Meeting of the Central Valley Flood Protection Board
May 20, 2016

Staff Report – Encroachment Permit

City of Porterville
Jaye Street Bridge Widening, Tulare County

1.0 – ITEM

Consider approval of Permit No. 19087 (Attachment B)

2.0 – APPLICANT

City of Porterville

3.0 – LOCATION

The project is located at the Jaye Street Bridge crossing over the Tule River Designated Floodway in the City of Porterville in Tulare County. (Attachment A).

4.0 – PROJECT DESCRIPTION

Applicant proposes to widen Jaye Street Bridge (Bridge No. 46C0099) over the Tule River from two to four lanes and reconstruct the street approaches. The Hubbs Minor Ditch will be realigned underneath the bridge and conveyed in a new box culvert. A bike path will be constructed underneath the bridge at the south abutment. Retaining walls will be placed on the south bank. Existing sewer and water lines attached to the west edge of the bridge deck will be replaced in-kind. The gas line will be moved to the widened east edge of the deck. Rock slope protection (RSP) will be placed on both banks in front of the abutments and along portion of the bank and at the piers. Some vegetation will be removed for placement of the RSP.

5.0 – AUTHORITY OF THE BOARD

California Water Code § 8534, 8590-8610.5, and 8700-8710

California Code of Regulations (CCR), Title 23 (Title 23):

- § 6 – Need for a Permit

- § 107 – Permitted Uses in Designated Floodway
- § 121 – Erosion Control
- § 123 – Pipelines, Conduits, and Utility Lines
- § 128 – Bridges
- § 131 – Vegetation

6.0 – PROJECT ANALYSIS

The City of Porterville, in cooperation with the California Department of Transportation, is proposing to widen the current Jaye Street Bridge over the Tule River on Jaye Street (Road 244). The existing structure is an eight-span reinforced concrete slab type bridge 241.5 feet in length. Each pier consists of five - 1.5 foot diameter concrete pile extensions supported on steel H-piles. The existing structure will be retrofitted to meet current seismic requirements and widened in-kind on the eastern edge. The new structure will have an overall appearance, which will be similar to the currently existing structure. The final configuration of Jaye Street Bridge will be 78 feet 10 inches wide by 242 feet in length. There will be seven new spans with six (6) piles, plus five (5) piles at each of the two (2) abutments for a total of 52 new concrete piles. Each pile will be 24-inches in diameter and driven to a depth of 70 feet. (See Exhibit C for Design Plans)

In addition to the bridge widening, the Hubbs Minor Ditch, an agricultural ditch, which is currently being piped under the existing bridge at the north abutment, will be slightly realigned under the bridge and conveyed in a new reinforced concrete box culvert. The Tule River Parkway bike path will be constructed underneath the bridge at the south abutment. Retaining walls will be placed along the south bank. The existing sewer and water mains currently attached to the west edge of the bridge deck will be replaced in-kind. The gas line attached to the east edge of the existing bridge deck will be relocated to the widened east edge of the deck. No utilities will hang below the bridge soffit. RSP will be placed on both banks in front of the abutments and along disturbed portions of the bank, and at the piers to protect the bridge from scour. The RSP will be buried below grade so the flow area will not be impacted. Some vegetation will be removed for placement of the RSP.

6.1 – Hydraulic Analysis

The hydraulic study for this project utilized Hec-Ras, a one-dimensional developed by the U.S. Army Corps of Engineers (USACE). The design flow for the Tule River Designated Floodway is 15,000 cubic feet per second (cfs) was analyzed for pre and post project water surface elevations. Based on the hydraulic evaluation, the 100-year water surface elevation (WSE) at the upstream face of the existing bridge is computed to be 445.88 North American Vertical Datum 1988 (NAVD 1988). The corresponding 100-year WSE computed for post-project is 445.97 feet, representing a slight raise (approximately 1 inch) in WSE. The proposed bridge soffit elevation is 447.41 feet, the same as the existing bridge soffit, which results in 1.53 feet and 1.44 feet of freeboard, pre and post project respectively.

Both the existing and proposed bridge do not meet the required three feet of freeboard. Per Title 23 § 128 (a) (10B), however, when an existing bridge being widened does not meet the clearance requirement above the design flood plain, the bottom structural members of the added section may be no lower than the bottom structural members of the existing bridge, except as may be caused by the extension of existing sloped structural members. Since the new proposed bridge meets Title 23 § 128 (a) (10B)requirements, no variances to the Board standards are needed to approve the proposed bridge.

6.2 – Geotechnical Analysis

There are no levees associated with this project; therefore, a geotechnical analysis is not required.

7.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- The USACE Sacramento District non-fed letter has been received for this application and has indicated that the proposed work does not affect a federally constructed project. The letter is incorporated into the permit as Exhibit A.

8.0 – CEQA ANALYSIS

The Board, as a responsible agency under CEQA, has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) (SCH Number: 2012061082, June 2012) and Mitigation Measures for the Jaye Street Bridge Widening Project prepared by the City of Porterville as the lead agency.

These documents including project design may be viewed or downloaded from the Central Valley Flood Protection Board website at http://www.cvfpb.ca.gov/meetings/2016/05-20-2016.cfm under a link for this agenda item. The documents are also available for review in hard copy at the Board and City offices.

The City of Porterville determined that the project would not have a significant effect on the environment and filed a Notice of Determination on October 1, 2012 with the State Tulare County Clerk-Recorder. Staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's IS/MND and address impacts to noise, cultural and biological resources. The description of the mitigation measures are further described in the adopted IS/MND.

The documents and other materials which constitute the record of the Central Valley Flood Board's proceedings in this matter are in the custody of Leslie Gallagher, Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Rm. 151, Sacramento, California 95821.

9.0 – 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 will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

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.

   The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit. On the issue of hydraulic impacts the applicant used Hec-Ras one-dimensional flow models. These models are considered by experts as the best available scientific tools for the purpose of modeling river hydraulics.

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:

   The project is located approximately 70 miles south of the State Plan of Flood Control area and is therefore not expected to have any effects on facilities of the State Plan of Flood Control.

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

   Although the design flow for the Tule River Designated Floodway is 15,000 cfs, flooding affected by the Tule River has been greatly reduced by the construction of Success Dam and Reservoir in 1961. The dam is located approximately 6.5 miles upstream of the project location. Along with bridge having the same soffit elevation as the existing bridge, there are no effects to the proposed project from reasonable projected future events.

