

**Meeting of the Central Valley Flood Protection Board
February 25, 2011**

Staff Report – Encroachment Permit

**Reclamation District No. 1614
Pipe Replacement, San Joaquin County**

1.0 – ITEM

Consider approval of Permit No. 18638 (Attachment B)

2.0 – APPLICANT

Reclamation District No. 1614

3.0 – LOCATION

The project is located in the City of Stockton, east of Interstate 5 on River Drive.
(Calaveras River, San Joaquin County, see Attachment A)

4.0 – DESCRIPTION

The applicant proposes to remove an existing 10-inch-diameter water discharge pipe and replace it with a new 105-foot-long, 10-inch-diameter steel pipe through the left (south) bank levee of the Calaveras River and to place 8-inches of aggregate base material with 2-inches of asphalt concrete on the levee crown to repair River Drive.

5.0 – PROJECT ANALYSIS

Reclamation District No. 1614 operates the Houge Street Pump Station that pumps surface drainage water into the Calaveras River. During a recent intense storm event the pump station was activated and the existing 10-inch diameter pipe showed signs of leakage requiring that the pipe be replaced.

The existing pipe will be excavated from the levee section and disposed of outside of the project works. The new 10-inch diameter, 3/8 inch thick, epoxy coated replacement

pipe through the levee section will be approximately 50-feet long. A second section of 10-inch diameter pipe, approximately 55-feet long, will be replaced on the landside levee slope that connects with a sump structure. Installation of the new pipe conforms to Title 23 standards.

5.1 – Hydraulic Analysis

A hydraulic analysis was not necessary for the proposed project.

5.2 – Geotechnical Analysis

A geotechnical analysis was not necessary for the proposed project.

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

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

- San Joaquin County Flood Control and Water Conservation District endorsed the proposed project, with conditions, by letter dated December 20, 2010. The letter will be incorporated into the permit as Exhibit A.
- The U.S. Army Corps of Engineers 208.10 comment letter has not yet been received for this application. Upon receipt of a favorable letter and review by Board staff the letter will be incorporated into the permit as Exhibit B.

7.0 – CEQA ANALYSIS

Board staff has prepared the following CEQA determination:

Reclamation District No. 1614, as the lead agency under CEQA, approved the project on November 10, 2010 and determined that the project was categorically exempt under a Class 1 Categorical Exemption (CEQA Guidelines Section 15301) covering maintenance of an existing serviceable structure.

The Board, acting as a responsible agency under CEQA, has reviewed the Reclamation District No. 1614 determination and has independently determined that the project is exempt from CEQA under Class 1 (CEQA Guidelines Section 15301) covering maintenance of an existing serviceable structure.

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 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.

3. Effects of the decision on the entire State Plan of Flood Control:

The proposed project replaces an existing pipe so there are no effects to 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:

Future changes in hydrology caused by climate change could result in the need to remove and redesign the project if precipitation and water levels raise necessitating levee modifications.

9.0 – STAFF RECOMMENDATION

Staff recommends that the Board determine the project to be exempt from CEQA and approve the permit conditioned upon receipt of a favorable U.S. Army Corps of Engineers comment letter.

10.0 – LIST OF ATTACHMENTS

- A. Location Maps and Photos
- B. Draft Permit No. 18638
- C. Design drawing

Design Review:

