEK Br
Br No. 29-0061 PM 7.53

LOCATION 1
CALAVERAS RIVER Br
Br No. 29-0060 PM 6.09



NO SCALE

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER




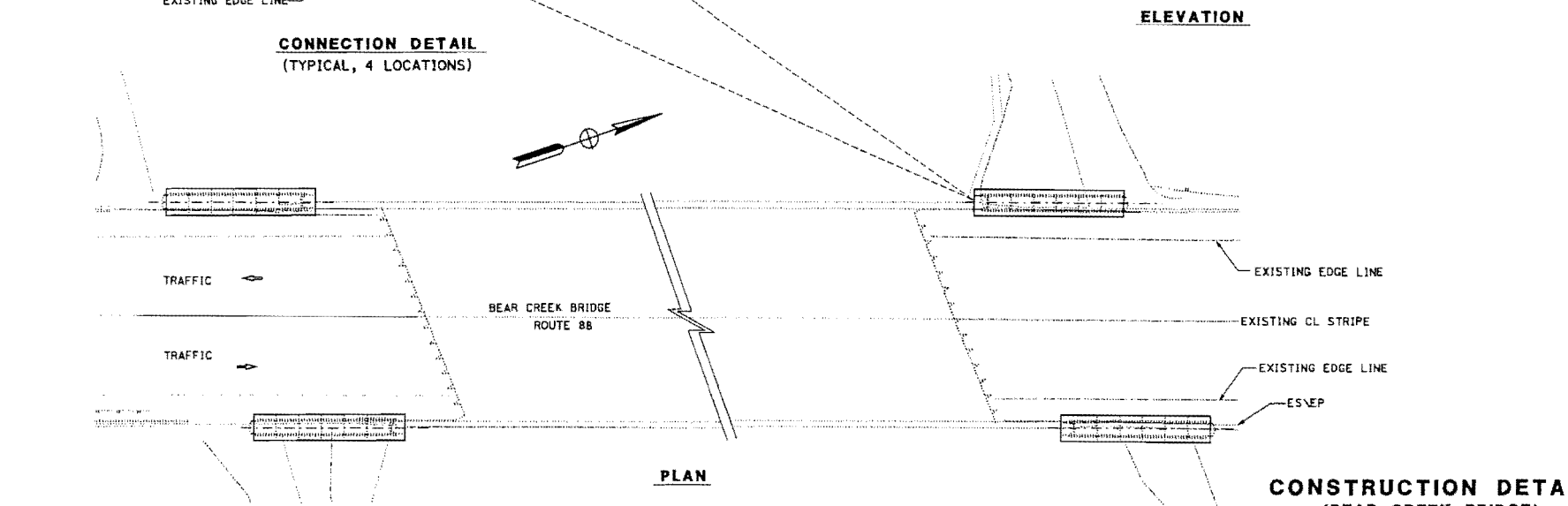
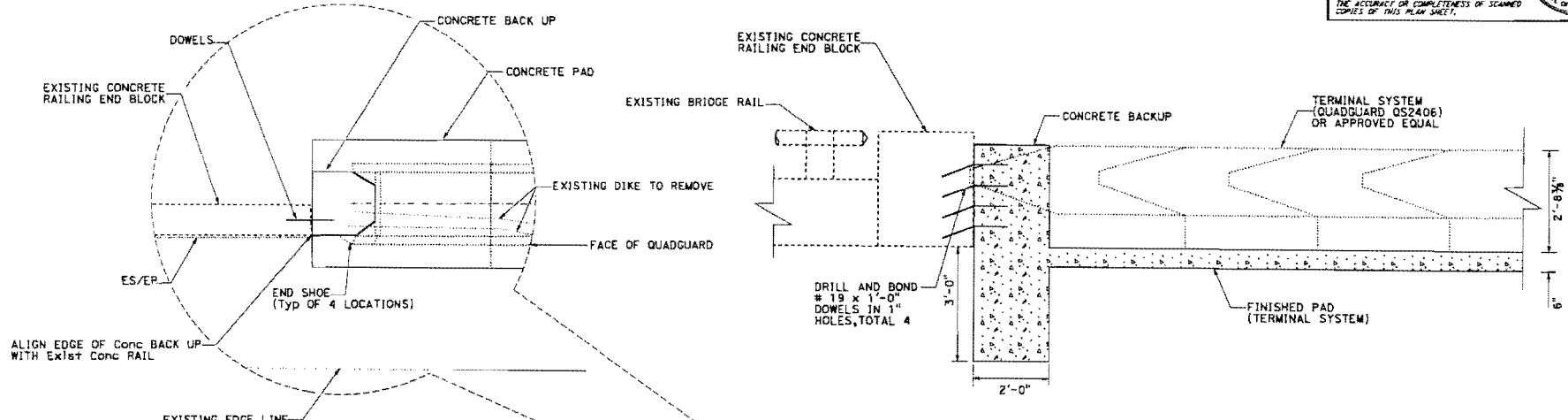
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No. **10-0A8304**
PROJECT ID **1000000009**