10.0 – STAFF RECOMMENDATION

Staff recommends that the Board:

Adopt:

- The CEQA findings;

Approve:

- Draft Encroachment Permit No. 19087 in substantially the form provided; and

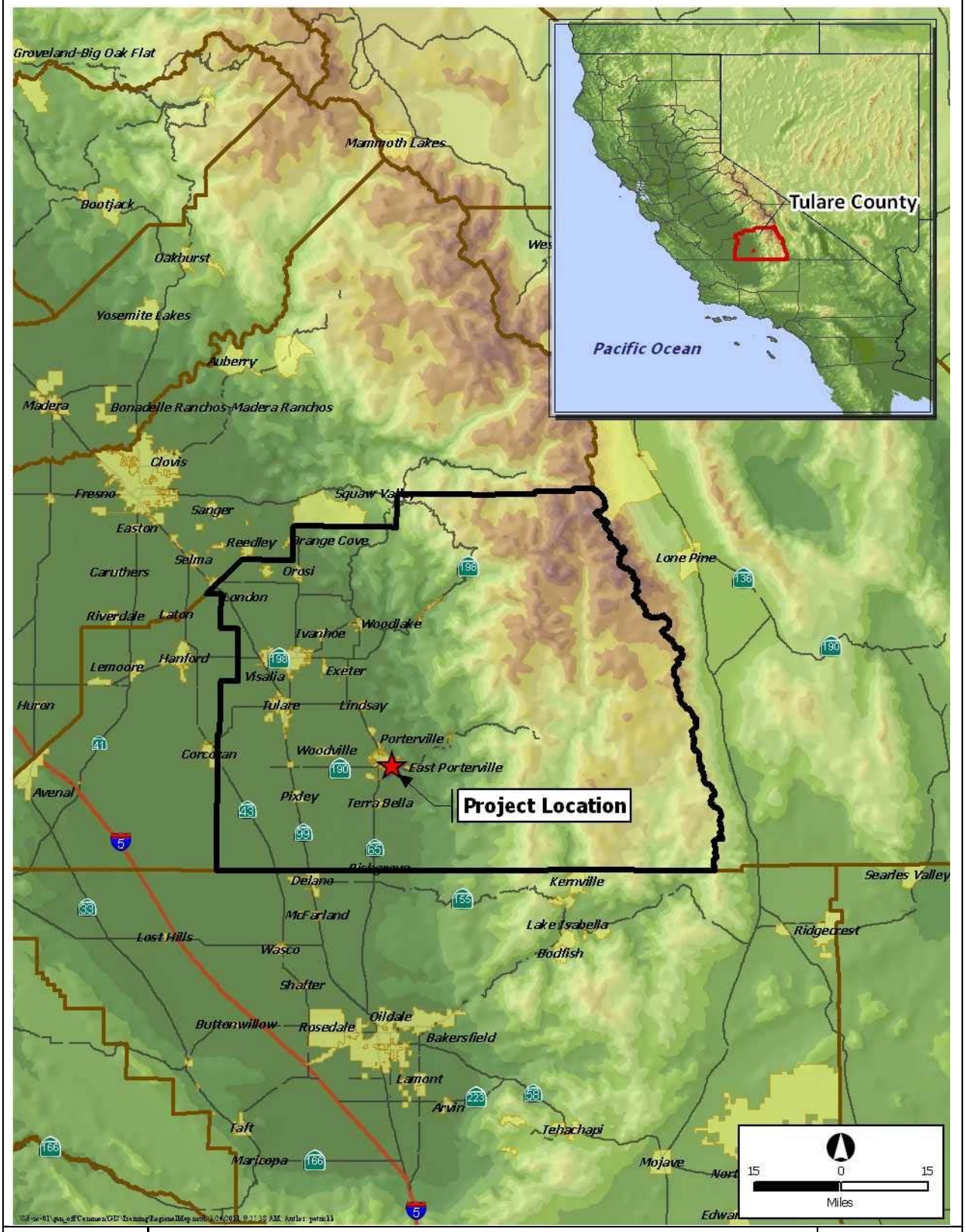
Direct:

- The Executive Officer to take the necessary actions to execute the permit and file a Notice of Determination pursuant to CEQA with the State Clearinghouse.

11.0 – LIST OF ATTACHMENTS

A. Location Maps and Photos
B. Draft Permit No. 19087
C. Design Plans

Design Review:	Ilene Wellman-Barbree, P.E., Senior Engineer, Projects Branch
Hydraulic Review:	Ilene Wellman-Barbree, P.E., Senior Engineer, Projects Branch
Environmental Review:	James Herota Environmental Staff Assigned
Document Review:	Gary Lemon, PE, Permitting Section Chief Mitra Emami, PE, Operations Branch Chief
Legal Review:	Kanwarjit Dua, Board Counsel



	REGIONAL LOCATION OF THE JAYE STREET BRIDGE WIDENING PROJECT	Figure 1

	JAYE STREET BRIDGE LOOKING NORTH AT WEST ELEVATION	Figure 3

	JAYE STREET BRIDGE LOOKING SOUTH AT EAST ELEVATION	Figure 4

	UNDERNEATH JAYE STREET BRIDGE	Figure 6

DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY

THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 19087 BD

This Permit is issued to:

City of Porterville
291 North Main Street
Porterville, California 93257

The project will widen the existing Jaye Street Bridge to four lanes and reconstruct the street approaches. The Hubbs Minor Ditch will be realigned underneath the bridge and conveyed in a new box culvert. A bike path will be constructed underneath the bridge at the south abutment. Retaining walls will be place on the south bank. Existing sewer and water lines attached to the west edge of the bridge deck will be replaced in-kind. The gas line will be moved to the widened east edge of the deck. RSP will be placed on both banks in front of the abutments and along portion of the bank and at the piers. Some vegetation (small brush, grasses, and weeds) will be removed for placement of RSP.

The project is located on Jaye Street crossing the Tule River in the City of Porterville (Section 35, T21S, R27E, MDB&M, Tule River, Tulare 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.

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. 19087 BD

THIRTEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board (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 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.

FOURTEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the 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.

FIFTEEN: The Board and the Department of Water Resources shall not be held liable for damages to the permitted encroachment(s) resulting from releases of water from reservoirs, flood fight, operation, maintenance, inspection, or emergency repair.

AGENCY CONDITIONS

SIXTEEN: Board staff received a letter, dated April 18, 2016 from the U.S. Army Corps of Engineers (USACE) District Engineer stating that the District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally constructed project. This letter is attached to this permit as Exhibit A and is incorporated by reference.

SEVENTEEN: Permittee shall pay to the CVFPB, an inspection fee to cover inspection cost(s), including staff and/or consultant time and expenses, for any inspections before, during, post-construction, and regularly thereafter as deemed necessary by the CVFPB.

PRE-CONSTRUCTION

EIGHTEEN: The permittee shall contact the Board by telephone at (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

CONSTRUCTION

NINETEEN: 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 Board.

TWENTY: No construction work of any kind shall be done during the flood season from November 1 to July 15 without prior approval of the Board, and shall be removed after completion of the project.

TWENTY-ONE: No material stockpiles, temporary buildings, access ramps, or equipment shall remain in the floodway during the flood season from November 1 to July 15.

TWENTY-TWO: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to July 15.

TWENTY-THREE: Backfill material for excavations shall be placed in four (4) to six (6) inch layers and compacted to at least the density of the adjacent, firm, undisturbed material.

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

POST-CONSTRUCTION

TWENTY-FIVE: Except with respect to the activities expressly allowed under this permit, the work area shall be restored to the condition that existed prior to start of work.

