

**American River Flood Control District  
Central Valley Flood Protection Board Permit Application  
New 18-inch Culvert on Arcade Creek South Levee (City of Sacramento)  
Staff Report**

**Discussion:**

This application is for the replacement of an unpermitted 18" culvert located on the south levee of Arcade Creek near Rio Linda Boulevard. The culvert was found during the construction of SAFCA's North Sacramento Streams project. The culvert was previously undocumented but has been deemed necessary by the City of Sacramento Department of Utilities.

The application consists of installing a new levee pipe crossing that meets Title 23 standards. The pipe crossing will have a flap gate on the waterside outlet and a positive closure on the waterside hinge point. The positive closure will consist of a gate valve to prevent back flow during high water conditions. The gate valve requires a gate riser structure in the waterside slope hinge point of the levee to operate the valve. The entire pipe crossing feature including the gate valve and riser structure will be operated and maintained by the City of Sacramento.

**Recommendation:**

The General Manager recommends that the Board of Trustees endorse the City of Sacramento's permit application.

APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD ENCROACHMENT PERMIT

Application No. \_\_\_\_\_ (For Office Use Only)

1. Description of proposed work being specific to include all items that will be covered under the issued permit.

This application is for the replacement of an unpermitted 18" culvert located in Sacramento on the southern levee of Arcade Creek. Replacement of the culvert will follow Title 23 guidance as shown in Attachment A and B, detailed scope of work.

2. Project Location: Sacramento County, in Section n/a Township: 9N (N) (E) (S), Range: 5E (W), M. D. B. & M. Latitude: See Attachment A Longitude: See Attachment A Stream: Arcade Creek, Levee: Arcade Creek Designated Floodway: Arcade Creek APN: See Attachment A

3. Doug Henry of City of Sacramento, Department of Utilities Name of Applicant / Land Owner Address Sacramento CA 95822 916-808-6955 City State Zip Code Telephone Number dhenry@cityofsacramento.org E-mail

4. Karl Brustad of Peterson Brustad, Inc. Name of Applicant's Representative Company Folsom CA 95630 916-608-2212 City State Zip Code Telephone Number kbrustad@pbieng.com E-mail

5. Endorsement of the proposed project from the Local Maintaining Agency (LMA):

We, the Trustees of American River Flood Control District (ARFCD) approve this plan, subject to the following conditions: Name of LMA

- Conditions listed on back of this form Conditions Attached No Conditions

Trustee Date Trustee Date Trustee Date Trustee Date

### APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD ENCROACHMENT PERMIT

6. Names and addresses of adjacent property owners sharing a common boundary with the land upon which the contents of this application apply. If additional space is required, list names and addresses on back of the application form or an attached sheet.

| Name                                  | Address | Zip Code |
|---------------------------------------|---------|----------|
| <u>See Attachments for locations.</u> |         |          |
|                                       |         |          |
|                                       |         |          |
|                                       |         |          |
|                                       |         |          |
|                                       |         |          |
|                                       |         |          |
|                                       |         |          |

7. Has an environmental determination been made of the proposed work under the California Environmental Quality Act of 1970?     Yes     No     Pending

If yes or pending, give the name and address of the lead agency and State Clearinghouse Number:

Sacramento Area Flood Control Agency 1007 7th St, Sacramento, CA 95814 SCH #2014052038

SCH No. 2014052038

8. When is the project scheduled for construction? August 2019

9. Please check exhibits accompanying this application.

- A.  Regional and vicinity maps showing the location of the proposed work.
- B.  Drawings showing plan view(s) of the proposed work to include map scale.
- C.  Drawings showing the cross section dimensions and elevations (vertical datum?) of levees, berms, stream banks, flood plain,
- D.  Drawings showing the profile elevations (vertical datum?) of levees, berms, flood plain, low flow, etc.
- E.  A minimum of four photographs depicting the project site.

  
 \_\_\_\_\_  
 Signature of Applicant

4/29/19  
 \_\_\_\_\_  
 Date

Include any additional information:

A summary of the project and a description of the proposed methods are provided in the following attachments. The intent of this application is to permit the replacement culvert identified.

# Attachment A

**SAFCA NORTH AREA STREAMS LEVEE IMPROVEMENT PROJECT 2019:**

**CITY OF SACRAMENTO 18" CMP REPLACEMENT**

**SUMMARY OF PROPOSED WORK**

April 24, 2019

**INTRODUCTION**

The Sacramento Area Flood Control Agency (SAFCA) is proceeding with a 2019 construction project to finalize miscellaneous improvements that were not completed as part of the North Area Streams (NAS) Levee Improvement Project construction. An unpermitted 18" CMP culvert was identified in the field at STA 4076+60. This application is to replace this culvert per Title 23 guidance and procure a CVFPB encroachment permit.