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

ATTACHMENT - B

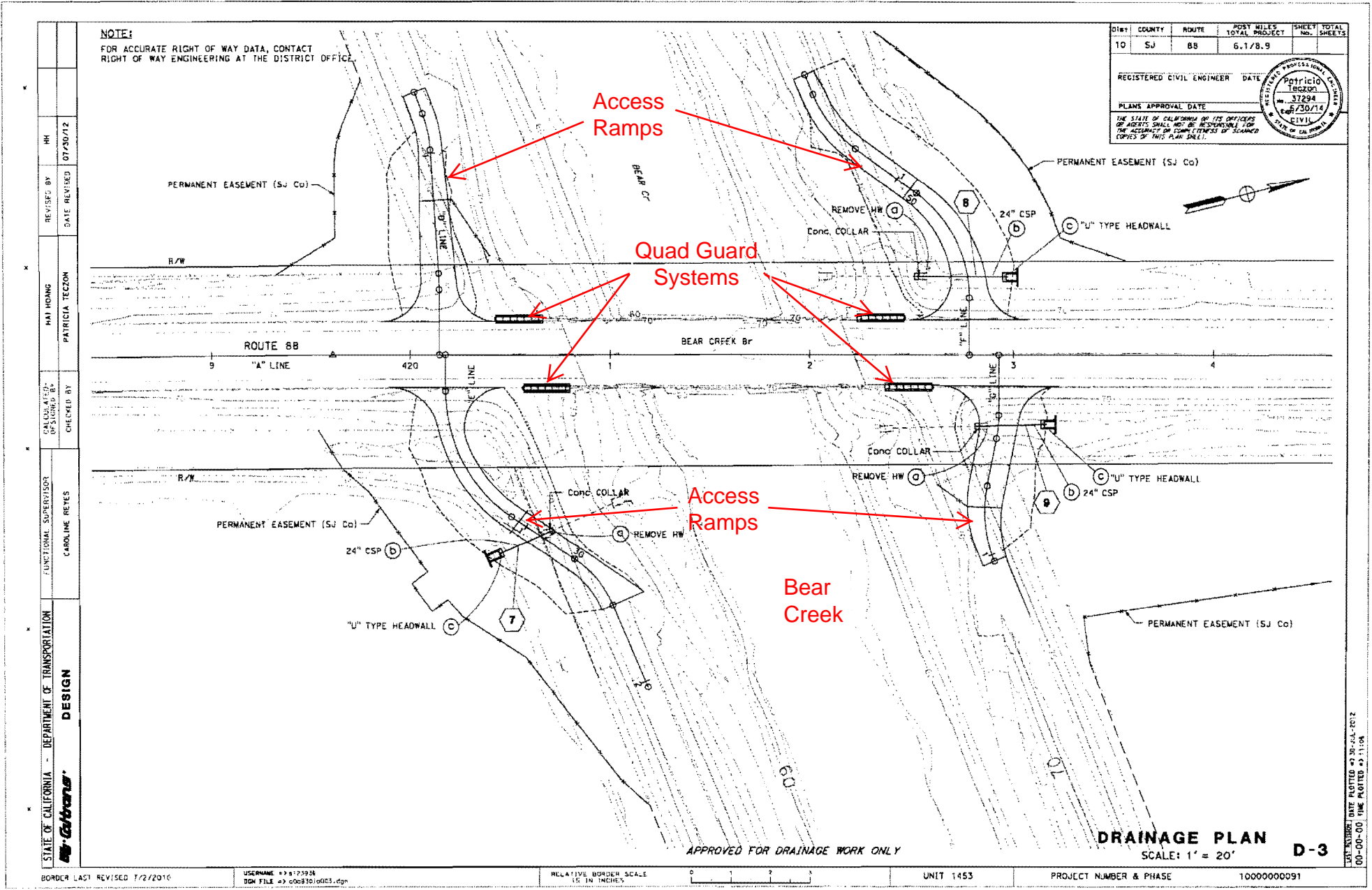
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10	SJ	88	6.1/8.9	
REGISTERED CIVIL ENGINEER DATE				
PLANS APPROVAL DATE				
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR
 CAROLINE REYES
 DESIGNED BY
 HAI HOANG
 CHECKED BY
 PATRICIA TECZON
 REVISIONS
 HR
 DATE REVISION
 04/09/12