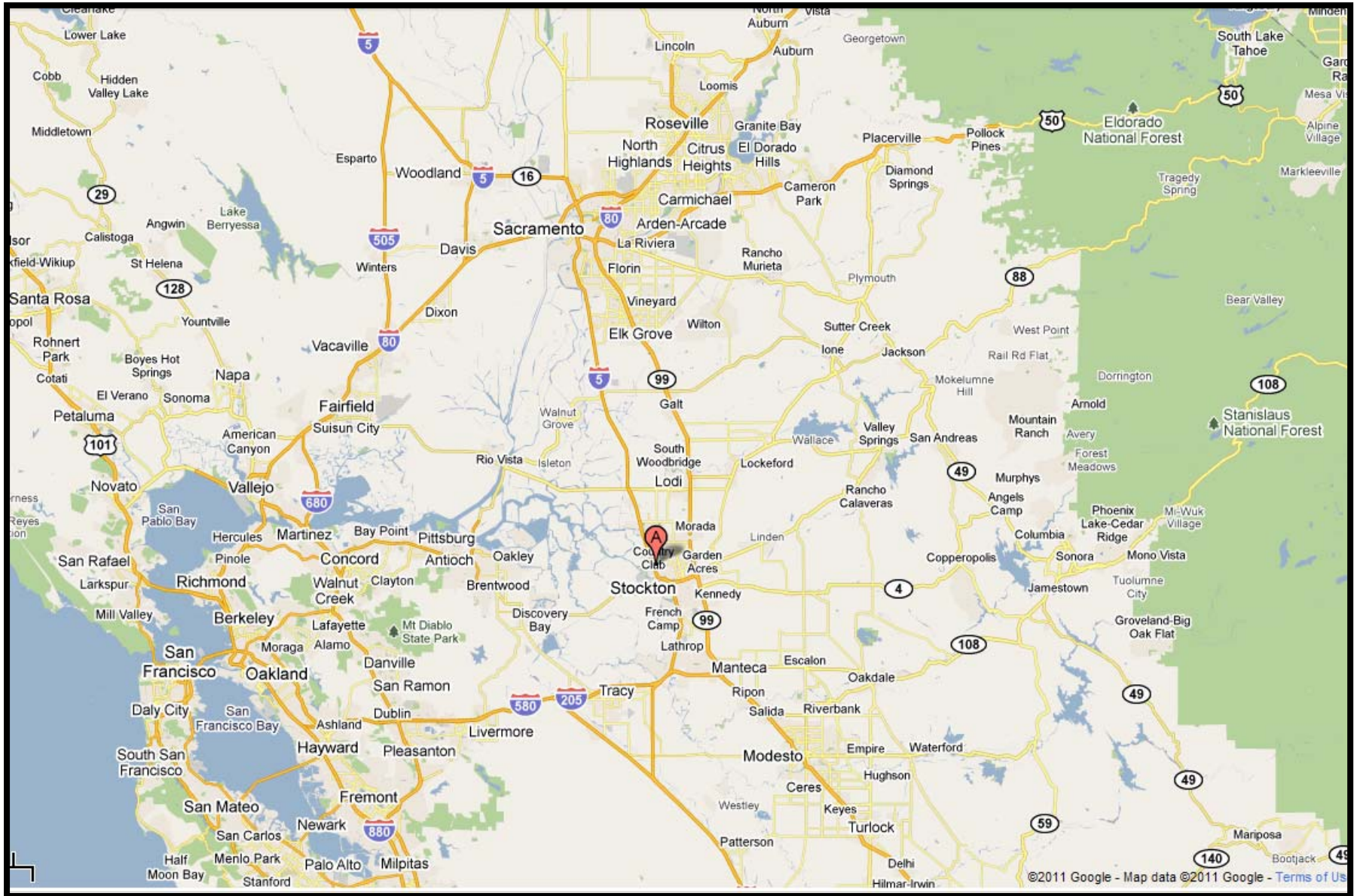
Gary Lemon P.E.

Environmental Review:

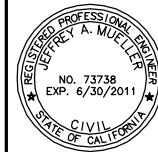
James Herota

Document Review:

Mitra Emami P.E., Curt Taras P.E., Len Marino P.E.



Regional Map – Hogue Avenue/Tyler School Pump Station



K S N KJELDSSEN SINNOCK NEUDECK INC.
 Consulting Engineers and Land Surveyors
 Post Office Box 844
 711 N. Pershing Avenue
 Stockton, CA 95201-0844
 Office: (209) 946-0268
 Faxes: (209) 946-0296
 E-mail: KSN@ksninc.com

RECLAMATION DISTRICT NO. 1614
 SMITH TRACT
 HOGUE PUMP STATION PIPE REPAIR
 SITE MAP

Revisions				Design		
No.	Description	Date	By	Aprvd. By	Drawn	Check
					JAM	RGW

Scale
 NOT TO SCALE
 Original Drawing Scale
 0 1/2" 1"

Date
 DECEMBER 2010
 Sheet Number
1 Of 3
 Project File No.
 0806-0090



Looking at the existing 10-inch diameter pipe on the landside of the levee.