**LOCATION**

This culvert is located within Sacramento County. The existing culvert provides local drainage for several nearby properties. The City of Sacramento is submitting this application to remove the existing CMP culvert and replace it with a 24" culvert with positive closures per Title 23 guidance.

| Utilities to be Modified |               |              |                        |
|--------------------------|---------------|--------------|------------------------|
| Location/Description     | Levee Station | APN          | Latitude               |
|                          |               |              | Longitude              |
| 18" CMP                  | 4076+60       | 251-0301-010 | 38.626612, -121.443508 |

**DESCRIPTION**

This utility is upstream of Rio Linda Blvd on the Arcade Creek South Levee. The 18" CMP will be removed and replaced with a 24" RCP as shown in Attachment B.

**ADJACENT PARCELS**

All of the parcels adjacent to the utilities to be modified are listed in the table presented below.

| Accessor Parcel # | Address          | Owner                             | Owner Address      | City       | Zip   |
|-------------------|------------------|-----------------------------------|--------------------|------------|-------|
| 25103010270000    | 981 Arcade Blvd  | Barbara A. Engelhardt             | No Address         | Sacramento | 95815 |
| 25103010260000    | 995 Arcade Blvd  | Miguel A. Caro Jr & Sonya E. Cara | 1108 Meadowlark Dr | Vacaville  | 95687 |
| 25103010320000    | 999 Arcade Blvd  | Go Time Investments               | 8251 Alpine Ave    | Sacramento | 95826 |
| 25103010330000    | 1001 Arcade Blvd | Losimani & Akesiu Tupou           | 1001 Arcade Blvd   | Sacramento | 95815 |
| 25103010240000    | 1015 Arcade Blvd | Cc Investment Properties          | 374 Clarence Ave   | Sunnyvale  | 94086 |
| 25103010230000    | 1025 Arcade Blvd | Gary & Judi Simmen                | 1025 Arcade Blvd   | Sacramento | 95815 |
| 25103010210000    | Arcade Blvd      | Kenneth G. Bell                   | P.O. Box 580441    | Elk Grove  | 95758 |
| 25103010200000    | 1045 Arcade Blvd | Kenneth G. Bell                   | P.O. Box 580441    | Elk Grove  | 95758 |
| 25103010110000    | 3273 Belden St   | Annie A. Gutierrez                | 3273 Belden St     | Sacramento | 95815 |

## **TOWNSHIP AND RANGE INFORMATION**

Note that gaps exist in Townships and Ranges within the project area. Land not covered by T9N R5E has been in private ownership since before California joined the United States and therefore is not part of the Township and Range system, which was a survey of federal lands.

## **SITE PHOTOGRAPHS**

Attached to this Summary of Proposed Work are photographs showing Arcade Creek Levee and channel areas representative of proposed work sites.



Figure 1. Landside slope on Arcade Creek south levee looking southeast



Figure 2. 18" CMP culvert along landside slope looking north



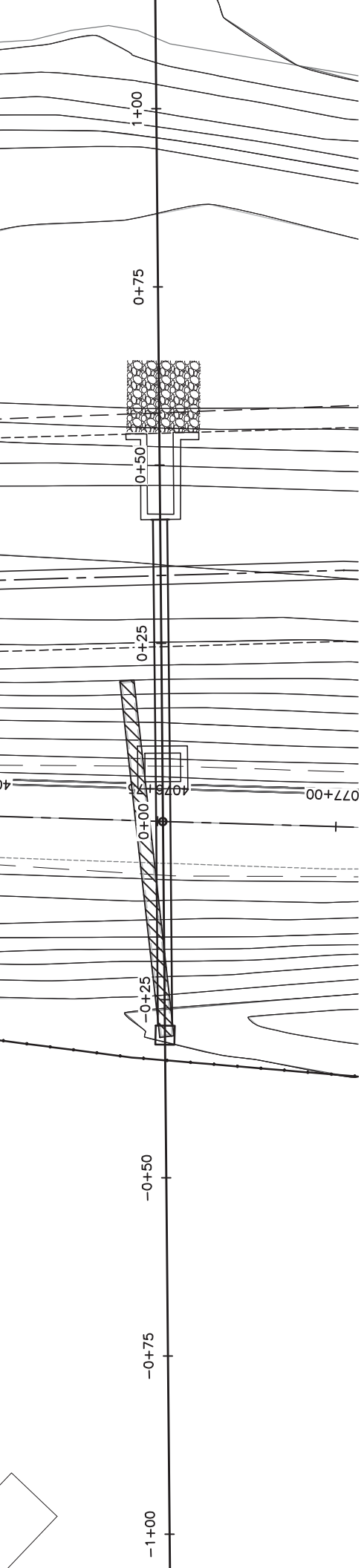
Figure 3. 18" CMP culvert along landside slope looking west