TWENTY-SIX: Within 120 days of completion of the project, the permittee shall submit to the Board and DWR an electronic copy of as-built drawings, stamped and signed by a licensed civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with the Board permit conditions and submitted drawings and specifications.

OPERATIONS AND MAINTENANCE

TWENTY-SEVEN: The permittee shall be responsible for repair of any damages to the channel, banks, and floodway due to construction, operation, or maintenance of the proposed project.

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

TWENTY-NINE: All debris that may accumulate around the bridge supports and abutments within the floodway shall be completely removed from the floodway following each flood season.

THIRTY: If the permitted encroachment(s) result in any adverse hydraulic impact or scouring the permittee shall provide appropriate mitigation acceptable to the Board.

THIRTY-ONE: The permitted encroachment(s) shall not interfere with the flood conveyance capacity of the Tule River Designated Floodway. 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 Board. If the permittee does not comply, the Board may modify or remove the encroachment(s) at the permittee's expense.

PROJECT ABANDONMENT, CHANGE IN PLAN OF FLOOD CONTROL

THIRTY-TWO: If the project, or any portion thereof, is to be abandoned in the future, the permittee shall abandon the project under direction of the Board, at the permittee's cost and expense.

THIRTY-THREE: 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 Board may perform this work at the permittee's expense.

END OF CONDITIONS

EXHIBIT A

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

Flood Protection and Navigation Section (19087)

APR 18 2016

Ms. Leslie M. Gallagher, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, CA 95821

Dear Ms. Gallagher:

We have reviewed permit application number 19087 submitted by the City of Porterville. This project includes activities related to the widening and retrofitting of the existing Jaye Street Bridge to four lanes and placing rock slope protection on both banks of the Tule River. The project is located at the Jaye Street Bridge crossing the Tule River in Porterville, at 36.056508ºN 119.026176ºW NAD83, Tulare County, CA.

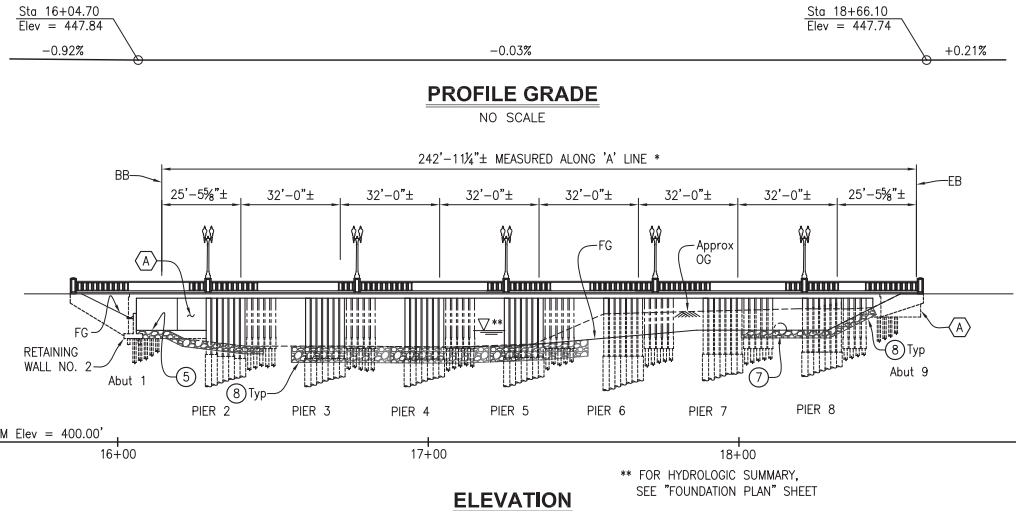
The District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally construction project.

A Section 10 and/or Section 404 permit (SPK-2014-00440) has been issued for this work prior to July 31, 2014.

A copy of this letter is being furnished to Mr. Don Rasmussen, Chief, Flood Project Integrity and Inspection Branch, 3310 El Camino Avenue, Suite 200, Sacramento, CA 95821.

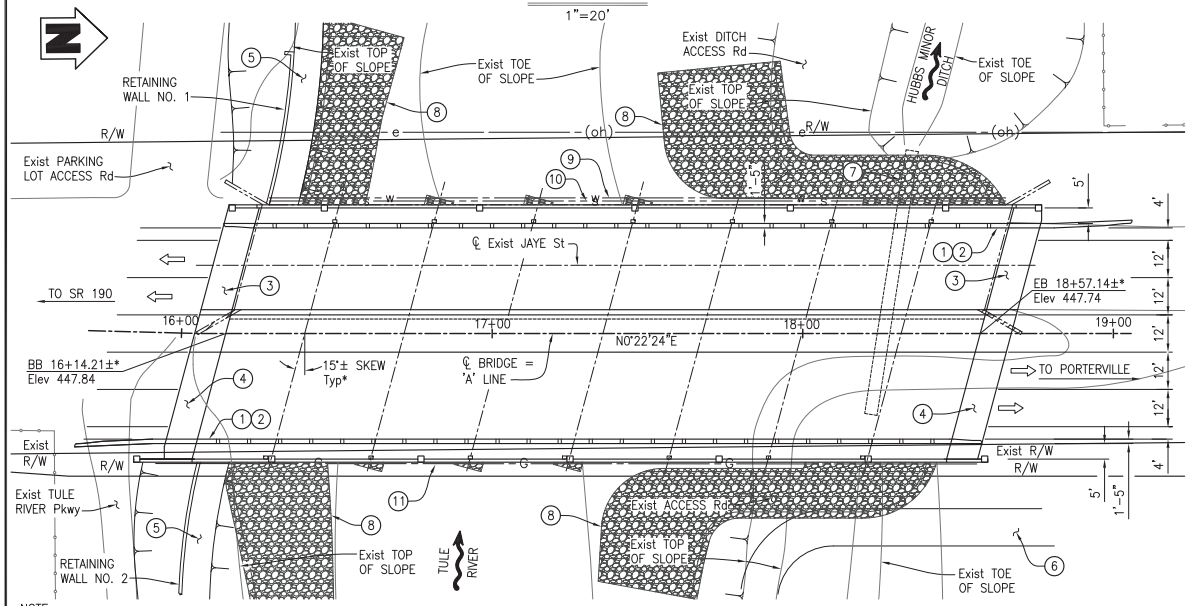
Sincerely,

Ryan Larson, P.E.
Chief, Flood Protection and Navigation Section



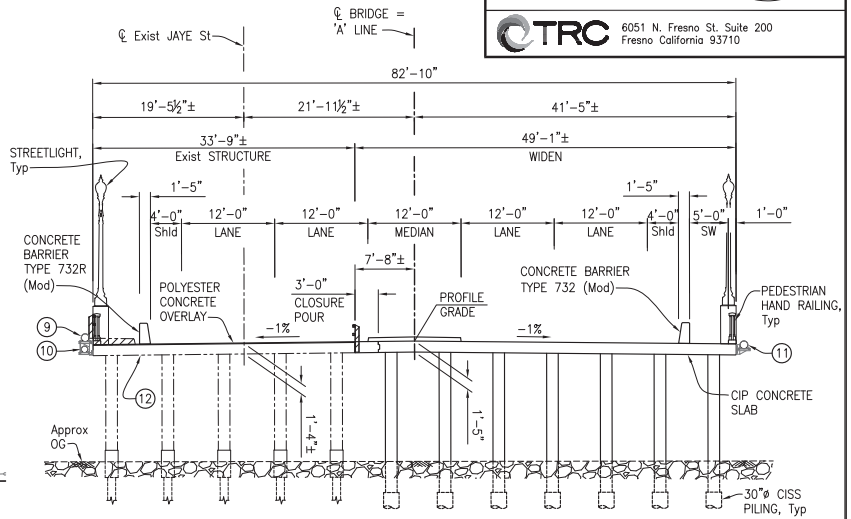
PROFILE GRADE
NO SCALE

ELEVATION
1"=20'