Looking west down River Drive Road near the project site. River Drive Road runs along the top of the south (left) bank levee of the Calaveras River.



Looking at the existing 10-inch diameter pipe on the waterside of the levee.

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DRAFT

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

PERMIT NO. 18638 BD

This Permit is issued to:

Reclamation District No. 1614
PO Box 4807
Stockton, California 95204

To remove existing 10-inch-diameter water discharge pipe; to install (trench) a new 50-foot-long, 10-inch-diameter, 3/8-inch thick epoxy coated steel pipe through (up and over) the left (south) bank levee of the Calaveras River; install 55-foot-long, 10-inch-diameter, 3/8-inch thick, non-coated steel pipe on the landside of the levee connecting to the new levee crown pipe; and place 8-inches of aggregate base material with 2-inches of AC to complete levee crown fill. The project is located in Stockton east of I-5 on River Drive (Section 32, T2N, R6E, MDB&M, Reclamation District 1614 and San Joaquin County Flood Control and Water District , Calaveras, 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.

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. 18638 BD

THIRTEEN: 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.

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 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

FIFTEEN: 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.

SIXTEEN: 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 any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance,

inspection, or emergency repair.

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

EIGHTEEN: The permittee shall contact the Department of Water Resources by telephone, (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.

NINETEEN: A temporary bench mark, set to a known datum, shall be placed at the project site during construction.

TWENTY: 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 1st to April 15th.

TWENTY-ONE: The abandoned pipe shall be removed from the levee section.

TWENTY-TWO: The new pipe shall be installed through the levee section at a right angle to the centerline of the levee.

TWENTY-THREE: The new pipe shall be placed in an open cut with side slopes of 1 horizontal to 1 vertical or flatter.

TWENTY-FOUR: The new pipe shall be placed in the center of an open trench that is 2-feet wider than the diameter of the new pipe.

TWENTY-FIVE: Pipe installed in the levee section and within 10 feet of the levee toes shall be new steel and corrosion-proofed externally with a coating of coal-tar enamel; asphalt-saturated felt wrap; cement mortar; or PVC or polyethylene tape wrapped to a thickness of 30 mils, or equivalent.

TWENTY-SIX: A positive-closure device that is readily accessible during periods of high water shall be installed on the waterward side of the levee.

TWENTY-SEVEN: A suitable siphon breaker and protective housing shall be installed on the apex of the pipe and shall be located off the levee patrol road.

TWENTY-EIGHT: The invert of the new pipe through the levee section shall be above the design flood plane elevation of 10.3- feet, NGV Datum.

TWENTY-NINE: All pipe joints within the levee section shall be butt welded or threaded.

THIRTY: The pipe shall be buried at least 24 inches below the levee crown.

THIRTY-ONE: Only impervious material shall be used for bedding or backfill within the levee section.

THIRTY-TWO: Backfill material for excavations within the levee section and within 10 feet of the levee toes shall be placed in 4- to 6-inch layers, moisture conditioned above optimum moisture

content, and compacted to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

THIRTY-THREE: Density tests by a certified materials laboratory will be required to verify compaction of backfill within the levee section.

THIRTY-FOUR: The project site shall be restored to at least the condition that existed prior to commencement of work.

THIRTY-FIVE: The pipeline shall be tested and confirmed free of leaks by X-ray, pressure tests, or other approved methods during construction or anytime after construction upon request by the Central Valley Flood Protection Board.

THIRTY-SIX: The permittee is responsible for repairing any damage to the levee caused by the installation or operation of the pipe.

THIRTY-SEVEN: 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.

THIRTY-EIGHT: 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.

THIRTY-NINE: 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.

FORTY: 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-ONE: The permittee shall comply with all conditions set forth in the letter from San Joaquin County Flood Control and Water Conservation District dated December 20, 2010, which is attached to this permit as Exhibit A and is incorporated by reference.

FORTY-TWO: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated _____, which is attached to this permit as Exhibit ___ and is incorporated by reference.