Figure 4. Closeup of 18" CMP culvert along waterside slope



# Attachment B



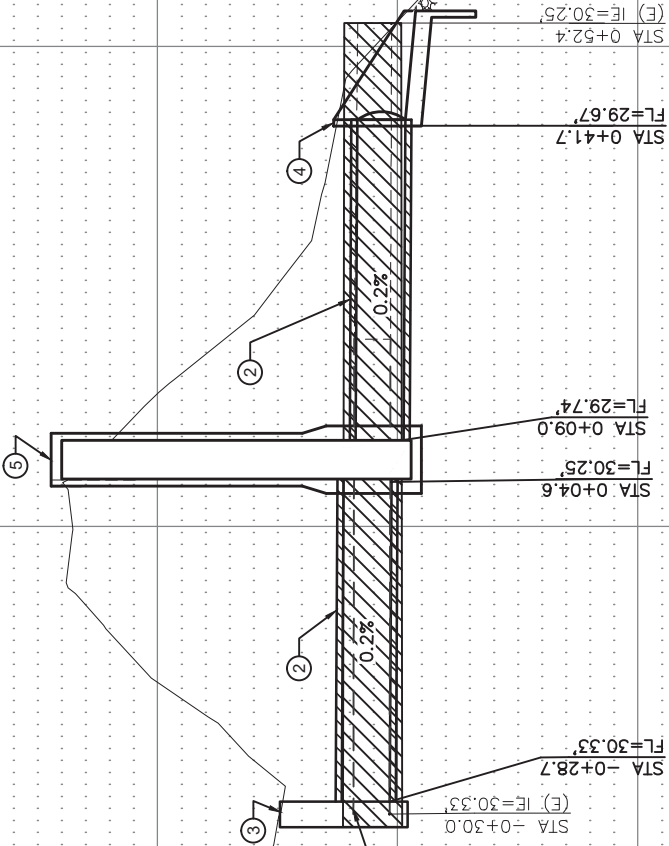
EXISTING 18" CMP STA  
 PER DETAIL 1/C546.

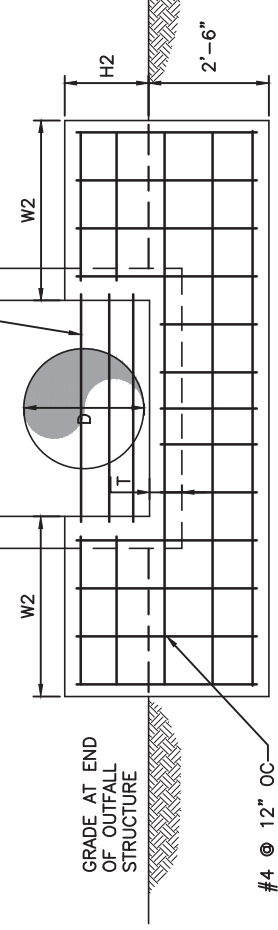
STA -0+28.7 TO STA  
 46 WITH 24" FLAP GATE

AS PER DETAIL S-30 OR

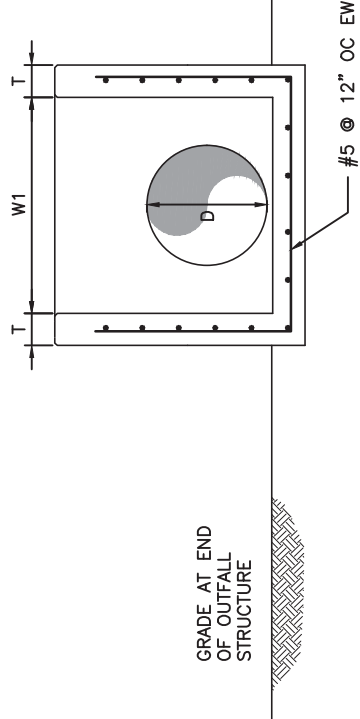
PER OUTLET DETAILS

STRUCTURE PER GATE RISER  
 LEVEL OF GATE STRUCTURE  
 FLOODWALL.

