

**Meeting of the Central Valley Flood Protection Board  
December 21, 2012  
Staff Report – Encroachment Permit  
Meridian Farms Water Company  
Removal and Construction of Diversion/Pumping Facility(s)  
Sutter County**

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**1.0 – ITEM**

Consider approval of Permit No. 18762 and Resolution No. 2012-49 (Attachments B&C)

**2.0 – APPLICANT**

Meridian Farms Water Company

**3.0 – LOCATION**

The existing Meridian Diversion/Pumping Facility is located on the left (east) bank of the Sacramento River near river mile (RM) 134.1. The existing Drexler Diversion/Pumping Facility is located on the left (east) bank of the Sacramento River near RM 129. The new Meridian Diversion/Pumping Facility will be located approximately 60-feet upstream from the existing Meridian Facility.

(Sacramento River, Sutter County, see Attachment A)

**4.0 – DESCRIPTION**

The applicant proposes to demolish and remove the existing Meridian and Drexler Diversion/Pumping Facilities and to construct a new Meridian Diversion/Pumping Facility that will include two (2) retractable fish screens and a 72-inch diameter gravity feed intake pipe under the levee.

**5.0 – PROJECT ANALYSIS**

The proposed project includes the construction of the Meridian Diversion/Pumping Facility to include fish screens, and the subsequent demolition and removal of the

existing unscreened Meridian and Drexler Diversion/Pumping Facilities. The new Meridian Diversion/Pumping Facility will increase diversion capacity sufficiently to allow for the abandonment and removal of the existing Drexler Facility.

The proposed project is a component of the larger improvement project by Meridian Farms Water Company that will, in addition to the new Meridian Diversion/Pumping Facility, include the construction of the Drexler Relift Pumping Plant, extension of the Drexler Pipeline, and modifications to the Grimes Canal and Main Canal to accommodate the increased flows from the new Meridian Facility and to reduce water losses in the canals due to seepage. The Meridian Farms Water Company provides irrigation water to over 19,000-acres in Sutter County

Permit No. 18762 includes the following elements:

- **Removal of Existing Meridian Diversion/Pumping Facility.**

The existing facility would be removed after the new Meridian Diversion/Pumping Facility is constructed and operational.

- **Removal of the Existing Drexler Diversion/Pumping Facility**

The existing facility would be removed after the new Drexler Re-Lift Pumping Plant is constructed and operational.

Removal of the existing Meridian and Drexler Pumping Facilities will include the removal of the pumps, equipment platforms, electrical equipment, gauging stations, piles, and all waterside piping. The discharge pipes at each location will also be removed from the levee(s). The levee at both sites will be reconstructed to Title 23, Section 120 standards. It is anticipated that removal of the two sites will take three (3) months to complete.

- **New Meridian Diversion/Pumping Facility**

A new 135-cfs diversion facility with fish screen and pumping plant would be installed adjacent to the existing Meridian Diversion approximately 60-feet upstream.

The new Meridian Diversion/Pumping Facility would consist of a new 135-cfs diversion and pumping plant that would be installed upstream of the existing Meridian Facility. The pumping plant portion of the facility would be located approximately 120-feet landward of the land-side levee toe.

The inlet structure would consist of two 66-inch steel tees, each with two fish screens mounted on top. The tees would be connected to a short segment of 84-inch steel pipeline. The 84-inch pipeline would then be reduced to a 72-inch steel pipeline which would transition to a reinforced concrete pipe before passing underneath the levee to the pump station wet-well. A gate structure would be installed near the waterside levee crown to provide a means for positive closure of the 72-inch diameter inlet pipe. The fish screens, tees and the segment of 84-inch pipe would be supported by a three foot six-inch thick concrete pad supported on piles. A retractable/brush cleaning system for

the fish screen system would consist of two 20-foot long, 60-inch-diameter cylindrical screens. The total capacity of the screens would be 135-cfs. Pile-supported retrieval tracks would be installed for screen removal during periodic maintenance or in the irrigation off-season. The pile-supported tracks would allow the screens to be removed out of the water via a motorized hoist and cable system. Approximately 10 galvanized steel deflection piles would be installed just upstream and downstream of the fish screens in the river. The deflection piles would protect the fish screens from large floating debris. The top of the deflection piles would be submerged a minimum of three feet as required for navigable waterways. All piles located within the levee section will be drilled and cast-in-place per Corps of Engineers recommendations.

As mentioned above the pumping plant wet well structure would be constructed approximately 120-feet from the landside levee toe of the left (east) bank levee of the Sacramento River. The inside dimensions of the sump are 35-feet wide by 46-feet long. The 72-inch diameter inlet pipeline would enter the sump with the pipe invert at approximately 30-feet below grade.

Water-side construction activities for the new Meridian Diversion/Pumping Facility, with the exception of riprap installation, would be confined within a sheet-pile cofferdam. The cofferdam will be installed after April 1st and removed before October 1st.

Construction of the new Meridian Diversion/Pumping Facility will conform to all Title 23 Standards.

### **5.1 – Hydraulic Analysis**

The HEC-RAS hydraulic computer model was used to determine the water surface elevation (WSE) at the site of the proposed Meridian Diversion/Pumping Facility using flows for the 100-year event and the Corps' design flow, 51,100-cfs and 66,000-cfs respectively. Four conditions were analyzed; 1) existing conditions at the current Meridian Facility; 2), existing conditions at the current Meridian Facility with debris; 3) construction conditions, to include a temporary cofferdam, for the new Meridian Facility and inclusion of the existing Meridian Facility to be removed; and 4) post project conditions with the new Meridian Facility in place and the existing Meridian Facility removed.

During construction, with the coffer dam in place, the WSE would be increased by a maximum of 0.20-feet (2.4-inches). After completion of the project, the new diversion facility will increase the water surface elevation by 0.02-feet (0.24-inches) which is a lower WSE than is caused by the existing facility when debris is considered (0.04-feet).

### **5.2 – Geotechnical Analysis**

A limited study of subsurface materials and conditions was completed by Taber Consultants. The purpose of this study was to evaluate geotechnical conditions and criteria for use in planning and design of a proposed fish screened Meridian Intake

Diversion and associated pump stations, equipment platforms and pipelines. Information was obtained by means of two (2) logged and sampled auger/rotary drilled test borings penetrating to maximum depth of 80-feet in addition to two (2) electronic cone penetrometer test (CPT) borings penetrating 70 to 80-feet.

The study concluded that the proposed Meridian Facility site appears to be adequately stable with soil support available for the proposed improvements.

### **5.3 – Associated Encroachment Permits**

#### **Meridian Facility:**

**April 8, 1964:** Permit No. 4525 issued for the replacement of existing pumping plant that was in-place prior to the existence of the flood control project (August 1944).

**January 13, 1966:** Permit No. 4525-A issued for the construction of a debris deflector.

**March 19, 1982:** Permit No. 13380 issued to add a new pump and a 42-inch diameter pipe to the existing facility.

#### **Drexler Facility:**

**June 15, 1979:** Permit No. 12712 for the installation of a deadman and cable to secure the pump platform. The original pump facility was in-place prior to the existence of the flood control project (August 1944).

**May 10, 2007:** Permit No. 18217 issued to dredge 5,000-cy's of sediment from the channel near the pump intakes.

### **5.4 – Adjacent Landowner Protest to the Project**

On May 30, 2012, Board Staff received a phone call from adjacent landowner Mr. Jim Hafferty. Mr. Hafferty expressed concerns that the proposed 72-inch diameter pipe going through the levee would make the levee unsafe and would increase his flood risk. It was clarified by Board Staff that the pipe would be placed approximately 30-feet below the levee. It was also conveyed to Mr. Hafferty that the design of the new facility would be reviewed by the Corps of Engineers and Board Staff and the design would conform to all current regulatory and construction standards.

At the conclusion of the phone conversation Mr. Hafferty requested additional information about the project. A project description and drawing sheet No. C-03, showing a plan view and a cross sectional view of the project, was sent to Mr. Hafferty

by U.S. Mail. The accompanying cover letter asked Mr. Hafferty to contact Board Staff if he required any additional information about the project. No request for additional information was ever received.

## **6.0 – AGENCY COMMENTS AND ENDORSEMENTS**

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

- Reclamation District No. 70 endorsed the project on February 8, 2012, with conditions. The conditions will be incorporated into the permit as Exhibit A.
- The U.S. Army Corps of Engineers 208.10 comment letter has been received for this application. The USACE District Engineer has no objection to the project, subject to conditions. The letter is incorporated into the permit as Exhibit B.

## **7.0 – CEQA ANALYSIS**

Board staff has prepared the following CEQA findings:

The Board, as a responsible agency under CEQA, has reviewed Initial Study/Mitigated Negative Declaration (IS/MND) (SCH Number: 2012082032, May 2012) for the Phase 2 Meridian Farms Fish Screen Project prepared by the lead agency, the California Department of Fish and Game (CDFG). 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/2012/12-21-2012.cfm> under a link for this agenda item. These documents are also available for review in hard copy at the Board and the CDFG offices.

CDFG has determined that the project would not have a significant effect on the environment on October 9, 2012 and subsequently filed a Notice of Determination on October 11, 2012 with the State Clearinghouse. Board 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 Mitigation Monitoring and Reporting Program (MMRP) and address impacts to air quality, biological resources,

hydrology and water quality, noise, and transportation and traffic. Compliance with the MMRP is made a condition of Permit No. 18762. The description of the mitigation measures are further described in the adopted MMRP.

## **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:

Removal of the Drexler Facility will be an improvement to the State Plan of Flood Control as it will remove an encroachment from the system. The new Meridian Facility will replace the existing outdated facility. Hydrologic impacts to the State Plan of Flood Control are considered to be insignificant and the project 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 will be no effects to the proposed project from reasonable projected future events.

## **9.0 – STAFF RECOMMENDATION**

Staff recommends that the Board adopt Resolution No. 2012-49, which constitutes the written findings and decisions in the matter of Permit No. 18762. The resolution contains the CEQA findings; Findings of Fact; and approval of Permit No. 18762; and

directs the Executive Officer to take the necessary actions to prepare and execute the permit and related documents and to file a Notice of Determination with the State Clearinghouse.

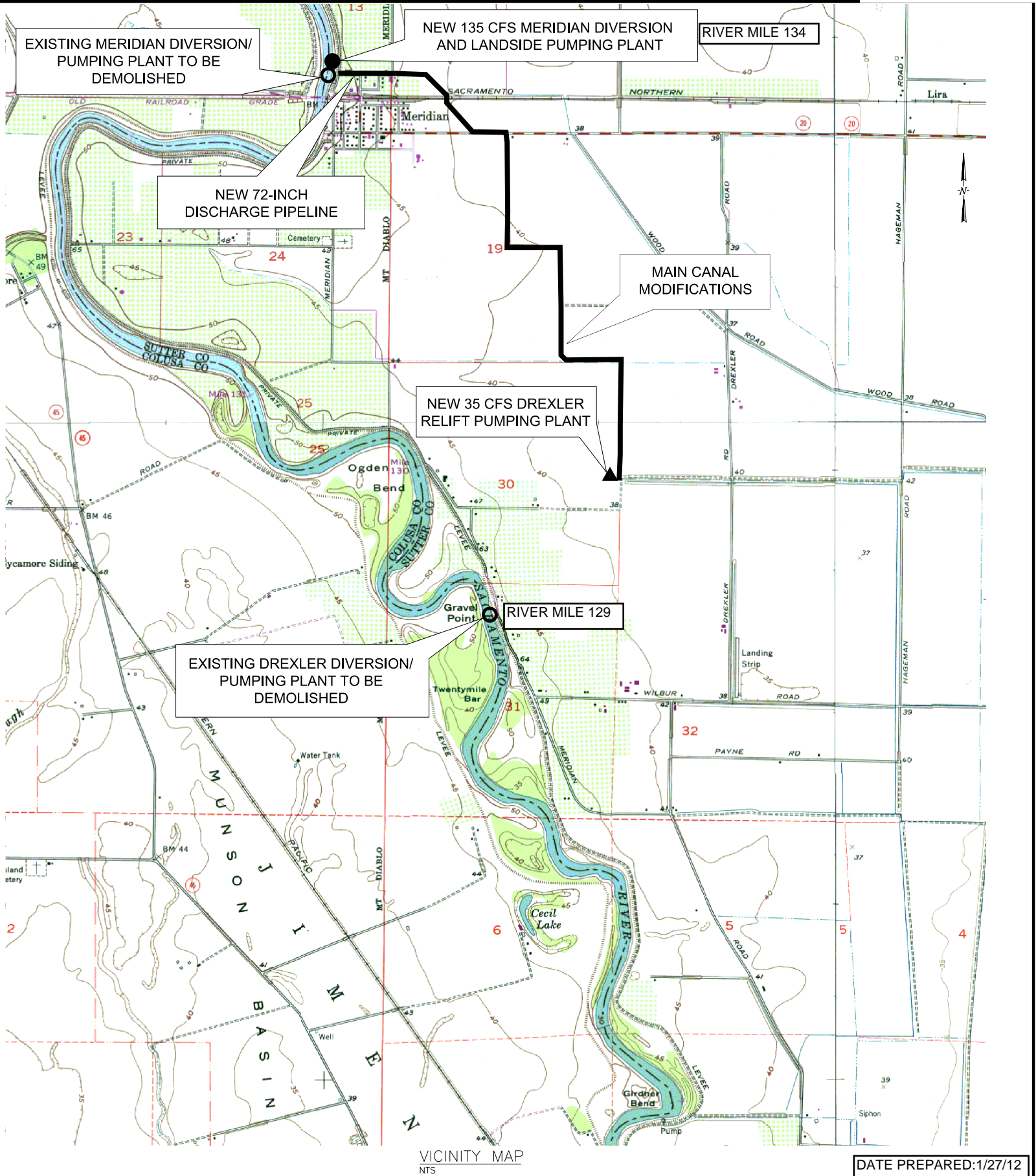
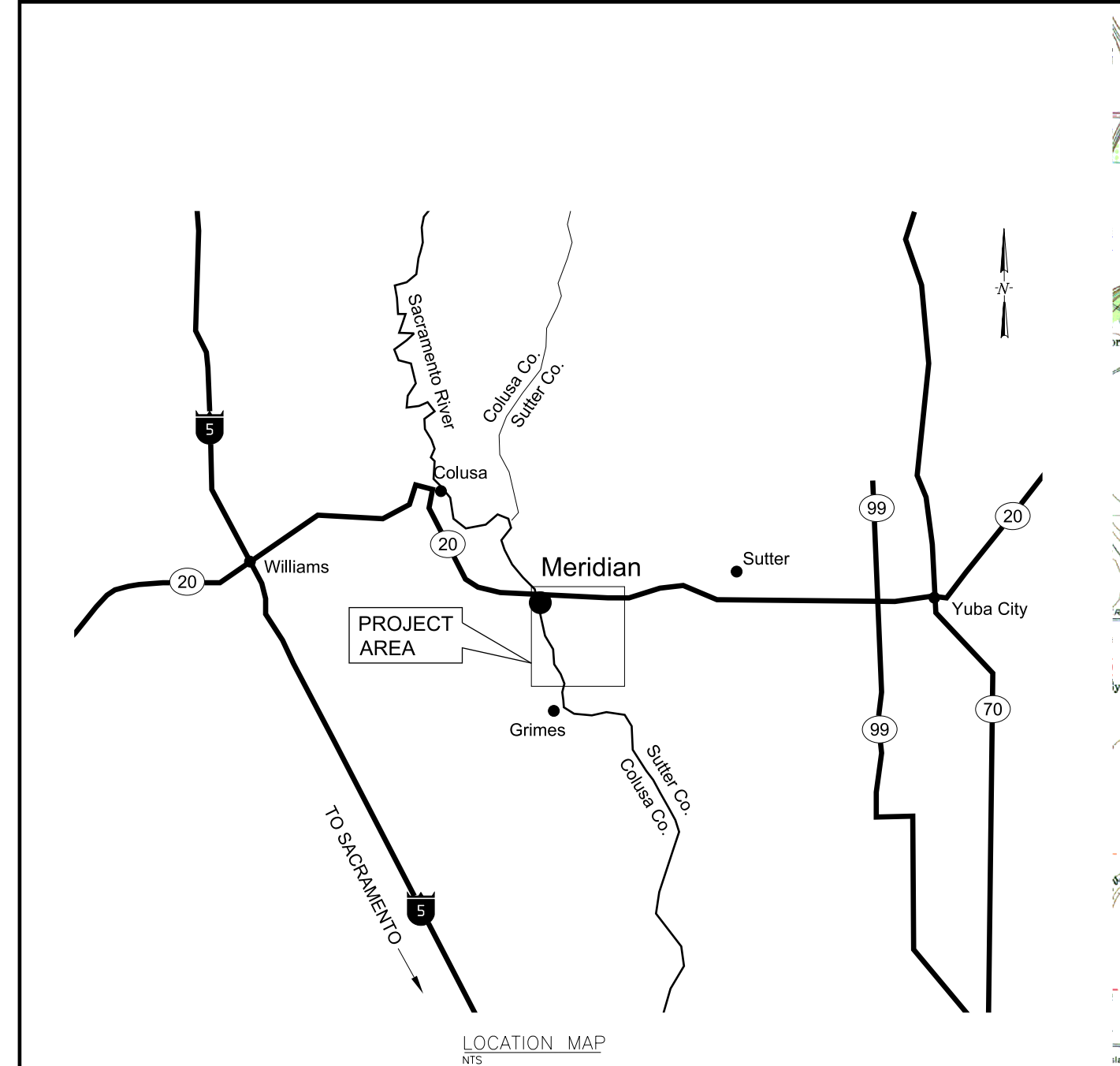
### **10.0 – LIST OF ATTACHMENTS**

- A. Location Maps and Photos
- B. Draft Permit No. 18762
- C. Resolution No. 2012-49
- D. Project Drawings
- E. Information provided to Adjacent Landowner
- F. Protest Letter

Design Review:	Gary W. Lemon P.E.
Environmental Review:	James Herota, Andrea Mauro
Document Review:	Mitra Emami P.E., Len Marino P.E.

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File: \_\_\_\_\_

Job No: 0000000

					SCALE	WARNING	DESIGNED <u>B. FEDAK</u>	
					NONE	<div>01/21</div>	DRAWN <u>B. FEDAK</u>	
						IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE	CHECKED <u>J. ATKINSON</u>	
REV	DATE	BY	DESCRIPTION					



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

GENERAL  
VICINITY AND LOCATION MAP

SHEET  
G-03  
1 OF 14

DATE PREPARED: 1/27/12

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**MERIDIAN FARMS FISH SCREEN PROJECT –**  
**CVFPB ENCROACHMENT PERMIT APPLICATION**  
**PHOTO ATTACHMENTS**



PHOTO 1 – EXISTING MERIDIAN PUMP STATION (TO BE DEMOLISHED)  
LOOKING SOUTH



PHOTO 2 – EXISTING MERIDIAN PUMP STATION (TO BE DEMOLISHED)





PHOTO 3 – EXISTING MERIDIAN PUMP STATION (TO BE DEMOLISHED) LOOKING EAST TOWARDS LEVEE



PHOTO 4 –MERIDIAN SITE EAST OF LEVEE AND MERIDIAN ROAD, LOOKING WEST (EXISTING PUMP STATION BEYOND LEVEE)





PHOTO 5 – DEBRIS ACCUMULATION NORTH OF EXISTING MERIDIAN FISH SCREEN SITE



PHOTO 6 – EXISTING DREXLER PUMP STATION (TO BE DEMOLISHED)





PHOTO 7 – EXISTING DREXLER PUMP STATION (TO BE DEMOLISHED)



PHOTO 8 – EXISTING DREXLER PUMP STATION (TO BE DEMOLISHED)

**DRAFT**

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

**PERMIT NO. 18762 BD**

**This Permit is issued to:**

Meridian Farms Water Company  
P.O. Box 187  
Meridian, California 95957

To include demolishing and removing the existing Meridian diversion pumping facility and Drexler diversion pumping facility. Work also includes constructing a new Meridian diversion pumping facility that will include two retractable fish screens and a 72 inch diameter gravity feed intake pipe under the levee. The existing Meridian Facility is located on the left (east) bank of the Sacramento River near RM 134.1 (LM 4.14). The existing Drexler Facility is located on the left (east) bank of the Sacramento River near RM 129 (LM 9.06). The new Meridian Facility will be located approximately 60-feet upstream from the existing Meridian Facility about 650-feet north of the Highway 20 Bridge at Meridian. (Section 13,31, T15N, R1W 1E, MDB&M, Reclamation District 70, Sacramento River, Sutter 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. 18762 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



Reclamation District No. 70 shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

SEVENTEEN: Upon receipt of a signed copy of the issued permit 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.

EIGHTEEN: 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.

NINETEEN: The permittee shall be responsible for the repair of any damages to the project levee or any other flood control facilities due to demolition, construction, operation, or maintenance of the proposed project(s).

TWENTY: 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.

TWENTY-ONE: A temporary bench mark, set to a known datum, shall be placed at the project sites during demolition and construction.

TWENTY-TWO: Prior to construction the permittee shall install an X, Y, Z axis based coordinate monitoring system to monitor the levee before, during and after all pile driving activities.