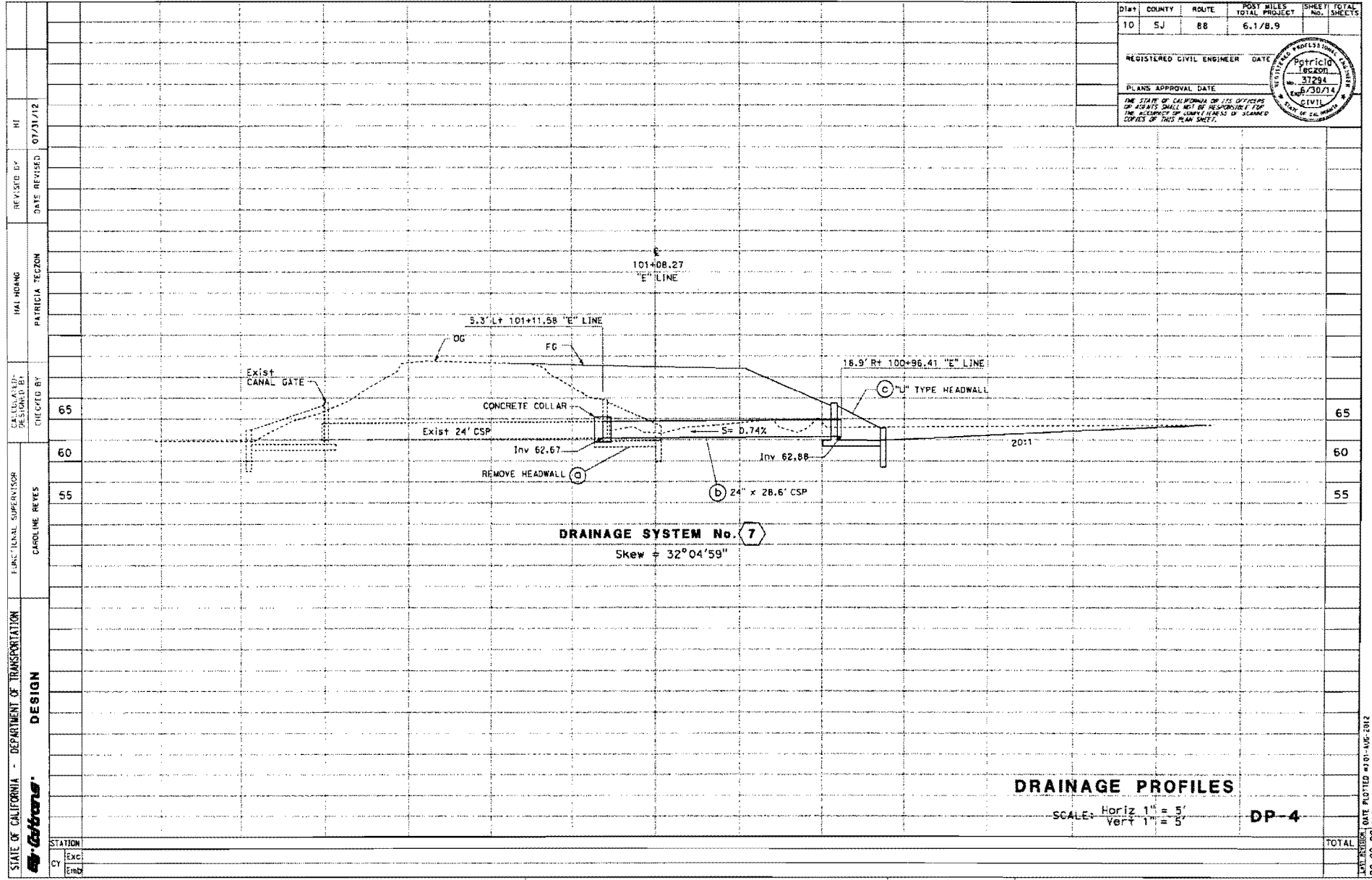
CONSTRUCTION DETAILS
(BEAR CREEK BRIDGE)
 NO SCALE
C-5

ATTACHMENT - B



DATE PLOTTED: 04/10/10 10:54:42 AM PLOT FILE: 10000000091.dwg

ATTACHMENT - B



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL No. SHEETS