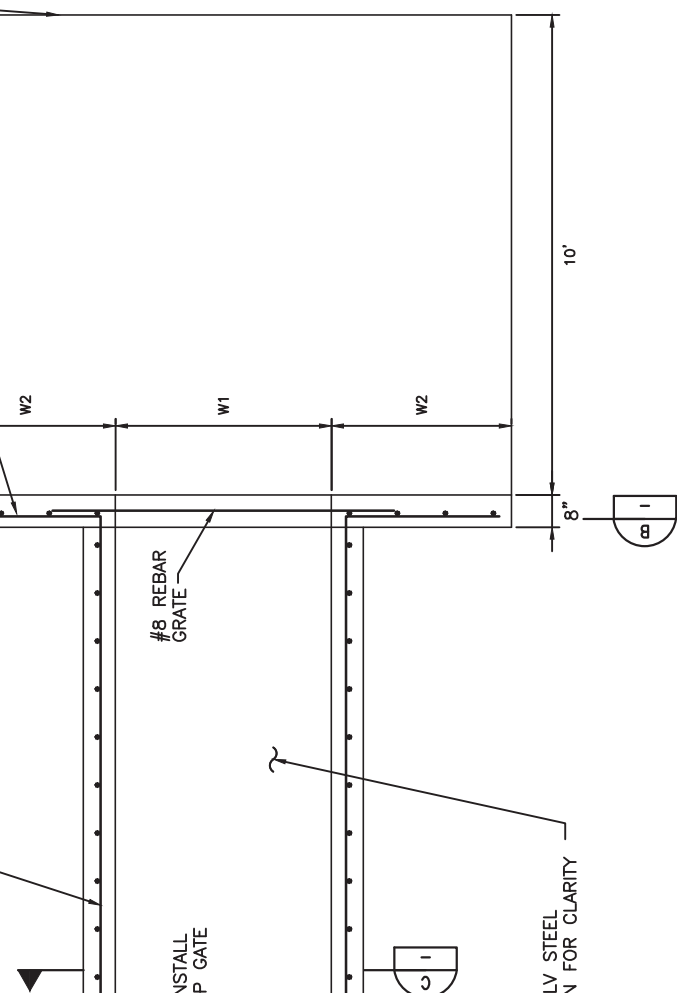




SECTION  
1/2"=1'-0"



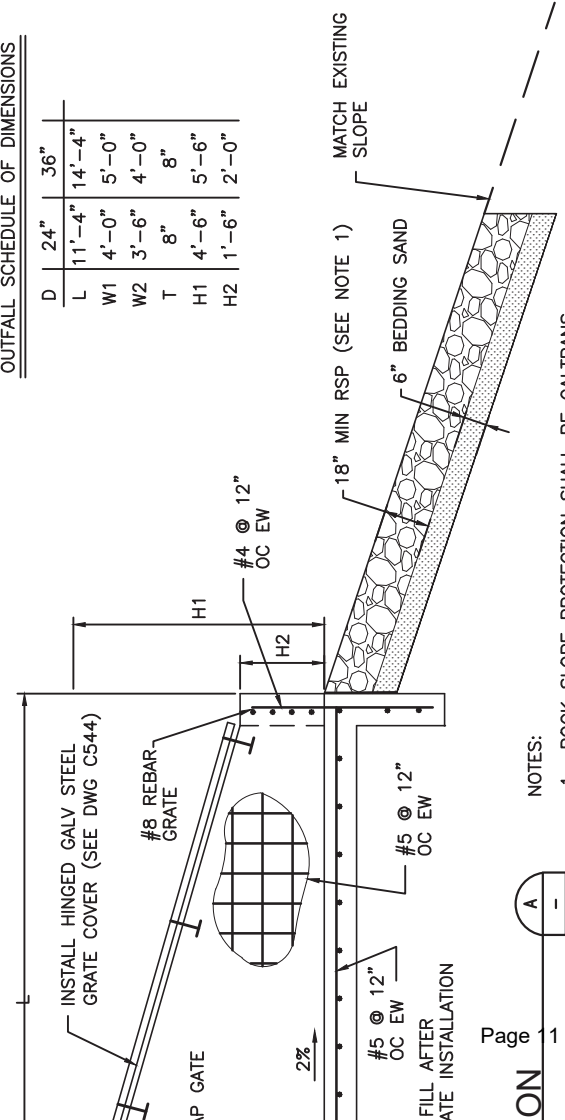
SECTION  
1/2"=1'-0"