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

PLAN
1"=20'



TYPICAL SECTION
1/8"=1'-0"

NOTES:
1. Paint "JAYE ST, BRIDGE"
2. Paint "Bridge No. 46C-0099"
3. Structure Approach Type R(10D)
4. Structure Approach Type EQ(10)
5. Realigned Tule River Parkway, see CIVIL PLANS.
6. Realigned Access Rd, see CIVIL PLANS.
7. Remove Exist 48" RCP and construct Concrete Box Culvert, see CIVIL PLANS.
8. Install Scour Protection (RSP)
9. Remove & replace existing 12"ø Water Line.
10. Remove & replace existing 10"ø Sewer Line.
11. 6"ø Gas Line, by others
12. Repair Soffit spall near Pier 4

LEGEND:
- Indicates Existing Structure
- Indicates Proposed Structure
- * Indicates Match Existing
- Indicates Deck Drain
- Indicates Direction of Traffic
- Indicates Direction of Water Flow
- Indicates Bridge Removal (Portion)

RETROFIT LEGEND:
- (A) Abutment Diaphragm Retrofit

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	–	–	37	66

Robin Yates 8/12/15
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

The City of Porterville or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER — ROBIN E. YATES No. 76631 Exp. 12-31-16 CIVIL — STATE OF CALIFORNIA

TRC 6051 N. Fresno St. Suite 200 Fresno California 93710

B-1

DESIGN OVERSIGHT	DESIGN	BY R. YATES	CHECKED B. SCHOPPE	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 & PERMIT DESIGN VEHICLE		
SIGN OFF DATE	DETAILS	BY G. IMBSEN	CHECKED R. YATES	LAYOUT	BY R. YATES	CHECKED B. SCHOPPE	
	QUANTITIES	BY K. NEGORO	CHECKED B. SCHOPPE	SPECIFICATIONS	BY R. YATES	PLANS AND SPECS COMPARED M. IMBRIANI	

CITY OF PORTERVILLE
PUBLIC WORKS DEPARTMENT
291 N. MAIN ST., P.O. BOX 432
PORTERVILLE, CA. 93258

MARK IMBRIANI
PROJECT MANAGER

BRIDGE NO.	46C-0099
POST MILE	N/A

JAYE STREET BRIDGE AT TULE RIVER
GENERAL PLAN

Drawing name: H:\156385-Porterville\06-XXX-a-gp01.dwg Layout Tab: PLAN & ELEV Aug 12,2015 - 12:30pm acardoza

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-24-14	5-28-15	6-18-15	7-31-15	1	30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	–	–	38	66

Robin Yates 8/12/15
REGISTERED CIVIL ENGINEER DATE

PROFESSIONAL ENGINEER — REGISTERED — ROBIN E. YATES — No. 76631 — Exp. 12-31-16 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

The City of Porterville or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

TRC
6051 N. Fresno St. Suite 200
Fresno California 93710

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:

AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated November 2011.

SEISMIC DESIGN:

Caltrans Seismic Design Criteria (SDC), Version 1.7 dated April 2013.

DEAD LOAD:

Includes 35 psf for future wearing surface.

LIVE LOADING:

HL93 and permit design load.

SEISMIC LOADING:

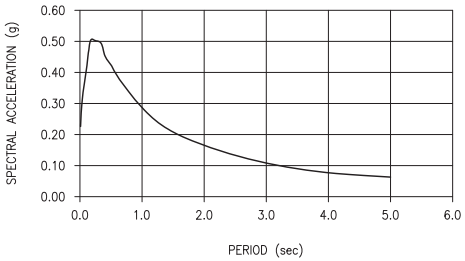
Soil profile: V_s30 = 270 m/s
Moment Magnitude: Mmax = 6.5
Peak Ground Acceleration 0.23g
See ARS Curve, this sheet

REINFORCED CONCRETE:

fy = 60 ksi
f'c = see "CONCRETE STRENGTH & TYPE LIMITS"
n = 8

FOUNDATION DATA:

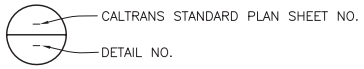
See "PILE DATA TABLE" on "FOUNDATION PLAN" sheet



ARS CURVE

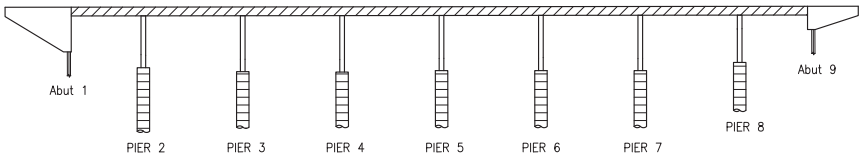
CALTRANS STANDARD PLANS
DATED 2010

	A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP	A10B	ABBREVIATIONS (SHEET 2 OF 2)
	A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
	A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
	A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
	A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
	B0-1	BRIDGE DETAILS
	B0-3	BRIDGE DETAILS
	B0-5	BRIDGE DETAILS
	B0-13	BRIDGE DETAILS
	B2-5	PILE DETAILS CLASS 90 AND CLASS 140
RSP	B3-5	RETAINING WALL DETAILS NO. 1
	B3-6	RETAINING WALL DETAILS NO. 2
	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING=2")
	B7-5	DECK DRAINS
	B7-8	DECK DRAINAGE DETAILS
RSP	B11-55	CONCRETE BARRIER TYPE 732



INDEX TO PLANS

SHEET NO.	TITLE
B-1	GENERAL PLAN
B-2	INDEX TO PLANS
B-3	STAGE CONSTRUCTION
B-4	DECK CONTOURS
B-5	FOUNDATION PLAN
B-6	ABUTMENT 1 LAYOUT
B-7	ABUTMENT 9 LAYOUT
B-8	ABUTMENT DETAILS NO. 1
B-9	ABUTMENT DETAILS NO. 2
B-10	PIER DETAILS
B-11	TYPICAL SECTION
B-12	SLAB REINFORCEMENT
B-13	STRUCTURE APPROACH TYPE EQ(10)
B-14	STRUCTURE APPROACH TYPE R(10D)
B-15	PEDESTRIAN HANDRAIL DETAILS NO. 1
B-16	PEDESTRIAN HANDRAIL DETAILS NO. 2
B-17	PEDESTRIAN HANDRAIL DETAILS NO. 3
B-18	BARRIER DETAILS NO. 1
B-19	BARRIER DETAILS NO. 2
B-20	BARRIER DETAILS NO. 3
B-21	UTILITY DETAILS
B-22	RETAINING WALL LAYOUT
B-23	RETAINING WALL DETAILS
B-24	SCOUR PROTECTION LAYOUT
B-25	SCOUR PROTECTION DETAILS
B-26	LOG OF TEST BORINGS NO. 1
B-27	LOG OF TEST BORINGS NO. 2
B-28	LOG OF TEST BORINGS NO. 3
B-29	LOG OF TEST BORINGS NO. 4
B-30	LOG OF TEST BORINGS NO. 5