TWENTY-THREE: 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-FOUR: During demolition of the Drexler and Meridian Pumping Stations or construction of the new Meridian Pumping Station, any and all anticipated or unanticipated conditions encountered which may impact levee integrity or flood control shall be brought to the attention of the Flood Project Inspector immediately and prior to continuation. Any encountered abandoned encroachments shall be completely removed or properly abandoned under the direction of the Flood Project Integrity and Inspection Branch Inspector.

TWENTY-FIVE: All components of the Drexler and Meridian Pump Stations to be abandoned shall be completely removed from the project works and outside of the floodway.

TWENTY-SIX: Piles being abandoned outside of the levee section shall be removed to at least 1 foot below the natural ground line or at least 3 feet below the bottom of the low-water channel.

TWENTY-SEVEN: Any excavations made in the levee section or within 10 feet of the levee toes shall be backfilled in 4- to 6-inch layers with 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. Backfill 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.

TWENTY-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.

TWENTY-NINE: No material stockpiles, temporary buildings, or equipment shall remain in the floodway during the flood season from November 1st to April 15th.

THIRTY: Excavations below the design flood plane and within the levee section or within 10 feet of the projected waterward and landward levee slopes shall have side slopes no steeper than 1 horizontal to 1 vertical. Flatter slopes may be required to ensure stability of the excavation.

THIRTY-ONE: Precast reinforced-concrete pipe below the design flood plane elevation shall meet ASTM Specification C76-90.

THIRTY-TWO: The reinforced-concrete pipe shall be placed in the center of an open trench 2 feet wider than the diameter of the pipe or 2 times the diameter, whichever is greater.

THIRTY-THREE: The reinforced-concrete pipe installed below the design flood plane shall be encased below the springline in concrete cast against firm undisturbed earth.

THIRTY-FOUR: Precast reinforced-concrete pipe or box culvert joints shall be encased in reinforced concrete at least 6 inches thick and cast against firm undisturbed earth.

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

THIRTY-SIX: 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-SEVEN: All levee crowns that are disturbed shall be surfaced with a minimum of 4 inches of compacted, Class 2, aggregate base (Caltrans Specification 26-1.02A) at the completion of the project.

THIRTY-EIGHT: In the event existing rock revetment on the levee slope is disturbed or displaced during demolition or construction, it shall be restored to its preconstruction condition.

THIRTY-NINE: Revetment shall be uniformly placed and properly transitioned into the bank, levee slope, or adjacent revetment and in a manner which avoids segregation.

FORTY: The recommended minimum thickness of revetment, measured perpendicular to the bank or levee slope, is 18 inches below the usual water surface and 12 inches above the usual water surface.

FORTY-ONE: Revetment shall be quarry stone and shall meet the following grading:

#### Quarry Stone

Stone Size	Percent Passing
------------	-----------------

15 inches;	100
8 inches;	80-95
6 inches;	45-80
4 inches;	15-45
2 inches;	0-15

FORTY-TWO: The project sites shall be restored to at least the condition that existed prior to commencement of work.

FORTY-THREE: If the new Meridian Pumping Station result(s) in an adverse hydraulic impact, the permittee shall provide appropriate mitigation measures, to be approved by the Central Valley Flood Protection Board, prior to implementation of mitigation measures.

FORTY-FOUR: 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.

FORTY-FIVE: 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.

FORTY-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.

FORTY-SEVEN: 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-EIGHT: The mitigation measures approved by the CEQA lead agency and the permittee are found in its Mitigation and Monitoring Reporting Program (MMRP) adopted by the CEQA lead agency. The permittee shall implement all such mitigation measures.

FORTY-NINE: The permittee shall comply with all conditions set forth in the approval from Reclamation District No.70 dated February 8, 2012, which is attached to this permit as Exhibit A and is incorporated by reference.

FIFTY: The permittee shall comply with all conditions set forth in the letter from the Department of the Army (U.S. Army Corps of Engineers, Sacramento District) dated November 21, 2012, which is attached to this permit as Exhibit B and is incorporated by reference.

FIFTY-ONE: Upon completion of the project, the permittee shall submit as-constructed drawings to: Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite 256, Sacramento, California 95821.

Reclamation District No. 70  
Requirements for encroachment permit

Meridian Farms Water Company  
February 8, 2012

1. The levee section shall be returned to its original condition after construction.
2. Any damage to the District facilities shall be repaired by the owner of the facilities.
3. The District shall not be responsible for any damage to the new facilities during our routine maintenance of the levee.

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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 (18762)

NOV 21 2012

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

Dear Mr. Punia:

We have reviewed an application for a permit by the Meridian Farms Water Company (application number 18762). These plans include demolishing and removing the existing Meridian diversion pumping facility and Drexler diversion pumping facility. The project also includes constructing a new Meridian diversion pumping facility that will include two (2) retractable fish screens and a 72 inch diameter gravity feed intake pipe under the left (east) bank of the Sacramento River. The existing and proposed Meridian facilities are located near river mile 134.1, at 39.1473°N 121.9169°W NAD83, and the existing Drexler Facility is located near river mile 129, at 39.1108°N 121.9029°W NAD83, Sutter 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 work shall not be performed or remain during the flood season of November 1 to April 15, unless otherwise approved in writing by your Board.
- b. That in the event trees and brush are cleared, they shall be properly disposed of either by complete burning or complete removal outside the limits of the project right-of-way. All cleared vegetation shall be properly grubbed and levee embankment returned to the existing lines and grade.
- c. That the existing Meridian diversion pumping facility and Drexler diversion pumping facility shall be completely removed from the project right of way.
- d. That any debris that accumulates around the intake shall be completely removed prior to the flood season and immediately after major accumulations.
- e. That the proposed bank protection work shall be placed uniformly and properly transitioned into the natural bank.

f. That in the event bank erosion injurious to the flood risk reduction project occurs at or adjacent to the site of the former Drexler diversion pumping facility or the proposed Meridian diversion pumping facility, the eroded areas shall be repaired in a timely manner and adequate bank protection shall be placed to prevent further erosion.

g. That the proposed work shall not interfere with the integrity or hydraulic capacity of the flood risk reduction project; easement access; or maintenance, inspection, and flood fighting procedures.

h. That the proposed work shall not reduce the channel flow capacity or change the channel flow in such a way that may cause damage to the existing levee embankment.

i. That the condition of the pipe through the levee 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.

A Section 10 and/or Section 404 permit application (201200026) is in process for this work.

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. Poeppelman".

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



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

**RESOLUTION NO. 2012-49**

**FINDINGS AND DECISION AUTHORIZING ISSUANCE OF  
ENCROACHMENT PERMIT NO. 18762**

**MERIDIAN FARMS WATER COMPANY  
REMOVAL AND CONSTRUCTION OF DIVERSION/PUMPING FACILITY(S)  
SUTTER COUNTY**

**WHEREAS,** The Meridian Farms Water Company proposes to demolish and remove the existing Meridian and Drexler Diversion/Pumping Facilities and to construct a new Meridian Diversion/Pumping Facility that will include two (2) retractable fish screens and a seventy-two (72-inch) diameter gravity feed intake pipe under the levee; and

**WHEREAS,** Meridian Farms Water Company submitted Encroachment Permit Application No. 18762 to the Central Valley Flood Protection Board (Board) on April 4, 2012; and

**WHEREAS,** The project is located on the left (east) bank of the Sacramento River near river mile (RM) 134.1 approximately 60-feet upstream from the existing Meridian Facility, in Sutter County; and

**WHEREAS,** On June 6, 2012, Board Staff received a letter from Mr. Jim Hafferty dated June 5, 2012 protesting Encroachment Permit Application No. 18762 on the basis that the proposed facility may adversely impact levee safety due to the proposed installation of a 72-inch diameter pipe through the levee, and flood insurance rates; and

**WHEREAS,** Board Staff considered the June 5, 2012 protest submitted by Mr. Jim Hafferty and determined that the protest meets the criteria of Title 23 California Code of Regulations, Section 12; and

**WHEREAS,** Board Staff e-mailed to Mr. Andrew Duffy, Meridian Farms Water Company a copy of the June 5, 2012 protest submitted by Mr. Jim Hafferty within ten (10) calendar days of receipt of the protest; and

**WHEREAS,** A favorable U.S. Army Corps of Engineers comment letter for Application 18762 was received on November 21, 2012, which indicates that the District Engineer has no objection to approval of the project; and

**WHEREAS,** In accordance with Title 23 California Code of Regulations, Section 13, Board Staff considered the June 5, 2012 protest submitted by Mr. Jim Hafferty and:

Mailed to the applicant written notice of the hearing at least ten (10) calendar days prior to the date of the hearing;

Mailed to the applicant the staff recommendations on the application at least seven (7) calendar days prior to the hearing;

Mailed to the protestant staff recommendations at least seven (7) calendar days prior to the hearing; and

**WHEREAS**, The Department of Fish and Game (DFG) as lead agency under the California Environmental Quality Act, Public Resources Code sections 21000 *et seq.* (“CEQA”) prepared an Initial Study, Mitigated Negative Declaration (IS/MND) (State Clearinghouse No.: 2012082032, May 2012) and Mitigation Monitoring and Reporting Plan (MMRP) on the Phase 2 Meridian Farms Fish Screen Project (incorporated herein by reference and available at the Central Valley Flood Protection Board or DFG office); and

**WHEREAS**, The DFG, as lead agency, certified the IS/MND, adopted mitigation measures and a MMRP, approved findings pursuant to CEQA and the CEQA Guidelines (incorporated herein by reference); and filed a Notice of Determination with the State Clearinghouse on October 11, 2012 approving the Project; and

**WHEREAS**, The Central Valley Flood Protection Board has conducted a hearing on Encroachment Permit No. 18762 and has reviewed the application, the Report of its staff, the documents and correspondence in its file, and has given the applicant the right to testify and present evidence on their behalf;

NOW, THEREFORE, BE IT RESOLVED THAT,

**Findings of Fact**

1. The Central Valley Flood Protection Board hereby adopts as findings the facts set forth in the Staff Report.
2. The Board has reviewed all Attachments listed in the Staff Report.

**CEQA Findings**

3. The Central Valley Flood Protection Board, as a responsible agency, has independently reviewed the analysis in the IS/MND, MMRP, and the findings prepared by the lead agency, Department of Fish and Game, and has reached its own conclusions.
4. The Central Valley Flood Protection Board, after consideration of the IS/MND, MMRP, and Department of Fish and Game findings, adopts the project description, analysis and Findings which are relevant to activities authorized by issuance of Encroachment

Permit No. 18762 for the Phase 2 Meridian Farms Fish Screen Project. Board 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 Initial Study/Mitigated Negative Declaration and address impacts to air quality, biological resources, hydrology, water quality, noise, transportation and traffic. Compliance with the MMRP is made a condition of Permit No. 18762.

5. **Custodian of Record.** The custodian of the CEQA record for the Board is its Executive Officer, Jay Punia, at the Central Valley Flood Protection Board Offices at 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

#### **Findings pursuant to Water Code section 8610.5**

6. **Evidence Admitted into the Record.** The Board has considered all the evidence presented in this matter, including the original and updated applications, past and present Staff Reports and attachments. The Board has also considered all letters and other correspondence received by the Board and in the Board's files related to this matter.
7. **Best Available Science.** In making its findings, the Board has used the best available science relating to the issues presented by all parties.
8. **Effects on State Plan of Flood Control.** This project has no effects on the State Plan of Flood Control.

#### **Other Findings/Conclusions regarding Issuance of the Permit**

9. This resolution shall constitute the written decision of the Central Valley Flood Protection Board in the matter of Encroachment Permit No. 18762.

#### **Approval of Encroachment Permit No. 18762**

10. Based on the foregoing, the Central Valley Flood Protection Board hereby approves the Meridian Diversion/Pumping Facility Project and approves issuance of Encroachment Permit No. 18762 in substantially the form provided in the Staff Report.
11. The Board directs the Executive Officer to take the necessary actions to prepare and execute the permit and related documents and file a Notice of Determination under the

California Environmental Quality Act for the Meridian Farms Water Company,  
Meridian Diversion/Pumping Facility Project.

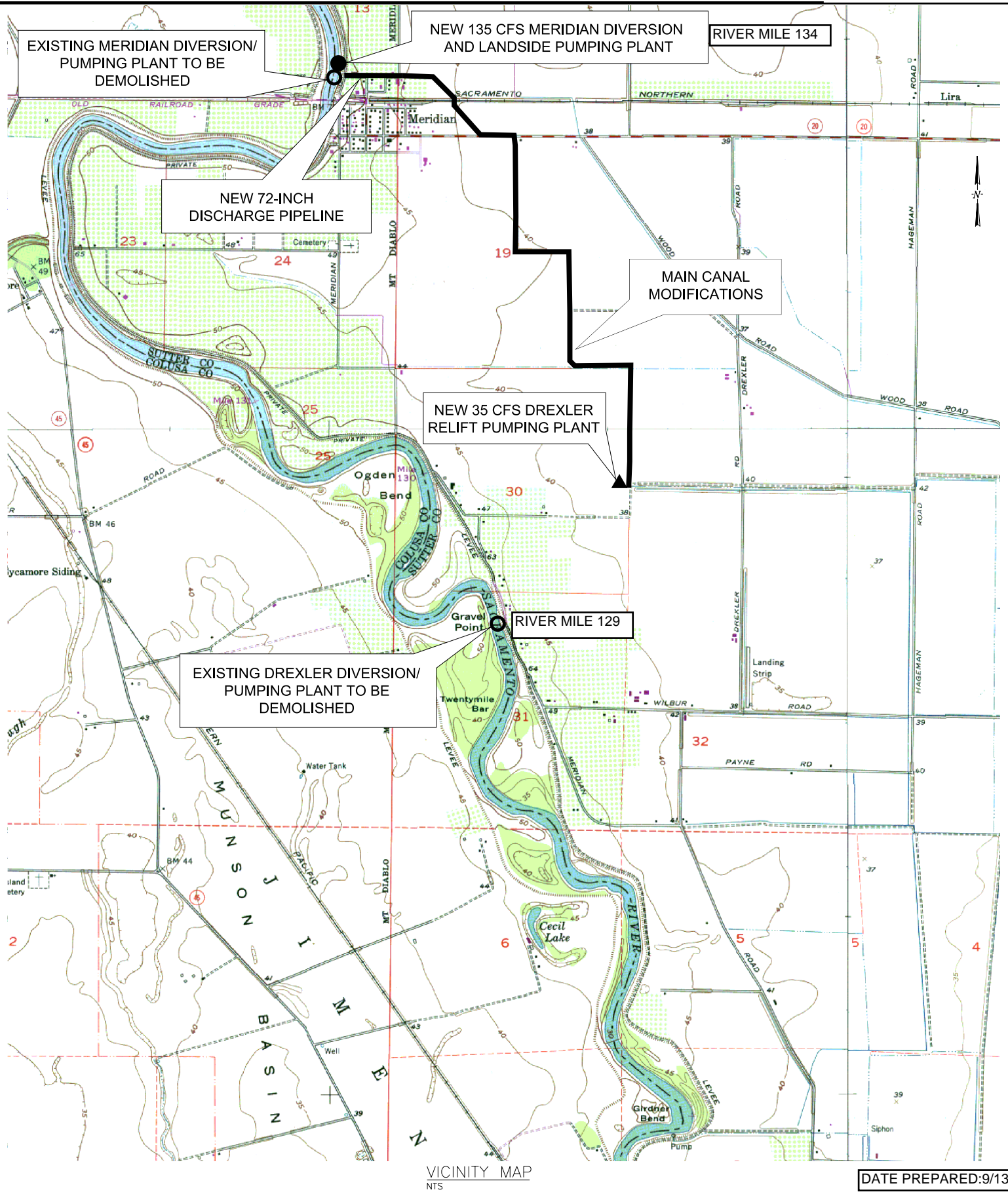
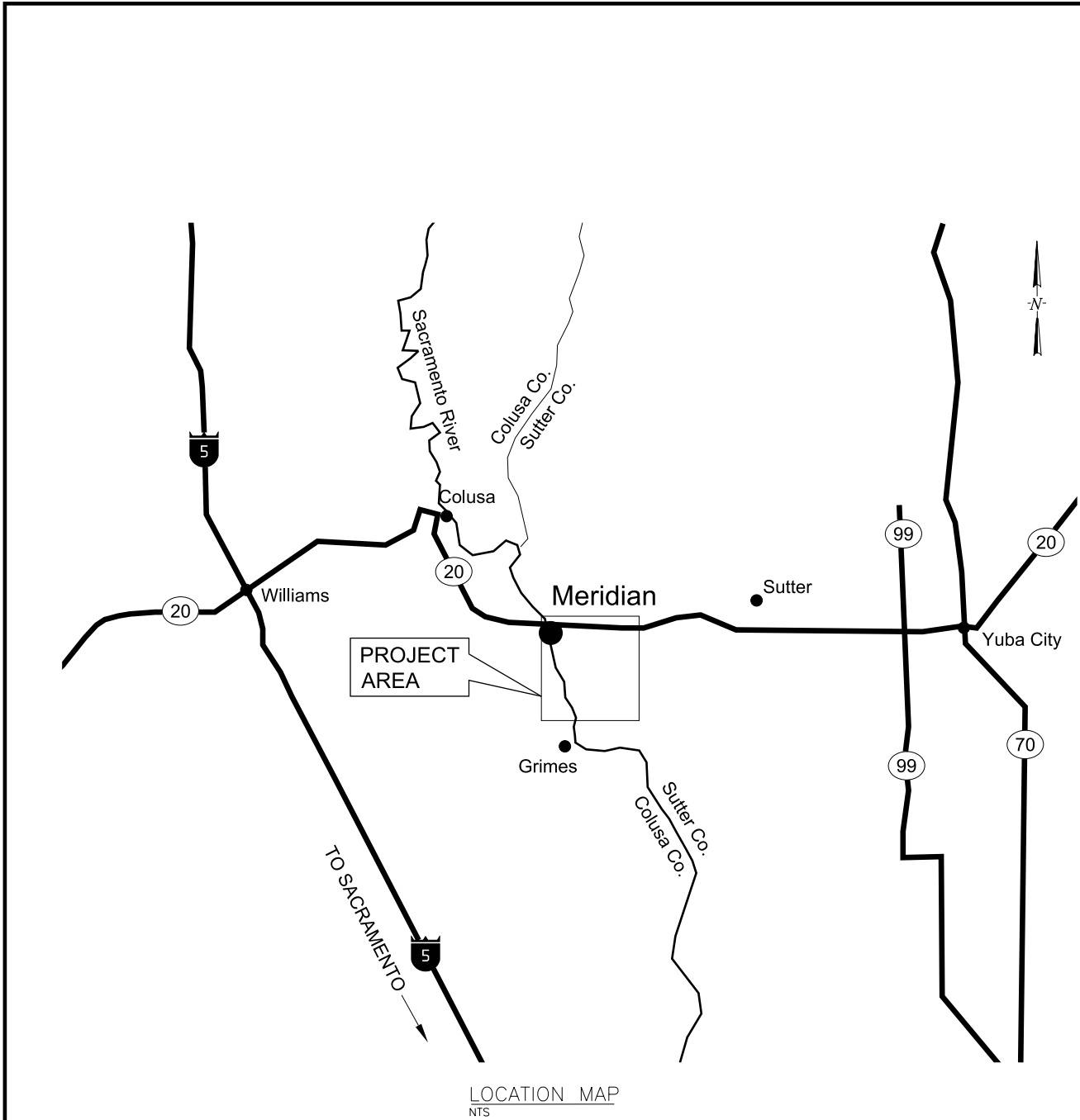
PASSED AND ADOPTED by vote of the Board on \_\_\_\_\_, 2012.