TYPICAL OUTFALL STRUCTURE PLAN  
1/2"=1'-0"

OUTFALL SCHEDULE OF DIMENSIONS

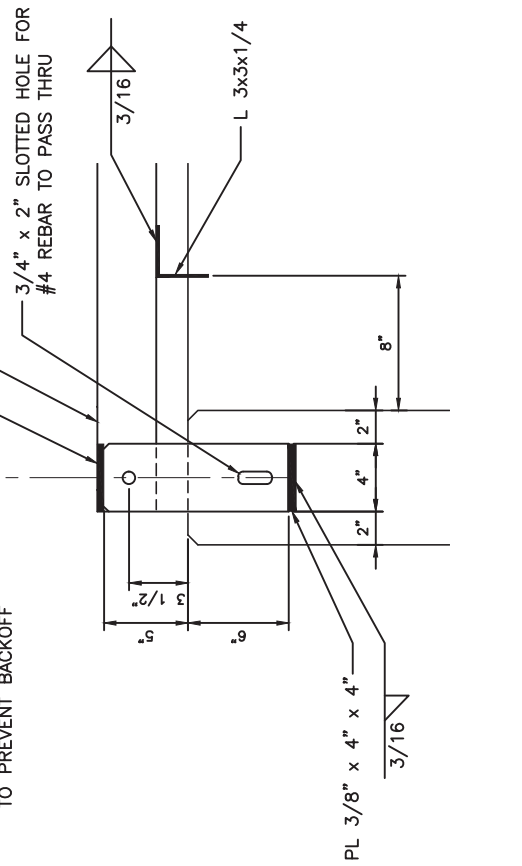
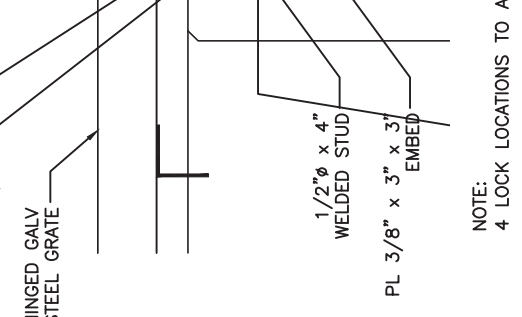
|    |        |        |
|----|--------|--------|
| D  | 24"    | 36"    |
| L  | 11'-4" | 14'-4" |
| W1 | 4'-0"  | 5'-0"  |
| W2 | 3'-6"  | 4'-0"  |
| T  | 8"     | 8"     |
| H1 | 4'-6"  | 5'-6"  |
| H2 | 1'-6"  | 2'-0"  |



NOTES:

- ROCK SLOPE PROTECTION SHALL BE CALTRANS NO. 3 ROCK. PLACEMENT OF ROCK SHALL BE IN ACCORDANCE WITH METHOD B AS SPECIFIED IN THE CALTRANS STANDARD SPECIFICATION





TYPICAL OUTFALL STRUCTURE

PLAN  
1/2" = 1'-0"