CONCRETE STRENGTH AND TYPE LIMITS

Not to Scale

- Structural Concrete, Bridge (3,600 psi at 28 days)
- Structural Concrete, Bridge (4,000 psi at 28 days)
- Cast-In-Steel Shell Concrete Piling (3,600 psi at 28 days)

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

B-2

DESIGN OVERSIGHT
SIGN OFF DATE

DESIGN	BY R. YATES	CHECKED B. SCHOPPE	
DETAILS	BY G. IMBSEN	CHECKED R. YATES	
QUANTITIES	BY K. NEGORO	CHECKED B. SCHOPPE	

CITY OF PORTERVILLE
PUBLIC WORKS DEPARTMENT
291 N. MAIN ST., P.O. BOX 432
PORTERVILLE, CA. 93258

MARK IMBRIANI
PROJECT MANAGER

BRIDGE NO. 46C-0099
POST MILE N/A

JAYE STREET BRIDGE AT TULE RIVER
INDEX TO PLANS

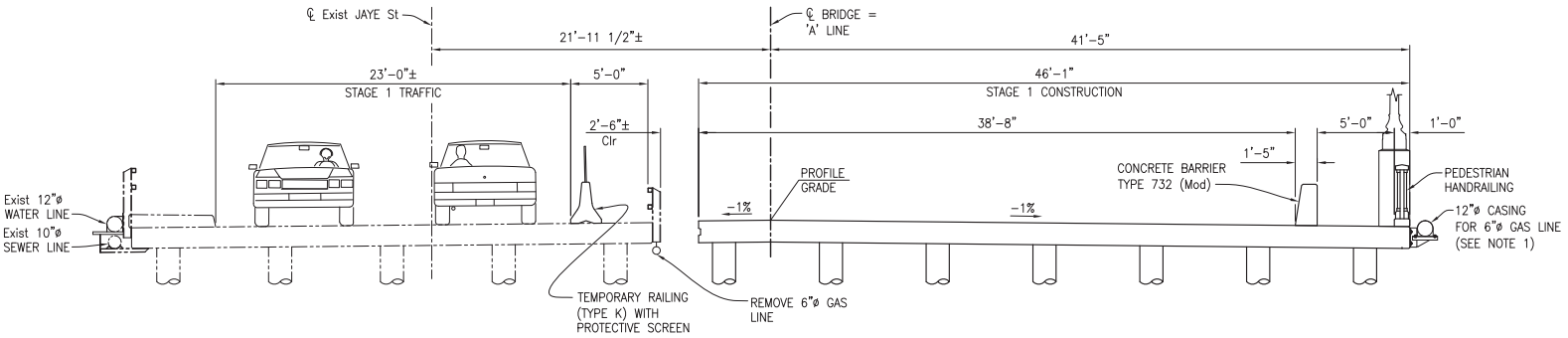
Drawing name: H:\156385-Porterville\06-XXX-b-gnote.dwg Layout Tab: LAYOUT Aug 12,2015 - 2:02pm acardoza

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

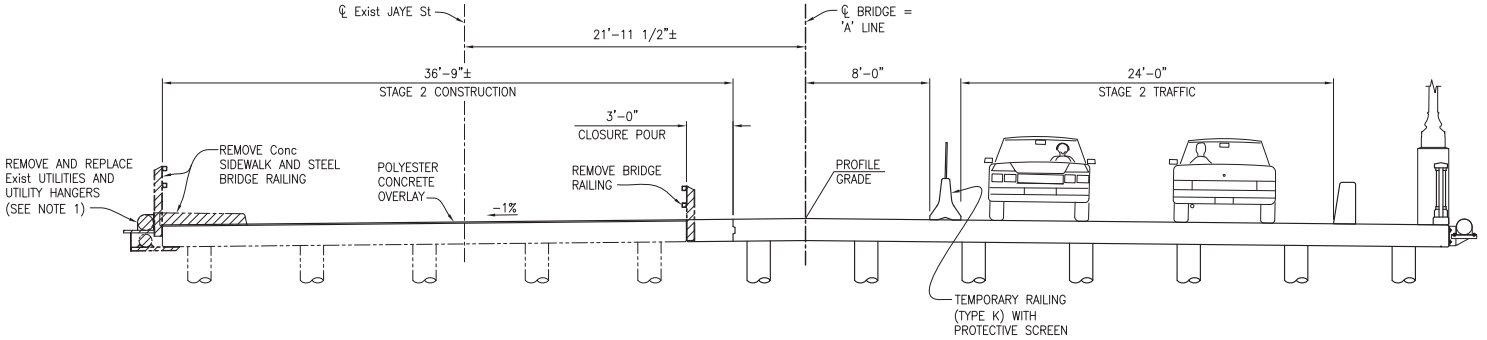
UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

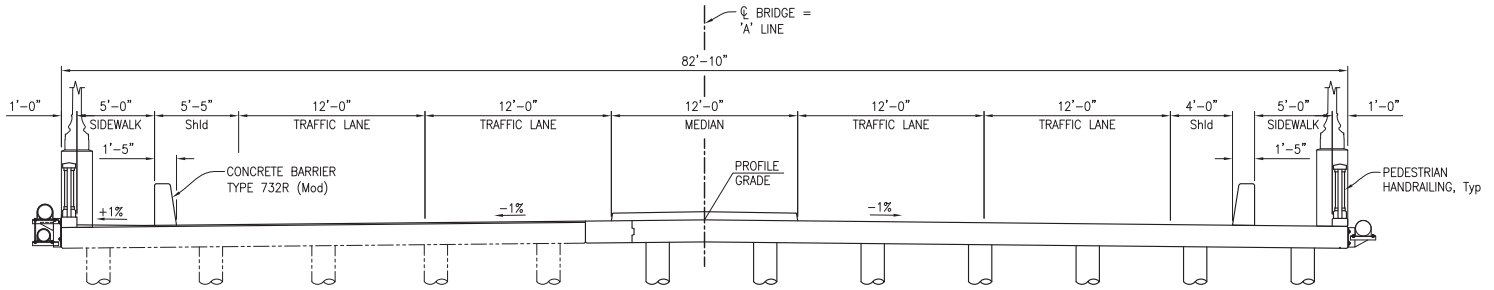
REVISION DATES			SHEET	OF
6-30-14	5-28-15	6-30-15	7-31-15	2	30