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Bill Edgar  
President

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Jane Dolan  
Secretary



DATE PREPARED: 9/13/12

Job No: 0000000  
File:

REV	DATE	BY	DESCRIPTION

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NOT MEASURE 1"  
THEN DRAWING IS  
NOT TO SCALE

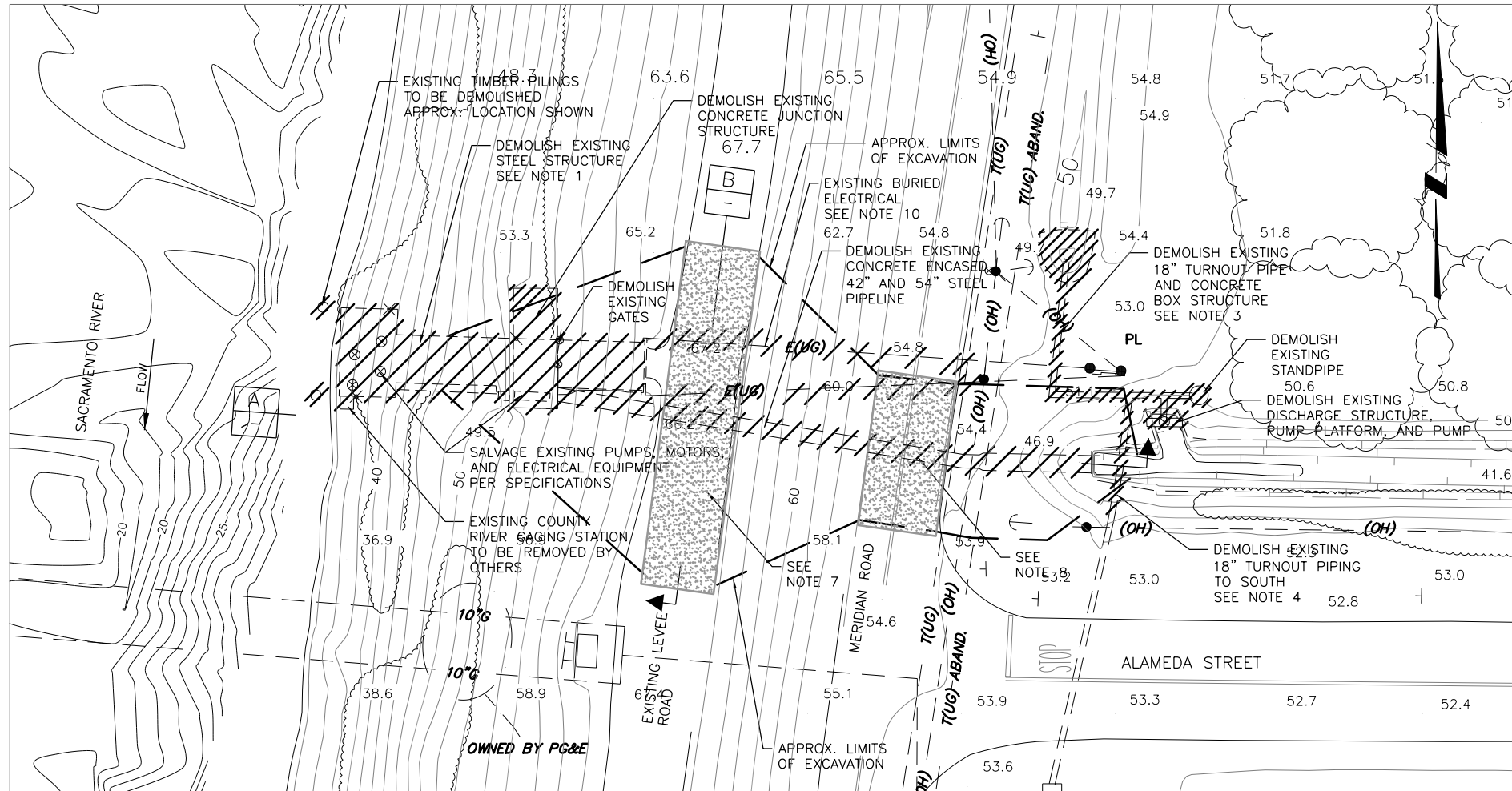
DESIGNED B. FEDAK  
DRAWN B. FEDAK  
CHECKED J. ATKINSON



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

GENERAL  
VICINITY AND LOCATION MAP

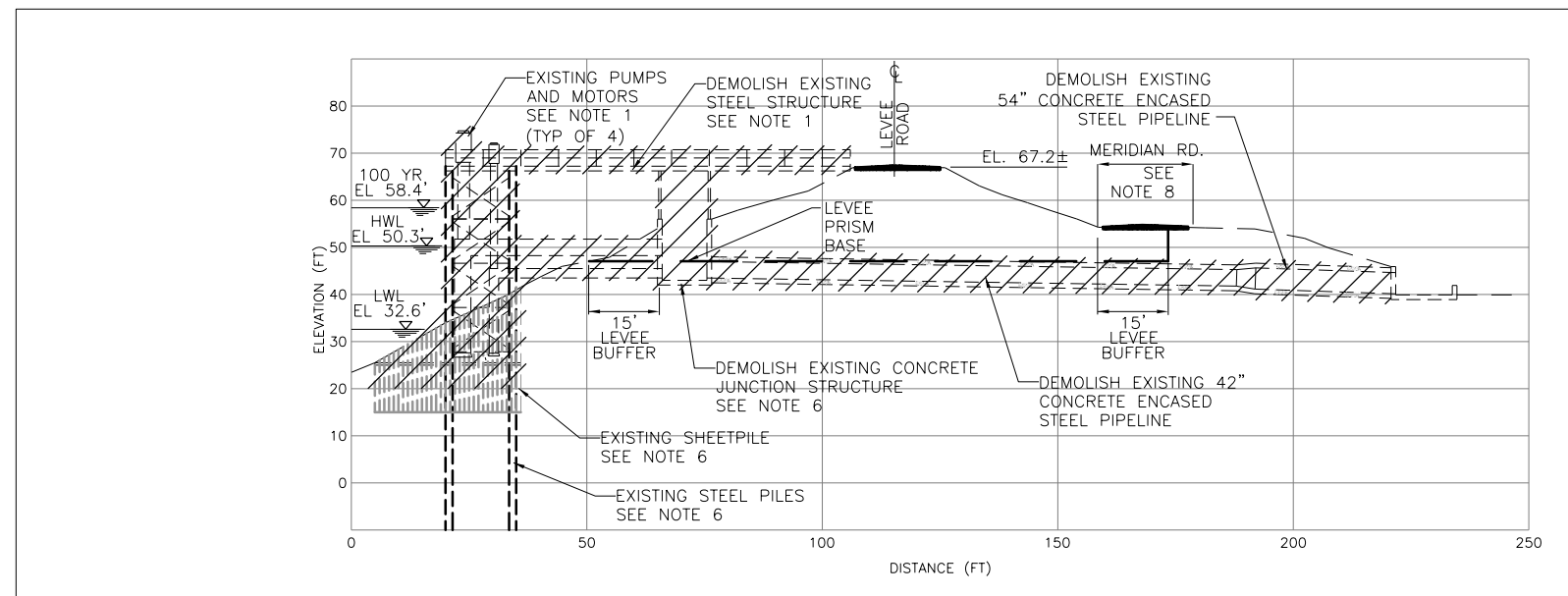
SHEET  
G-03  
1 OF 14



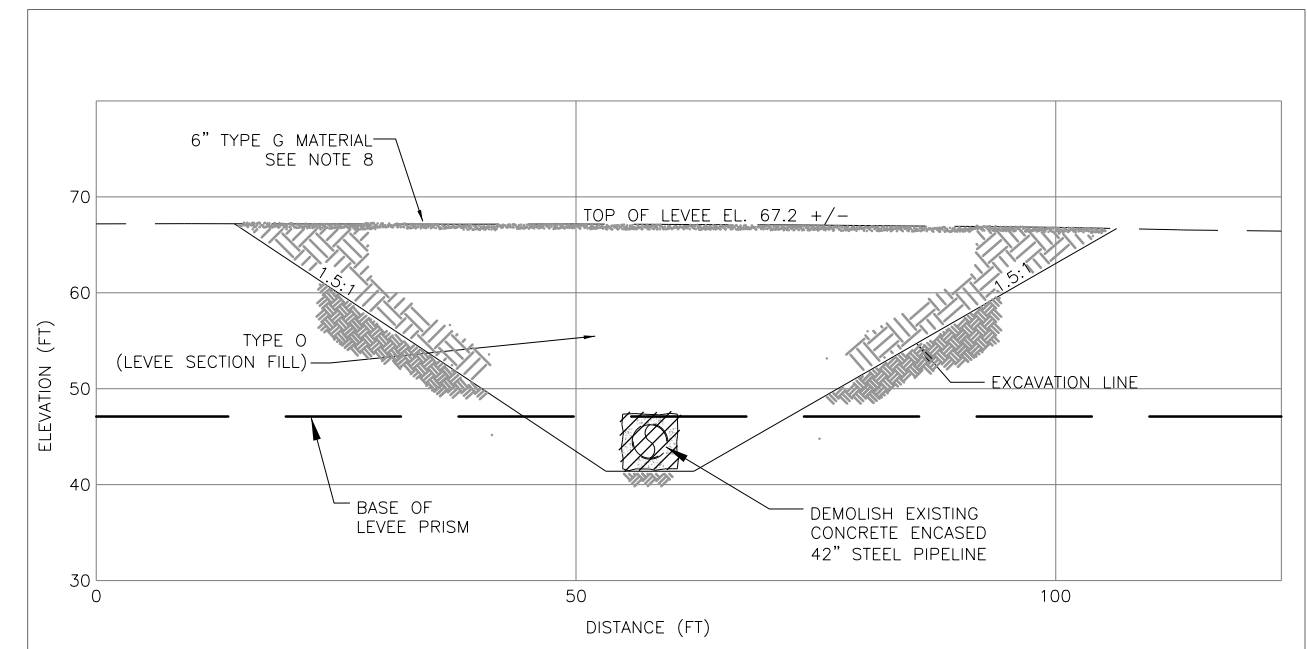
PLAN

NOTES:

1. EXISTING MERIDIAN INTAKE FACILITY TO BE DEMOLISHED AND EQUIPMENT & MATERIALS SALVAGED PER SPECIFICATIONS.
2. EXISTING 42" AND 54" DELIVERY PIPELINE SHALL BE DEMOLISHED AND COMPLETELY REMOVED FROM THE LEVEE.
3. EXISTING 18" TURNOUT PIPING AND CONCRETE BOX STRUCTURE TO NORTH SHALL BE DEMOLISHED PER SPECIFICATIONS.
4. EXISTING 18" TURNOUT PIPING TO SOUTH SHALL BE DEMOLISHED AS NEEDED TO MAKE ROOM FOR NEW PIPING CONNECTION.
5. WORK SHALL BE PERFORMED IN ACCORDANCE WITH PERMITTING AND CONSTRUCTION CONSTRAINTS. REFER TO SPECIFICATION SECTION 01313.
6. REFER TO SPECIFICATION SECTION 01640 FOR DEMOLITION AND SALVAGE REQUIREMENTS. DEMOLITION OF EXISTING STRUCTURES SHALL BE TO 36" BELOW EXISTING GROUND OR MUD LINE PER STATE RECLAMATION BOARD REQUIREMENTS.
7. REPLACE EXISTING LEVEE ROAD DISTURBED BY PIPELINE DEMOLITION WITH 6" TYPE G MATERIAL. MATCH EXISTING ROAD GRADE.
8. REPLACE EXISTING MERIDIAN ROAD DISTURBED BY DEMOLITION OF PIPELINE PER SUTTER COUNTY REQUIREMENTS.
9. VERTICAL DATUM IS NGVD29 BASED ON BENCHMARK 'BM PTS 206'. ELEVATION 51.76 FEET.
10. REMOVE BURIED ELECTRICAL WITHIN EXCAVATION LIMITS OF EXISTING STEEL PIPELINE. REMOVE ALL BURIED CONDUCTORS AND CAP AND ABANDON EXISTING ELECTRICAL CONDUIT AT LIMIT OF EXCAVATION.



SECTION A  
SCALE: SEE BELOW



SECTION B  
SCALE: 1"=10'

DATE PREPARED: 9/13/12

Job No: 0000000 File:

REV	DATE	BY	DESCRIPTION

SCALE  
1"=20'

WARNING  
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IF THIS BAR DOES NOT MEASURE THEN DRAWING IS NOT TO SCALE

DESIGNED B. FEDAK  
DRAWN B. FEDAK  
CHECKED J. ATKINSON

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(PROJECT MANAGER'S NAME) LICENSE NO. DATE  
(COMPANY OFFICER'S NAME) LICENSE NO. DATE

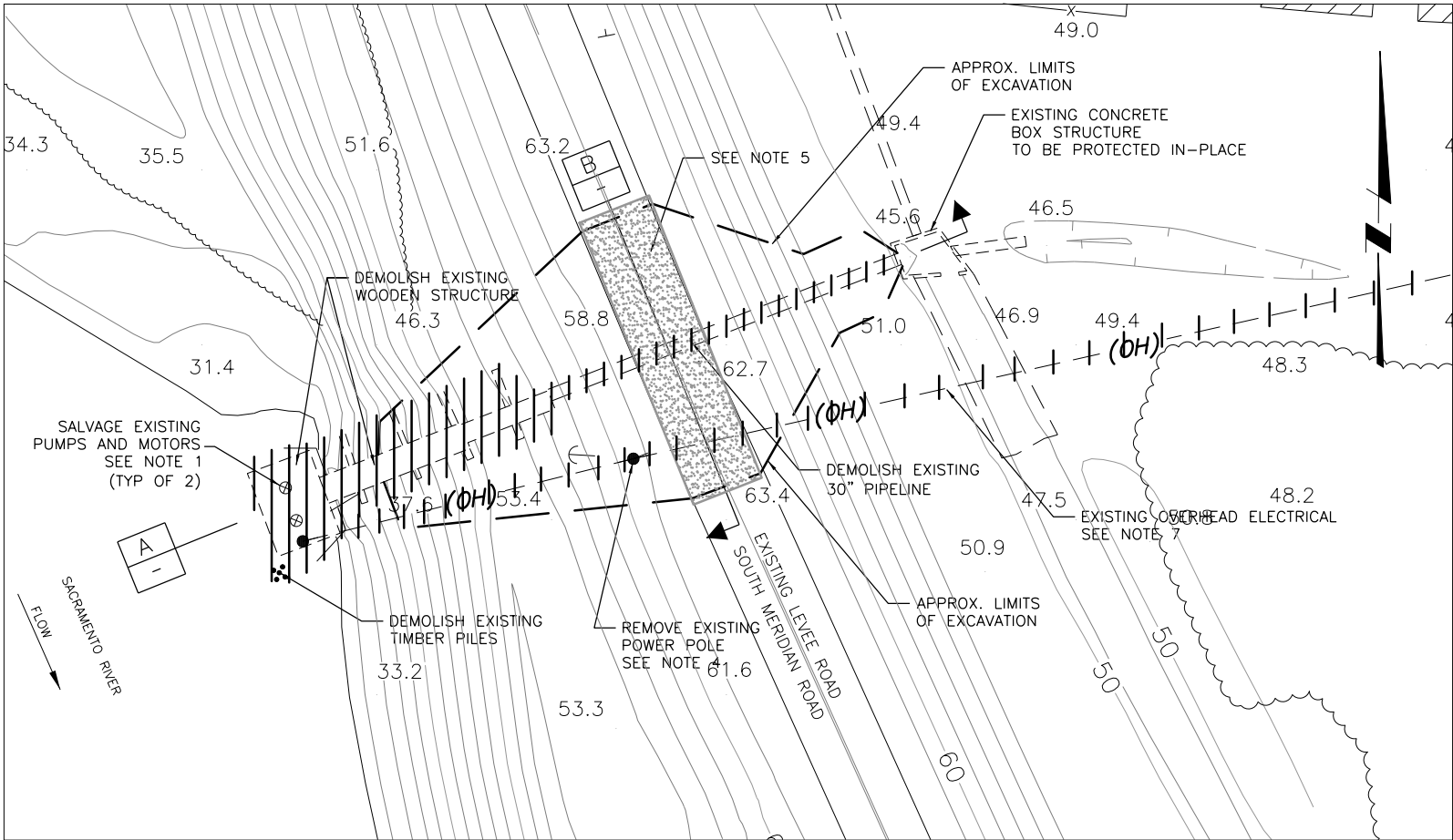


MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

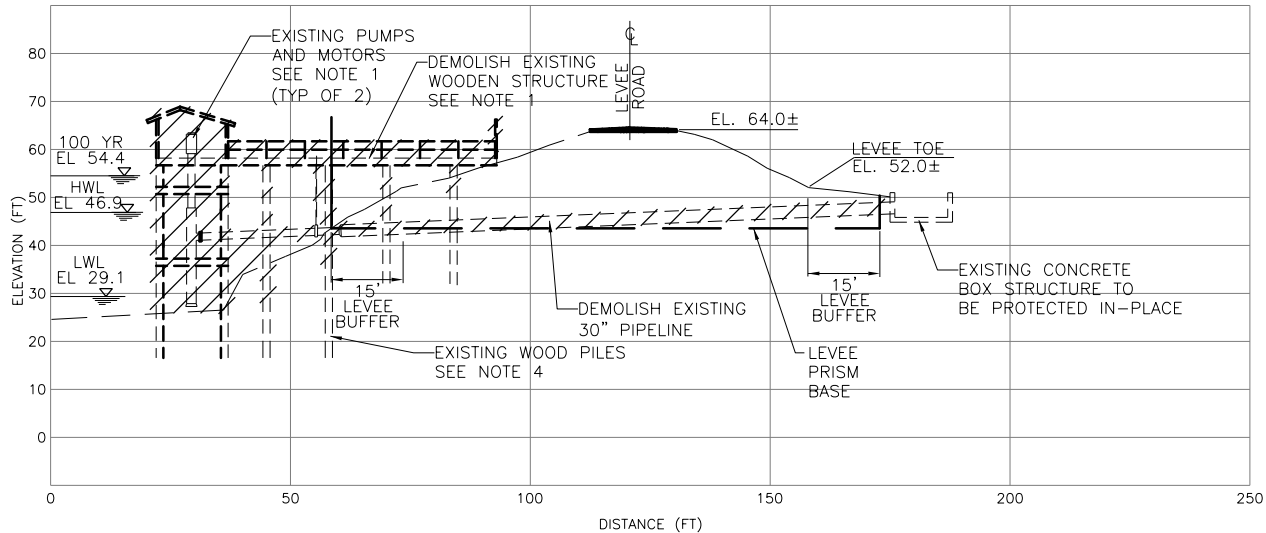
CIVIL  
MERIDIAN SITE  
DEMOLITION PLAN AND ELEVATION

SHEET  
C-01  
2 OF 14

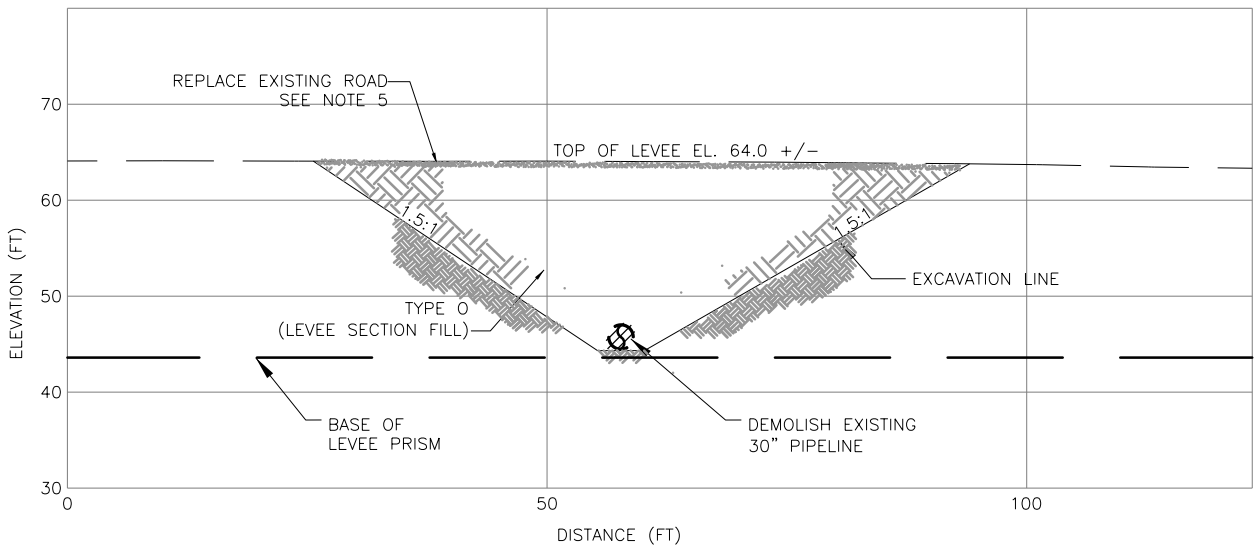
- NOTES:
1. EXISTING INTAKE FACILITY TO BE DEMOLISHED AND EQUIPMENT & MATERIALS SALVAGED PER SPECIFICATIONS.
  2. EXISTING DELIVERY PIPELINE SHALL BE DEMOLISHED AND COMPLETELY REMOVED FROM LEVEE.
  3. WORK SHALL BE PERFORMED IN ACCORDANCE WITH PERMITTING AND CONSTRUCTION CONSTRAINTS. REFER TO SPECIFICATION SECTION 01313.
  4. REFER TO SPECIFICATION SECTION 01640 FOR DEMOLITION AND SALVAGE REQUIREMENTS. DEMOLITION OF EXISTING STRUCTURES SHALL BE TO 36" BELOW EXISTING GROUND OR MUD LINE PER STATE RECLAMATION BOARD REQUIREMENTS.
  5. REPLACE THE EXISTING SOUTH MERIDIAN ROAD DISTURBED BY DEMOLITION OF PIPELINE PER SUTTER COUNTY REQUIREMENTS.
  6. VERTICAL DATUM IS NGVD29 BASED ON BENCHMARK 'BM PTS 206'. ELEVATION 51.76 FEET.
  7. COORDINATE WITH UTILITY FOR REMOVAL OF OVERHEAD POWER LINES.