10	SJ	88	6.1/8.9	

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

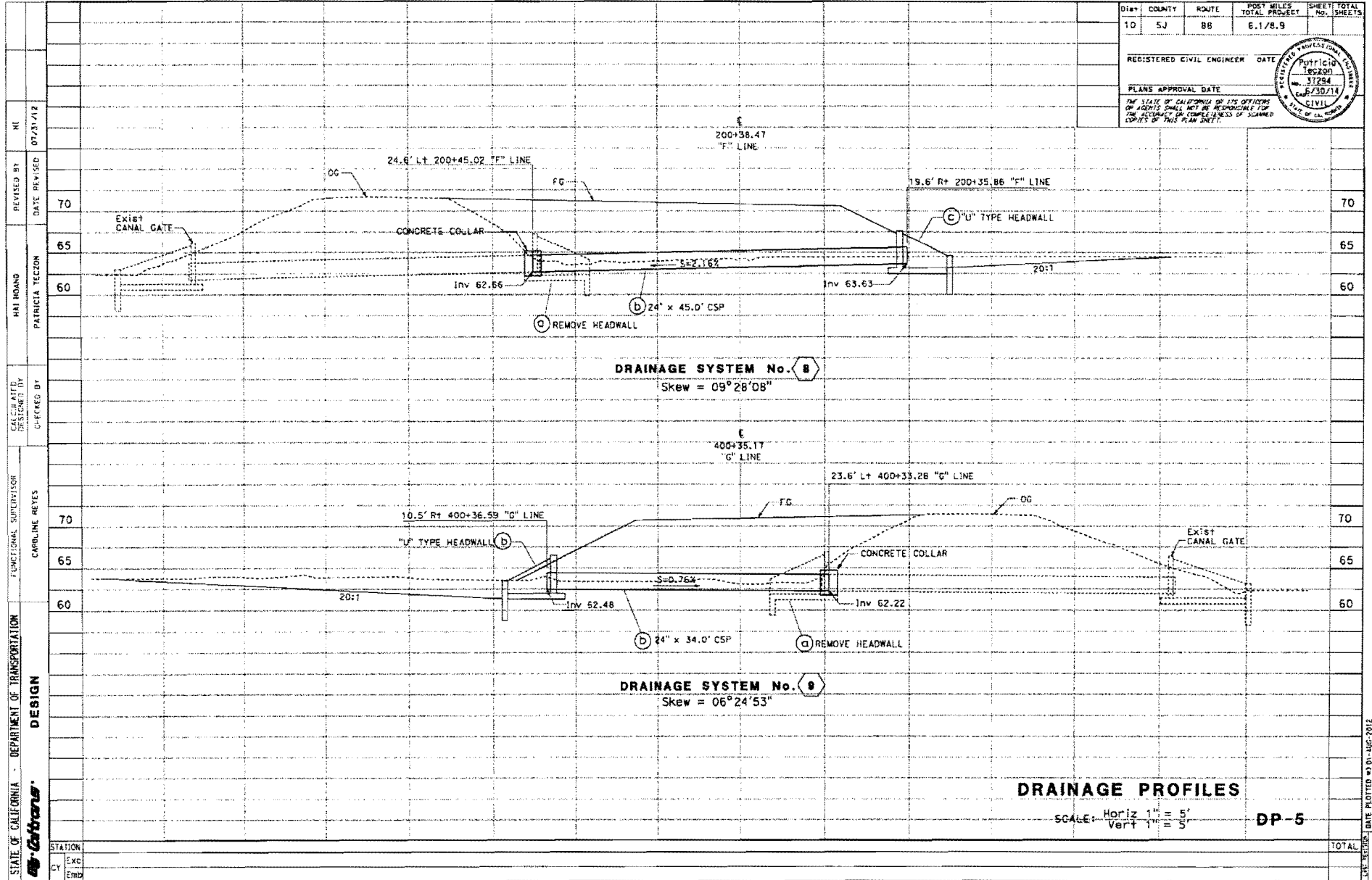
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PATRICIA TECZON
No. 37294
Exp. 6/30/14
CIVIL ENGINEER