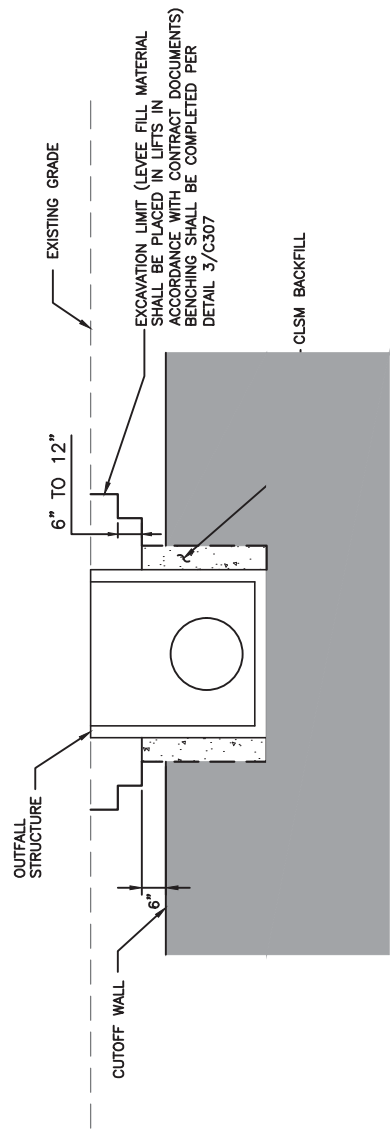
OUTLET ACCESS CONTROL RACK DETAIL

DETAIL  
N/S

NOTE:  
4 LOCK LOCATIONS TO A

OUTLET ACCESS CONTROL

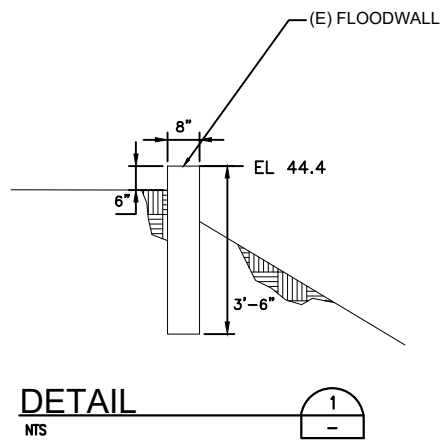
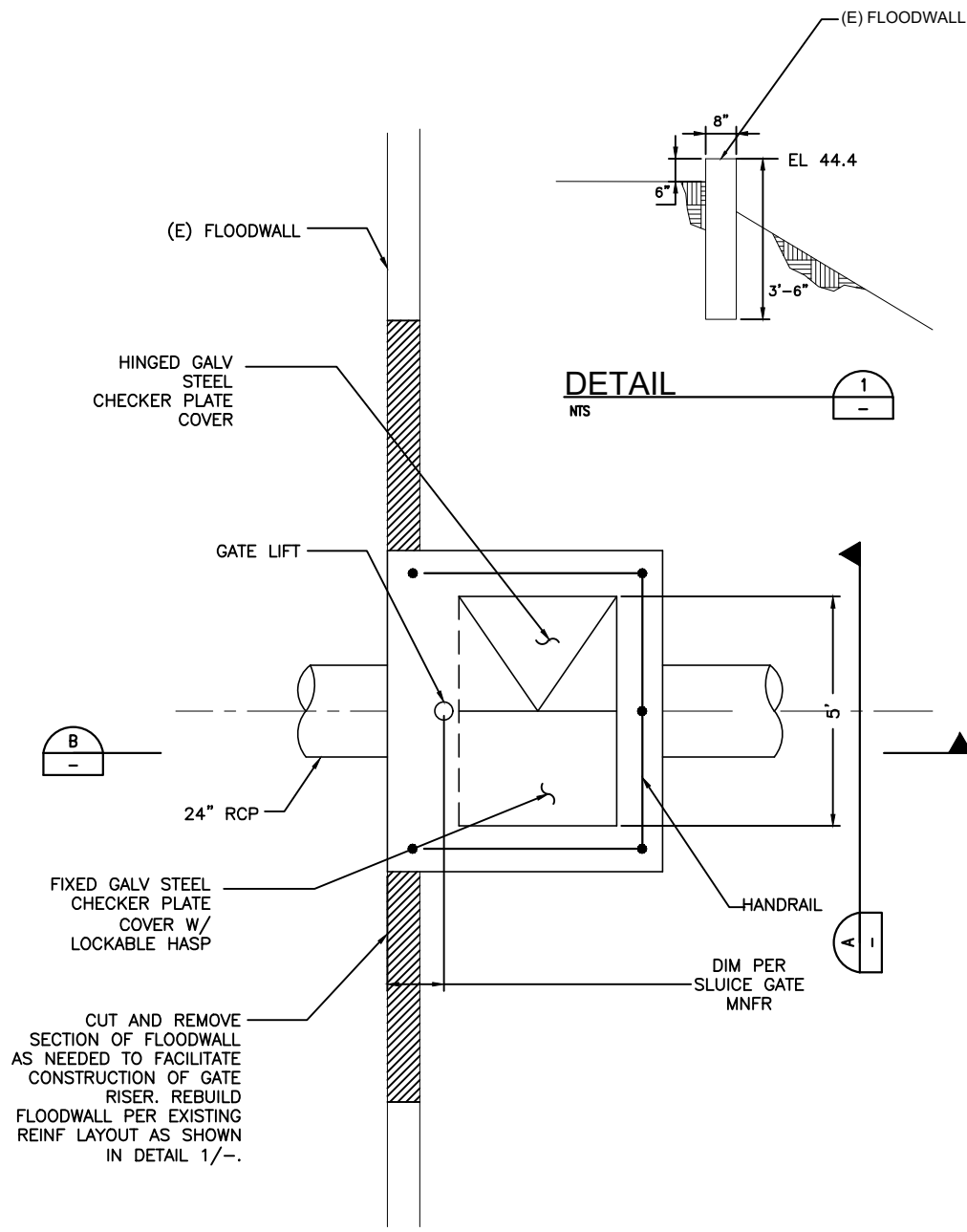
DETAIL  
N/S