PLAN



SECTION A  
SCALE: SEE BELOW



SECTION B  
SCALE: 1"=10'

DATE PREPARED: 9/13/12

Job No: 00000000 File:

REV	DATE	BY	DESCRIPTION

SCALE	WARNING
1"=20'	0 1/2 1
	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

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DRAWN	B. FEDAK
CHECKED	J. ATKINSON

SUBMITTED BY	
(PROJECT MANAGER'S NAME)	LICENSE NO. DATE
(COMPANY OFFICER'S NAME)	LICENSE NO. DATE



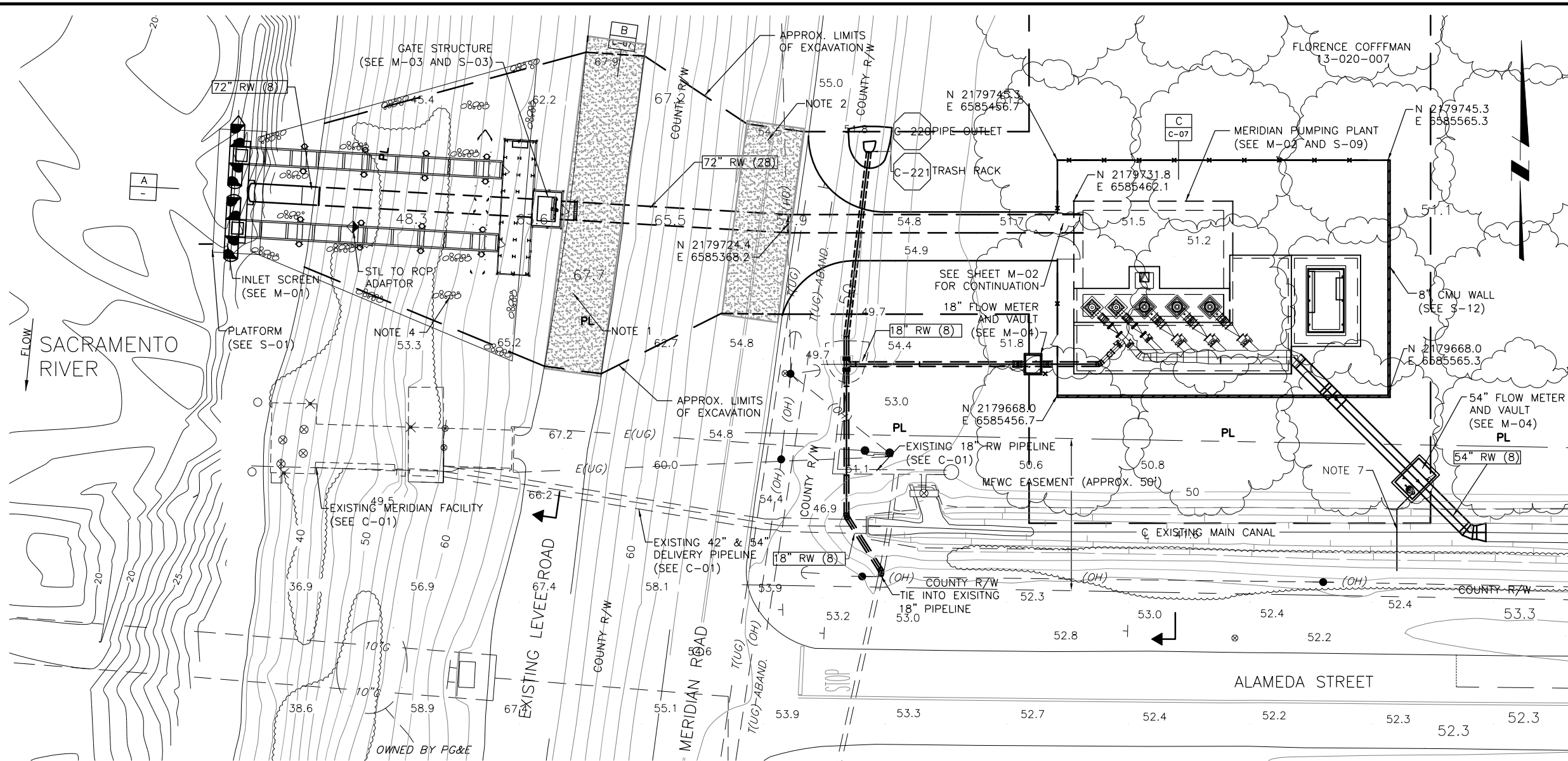
MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

CIVIL  
DREXLER SITE  
DEMOLITION PLAN AND ELEVATION

SHEET

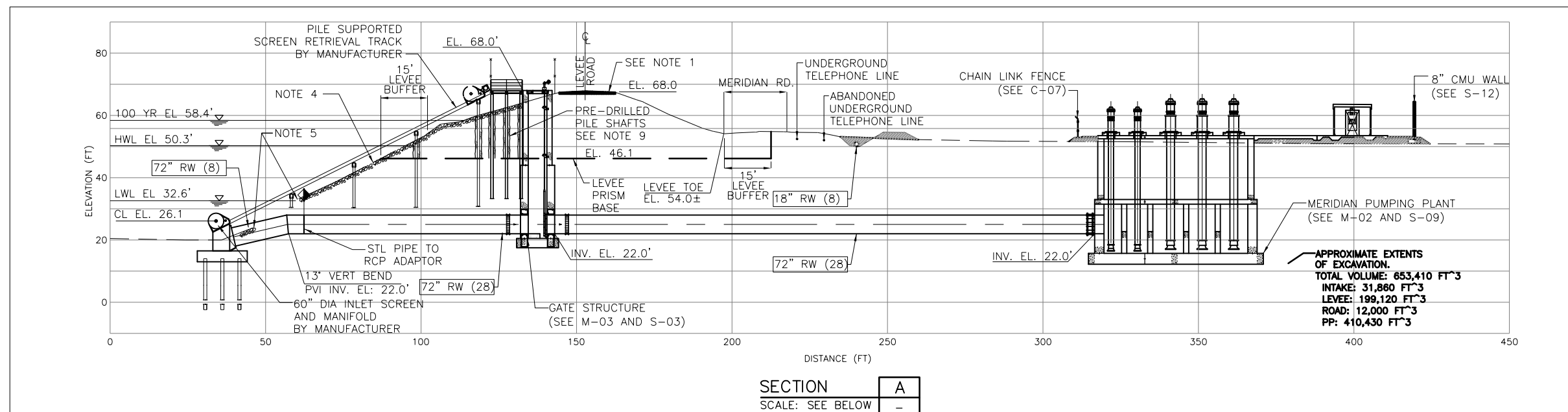
C-02  
3 OF 14





NOTES:

1. REPLACE EXISTING LEVEE ROAD DISTURBED BY CONSTRUCTION W/ 6" TYPE G MATERIAL. MATCH EXISTING ROAD GRADE.
2. REPLACE EXISTING MERIDIAN ROAD DISTURBED BY CONSTRUCTION PER SUTTER COUNTY REQUIREMENTS.
3. THE THIRD AND FOURTH TREE ROWS FROM THE SOUTH HAVE BEEN REMOVED BY OTHERS.
4. PROVIDE 18" THICK TYPE II RIP RAP ON FACE OF LEVEE DISTURBED BY OPEN-CUT EXCAVATION & MATCH EXISTING GRADE. LEVEE FACE RIP RAP SHALL EXTEND FROM THE EXISTING LEVEE ROAD TO THE SCOUR CUT-OFF WALL. SEE S-02 FOR REQUIRED SCOUR WALL CUT-OFF ELEVATIONS TO MAINTAIN THE RIP RAP LEVEE FACE BLANKET.
5. A DATA GAP EXISTS BETWEEN THE GROUND SURVEY AND BATHYMETRIC SURVEY DATA COLLECTED.
6. CONSTRUCTION IN THE LEVEE SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF SECTIONS 01313, 02100, 02200, AND THE STATE RECLAMATION BOARD ENCROACHMENT PERMIT.
7. CONTRACTOR TO VERIFY WITH RESIDENT ENGINEER TO CONFIRM LOCATION OF DISCHARGE PIPE DAYLIGHT LOCATION.
8. VERTICAL DATUM IS NGVD29 BASED ON BENCHMARK 'BM PTS 206'. ELEVATION 51.76 FEET.
9. DRIVING PILES WITHIN THE LEVEE PRISM IS NOT ALLOWED. 24" DIAMETER PRE-DRILLED SHAFTS SHALL BE PROVIDED TO THE LEVEE PRISM BASE (EL 46.1) PRIOR TO PILE DRIVING. AFTER PRE-DRILLING, PILES MAY BE DRIVEN STARTING AT EL 46.1. AFTER PILE DRIVING IS COMPLETE, SHAFTS SHALL BE FILLED WITH REINFORCED CONCRETE AS SHOWN ON S-19.



SECTION A  
SCALE: SEE BELOW

DATE PREPARED: 9/13/12

Job No: 0000000  
File:

REV	DATE	BY	DESCRIPTION

SCALE  
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MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

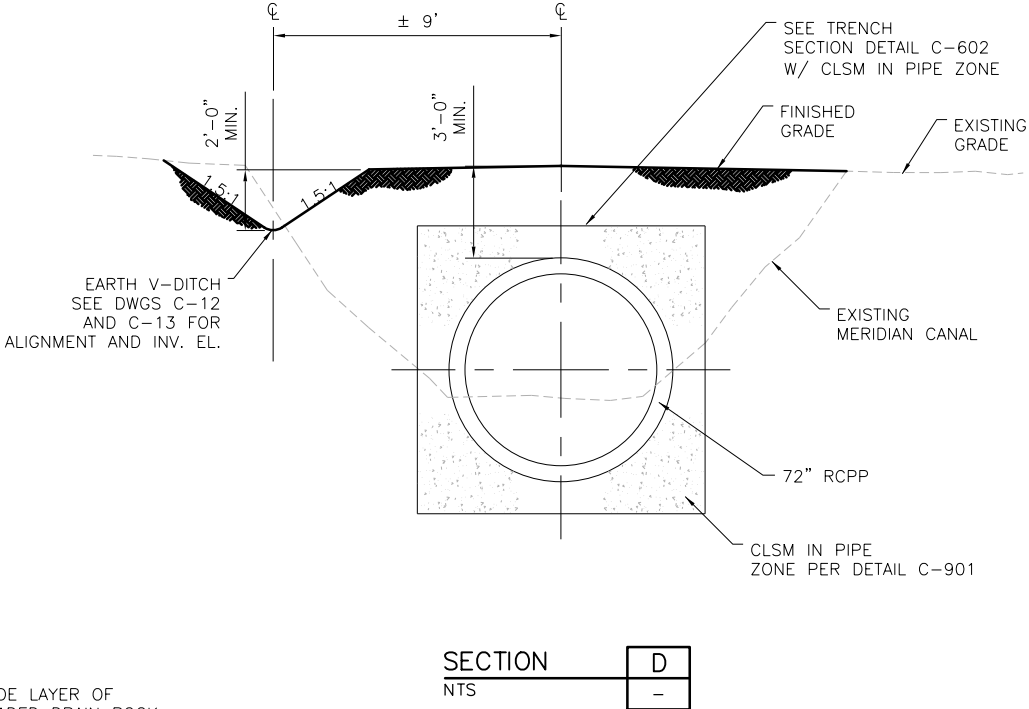
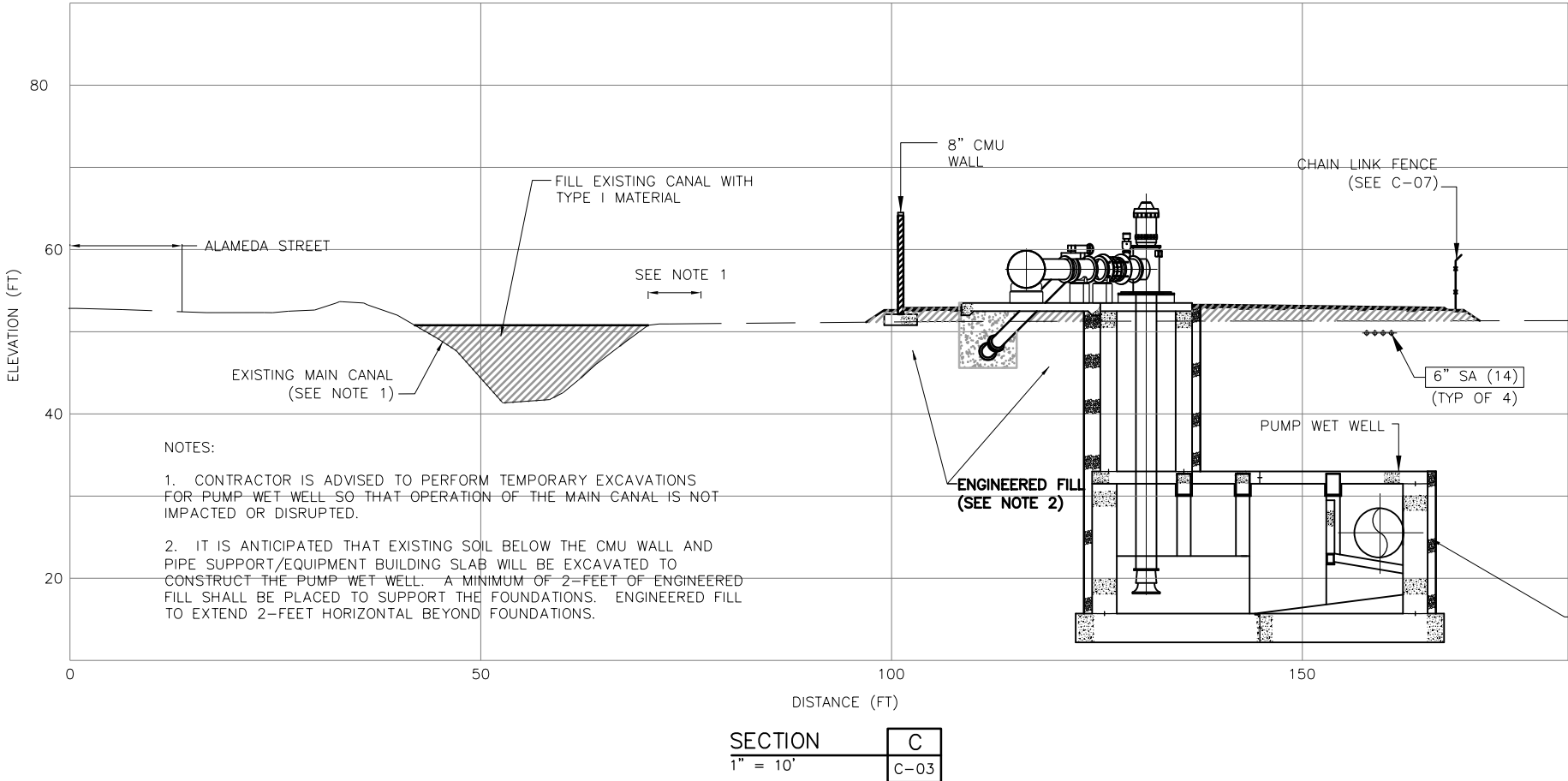
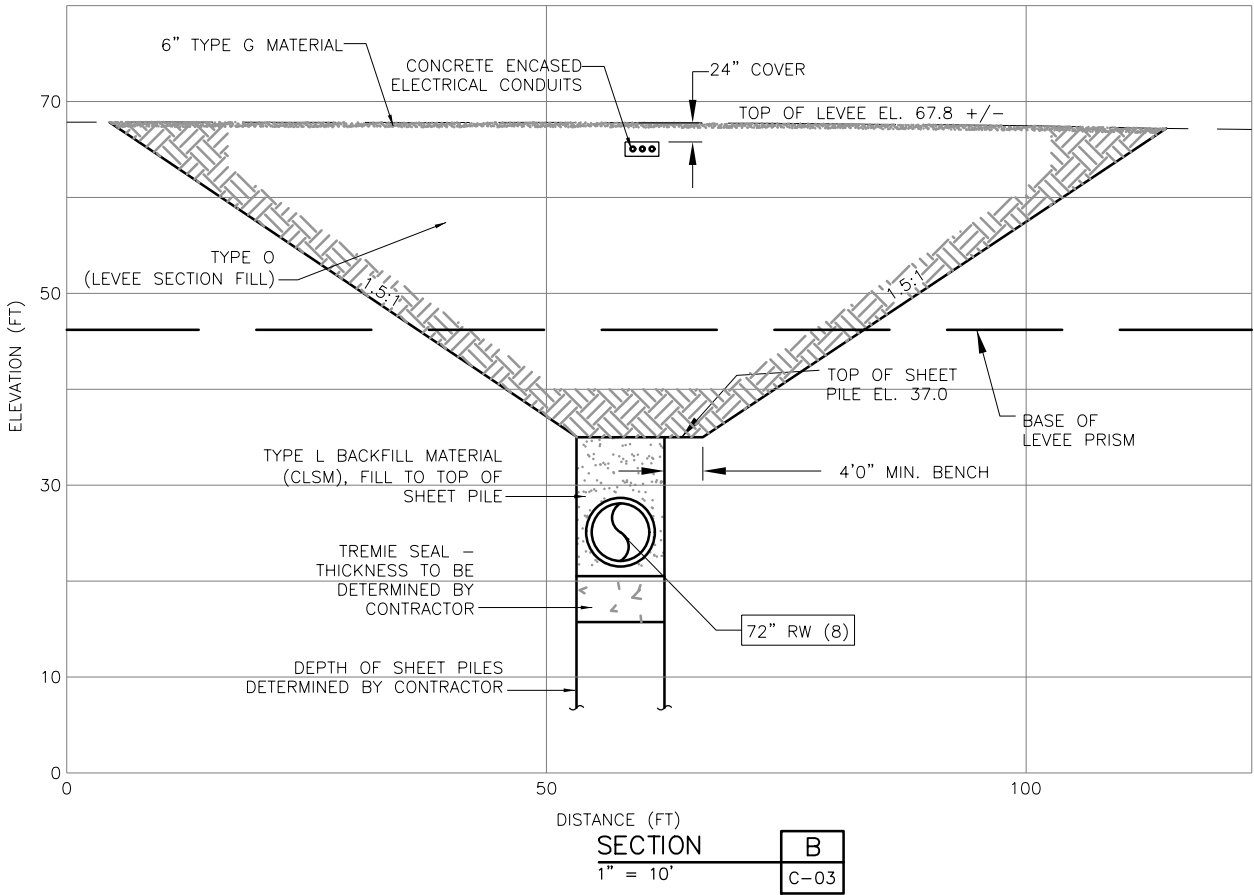
CIVIL  
MERIDIAN DIVERSION  
SITE PLAN AND ELEVATION

SHEET  
C-03  
4 OF 14



PIPELINE CONSTRUCTION SEQUENCING:

1. OPEN CUT EXCAVATION IN LEVEE AT 1.5:1 SLOPE TO ELEVATION 37.0. PROVIDE BENCH AT ELEVATION 37.0 FOR SHEETPILE AND PIPELINE INSTALLATION WORK.
2. DRIVE SHEET PILE TO DEPTH DETERMINED BY CONTRACTOR. TOP OF SHEET PILE SHALL BE ELEVATION 37.0.
3. EXCAVATED PIPELINE TRENCH WITHIN SHEET PILE TO BOTTOM OF TREMIE SEAL ELEVATION DETERMINED BY CONTRACTOR.
4. INSTALL TREMIE SEAL.
5. INSTALL TRENCH DEWATERING SYSTEM AND BEGIN DEWATERING OPERATIONS.
6. ONCE TRENCH IS DEWATERED, INSTALL 72" RW PIPELINE.
7. BACKFILL PIPE ZONE WITH CLSM TO ELEVATION 37.0 AS SHOWN.
8. BACKFILL OPEN CUT SECTION WITH APPROVED TYPE O LEVEE SECTION FILL MATERIAL. FINISH TOP OF LEVEE WITH 6" TYPE G MATERIAL.



NOTES:

1. CONTRACTOR IS ADVISED TO PERFORM TEMPORARY EXCAVATIONS FOR PUMP WET WELL SO THAT OPERATION OF THE MAIN CANAL IS NOT IMPACTED OR DISRUPTED.
2. IT IS ANTICIPATED THAT EXISTING SOIL BELOW THE CMU WALL AND PIPE SUPPORT/EQUIPMENT BUILDING SLAB WILL BE EXCAVATED TO CONSTRUCT THE PUMP WET WELL. A MINIMUM OF 2- FEET OF ENGINEERED FILL SHALL BE PLACED TO SUPPORT THE FOUNDATIONS. ENGINEERED FILL TO EXTEND 2- FEET HORIZONTAL BEYOND FOUNDATIONS.