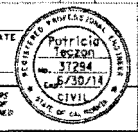
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	REVISIONS
Caltrans		CAROLINE REYES	
CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISION
HAI HOANG	PATRICIA TECZON	07/31/12	

DATE PLOTTED: 01-10-2012
TIME PLOTTED: 4:30 PM

ATTACHMENT - B



Dist:	COUNTY:	ROUTE:	POST MILES:	SHEET TOTAL:
10	5J	88	6.1/8.9	NO. SHEETS:
REGISTERED CIVIL ENGINEER DATE:				
PLANS APPROVAL DATE:				
<small>THE STATE OF CALIFORNIA DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>				



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: CAROLINE REYES
 CHECKED BY: []
 HAI HOANG
 PATRICIA TECZON
 DATE REVISED: 07/23/12
 REVISIONS: []

DATE PLOTTED 03/01/14 09:20:12
 00-00 TIME PLOTTED 03/01/14

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18809 BD

This Permit is issued to:

California Department of Transportation
1976 E Dr. Martin Luther King Jr. Blvd
Stockton, California 95201

To remove and replace the bridge approaches and bridge rails with Quad Guard System; realign the levee access roads; and extend existing drainage systems at the Bear Creek Bridge (No. 29-62). The project is located at the crossing of State Route 88 and Bear Creek in San Joaquin County (Section 23, T3N, R7E, MDB&M, San Joaquin County Flood Control and Water Conservation District, Bear Creek, San Joaquin County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____

Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

ATTACHMENT -C

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18809 BD

THIRTEEN: All work completed under this permit, as directed by the general and special conditions herein, shall be accomplished to ensure that the work is not injurious to the adopted plans of flood control, regulated streams, and designated floodways under Board jurisdiction, as defined in California Code of Regulations, Title 23. This permit only applies to the completion of work in the project description located within, or adjacent to and having bearing on Board jurisdiction, and which directly or indirectly affects the Board's jurisdiction. This special condition shall apply to all subsequent conditions herein.

FOURTEEN: Within three years from the completion of the work authorized under this permit, the permittee shall provide the Sacramento and San Joaquin Drainage District, acting by and through the Central Valley Flood Protection Board of the State of California, a permanent easement and/or a joint use agreement granting all flood control rights upon, over, and across the property that will be occupied by the area of the realigned access road. The easement must include the areas of fifteen (15) feet from the landside access road toe, if the areas are not presently encumbered by a Central Valley Flood Protection Board easement. For information regarding the existing Central Valley Flood Protection Board easements, please contact Angelica Aguilar at (916) 653-5782.

FIFTEEN: The permittee shall contact the Department of Water Resources, Inspection Branch by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. The permittee shall also contact the Central Valley Flood Protection Board's Construction Supervisor at (916) 574-2646 for quality assurance inspection. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

SIXTEEN: The permittee shall provide supervision and inspection services acceptable to the Central Valley Flood Protection Board. A professional engineer registered in the State of California shall certify that all work was inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

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SEVENTEEN: At the request of either the permittee or Central Valley Flood Protection Board the permittee and Board shall conduct joint inspections of the project and floodway after significant flood events or flood seasons to assess the integrity and operation of the project, and to assess and respond to any adverse impacts on the floodway or adjacent properties.

EIGHTEEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the Central Valley Flood Protection Board, the Department of Water Resources, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim. This condition shall supersede condition TEN, above.

NINETEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

TWENTY: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

TWENTY-ONE: The letter from the Department of the Army dated February 12, 2013 is attached to this permit as Exhibit A in reference to this project.