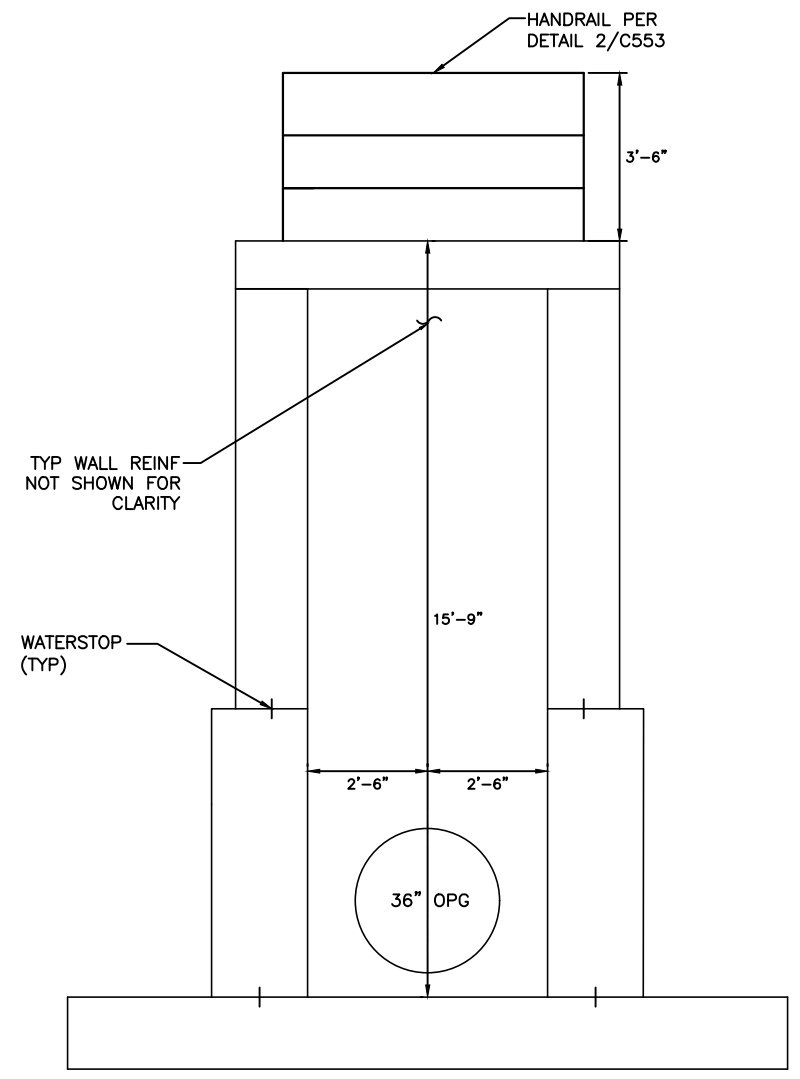
INSTALLATION OF OUTFALL STRUCTURE WITHIN CUTOFF WALL

DETAIL  
N/S

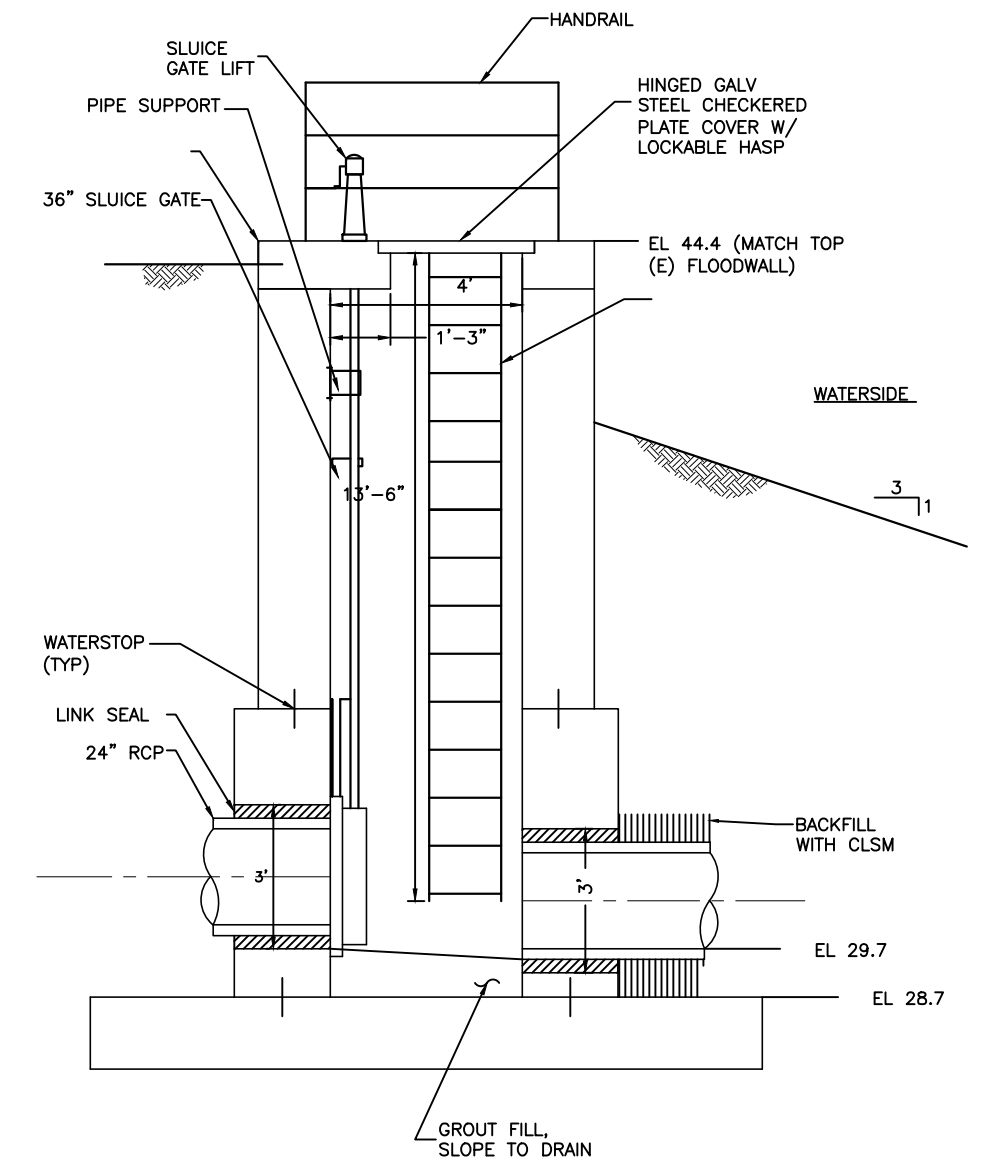
DESIGNED BY: ...  
 CHECKED BY: ...  
 DATE: ...  
 PROJECT: ...  
 SHEET: ...



**GATE RISER STRUCTURE PLAN**  
1/2"=1'-0"



**SECTION A-A**  
NTS



**SECTION B-B**  
NTS

PLOT BY: BSALVADOR - Apr 08, 2019 - 10:04:19am  
 DRAWING: P:\SAFCA\AECOM 2019 Construction US Drawings\5.1 CAD\SAFCA.MAS - DETAILS2 - NEW CULVERT.dwg

| REV. | DATE      | BY | CHK. | APPR. | DESCRIPTION                        |
|------|-----------|----|------|-------|------------------------------------|
| 0    | 4/07/2017 | AM | AM   | AM    | CONFORMED; ISSUED FOR CONSTRUCTION |

|              |  |
|--------------|--|
| DESIGNED BY: |  |
| DRAWN BY:    |  |
| CHECKED BY:  |  |
| IN CHARGE:   |  |
| DATE:        |  |

**PBI**

1180 Iron Point Rd. Suite 260  
Folsom, CA 95630  
PH. 916-608-2212  
Fax 916-608-2232

REGISTERED PROFESSIONAL ENGINEER  
KARL B. BRUSARD  
NO. 57869  
Exp. 6/30/18  
CIVIL  
STATE OF CALIFORNIA

**SAFCA**  
Sacramento Area Flood Control Agency

**NORTH AREA STREAMS LEVEE IMPROVEMENT PROJECT**  
 NEMDC EAST - STA 3028+00 TO STA 3053+00  
 ARCADE CREEK SOUTH - STA 4000+00 TO STA 4084+00  
 ARCADE CREEK NORTH - STA 5023+00 TO STA 5101+00

**VOL 2 - NAS LEVEE IMPROVEMENT PLANS**  
**GATE RISER STRUCTURE PLAN AND SECTION**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL  
DRAWING. ADJUST SCALE FOR  
REDUCED PLOTS

DRAWING NO. SHEET