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE  
AS SHOWN

WARNING  
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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

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CHECKED J. ATKINSON

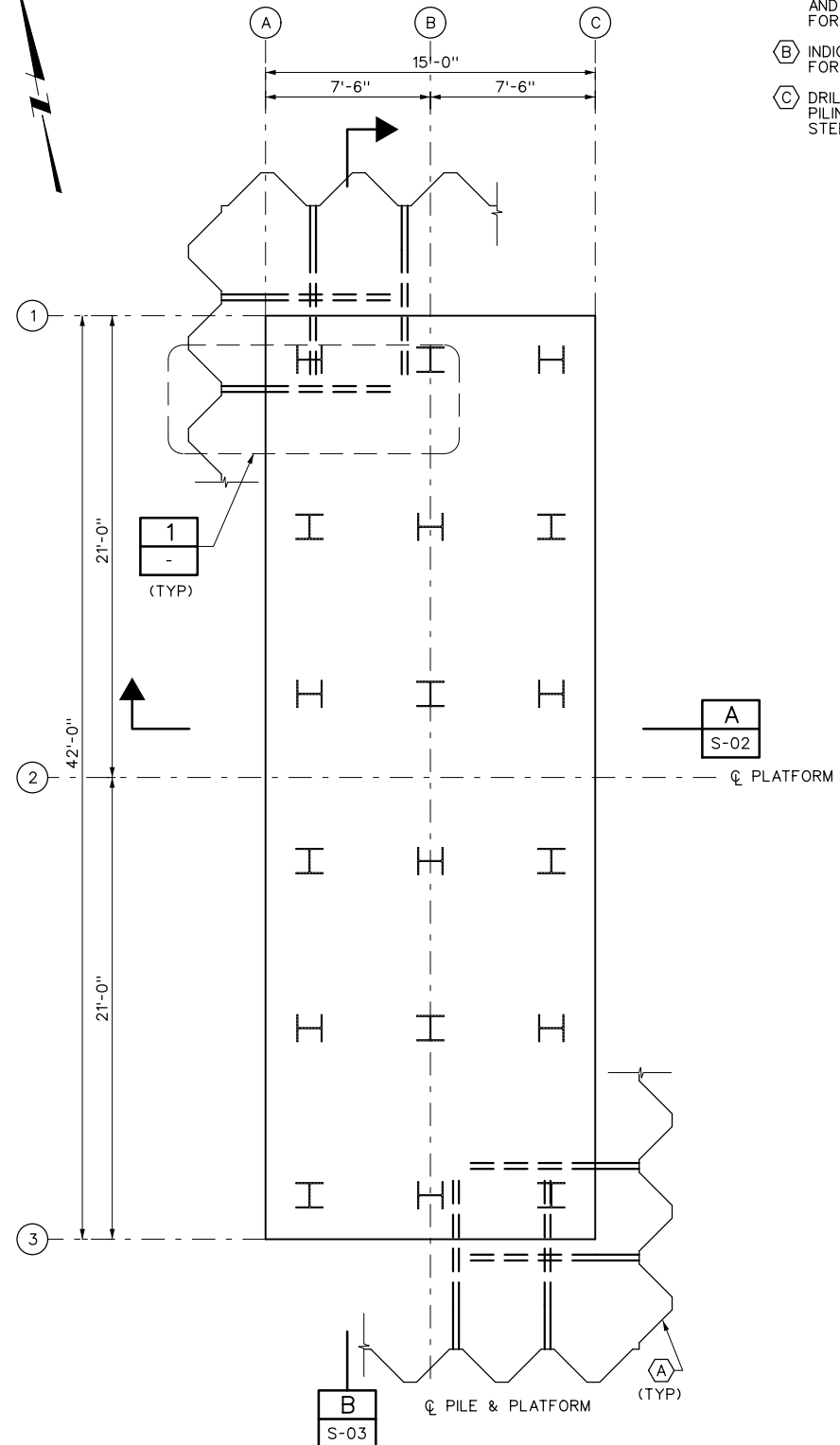
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(COMPANY OFFICER'S NAME) LICENSE NO. DATE



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

CIVIL  
MERIDIAN DIVERSION & MAIN CANAL  
CROSS SECTIONS AND DETAILS

SHEET  
C-07  
5 OF 14



(C) DRILLED HOLE CAST-IN-PLACE CONCRETE  
PILING IS ALSO ACCEPTABLE IN LIEU OF  
STEEL H-PILES.

INTAKE STRUCTURE PLATFORM DECK PLAN  
SCALE: 1/4"=1'-0"

MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

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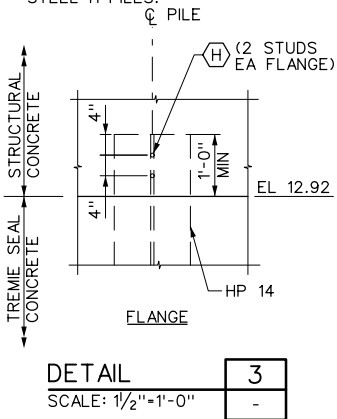
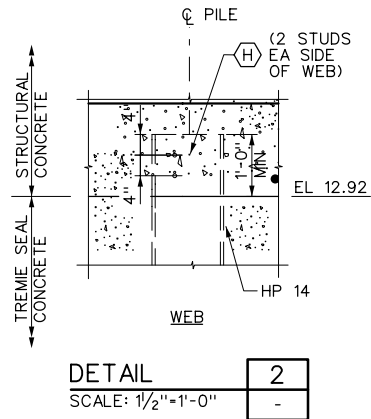
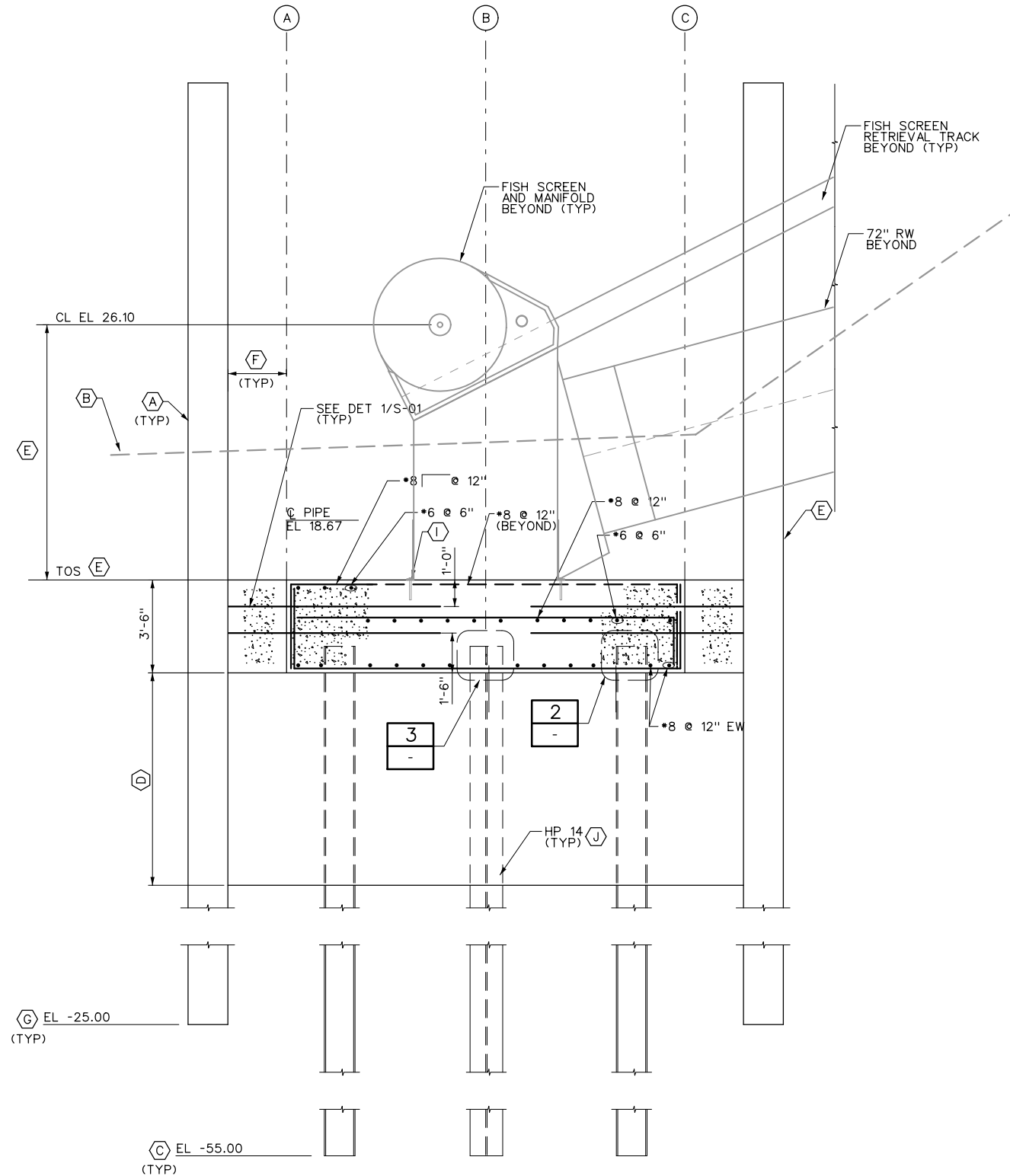
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NOTES:

1. SEE MECH DWGS FOR SIZE AND LOCATION OF ALL PIPING

KEY NOTES:

- (A) SHEET PILE COFFERDAM TO BE DESIGNED, FURNISHED AND INSTALLED BY THE CONTRACTOR, SEE SPEC SECTION 02367 FOR ADD'L INFO.
- (B) APPROXIMATE OUTLINE OF EXISTING RIVER BED. SEE CIVIL DWGS.
- (C) PILES SHALL BE DRIVEN TO THE SPECIFIED TIP ELEVATION SHOWN OR TO PRACTICAL REFUSAL. SEE SPEC SECTION 02361 FOR ADD'L INFO.
- (D) TREMIE SEAL CONCRETE. TREMIE SEAL DEPTH TO BE DETERMINED BY THE CONTRACTOR. SEE SPEC SECTION 02367 FOR ADDITIONAL INFO.
- (E) TOP OF SLAB ELEVATION DEPENDENT ON HEIGHT OF MANIFOLD BOX. MANIFOLD BOX SHALL BE DESIGNED BY FISH SCREEN MANUFACTURER. SHEET PILING TO BE CUT OFF AT THE FOLLOWING ELEVATIONS AND THE REMAINING SECTION LEFT IN PLACE AS A SCOUR CUT-OFF WALL:  
NORTH, SOUTH AND WEST SIDES: EL  
EAST SIDE:
- (F) THE COFFERDAM SHEET PILING MAY BE PLACED AT ANY DISTANCE AWAY FROM THE FOUNDATION DEEMED NECESSARY OR CONVENIENT BY THE CONTRACTOR. FILL VOID BETWEEN SHEET PILING AND FOUNDATION SLAB WITH STRUCTURAL CONCRETE PER SPECIFICATIONS SECTION 03300.
- (G) MIN SHEET PILE EMBEDMENT DEPTH. ACTUAL EMBEDMENT DEPTH TO BE DETERMINED BY THE CONTRACTOR. SEE SPEC SECTION 02367 FOR ADD'L INFO.
- (H) 2-3/4" DIA X 4 3/8" LONG HEADED STUDS WELDED TO EACH FLANGE AND 2 - 3/4" DIA X 4 3/8" LONG HEADED STUDS WELDED TO EACH SIDE OF WEB OF EACH HP PILE (8 STUDS TOTAL PER PILE). STUDS TO BE INSTALLED AFTER PILE INSTALLATION AND CUTOFF AND PRIOR TO PLACEMENT OF STRUCTURAL FOUNDATION SLAB.
- (I) MANIFOLD BOX ANCHORAGE TO BE DESIGNED BY FISH SCREEN MANUFACTURER.
- (J) DRILLED HOLE CAST-IN-PLACE CONCRETE PILING IS ALSO ACCEPTABLE IN LIEU OF STEEL H-PILES.



SECTION A  
SCALE: 3/8"=1'-0"

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

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SUBMITTED BY	
PROJECT MANAGER	LICENSE NO. DATE
COMPANY OFFICER	LICENSE NO. DATE



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN INTAKE  
SECTIONS AND DETAILS 1

SHEET  
S-02  
7 OF 14

1. SEE MECH DWGS FOR SIZE AND LOCATION  
OF ALL PIPING

**A** SHEET PILE COFFERDAM TO BE DESIGNED,  
FURNISHED AND INSTALLED BY THE  
CONTRACTOR. SEE SPEC SECTION 02367  
FOR ADD'L INFO.

**(B)** APPROXIMATE OUTLINE OF EXISTING RIVER BED. SEE CIVIL DWGS.

C PILES SHALL BE DRIVEN TO THE SPECIFIED TIP ELEVATION SHOWN OR TO PRACTICAL REFUSAL. SEE SPEC SECTION 02361 FOR ADD'L INFO.

D TREMIE SEAL CONCRETE. TREMIE SEAL DEPTH TO BE DETERMINED BY THE CONTRACTOR. SEE SPEC SECTION 02367 FOR ADDITIONAL INFO.

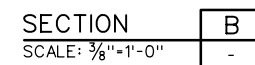
TOP OF SLAB ELEVATION DEPENDENT ON  
HEIGHT OF MANIFOLD BOX. MANIFOLD BOX SHA  
BE DESIGNED BY FISH SCREEN MANUFACTURER  
SHEET PILING TO BE CUT OFF AT THE FOLLO  
ELEVATIONS AND THE REMAINING SECTION LE  
IN PLACE AS A SCOUR  
CUT-OFF WALL:  
NORTH, SOUTH AND WEST SIDES: EL  
EAST SIDE:

F THE COFFERDAM SHEET PILING MAY BE PLACED AT ANY DISTANCE AWAY FROM THE FOUNDATION DEEMED NECESSARY OR CONVENIENT BY THE CONTRACTOR. FILL VOID BETWEEN SHEET PILING AND FOUNDATION SLAB WITH STRUCTURAL CONCRETE PER SPECIFICATIONS SECTION 03300.

G MIN SHEET PILE EMBEDMENT DEPTH. ACTUAL EMBEDMENT DEPTH TO BE DETERMINED BY THE CONTRACTOR. SEE SPEC SECTION 02367 FOR ADD'L INFO.

MANIFOLD BOX ANCHORAGE TO BE DESIGNED BY FISH SCREEN MANUFACTURER.

① DRILLED HOLE CAST-IN-PLACE CONCRETE  
PILING IS ALSO ACCEPTABLE IN LIEU OF  
STEEL H-PILES.



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PROJECT MANAGER	LICENSE NO.	DATE
COMPANY OFFICER	LICENSE NO.	DATE



MECHANICAL

MERIDIAN INTAKE  
SECTIONS AND DETAILS 2

SHEET

-03  
OF 14

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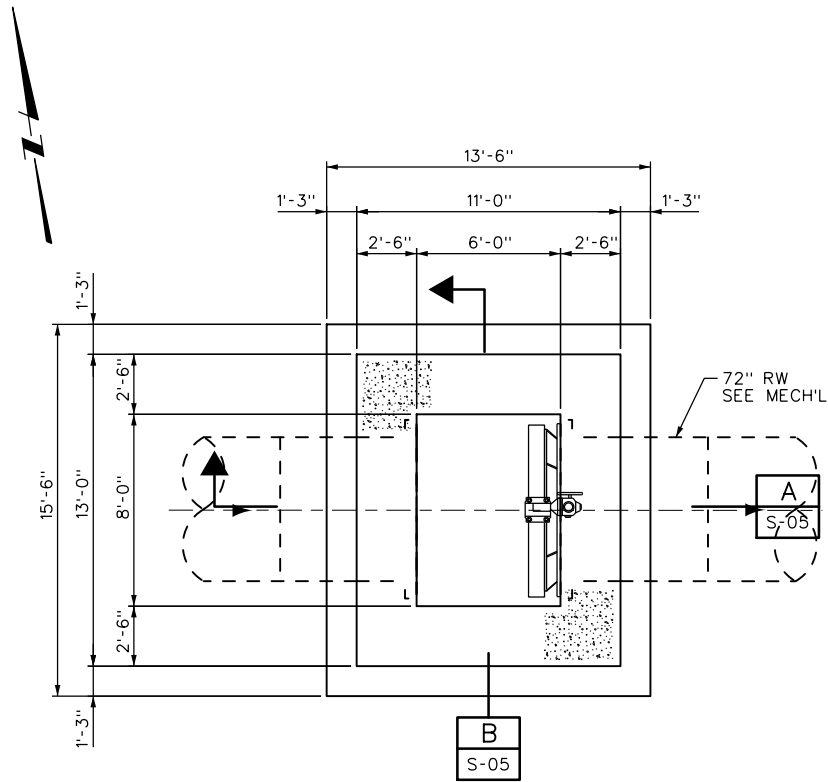
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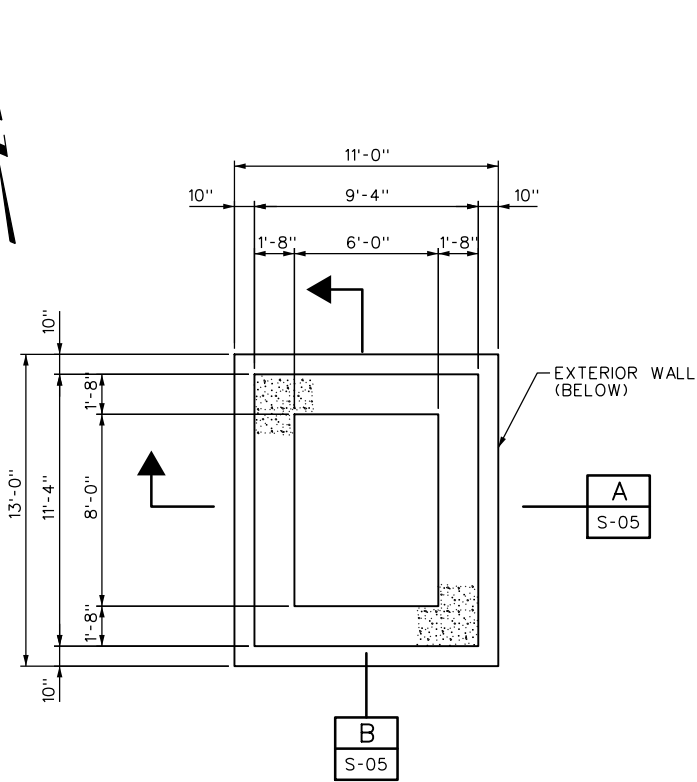
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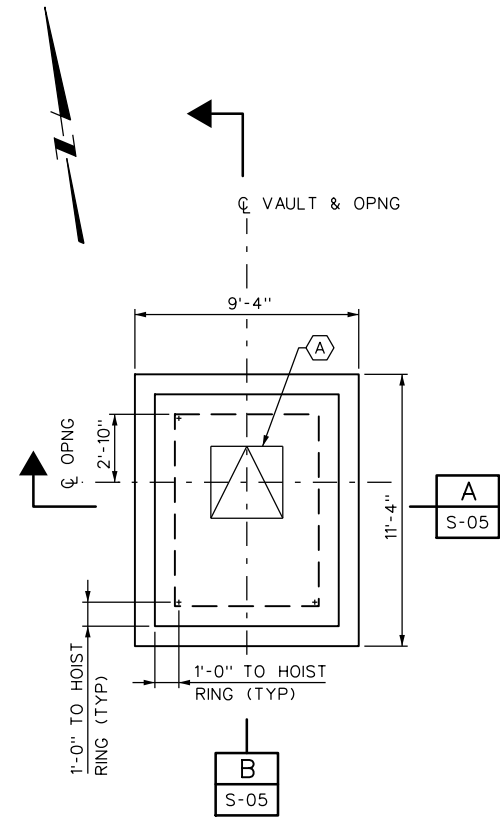
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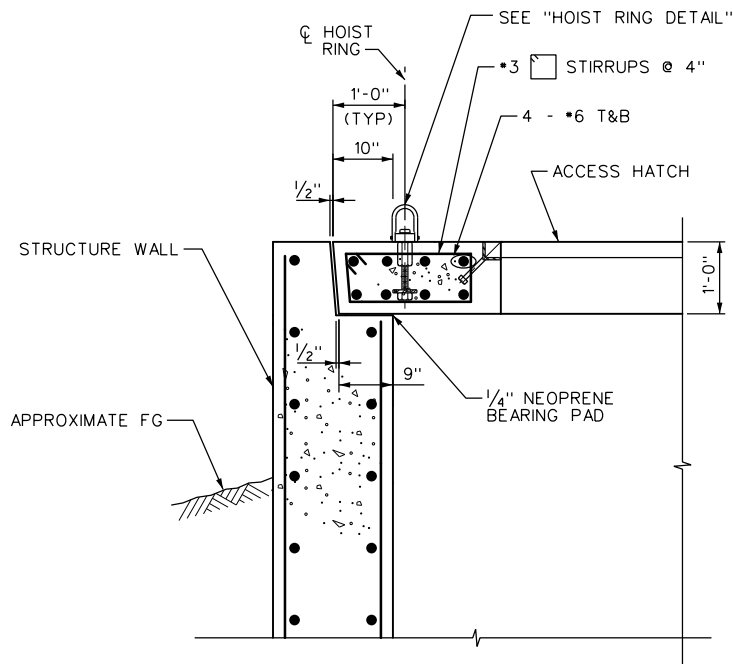
FOUNDATION PLAN  
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INTERMEDIATE PLAN AT EL 44.00  
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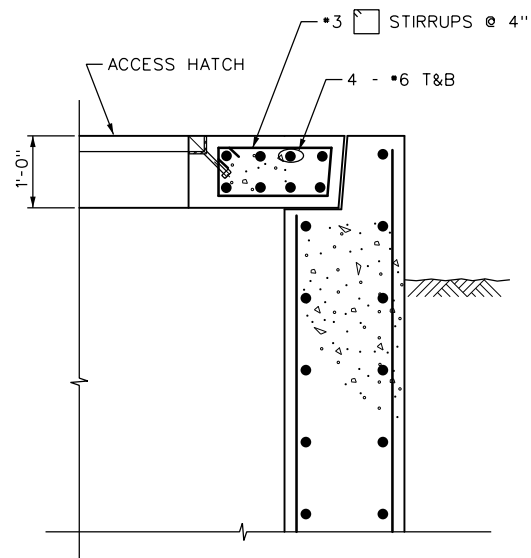


TOP PLAN  
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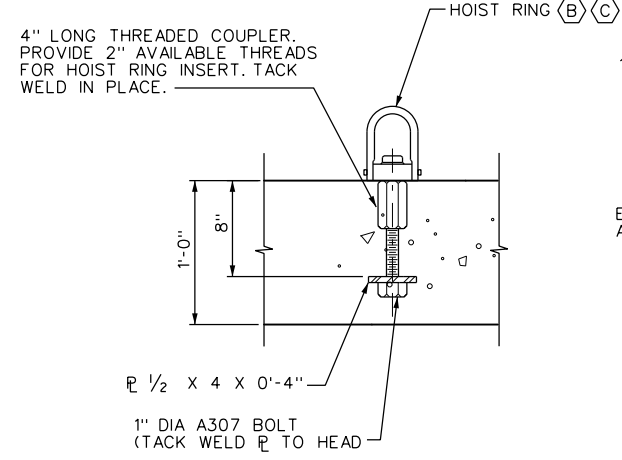
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DETAIL 1  
SCALE: 3/4"=1'-0"



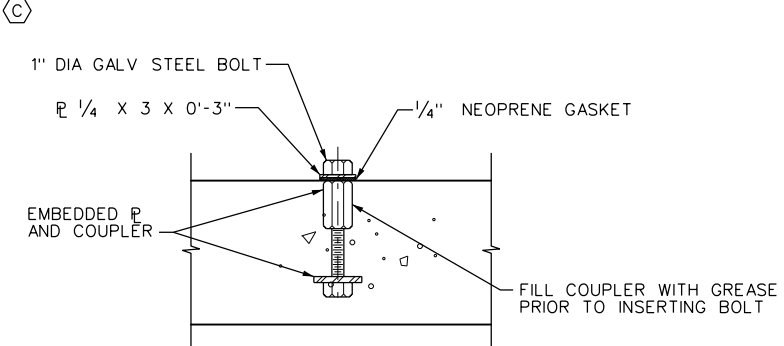
NOTE: SEE DETAIL 1/- FOR INFORMATION NOT SHOWN

DETAIL 2  
SCALE: 3/4"=1'-0"



NOTE: REINFORCING NOT SHOWN FOR CLARITY

HOIST RING DETAIL  
SCALE: 1/2"=1'-0"



NOTES:

- AFTER THE TOP SLAB HAS BEEN PLACED, THE HOIST RINGS SHALL BE REMOVED AND STORED AT A LOCATION DESIGNATED BY THE OWNER. THE ABOVE DETAIL SHALL THEN BE CONSTRUCTED TO PROTECT THE THREADED INSERT.
- REINFORCING NOT SHOWN FOR CLARITY.