STAGE 1 - CONSTRUCT EAST PORTION OF BRIDGE AND APPROACHES



STAGE 2 - REHABILITATE EXISTING BRIDGE AND CONSTRUCT CLOSURE POUR



STAGE 3 FINAL CONFIGURATION - CONSTRUCT BARRIER AND MEDIAN

NOTE:

1. See "UTILITY DETAILS" sheet for utility bracket details.

LEGEND:

- Indicates Existing Structure
- Indicates Proposed Structure
- Indicates Bridge Removal (Portion)

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

STAGE CONSTRUCTION

1/4"=1'–0"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	–	–	39	66

Robin Yates — REGISTERED CIVIL ENGINEER — 8/12/15 DATE

PROFESSIONAL ENGINEER — REGISTERED — ROBIN E. YATES — No. 76631 — Exp. 12-31-16 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

The City of Porterville or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

TRC
6051 N. Fresno St. Suite 200
Fresno California 93710

B-3

DESIGN OVERSIGHT

SIGN OFF DATE

	BY	CHECKED
DESIGN	R. YATES	B. SCHOPPE
DETAILS	A. CARDOZA	R. YATES
QUANTITIES	K. NEGORO	B. SCHOPPE

CITY OF PORTERVILLE
PUBLIC WORKS DEPARTMENT
291 N. MAIN ST., P.O. BOX 432
PORTERVILLE, CA. 93258

MARK IMBRIANI
PROJECT MANAGER

BRIDGE NO. 46C–0099
POST MILE N/A

JAYE STREET BRIDGE AT TULE RIVER

STAGE CONSTRUCTION

Drawing name: H:\156385–Porterville\06–XXX–c–stc01.dwg Layout Tab: STAGE Aug 12,2015 – 2:03pm acardoza

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
6-24-14	5-28-15	6-24-15	7-31-15	3	30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	–	–	40	66

Robin Yates 8/12/15
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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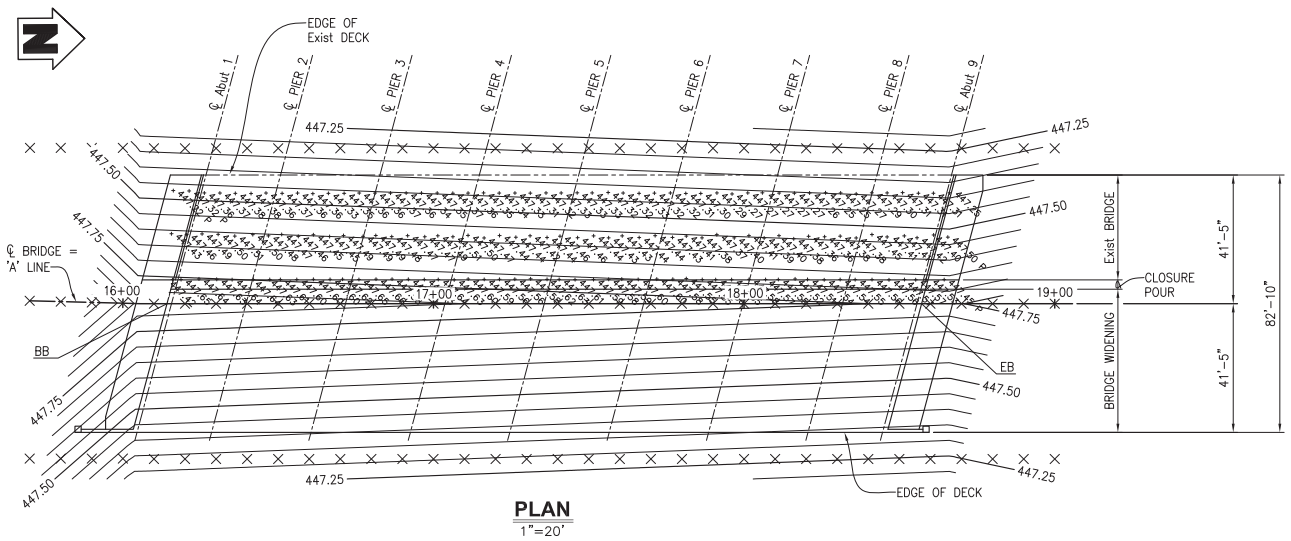
REGISTERED PROFESSIONAL ENGINEER — ROBIN E. YATES — No. 76631 — Exp. 12-31-16 — CIVIL — STATE OF CALIFORNIA

TRC
6051 N. Fresno St. Suite 200
Fresno California 93710



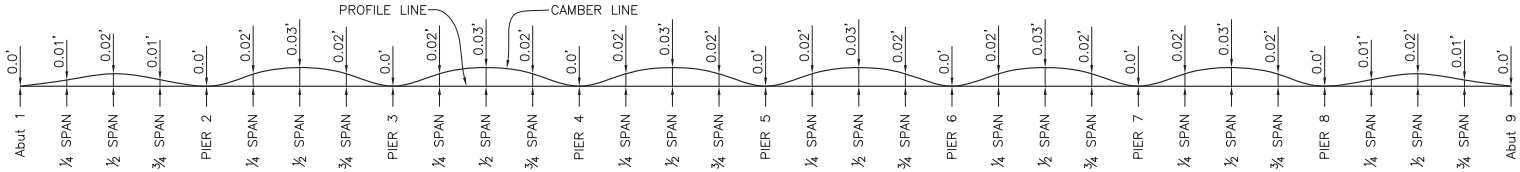
PLAN
1"=20'

NOTES:

× Denotes 10' intervals along station line

Contour intervals = 0.05'
Contours do not include camber.

+XXX.XX Indicates top of existing deck spot elevation



CAMBER DIAGRAM
(Does not include allowance for falsework settlement)
NO SCALE

FALSEWORK RELEASE NOTES:

Alternative 1: Falsework shall be released as soon as permitted by the specifications. Closure pour shall not be placed sooner than 60 days after the falsework has been released

Alternative 2: Falsework shall not be released less than 28 days after the last concrete has been placed. Closure pour shall not be placed sooner than 14 days after the falsework has been released.

When falsework release Alternative 2 is used, camber values are 0.75 times those shown.