TWENTY-TWO: The permittee shall comply with all conditions set forth by the San Joaquin County Flood Control and Water Conservation District dated August 15, 2012 which is attached to this permit as Exhibit B in reference to this project.

TWENTY-THREE: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY-FOUR: The permittee agrees to incur all costs for compliance with local, State, and Federal permitting and resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces.

TWENTY-FIVE: The Central Valley Flood Protection Board, Department of Water Resources, and San Joaquin County Flood Control and Water Conservation District shall not be held liable for damages to the permitted encroachment(s) resulting from releases of water from reservoirs, flood

ATTACHMENT -C

fight, operation, maintenance, inspection, or emergency repair.

TWENTY-SIX: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

TWENTY-SEVEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

TWENTY-EIGHT: Prior to commencement of excavation, the permittee shall create a photo record, including associated descriptions, of the levee conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or professional engineer registered in the State of California and submitted to the Central Valley Flood Protection Board within 30 days of beginning the project.

TWENTY-NINE: Thirty (30) calendar days prior to start of any demolition and/or construction activities within the floodway, the permittee shall submit to the Chief Engineer two sets of plans, specifications and supporting geotechnical and/ or hydraulic impact analyses, for any and all temporary, in channel cofferdam(s), gravel work pad(s), work trestle(s), scaffolding, piles, and/or other appurtenances that are to remain in the floodway during the flood season from November 1 through April 15. The Central Valley Flood Protection Board shall acknowledge receipt of this submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Central Valley Flood Protection Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or local maintaining agency when necessary. The Central Valley Flood Protection Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days.

THIRTY: All addendums or other changes made to the submitted documents by the permittee after issuance of this permit are subject to submittal and review for approval by the Central Valley Flood Protection Board prior to incorporation into the permitted project. Upon review and approval of any new submitted documents the permit shall be revised, if needed, prior to construction related to the proposed changes. The Central Valley Flood Protection Board shall have up to 90 days after receipt of any documents, plans, drawings, and specifications for the review process. The Central Valley Flood Protection Board and/or the Department of Water Resources may extend this review period by written notification.

THIRTY-ONE: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Central Valley Flood Protection Board.

THIRTY-TWO: All debris generated by this project shall be disposed of outside the floodway.

THIRTY-THREE: All debris that may accumulate around the poles and guy wires within the floodway shall be completely removed from the floodway following each flood season.

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THIRTY-FOUR: Any lock on the gate must be accessible to maintenance and inspection personnel and must not be casehardened.

THIRTY-FIVE: The work area shall be restored to the condition that existed prior to start of work.

THIRTY-SIX: Backfill material for excavations shall be placed in 4- to 6-inch layers and compacted to at least the density of the adjacent, firm, undisturbed material.

THIRTY-SEVEN: All fill material shall be imported impervious material with 20 percent or more passing the No. 200 sieve, a plasticity index of 8 or more, and a liquid limit of less than 50 and free of lumps or stones exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material. Fill material shall be compacted in 4- to 6-inch layers to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91, or appropriate Board approved equal.

THIRTY-EIGHT: Compaction tests by a certified soils laboratory will be required to verify compaction of backfill within the levee section or within 10 feet of the levee toe.

THIRTY-NINE: Trees, brush, sediment, and other debris shall be kept cleared from the bridge site and disposed of outside the floodway to maintain the design flow capacity and flowage area.

FORTY: No further tree planting or work, other than that covered by this application, shall be performed in the area without prior approval of the Central Valley Flood Protection Board.

FORTY-ONE: If the permitted encroachment(s) result in any adverse hydraulic impact or if the flows being conveyed in an overland release result in scouring the permittee shall provide appropriate mitigation acceptable to the Central Valley Flood Protection Board.

FORTY-TWO: A copy of any geotechnical studies and tests that may be performed during or prior to construction that are in addition to studies that were submitted in the application package shall be provided to and approved by the Central Valley Flood Protection Board prior to project completion.

FORTY-THREE: Upon completion of the project, the permittee shall submit a final completion letter to: The Central Valley Flood Protection Board, 3310 El Camino Avenue, Suite 162, Sacramento, California 95821 and the Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite 256, Sacramento, California 95821.