HOIST RING COVER DETAIL  
SCALE: 1/2"=1'-0"

NOTES:

- SEE MECH DWGS FOR SIZE AND LOCATION OF ALL PIPING.
- SEE CIVIL DWGS FOR GRADING PLANS AND FG ELEVATIONS.

KEY NOTES:

- 3'-0" SQ CLEAR OPNG SINGLE LEAF ALUM ACCESS HATCH (LL = 300 PSF)
- THE HOIST RINGS SHALL BE McMASTER-CARR, PART NO. 3052T67, OR EQUAL. THE HOIST RINGS SHALL BE OF THE MACHINED STANDARD TYPE AND HAVE THE FOLLOWING PROPERTIES:  
MATERIAL TYPE & FINISH: PLAIN STEEL  
THREAD SIZE / BOLT HOLE DIAMETER: 1" / 8  
WORKING LOAD LIMIT: 10,000 LBS  
THREAD LENGTH: 1'-9/16"  
BAIL THICKNESS: 1"  
THE HOIST RING SHALL BE CAPABLE OF ROTATING 360 DEGREES AROUND THE SHAFT. THE BAIL SHALL BE CAPABLE OF 180 DEGREE MOVEMENT.
- THE CONTRACTOR SHALL UTILIZE A RIGGING CONFIGURATION THAT ENSURES THAT THE SLAB REMAINS APPROXIMATELY LEVEL DURING ALL LIFTING OPERATIONS AND THAT ALL 3 HOIST RINGS ARE EFFECTIVE IN SUPPORTING THE WEIGHT OF THE SLAB. THE RIGGING SHALL ALSO BE SET SUCH THAT THE ANGLE BETWEEN THE RIGGING CABLES AND HORIZONTAL IS AT LEAST 45 DEGREES, AND THE CABLES ARE ALL BEING PULLED TOWARDS THE CENTER OF THE SLAB.

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE
AS SHOWN

DESIGNED <u>J. TEHANEY</u>
DRAWN <u>R. WELCH</u>
CHECKED <u>M. FORDHAM</u>

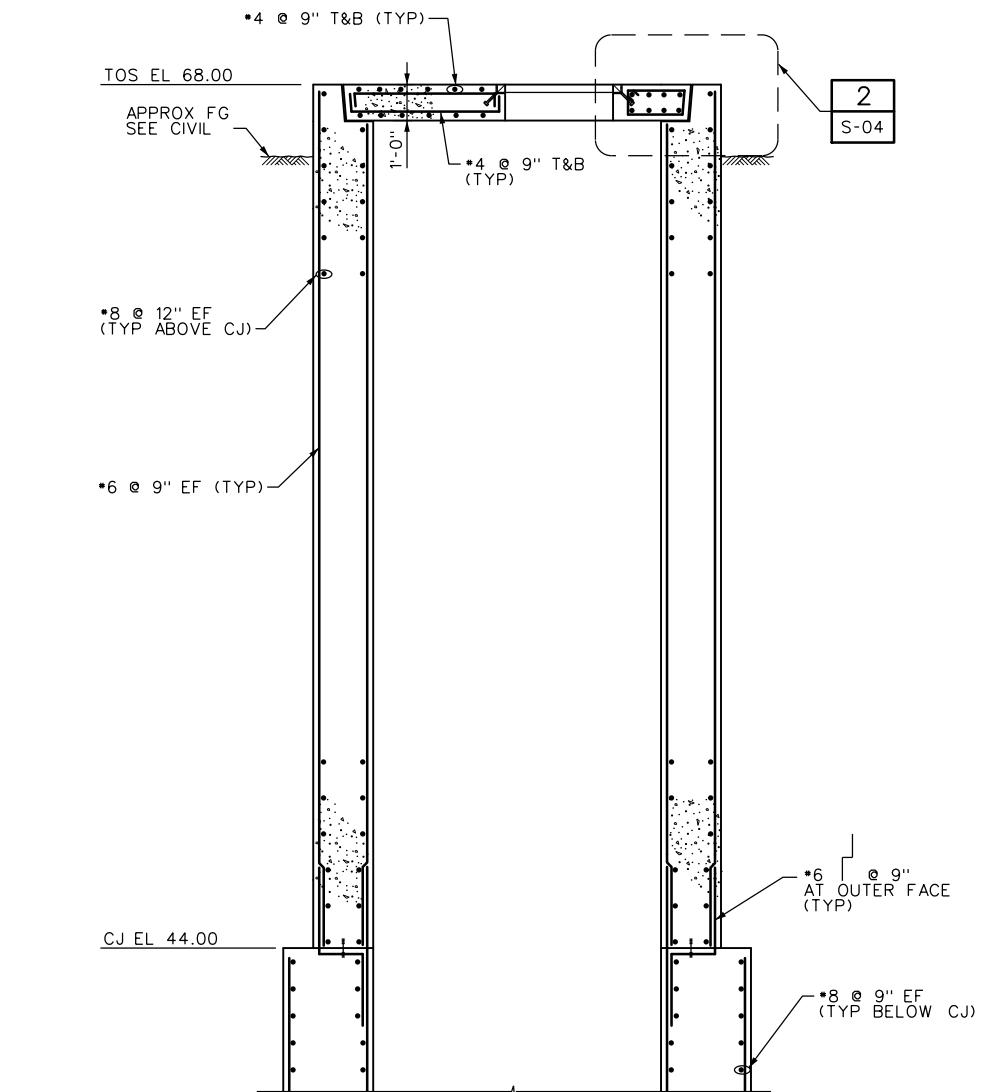
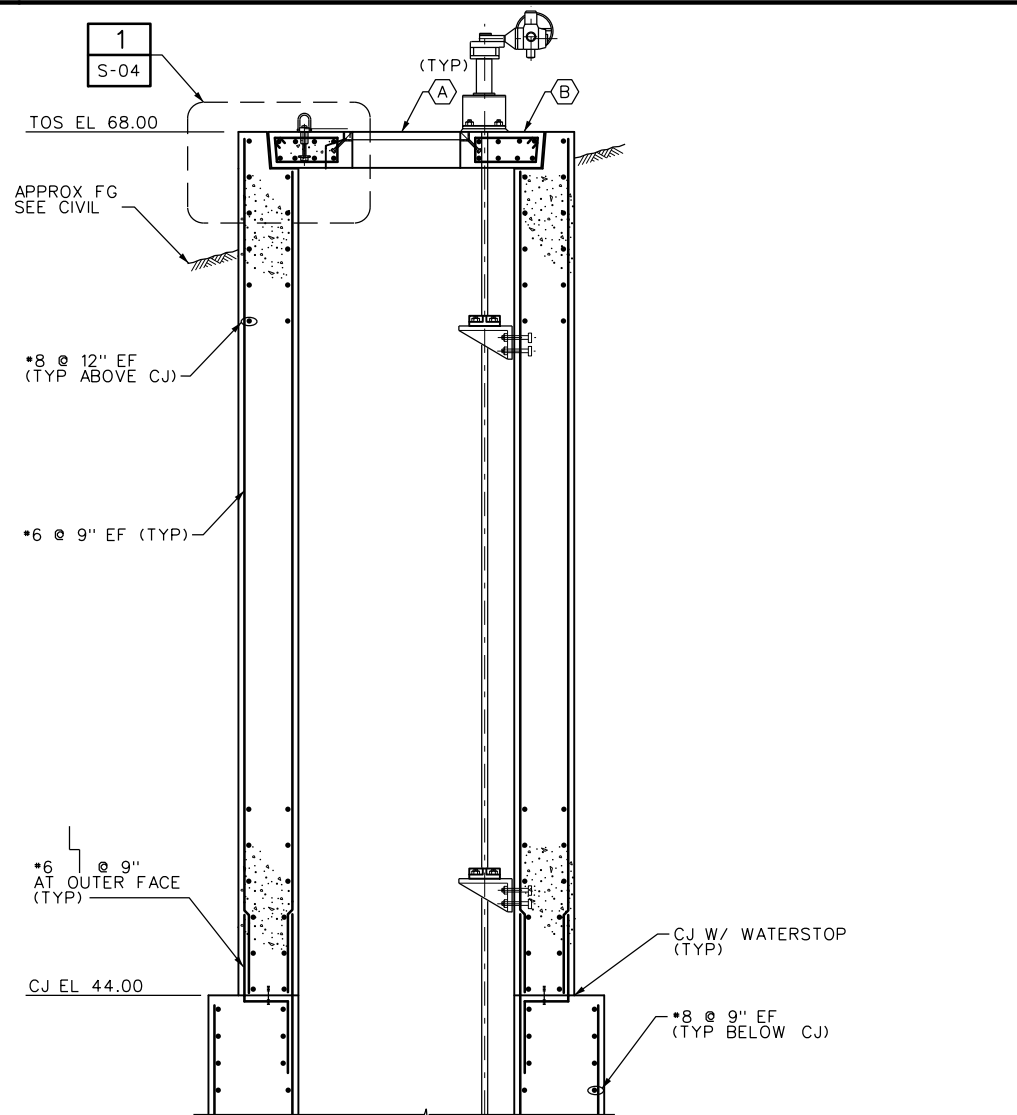
SUBMITTED BY
PROJECT MANAGER
LICENSE NO.
DATE
COMPANY OFFICER
LICENSE NO.
DATE



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN INTAKE - GATE VALVE VAULT  
PLANS AND DETAILS

SHEET  
S-04  
9 OF 14



## NOTES:

1. SEE MECH DWGS FOR SIZE AND LOCATION OF ALL PIPING.
2. SEE CIVIL DWGS FOR GRADING PLANS AND FG ELEVATIONS.

## KEY NOTES:

- (A) 3'-0" SQ CLEAR OPNG SINGLE LEAF ALUM ACCESS HATCH (LL = 300 PSF)
- (B) THE STRUCTURE TOP SLAB SHALL BE CAST TO FACILITATE REMOVAL
- (C) GROUT FILL W/ BLOCKOUT FOR GATE OPERATION
- (D) PROVIDE A MIN 2 FT LAYER OF TYPE H MATERIAL (GRADED DRAIN ROCK) OVER NON WOVEN GEOTEXTILE FABRIC UNDER THE ENTIRE FOUNDATION. SEE SPEC SECTIONS 02200 AND 02274 FOR ADD'L INFO.

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE  
AS SHOWN

WARNING  
0 1/2 1  
IF THIS BAR DOES  
NOT MEASURE 1"  
THEN DRAWING IS  
NOT TO SCALE

DESIGNED J. TEHANEY  
DRAWN R. WELCH  
CHECKED M. FORDHAM

SUBMITTED BY

PROJECT MANAGER

LICENSE NO.

DATE

COMPANY OFFICER

LICENSE NO.

DATE



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN INTAKE - GATE VALVE VAULT  
SECTIONS

SHEET

S-05

10 OF 14

User: mbcorpen

PlotScale: 2.065081:1

DesignScript: MWH\_lplot\_Pentable\_v89.pen



ColorTable: bw.ctb

Model: Default

File: S-18.dgn

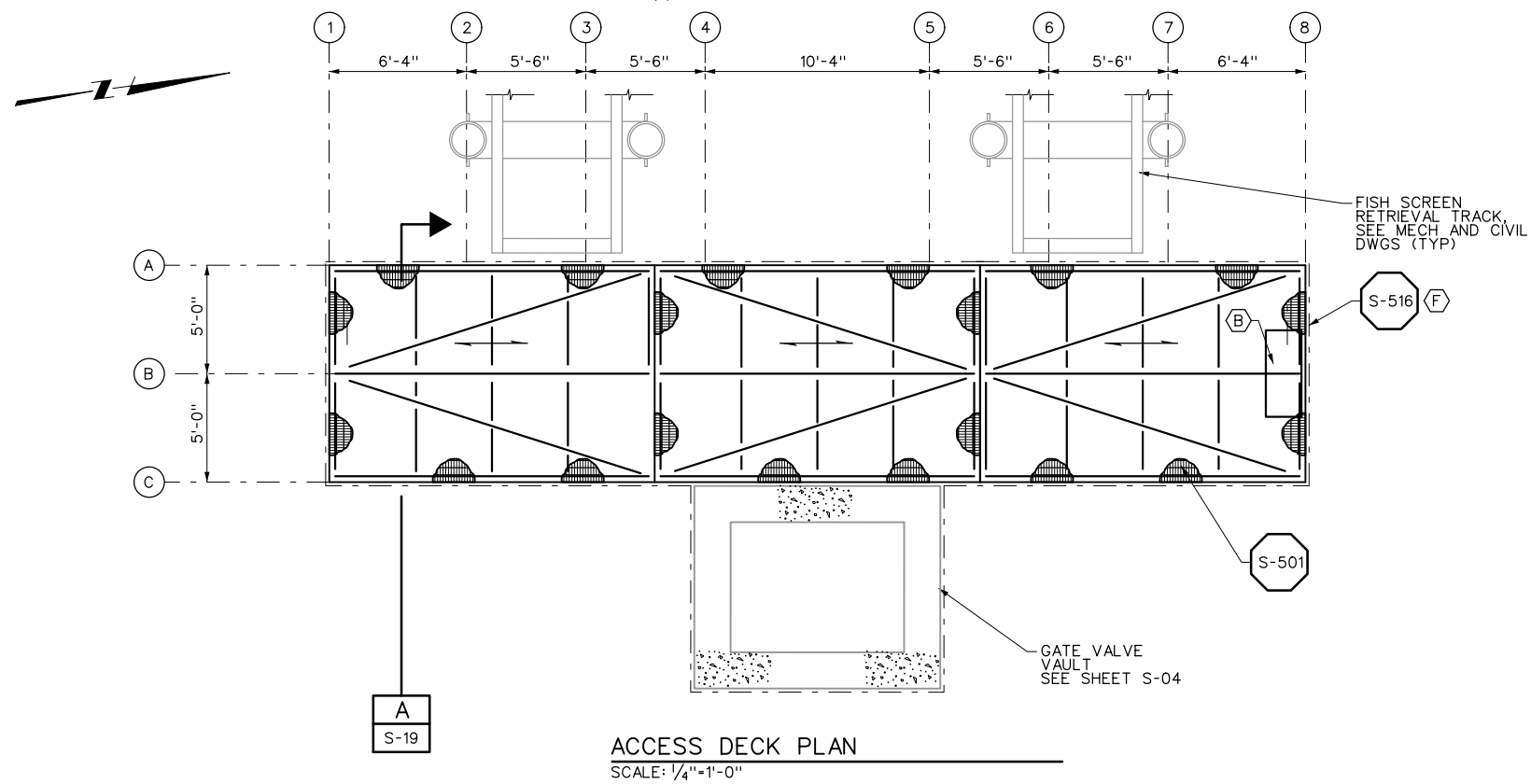
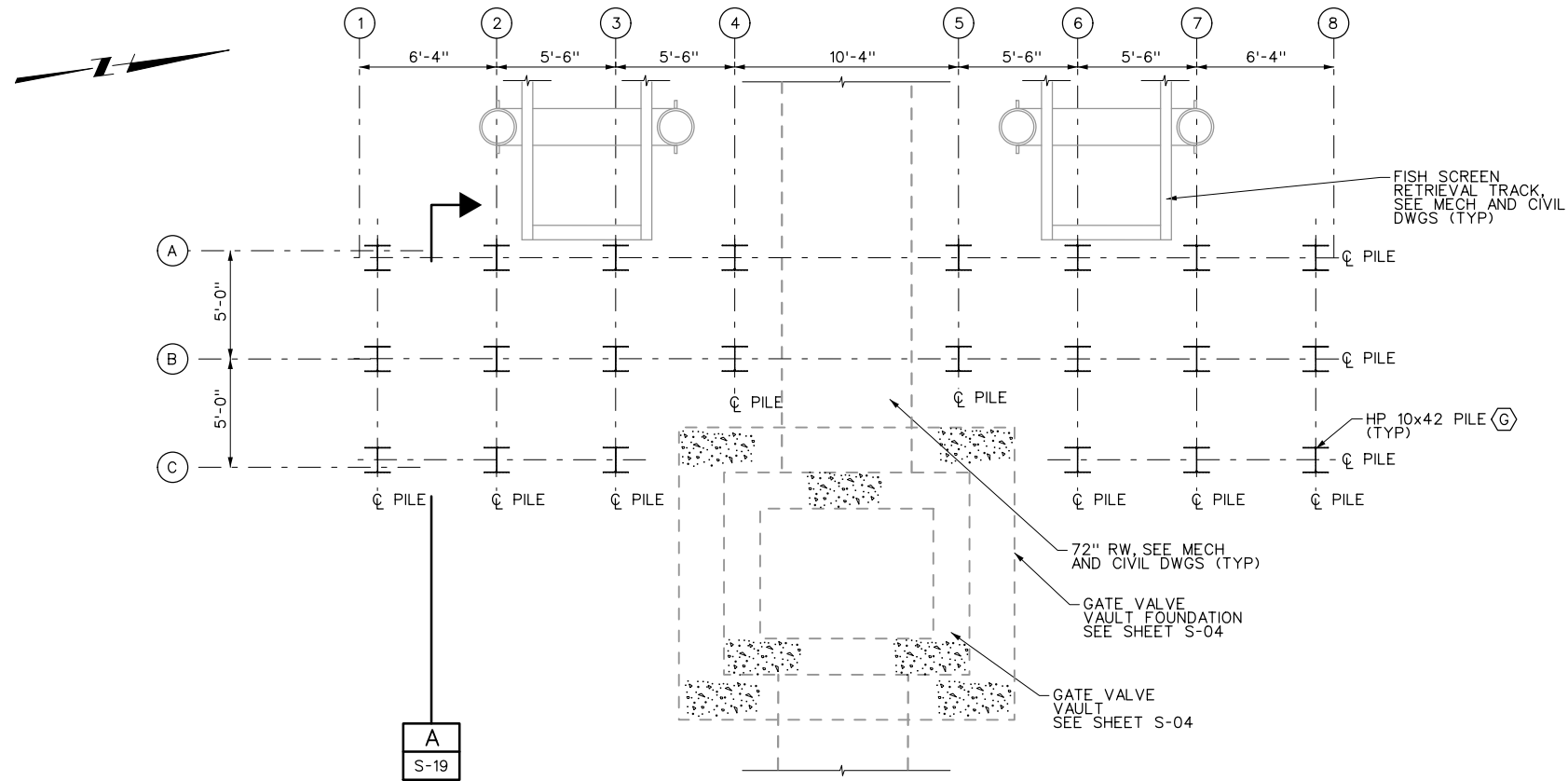
Job No: 1511560

NOTES:

1. ALL STRUCTURAL STEEL MEMBERS, PLATES, BOLTS, ETC. FOR THE ACCESS DECK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. ALL GRATING AND RAILING FOR THE ACCESS DECK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
3.  = SPAN OF GRATING  
 = LOCATION OF BRACING (BELOW)

KEY NOTES:

- (F) PROVIDE HANDRAIL W/ NON-REMOVABLE SUPPORT ON NORTH, SOUTH AND EAST SIDES OF PLATFORM. PROVIDE HANDRAIL W/ REMOVABLE SUPPORT ON WEST SIDE OF PLATFORM AND PLATFORM EXTENSION. SEE HANDRAIL SUPPORT DETAILS ON SHEET S-20.
- (G) DRILLED HOLE CAST-IN-PLACE CONCRETE PILING IS ALSO ACCEPTABLE IN LIEU OF STEEL H-PILES.



DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE	AS SHOWN
WARNING	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	
DRAWN	
CHECKED	

SUBMITTED BY	
PROJECT MANAGER	
LICENSE NO.	
DATE	
COMPANY OFFICER	
LICENSE NO.	
DATE	



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN INTAKE  
ACCESS DECK

SHEET

S-18

11 OF 14

User: mbcorpen

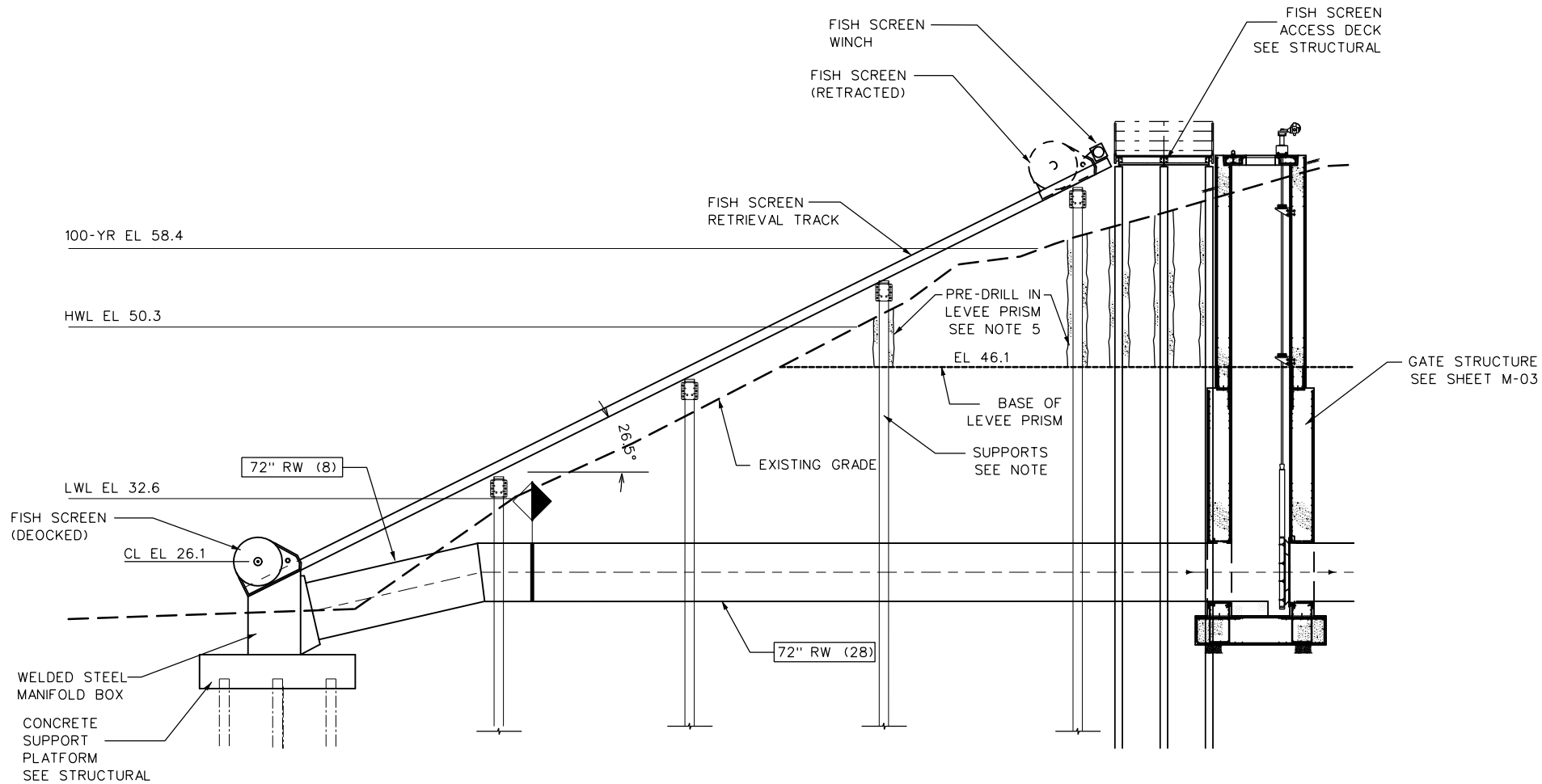
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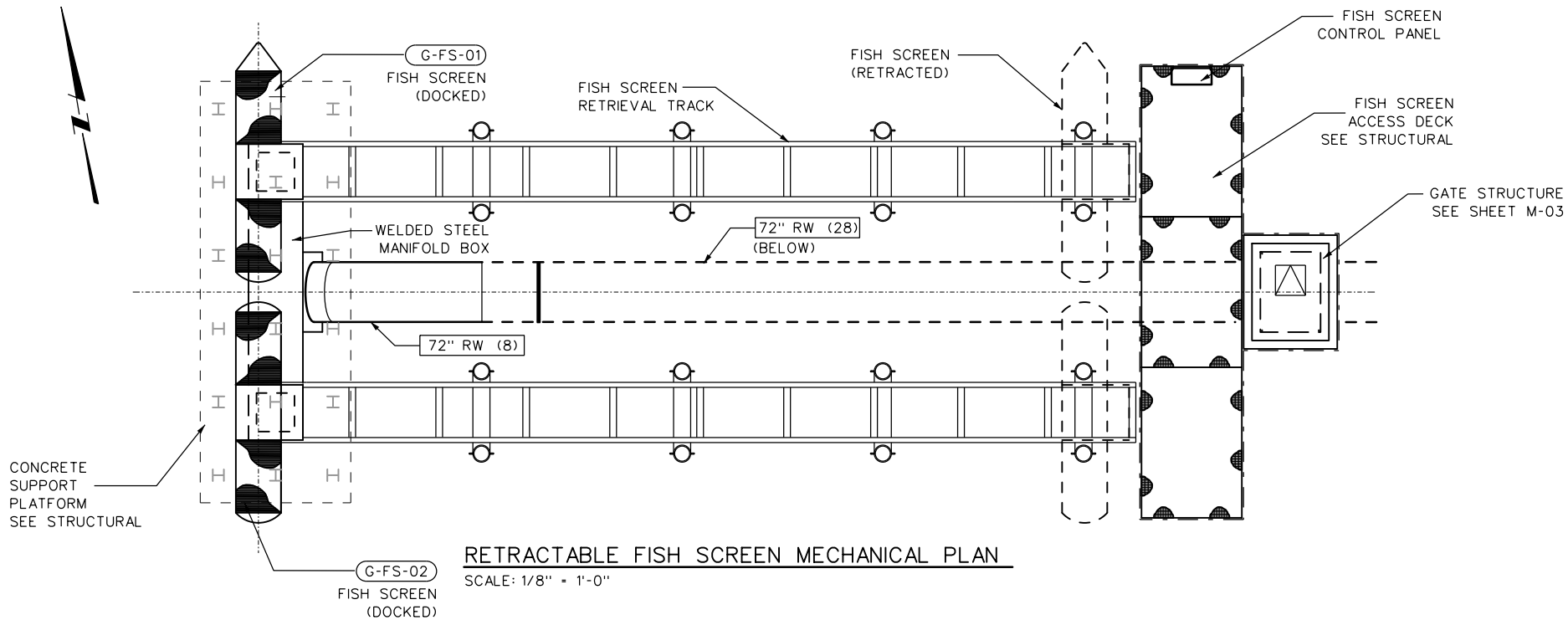
ColorTable: bw.ctb  
Model: Default

File: MFm01a.dgn

Job No: 1511560



RETRACTABLE FISH SCREEN MECHANICAL ELEVATION  
SCALE: 1/8" = 1'-0"



RETRACTABLE FISH SCREEN MECHANICAL PLAN  
SCALE: 1/8" = 1'-0"

NOTES:

1. THE CONTRACTOR SHALL DESIGN AND PROVIDE THE RETRACTABLE FISH SCREEN SYSTEM AS SHOWN IN THE CONTRACT DRAWINGS AND THE SPECIFICATIONS.
2. THE FISH SCREEN SYSTEM SHALL INCLUDE CYLINDRICAL SCREENS, A DOCKING INLET, MANIFOLD BOX, RETRIEVAL TRACKS, PILE SUPPORTS, AND WINCH.
3. THE RETRACTABLE FISH SCREEN SHALL LOCK ITSELF INTO THE DOCKING INLET SECTION WHEN LOWERED BY THE WINCH DRAWN STEEL CABLE. THE FISH SCREEN SHALL BE PULLED INTO ITS RETRACTED POSITION, AND RETURNED BACK TO ITS DOCKED POSITION BY THE WINCH. SCREEN SHALL BE DESIGNED TO BE REMOVED FROM RETRIEVAL TRACK WITH TRUCK MOUNTED BOOM LIFT.
4. THE RETRACTABLE FISH SCREEN SYSTEM SHALL INCLUDE A HYDRAULIC SYSTEM TO OPERATE BRUSH CLEANING AUTOMATICALLY.
5. SCREEN AND RAIL PILE SUPPORTS SHALL BE DESIGNED BY THE FISH SCREEN SYSTEM MANUFACTURER. PILES MAY NOT BE DRIVEN IN LEVEE PRISM. 24" DIAMETER PRE-DRILLED SHAFTS SHALL BE PROVIDED PRIOR TO PILE INSTALLATION. SEE C-03 AND S-19 FOR FURTHER DETAILS.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ADJUST DIMENSIONS AS NECESSARY TO PROVIDE THE PACKAGED SYSTEM.

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE  
AS SHOWN

WARNING  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

SUBMITTED BY  
PROJECT MANAGER \_\_\_\_\_ LICENSE NO. \_\_\_\_\_ DATE \_\_\_\_\_  
COMPANY OFFICER \_\_\_\_\_ LICENSE NO. \_\_\_\_\_ DATE \_\_\_\_\_



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN INTAKE  
INLET SCREENS PLAN, ELEVATION, AND DETAILS

SHEET  
M-01  
12 OF 14



User: mbcarpn

PlotScale: 2:1

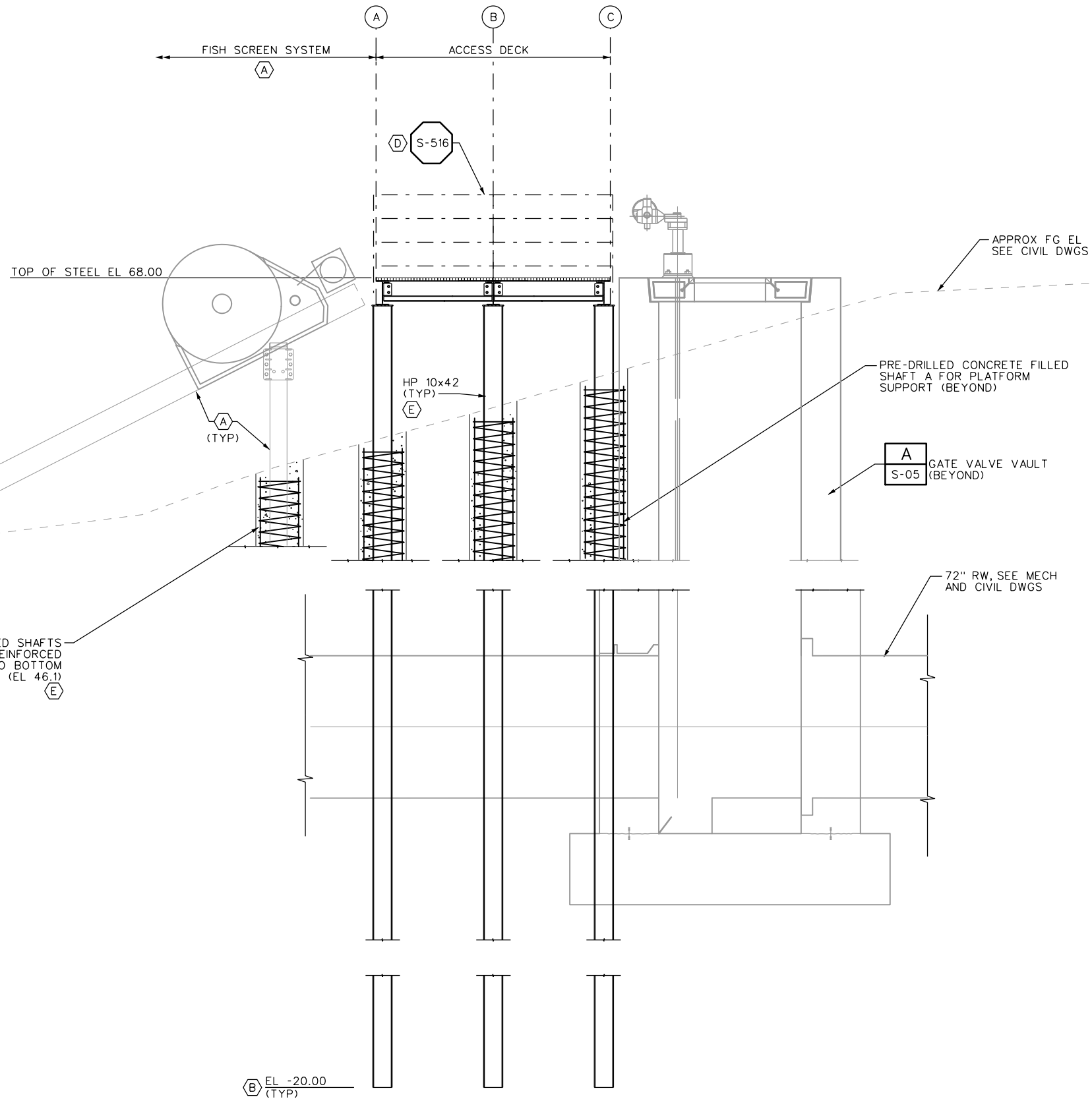
DesignScript: MWH\_Iplot\_Pentable\_v89.pen

ColorTable: bw.ctb

Model: Default

File: S-19.dgn

Job No: 1511560



NOTES:

1. ALL STRUCTURAL STEEL MEMEBERS, PLATES, BOLTS, ETC FOR THE ACCESS DECK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SPEC SECTION 09800. EXPOSED PORTIONS OF HP PILES SHALL BE PAINTED TO A LEVEL 2'-0" BELOW FG IN ACCORDANCE WITH SPEC SECTION 09800.
2. ALL GRATING AND RAILING FOR THE ACCESS DECK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SPEC SECTION 09800.

KEY NOTES:

- (A) FISH SCREEN SYSTEM AND SUPPORTING STRUCTURE TO BE DESIGNED, FURNISHED AND INSTALLED BY THE CONTRACTOR. SEE SPEC SECTION 13105 FOR ADDITIONAL INFO.
- (B) PILES SHALL BE DRIVEN TO THE SPECIFIED TIP ELEVATION SHOWN OR TO PRACTICAL REFUSAL. SEE SPEC SECTION 02361 FOR ADDITIONAL INFO.
- (D) PROVIDE HANDRAIL W/ NON-REMOVABLE SUPPORT ON NORTH, SOUTH AND EAST SIDES OF PLATFORM. PROVIDE HANDRAIL W/ REMOVABLE SUPPORT ON WEST SIDE OF PLATFORM .
- (E) DRIVING PILES WITHIN THE LEVEE PRISM IS NOT ALLOWED. 24" DIAMETER PRE-DRILLED SHAFTS SHALL BE PROVIDED TO THE LEVEL OF THE LEVEE PRISM BASE (EL 46.1) PRIOR TO PILE DRIVING. AFTER PRE-DRILLING, H-PILES MAY BE DRIVEN STARTING AT EL 46.1. AFTER PILE DRIVING IS COMPLETE, SHAFTS SHALL BE FILLED WITH REINFORCED CONCRETE AS SHOWN (FILLING ALL VOIDS). SEE C-03 FOR FURTHER DETAILS.

SECTION A  
SCALE: 3/8"=1'-0"

DATE PREPARED:9/13/12

REV	DATE	BY	DESCRIPTION

SCALE  
AS SHOWN

WARNING  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED \_\_\_\_\_  
DRAWN \_\_\_\_\_  
CHECKED \_\_\_\_\_

SUBMITTED BY  
PROJECT MANAGER \_\_\_\_\_ LICENSE NO. \_\_\_\_\_ DATE \_\_\_\_\_  
COMPANY OFFICER \_\_\_\_\_ LICENSE NO. \_\_\_\_\_ DATE \_\_\_\_\_



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN INTAKE  
ACCESS DECK SECTIONS 1

SHEET  
S-19  
13 OF 14

User: mbcarpn

PlotScale: 8:1

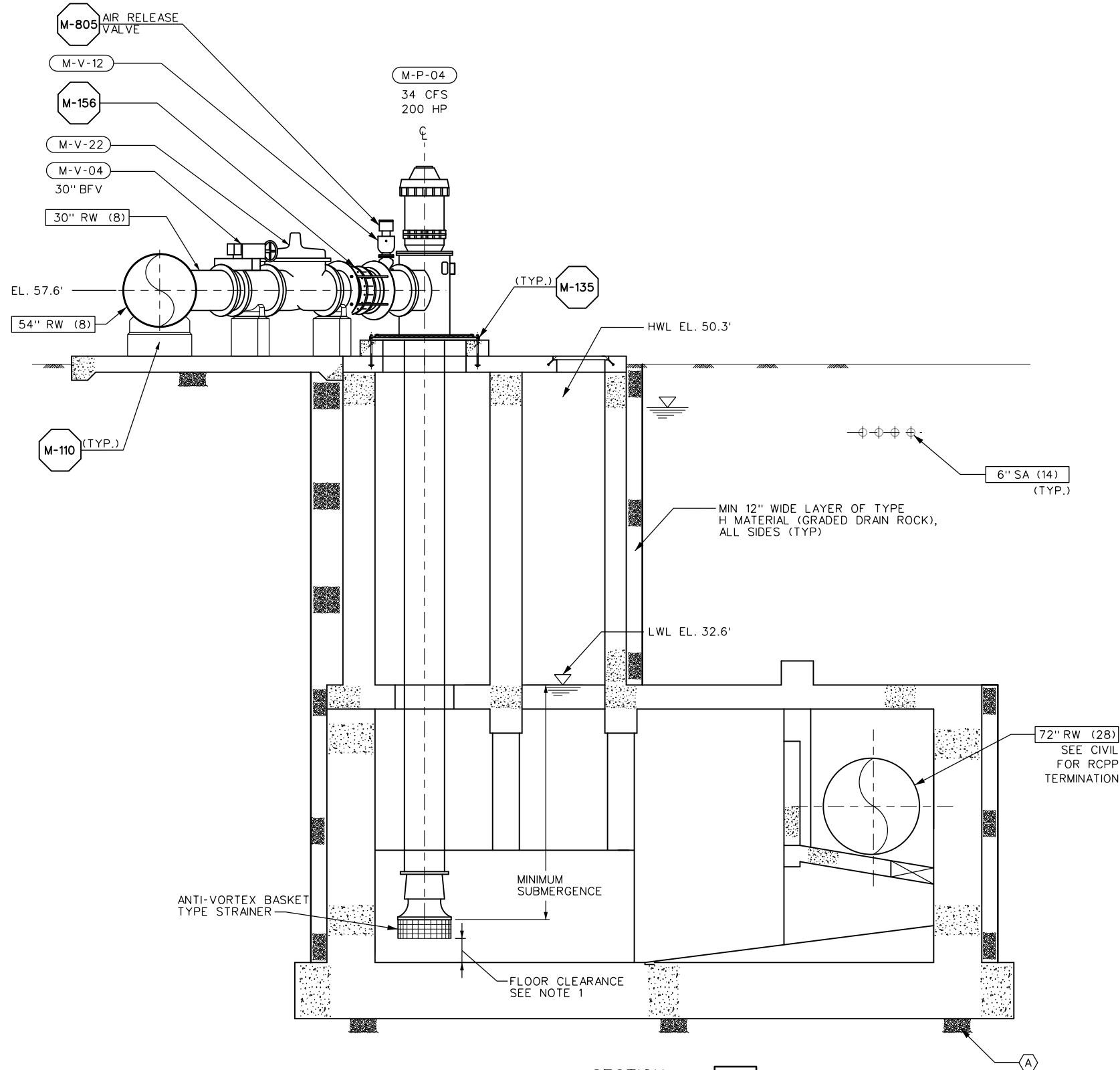
DesignScript: MWH\_Iplot\_Pentable\_v89.pen