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

B-4

DESIGN OVERSIGHT
SIGN OFF DATE

	BY	CHECKED
DESIGN	R. YATES	B. SCHOPPE
DETAILS	A. CARDOZA	R. YATES
QUANTITIES	K. NEGORO	B. SCHOPPE

CITY OF PORTERVILLE
PUBLIC WORKS DEPARTMENT
291 N. MAIN ST., P.O. BOX 432
PORTERVILLE, CA. 93258

MARK IMBRIANI
PROJECT MANAGER

BRIDGE NO. 46C-0099
POST MILE N/A

JAYE STREET BRIDGE AT TULE RIVER
DECK CONTOURS

Drawing name: H:\156385-Porterville\06-XXX-d-dc01.dwg Layout Tab: LAYOUT Aug 12,2015 - 2:03pm acardoza

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
6-24-14	5-28-15	6-18-15	7-31-15	4	30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	–	–	41	66

Robin Yates 8/12/15
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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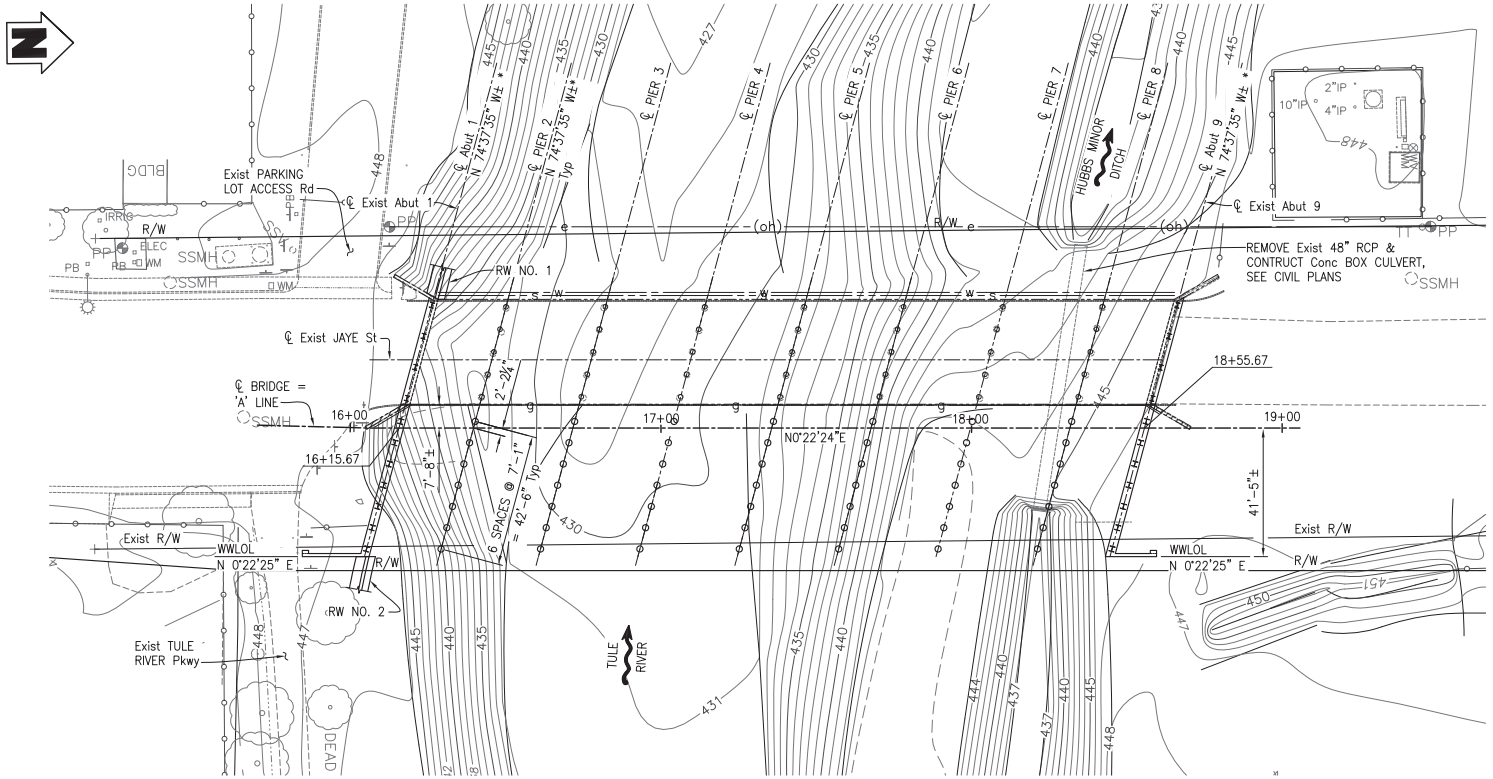
REGISTERED PROFESSIONAL ENGINEER — ROBIN E. YATES — No. 76631 — Exp. 12-31-16 — CIVIL — STATE OF CALIFORNIA

TRC 6051 N. Fresno St. Suite 200 Fresno California 93710



PLAN
1"=20'

LEGEND:

- Indicates Existing Structure
- Indicates Proposed Structure
- * Indicates Match Existing
- ⌶ Indicates HP 10x57 Pile
- o Indicates 30"ø CISS Pile
- Indicates Bridge Removal (Portion)

NOTES:

1. Original ground shown for finish grade, see CIVIL PLANS.

PILE DATA TABLE

LOCATION	PILE TYPE	CUT-OFF ELEV (ft)	NOMINAL RESISTANCE (kips)		DESIGN TIP Elev (ft)	SPECIFIED TIP Elev (ft)	Nominal Driving Resistance (kips)
			COMPRESSION	TENSION			
Abut 1	HP 10x57	N/A	180	0	400(a), 414(b), 423(c)	400	180
Pier 2	CISS NPS 30x0.5	426	280	0	380(a), 400(b), 402(c)	380	640
Pier 3	CISS NPS 30x0.5	426	280	0	382(a), 399(b), 402(c)	382	640
Pier 4	CISS NPS 30x0.5	426	280	0	382(a), 399(b), 402(c)	382	640
Pier 5	CISS NPS 30x0.5	426	280	0	383(a), 399(b), 405(c)	383	640
Pier 6	CISS NPS 30x0.5	429	280	0	383(a), 399(b), 407(c)	383	640
Pier 7	CISS NPS 30x0.5	432	280	0	380(a), 399(b), 407(c)	381	630
Pier 8	CISS NPS 30x0.5	432	280	0	380(a), 399(b), 407(c)	380	620
Abut 9	HP 10x57	N/A	180	0	399(a), 412(b), 428(c)	399	180

NOTES:
1. Design Tip Elevations for Abutments and Piers are controlled by: (a) Compression, (b) Settlement, (c) Lateral Load.
2. The specified tip elevation shall not be raised above the design tip elevation for lateral load and tolerable settlement.
3. Unsuitable soil layers (scourable), that do not contribute to the design nominal resistance exist at the Piers extending to elevation 406.8 ft

HYDROLOGIC SUMMARY

Drainage Area: N/A Square Miles

	Design Flood	Base Flood	Overtopping Flood	Flood of Record
Frequency (Years)	50	100	>100	N/A
Discharge (Cubic feet per second)	3,790	12,290	29,000	N/A
Water Surface (Elevation at Bridge)	438.55	445.03	447.59	N/A

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 the City of Porterville or TRC and interested or affected parties should make their own investigation.