FORTY-FOUR: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

FORTY-FIVE: If the bridge is damaged to the extent that it may impair the channel or floodway capacity, it shall be repaired or removed prior to the next flood season.

FORTY-SIX: Within 120 days of completion of the project, the permittee shall submit to the Central Valley Flood Protection Board a certification report, stamped and signed by a professional engineer registered in the State of California, certifying the work was performed and inspected in accordance with the Central Valley Flood Protection Board permit conditions and submitted drawings and specifications.

ATTACHMENT -C

FORTY-SEVEN: A civil engineer registered in the State of California representing the permittee shall provide periodic reports and records to the Department of Water Resources that are acceptable to the Central Valley Flood Protection Board which certifies that all work accomplished by contract to the permittee was thoroughly inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

FORTY-EIGHT: The permittee shall submit as-built drawings to the Department of Water Resources' Flood Project Inspection Section upon completion of the project.

FORTY-NINE: The permittee shall be responsible for repair of any damages to the project levee and other flood control facilities due to construction, operation, or maintenance of the proposed project.

FIFTY: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources, or any other agency responsible for maintenance.

FIFTY-ONE: If erosion occurs adjacent to the permitted encroachment(s), the permittee shall repair the eroded areas and place adequate revetment on the affected areas to prevent further erosion.

FIFTY-TWO: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the encroachment(s) at the permittee's expense.

EXHIBIT - A



DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

REPLY TO
ATTENTION OF

Flood Protection and Navigation Section (18809)

FEB 12 2013

Mr. Jay Punia, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, CA 95821

Dear Mr. Punia:

We have reviewed a permit application by Caltrans (application number 18809). This project includes removing and replacing the bridge approaches and bridge rails with Quad Guard System; realigning the levee access roads; and extending the existing drainage systems at the Bear Creek Bridge (Bridge Number 29-62). The project is located at the crossing of State Route 88 and Bear Creek, at 38.09182°N 121.18132°W NAD83, San Joaquin County, California.

The District Engineer has no objection to approval of this application by your Board from a flood control standpoint, subject to the following conditions:

- a. That the embankment fill shall be acceptable levee fill, free of organic material, with a maximum particle size of 2 inches, with a plasticity index between 8 and 20, and a maximum Liquid Limit of 45.
- b. That the soil shall be placed in 6 inch maximum lifts compacted to at least 95% of the maximum density as obtained by the Standard Proctor Test conforming to ASTM D 698, at a moisture content between -2 and +3 percent of the optimum moisture content. ASTM 1557 is acceptable with a minimum compaction of 90% of the maximum density and a moisture content between 0 and +4% of the optimum moisture content.
- c. That the proposed work shall not interfere with the integrity or hydraulic capacity of the flood damage reduction project; easement access; or maintenance, inspection, and flood fighting procedures.
- d. That the drainage from the proposed work shall not be directed to flow water on the banks without adequate protection from erosion.
- e. That no work shall be performed during the flood season of November 1 to April 15, unless otherwise approved in writing by your Board.

EXHIBIT - A

-2-

f. That the condition of the drainage system pipes shall be verified using video or sonar equipment at least once every 5 years or annual pressure readings showing no significant loss in pressure. The results shall be submitted through the Central Valley Flood Protection Board to the Department of Water Resources, Flood Project Integrity and Inspection Branch and this office.

Based upon the information provided, no Section 10 or Section 404 permit is needed.

A copy of this letter is being furnished to Mr. Don Rasmussen, Chief Flood Project Integrity and Inspection Branch, 3310 El Camino Avenue, Suite LL30, Sacramento, CA, 95821.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick L. Poepelman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Rick L. Poepelman, P.E.
Chief, Engineering Division

EXHIBIT - B



SAN JOAQUIN COUNTY

**FLOOD CONTROL & WATER
CONSERVATION DISTRICT**

P. O. BOX 1810
1810 EAST HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
TELEPHONE (209) 468-3000
FAX NO. (209) 468-2999

THOMAS M. GAU
DIRECTOR OF PUBLIC WORKS
FLOOD CONTROL ENGINEER

August 15, 2012

The Central Valley Flood Protection Board
3310 El Camino Avenue
Sacramento, California 95821