ColorTable: bw.ctb

Model: Default

File: MFm03.dgn

Job No: 1511560

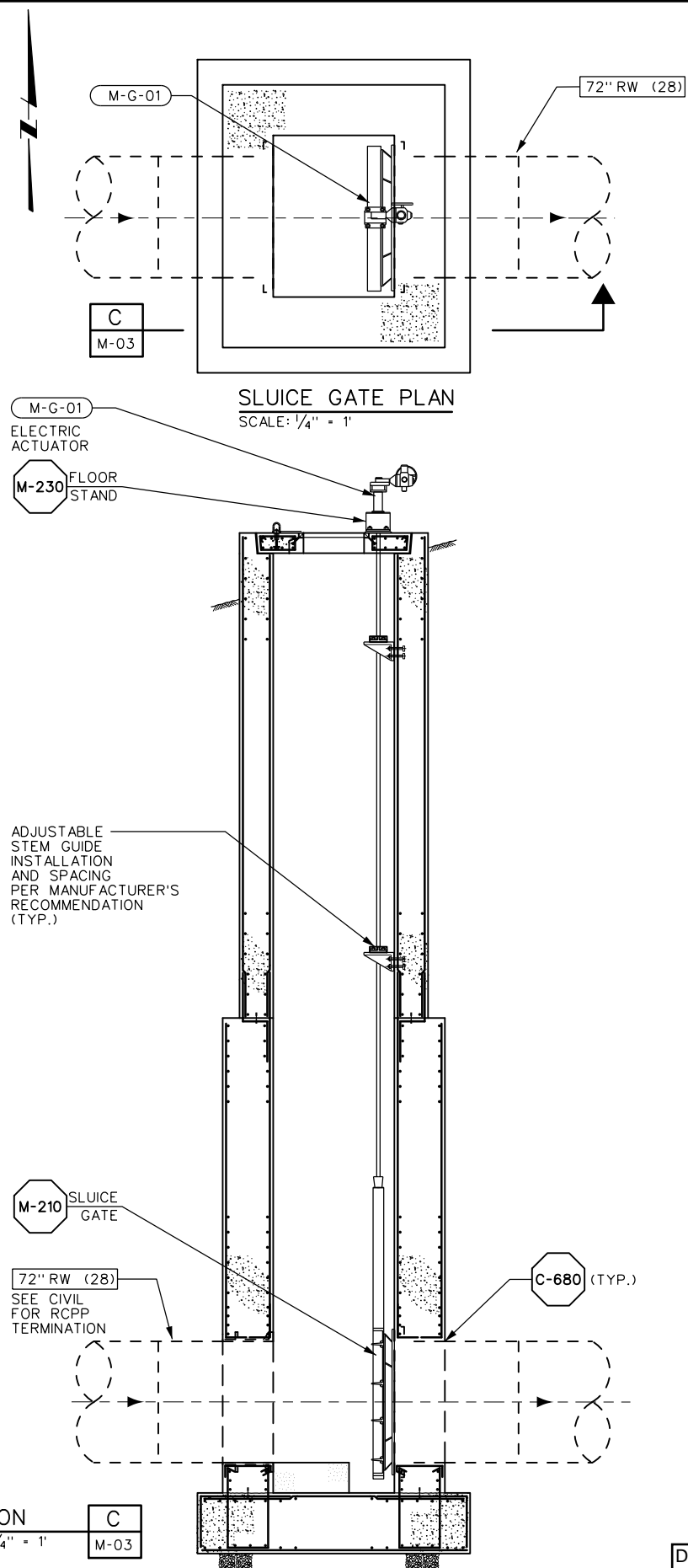


NOTES:  
1. DISTANCE BETWEEN WETWELL FLOOR AND BOTTOM OF PUMP BELL AND STRAINER PER MANUFACTURER REQUIREMENTS.

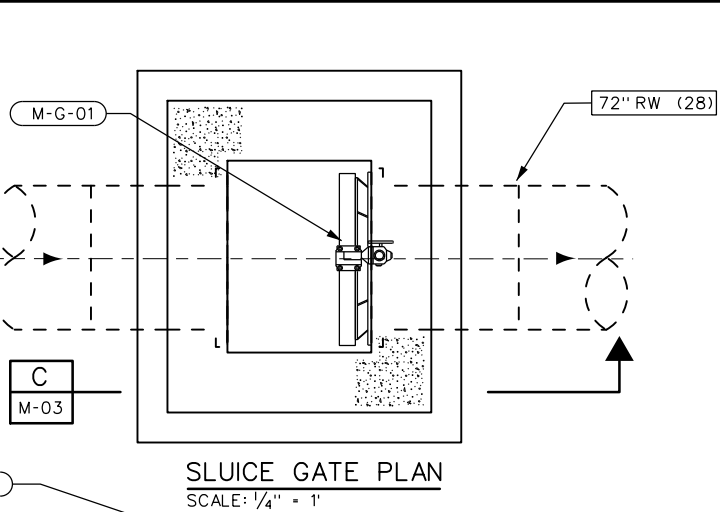
KEY NOTES:

(A) PROVIDE A MIN 2 FT LAYER OF TYPE H MATERIAL (GRADED DRAIN ROCK) OVER NON WOVEN GEOTEXTILE FABRIC UNDER THE ENTIRE FOUNDATION. SEE SPEC SECTION 02200 AND 02274 FOR ADD'L INFO.

SECTION A  
SCALE: 1/4" = 1'-0"  
M-02



SECTION C  
SCALE: 1/4" = 1'  
M-03



SLUICE GATE PLAN  
SCALE: 1/4" = 1'

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE
AS SHOWN

DESIGNED	J. OSBORN E. GOSSE
DRAWN	B. SHIN
CHECKED	C. SENON

SUBMITTED BY	
PROJECT MANAGER	
LICENSE NO.	
DATE	
COMPANY OFFICER	
LICENSE NO.	
DATE	



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

MECHANICAL  
MERIDIAN DIVERSION/PUMPING PLANT  
PUMPING PLANT SECTIONS

SHEET  
M-03  
14 OF 14

**CENTRAL VALLEY FLOOD PROTECTION BOARD**

3310 El Camino Ave., Rm. 151  
SACRAMENTO, CA 95821  
(916) 574-0609 FAX: (916) 574-0682  
PERMITS: (916) 574-2380 FAX: (916) 574-0682



May 30, 2012

Mr. Jim Hafferty  
1338 3<sup>rd</sup> Street  
Meridian, California 95957

Re: Requested information concerning Permit Application No. 18672, Meridian Farms  
Diversion/Pumping Plant Project

Dear Mr. Hafferty:

As requested, enclosed is the project description for the Meridian Farms project and a drawing showing the proposed 72-inch pipe below the levee. Be advised that a geotechnical report was submitted with the project submittal and the project meets all geotechnical standards required in California Code of Regulations, Title 23, Waters, Division 1. These regulations are available on our website at: <http://www.cvpfb.ca.gov/regulations/index.cfm>

Please let me know if you require any additional flood control related information concerning this proposed project.

Sincerely,

Gary W. Lemon, P.E.  
Flood Protection Section

Enclosures:

Project description  
Plan Sheet No. C-03

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## Project Description

Phase 2 would include the construction of the Meridian Diversion/Pumping Plant, Drexler Re-lift Pumping Plant, modification to the Grimes Canal and the Main Canal, extension of the Drexler Pipeline, and removal of the existing unscreened Meridian Diversion/Pumping Plant and Drexler Diversion/Pumping Plant. The new Meridian Diversion with fish screen would increase diversion capacity to compensate for the abandonment and removal of the existing Drexler Diversion while reducing fish entrainment in the pumps. The Main Canal modifications would increase conveyance capacity in order to handle increased flows resulting from the consolidation of the existing Drexler and Meridian diversions. A re-lift pump station would be constructed to deliver flows to the Drexler Service Area via the Drexler Pipeline. Phase 1 of the Project included concrete lining of 1,080 linear feet of the Grimes Canal while the remaining 2,500 linear feet were re-graded, but not lined. After the Grimes Canal was put in service after the completion of the New Grimes Diversion, significant leakage was noted from the unlined portion of the canal. The leakage was enough to prevent adjacent fields from growing any crops except rice. As a result, Phase 2 includes lining of the remaining portion of the canal.

The Proposed Project/Action includes the following elements:

- **New Meridian Diversion/Pumping Plant.** A new 135 cfs diversion with fish screen and pumping plant would be installed adjacent to the existing Meridian Diversion.
- **New Drexler Re-lift Pumping Plant.** A new 35 cfs pumping plant would be installed at the end of the Main Canal modifications to deliver flows to the Drexler Service Area via the new Drexler Pipeline.
- **Main Canal Modifications.** Approximately 15,200 linear feet of the Main Canal would be widened one to three feet, depending on the location, to provide adequate capacity to convey flows to the Drexler Service Area in order to accommodate the consolidation of the Meridian and Drexler diversions.
- **Grimes Canal Modifications.** Concrete lining of approximately 2,500 linear feet of the Grimes canal.
- **Drexler Pipeline Extension.** The Drexler Pipeline could be extended by approximately 500 feet to improve service to a portion of the Drexler Service Area and reduce pumping costs. The outlet box at the end of the Drexler Pipeline could be modified to reduce pumping costs.
- **Removal of Existing Meridian Diversion/Pumping Plant.** The existing diversion/pumping facility would be removed after the new Meridian Diversion/Pumping Plant is constructed and operational.
- **Removal of the Existing Drexler Diversion/Pumping Plant.** The existing pumping facility would be removed after the new Drexler Re-Lift Pumping Plant is construction and operational.

### Summary of Road Crossings:

After placement through the levee, the 72 inch reinforced concrete pipe (RCP) intake pipe would also be placed under North Meridian Road. To accommodate its installation, North Meridian Road would be closed and traffic would be detoured to Mawson Road and Burris Road to access

areas north of the construction site. Following pipe installation, the trench would be backfilled and the road repaved.

Two siphons (Siphon 1 and Siphon 3) would be replaced as part of the canal modifications:

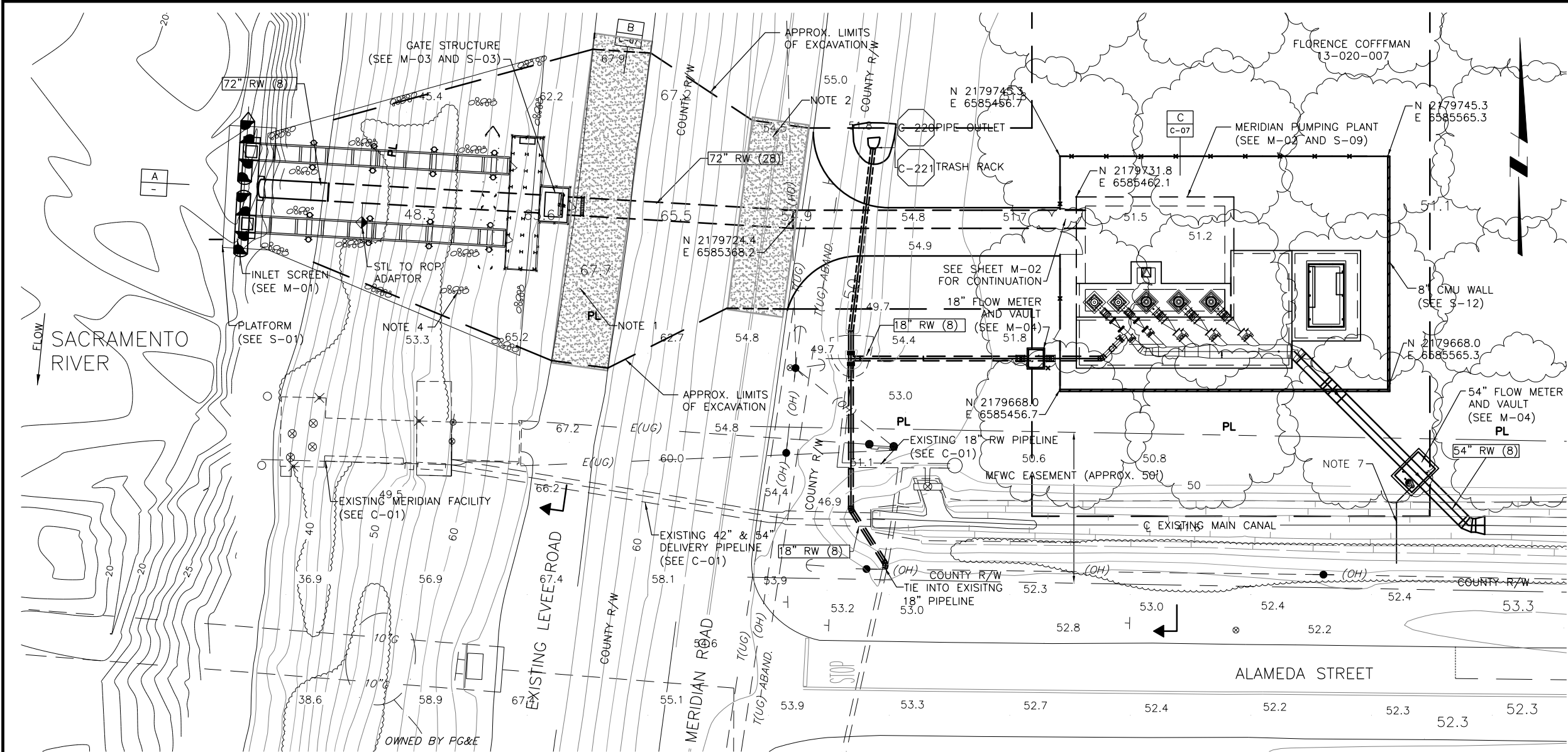
Siphon 1 under Mawson Road would be removed and replaced with the 72-inch diameter RCP which is part of the Pumping Plant discharge piping. The replacement of Siphon 1 would require a closure of Mawson Road to facilitate the pipe installation. Mawson Road would be restored and repaved following the pipe installation.

Siphon 3 would be replaced by a 72-inch diameter RCP. Replacement of Siphon 3 would require a shutdown and replacement of Central Road. Siphon 3 would be lengthened to 200 feet to extend it past a home on Central road that is situated next to the canal.

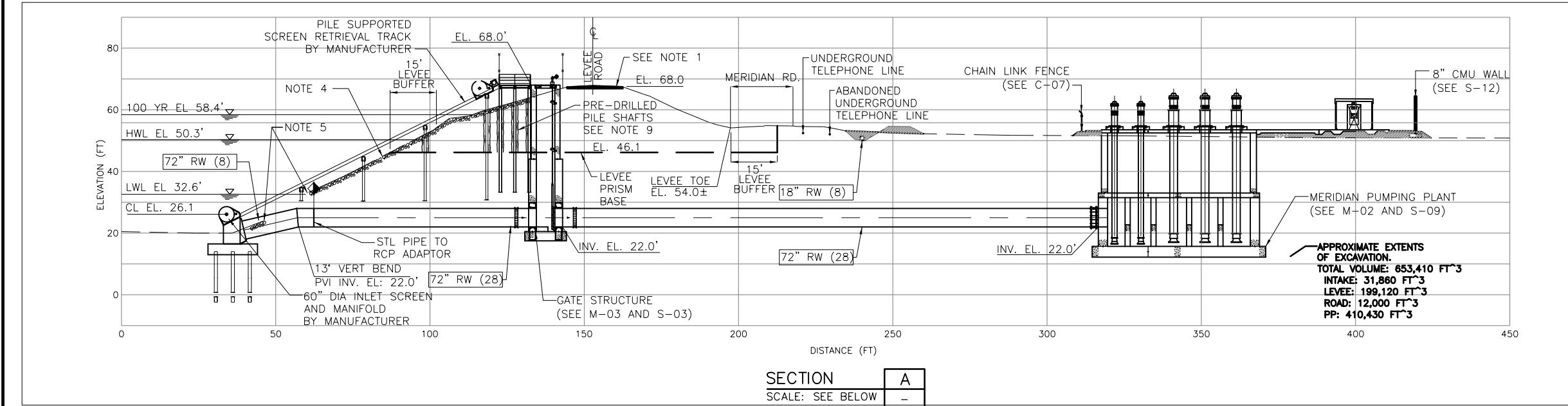
### **Removal of Old Meridian and Drexler Diversions**

At a minimum, removal of these facilities would include the removal of the pumps, equipment platforms, electrical equipment, gauging stations, pile supports to required level, and river side-piping. It would also include the excavation of the levee so the discharge pipe through the levee could be removed. At the Old Drexler Diversion, Meridian Road is located on top of the levee, so excavation, backfill and repaving of Meridian Road will be necessary. A detour will also be necessary.

At the Old Meridian Diversion, Meridian Road is adjacent to the levee, excavation and replacement of Meridian Road for the removal of the discharge pipe may be necessary.



- NOTES:
1. REPLACE EXISTING LEVEE ROAD DISTURBED BY CONSTRUCTION W/ 6" TYPE G MATERIAL. MATCH EXISTING ROAD GRADE.
  2. REPLACE EXISTING MERIDIAN ROAD DISTURBED BY CONSTRUCTION PER SUTTER COUNTY REQUIREMENTS.
  3. THE THIRD AND FOURTH TREE ROWS FROM THE SOUTH HAVE BEEN REMOVED BY OTHERS.
  4. PROVIDE 18" THICK TYPE II RIP RAP ON FACE OF LEVEE DISTURBED BY OPEN-CUT EXCAVATION & MATCH EXISTING GRADE. LEVEE FACE RIP RAP SHALL EXTEND FROM THE EXISTING LEVEE ROAD TO THE SCOUR CUT-OFF WALL. SEE S-02 FOR REQUIRED SCOUR WALL CUT-OFF ELEVATIONS TO MAINTAIN THE RIP RAP LEVEE FACE BLANKET.
  5. A DATA GAP EXISTS BETWEEN THE GROUND SURVEY AND BATHYMETRIC SURVEY DATA COLLECTED.
  6. CONSTRUCTION IN THE LEVEE SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF SECTIONS 01313, 02100, 02200, AND THE STATE RECLAMATION BOARD ENCROACHMENT PERMIT.
  7. CONTRACTOR TO VERIFY WITH RESIDENT ENGINEER TO CONFIRM LOCATION OF DISCHARGE PIPE DAYLIGHT LOCATION
  8. VERTICAL DATUM IS NGVD29 BASED ON BENCHMARK 'BM PTS 206'. ELEVATION 51.76 FEET.
  9. DRIVING PILES WITHIN THE LEVEE PRISM IS NOT ALLOWED. 24" DIAMETER PRE-DRILLED SHAFTS SHALL BE PROVIDED TO THE LEVEE PRISM BASE (EL 46.1) PRIOR TO PILE DRIVING. AFTER PRE-DRILLING, PILES MAY BE DRIVEN STARTING AT EL 46.1. AFTER PILE DRIVING IS COMPLETE, SHAFTS SHALL BE FILLED WITH REINFORCED CONCRETE AS SHOWN ON S-19.



SECTION A  
SCALE: SEE BELOW

APPROXIMATE EXTENTS OF EXCAVATION.  
TOTAL VOLUME: 653,410 FT<sup>3</sup>  
INTAKE: 31,860 FT<sup>3</sup>  
LEVEE: 199,120 FT<sup>3</sup>  
ROAD: 12,000 FT<sup>3</sup>  
PP: 410,430 FT<sup>3</sup>

DATE PREPARED: 9/13/12

REV	DATE	BY	DESCRIPTION

SCALE	WARNING
1"=20'	0 1/2 1
	IF THIS BAR DOES NOT MEASURE THEN DRAWING IS NOT TO SCALE

DESIGNED	DRAWN	CHECKED

SUBMITTED BY	(PROJECT MANAGER'S NAME)	LICENSE NO.	DATE
	(COMPANY OFFICER'S NAME)	LICENSE NO.	DATE



MERIDIAN FARMS WATER COMPANY  
FISH SCREEN PROJECT

CIVIL  
MERIDIAN DIVERSION  
SITE PLAN AND ELEVATION

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June 5, 2012

RECEIVED

RECEIVED

JUN - 6 2012

Central Valley Flood Protection Board  
3310 El Camino Ave. Rm. 151  
Sacramento, CA 95821

Re: Protest of Application 18762 BD  
Applicant: Meridian Farms Water Company

Mr. and Mrs Jim Hafferty  
1338 Third Street  
Meridian, CA 95957  
530 696-2875

To whom it may concern.

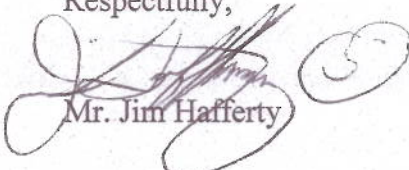
I am PROTESTING application number 18762 BD.

As the adjacent landowner I am concerned about the potential for FLOODING of my property. I have requested information from the Central Valley Flood Protection Board (CVFPB) Mr. Gary Lemon and The Meridian Farms Water Company (MFWC). To date I have received information from the Central Valley Flood Protection Board (CVFPB) that was incomplete. I have also requested information from the Applicant MFWC and have not received anything in regards to this request.

My concern is the proposed 72" (Seventy Two Inch) gravity feed intake of this project. The placement of this intake will require that the existing Levee that protects my Family and Property be breeched for the installation and it's potential of putting my Family and Property in harms way in the event of an uncontrolled release or failure of this proposed irrigation intake. I am also concerned about any effects this project poses to Flood Insurance Rates when and if this project is completed.

At this time without any information to satisfy my Flooding concerns I am formally protesting the construction of this project.

Respectfully,



Mr. Jim Hafferty