BENCH MARK AND DATUM:

City Bench Mark No, 71
Brass Cap Monument at the Center of Section 35 T21S R27E MDB&M
Elevation 449.795 (NAVD 1988)

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

Carl A. Hearn 8-12-15
GEOTECHNICAL PROFESSIONAL — APPROVAL DATE

B-5

DESIGN OVERSIGHT
SIGN OFF DATE

SCALE: X | VERT. DATUM X | HORZ. DATUM X
PHOTOGRAMMETRY AS OF: X | ALIGNMENT TIES X
SURVEYED BY X | DRAFTED BY X
FIELD CHECKED BY X | CHECKED BY X

DESIGN BY R. YATES CHECKED B. SCHOPPE
DETAILS BY G. IMBSEN CHECKED R. YATES
QUANTITIES BY K. NEGORO CHECKED B. SCHOPPE

CITY OF PORTERVILLE
PUBLIC WORKS DEPARTMENT
291 N. MAIN ST., P.O. BOX 432
PORTERVILLE, CA. 93258

MARK IMBRIANI
PROJECT MANAGER

BRIDGE NO. 46C-0099
POST MILE N/A

JAYE STREET BRIDGE AT TULE RIVER
FOUNDATION PLAN

Drawing name: H:\156385-Porterville\06-XXX-e-fp01.dwg Layout Tab: PLAN & ELEV Aug 12,2015 - 2:40pm acardoza

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 6-24-14 5-28-15 6-18-15 7-31-15

SHEET 5 OF 30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Tul	–	–	13	66

REGISTERED CIVIL ENGINEER — 8/12/15 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — WILLIAM WASHBURN — No. 60322 — Exp. 6/30/16 — CIVIL — STATE OF CALIFORNIA

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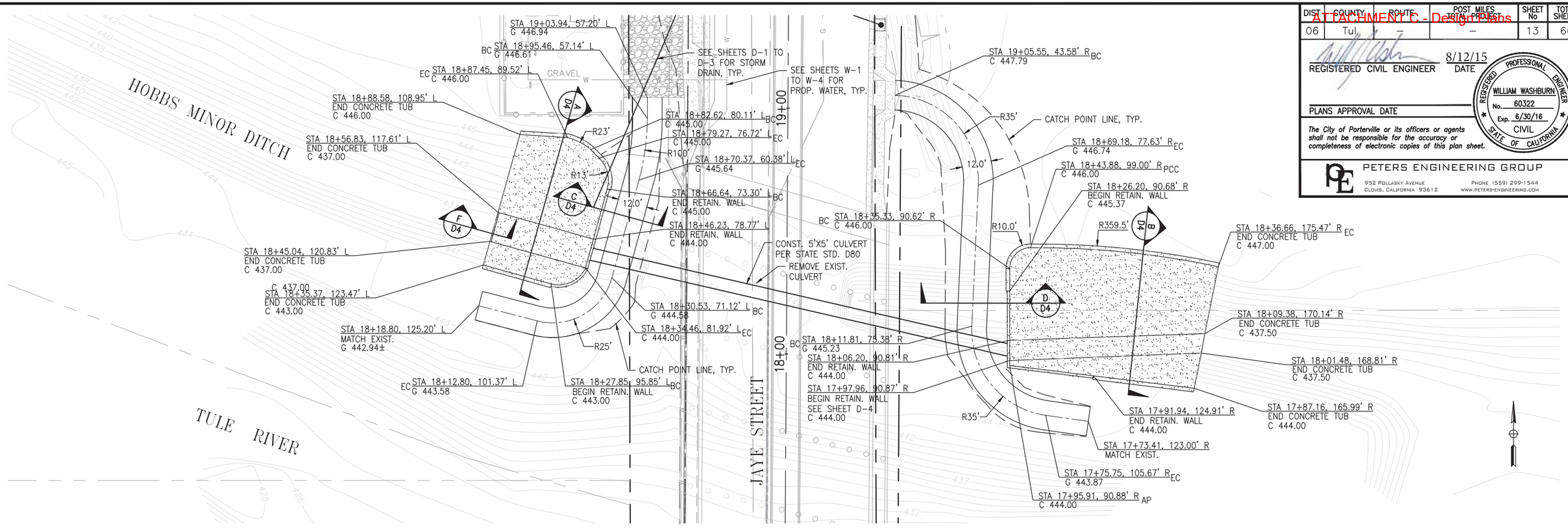
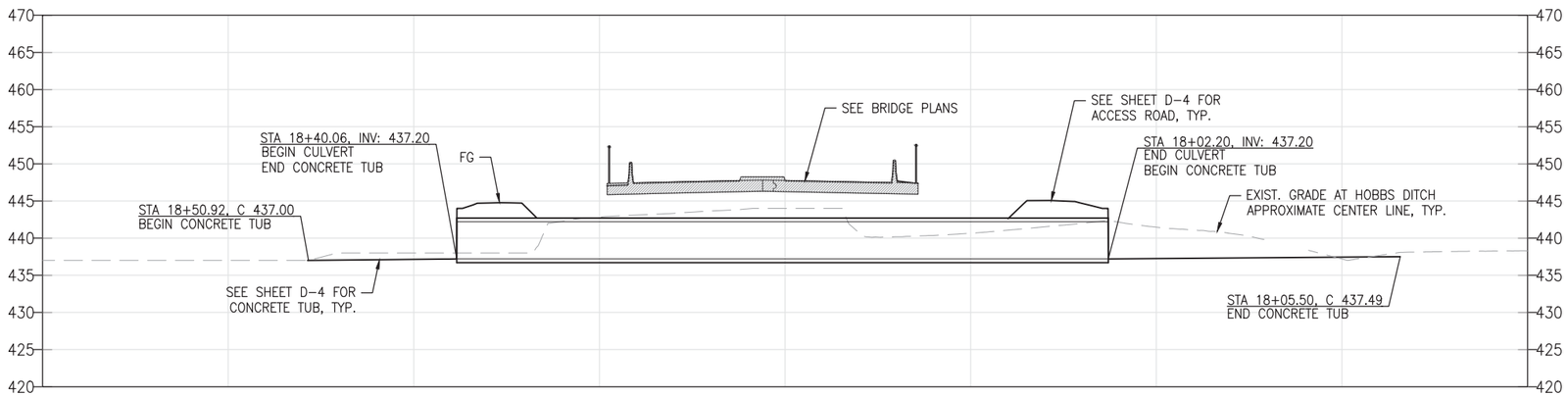
PETERS ENGINEERING GROUP
952 Pollasky Avenue, Clovis, California 93612
Phone (559) 299-1544
www.petersengineering.com





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

100% SUBMITTAL
NOT FOR CONSTRUCTION

D-3

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

TRC 6051 N. Fresno St. Suite 200 Fresno California 93710

	BY	CHECKED
DESIGN	C. YANG	W. WASHBURN
DETAILS	C. YANG	W. WASHBURN
QUANTITIES		

CITY OF PORTERVILLE
PUBLIC WORKS DEPARTMENT
291 N. MAIN ST., P.O. BOX 432
PORTERVILLE, CA. 93258

MARK IMBRIANI
PROJECT MANAGER

BRIDGE NO. 46C-0099
POST MILE X

JAYE STREET BRIDGE AT TULE RIVER

CULVERT PLAN AND PROFILE

Drawing name: C:\Users\cyang.PETERSEG\appdata\local\temp\AcPublish_8164\05-039 D-1.dwg Layout Tab: D-3 Jul 29,2015 - 5:10pm cyang

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES					SHEET	OF
					13	36