Attention: Central Valley Flood Protection Board
Floodway Protection Section

SUBJECT: CENTRAL VALLEY FLOOD PROTECTION BOARD PERMIT APPLICATION OF THE CALIFORNIA STATE DEPARTMENT OF TRANSPORTATION TO REPLACE BRIDGE APPROACH STEEL RAILS AT BEAR CREEK AND STATE HIGHWAY ROUTE 88 ADJACENT TO ASSESSOR'S PARCEL NOS. 063-140-03, 063-140-09, 063-180-22, AND 063-180-24 – ENDORSEMENT NO. PW-1200026

Gentlemen:

Reference is made to the Central Valley Flood Protection Board (Board) Permit Application (Permit) of Department of Transportation (Caltrans) to replace bridge approach steel Metal Beam Guard Rails with Quad Guard Systems, realign existing levee access roads at all quadrants, and extend existing drainage systems.

The Project is located at Bear Creek Bridge No. 29-62 and State Highway Route 88, in San Joaquin County, in Sections 23, Township 3 North, Range 7 East, Mount Diablo Base and Meridian, adjacent to San Joaquin County Assessor's Parcel Nos. 063-140-03, 063-140-09, 063-180-22, and 063-180-24.

The San Joaquin County Flood Control and Water Conservation District (District) has reviewed the Board's Permit Application of Caltrans (Permittee) and endorses the Project subject to the following conditions:

1. The District shall not be responsible for the maintenance of the facilities, within Caltrans right-of-way specified in this Permit.
2. The District shall not be held liable for damage(s) to the permitted encroachment(s) due to the District's operation, maintenance, flood fight, inspection, or emergency repairs.
3. The Permittee or the Successors-in-Interest shall be responsible for the modification or possible removal of the facilities, as requested by the District, if required for any future flood control plans at the Permittee or the Successors-in-Interest sole cost and expense.
4. The Permittee shall be liable for any damage to Bear Creek that may occur as a result of this Project.
5. The Project shall be constructed in accordance with the plans dated April 25, 2012, submitted with the application dated May 4, 2012. Any revisions to the Project will require the submittal of the revised plans to the District for review and approval.
6. No work shall be allowed in the channel of Bear Creek between November 1st and April 15th without prior approval of the District.

EXHIBIT - B

The Central Valley Flood Protection Board 2
REPLACE BRIDGE APPROACH STEEL RAILS AT
BEAR CREEK AND STATE HIGHWAY ROUTE 88

7. The Permittee or Successors-in-Interest shall keep the encroachments properly maintained in accordance with applicable current or future local, State and Federal standards.
8. Future maintenance of the improvements, within Caltrans right-of-way shall be the ongoing responsibility of the Permittee or Successors-in-Interest.
9. Fill on levee slopes must be keyed into the existing levee section. Each layer of fill material applied on the levee must be keyed into the levee section individually in four (4) to six (6) inch layers.
10. Fill material must be placed in four (4) to six (6) inch layers and compacted with a sheepsfoot roller, or equivalent, to a relative compaction of not less than ninety (90) percent per ASTM D1557-91, dated 1991, which is incorporated by reference and above optimum moisture content, or ninety-seven (97) percent per ASTM D698-91, dated 1991, which is incorporated by reference and at or above optimum moisture content.
11. Fill material placed within two (2) feet of a structure must be compacted by appropriate hand operated compaction equipment.
12. Levee fill material must be free of stones or lumps exceeding three (3) inches in greatest dimension, and must be free of vegetative matter or other unsatisfactory material.
13. Fill material may only be placed within the area indicated on the submitted plans.
14. District approved access gates shall be installed at right angles across Bear Creek patrol roads at all quadrants to replace the existing gates. The gates shall be set back a minimum of sixty (60) feet from the back of sidewalk.
15. Access roads shall be kept open for maintenance at all times.
16. Upon completion of the Project, the Permittee shall submit a hard copy and an electronic copy in AutoCAD and PDF format of the as-built drawings to:

San Joaquin County Flood Control and Water Conservation District
1810 East Hazelton Avenue
Stockton, California 95205

Should there be any questions regarding these comments, please contact me at (209) 953-7617.

Sincerely,



JOHN I. MAGUIRE, P.E.
Engineering Services Manager

JM:SS:rc
FM-12F006-R2

ATTACHMENT - D