FORTY-THREE: Upon completion of the project, the permittee shall submit as-built drawings to: Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite

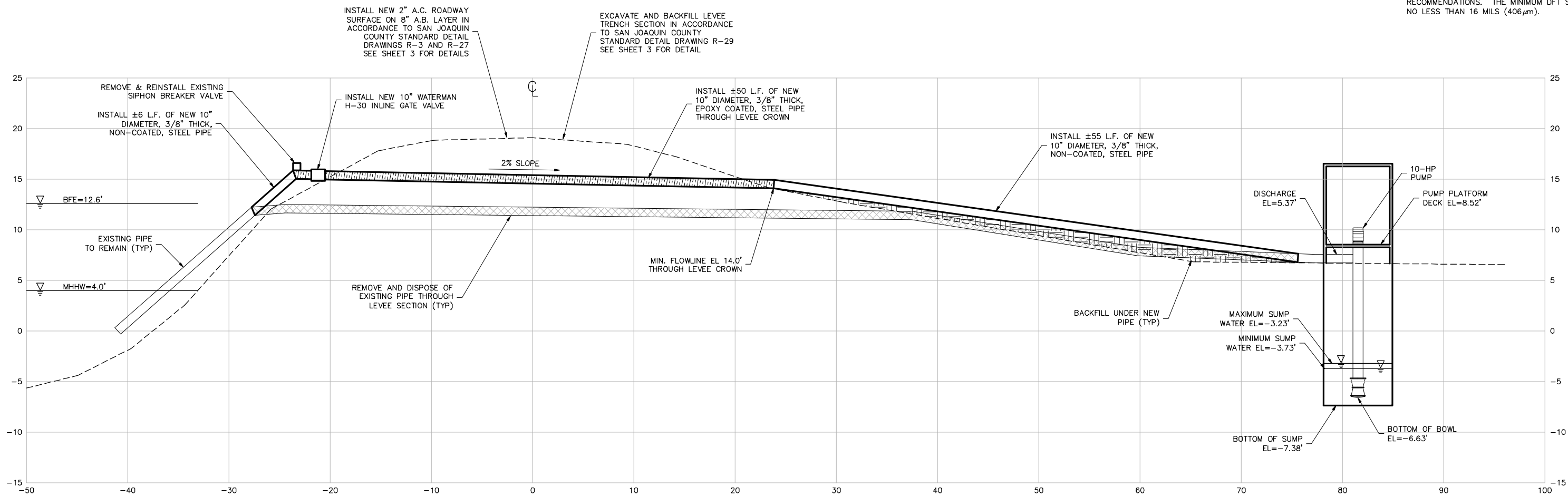
256, Sacramento, California 95821.

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Attachment C

VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29)

- NOTES:**
1. EPOXY COATED PIPE SHALL HAVE A SHOP-APPLIED LIQUID-EPOXY COATING INSIDE AND OUTSIDE PRIOR TO DELIVERY AT THE PROJECT SITE IN ACCORDANCE WITH ANSI/AWWA C210-08 STANDARDS.
 2. THE INTERIOR AND EXTERIOR SHALL BE A TWO-PART, CHEMICALLY CURED EPOXY PRIMER AND ONE COAT OF A DIFFERENT TWO-PART, CHEMICALLY CURED EPOXY TOPCOAT. THE TWO-PART MATERIALS USED IN BOTH THE PRIMER AND FINISHED TOPCOAT SHALL BE A PRODUCT OF ONE MANUFACTURER.
 3. THE DRY FILM COATING THICKNESS (DFT) SHALL BE BASED UPON THE MANUFACTURER'S RECOMMENDATIONS. THE MINIMUM DFT SHALL BE NO LESS THAN 16 MILS (406µm).



HOGUE PUMP STATION STA 262+00



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 Consulting Engineers and Land Surveyors
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 E-mail: KSN@ksninc.com

RECLAMATION DISTRICT NO. 1614
 SMITH TRACT
**HOGUE PUMP STATION PIPE REPAIR
 SECTION DETAIL**

Revisions				
No.	Description	Date	By	Aprvd. By

Design JAM	Scale VERT: 1"=5' HORIZ: 1"=5'	Date DECEMBER 2010
Drawn JAM	Original Drawing Scale 0 1/2" 1"	Sheet Number 2 Of 3
Check CHN		Project File No. 0806-0090