TO: Contra Costa County
   Clerk’s Office
   555 Escobar Street
   Martinez, CA 94553

From: Contra Costa Water District
   P.O. Box H20
   Concord, CA 94524
   925-688-8130

PROJECT TITLE: Bollman Water Treatment Plant (Bollman WTP) Chemical Storage Improvements, Phase 2 and Seismic Strengthening

PROJECT LOCATION: Bollman WTP, 2015 Bates Avenue, Concord, CA 94520 (see attached Figure 1)

PROJECT BACKGROUND: The purpose of these projects is to perform major maintenance of the chemical storage and feed systems at Bollman WTP and to retrofit existing structures to meet current seismic codes. Inspections at these facilities have shown that improvements to the chemical storage and feed system are needed to increase plant reliability and worker safety. Components of the chemical storage and feed system are being replaced to avoid disruption of water treatment service.

All of the proposed major maintenance work is on property owned by the Contra Costa Water District in Concord that houses the Bollman WTP. Construction at the Bollman WTP project is planned to start in the fall of 2022 and will continue until the spring of 2024. The long construction timeline does not represent continuous work. It allows contractor to utilize two annual plant shutdown periods since a lot of the construction activities can only be implemented when the Bollman WTP is shut down. Improvements included in these projects do not result in additional treatment capacity. A detailed scope of work is included as Attachment 1. General plan views of the work are included as Figures 2-10.

ENVIRONMENTAL REVIEW: All of the construction work is within the Bollman WTP property footprint. The Bollman WTP is a secure facility and there is no public access. There are no impacts to natural resources. Any construction activity that may result in stormwater reaching the reservoir will have Stormwater Pollution Prevention Plan. Work on the Sediment Basin will only commence after it is drained and isolated. This will limit any water foul from being impacted while repairs are underway. Staging of equipment and materials can all take place within the Bollman Water Treatment Plant property.

AGENCY APPROVING PROJECT: Contra Costa Water District

AGENCY CARRYING OUT PROJECT: Contra Costa Water District

REASONS WHY PROJECT IS EXEMPT: The project is exempt under CEQA Guidelines Sections 15301 (Existing Facilities) involving negligible or no expansion of existing or former uses and 15302 (Replacement of Reconstruction) that will have substantially the same purpose and capacity as the structure replaced.
CONTACT PERSON: Ryninta Anatrya, Associate Engineer (925) 688-8057.

SIGNATURE: ________________________
Mark Seedall
Principal Planner

DATE: Aug 11, 2022
The project consists of:

- Constructing new concrete column and beams in one of the three existing sedimentation basins (Sedimentation Basin No. 1) to seismically strengthen the existing basin launders (Figure 2)
- Temporarily removing sludge collector equipment in Sedimentation Basin No. 1 to allow construction activities to occur in the basin
- Removing chemical piping, fittings, and valves on the aluminum sulfate (alum), caustic soda (caustic), and fluorosilicic acid storage and feed systems (Figures 3 and 7-9)
- Temporarily removing fluorosilicic acid, alum day, and caustic day storage tanks and demolishing existing concrete supports
- Constructing new concrete supports for fluorosilicic acid, alum day, and caustic day storage tanks (Figures 7-9)
- Applying protective coating on concrete walls and floor in caustic soda bulk storage containment area (Figure 5)
- Installing new level sensors for the fluorosilicic acid storage tank (Figure 7)
- Installing trench drains to divert stormwater away from chemical containment areas (Figures 3 and 4)
- Relining one of existing sodium hypochlorite tanks and replacing tank flanges (Figure 5)
- Replacing and recoating sump pump control panels (Figure 10)
- Repairing/patching concrete walls (Figures 6A and 6B)
- Replacing and demolishing pipe supports (Figures 6A and 6B)
- Disposing of residual chemical products. Including alum, caustic, fluorosilicic acid, and sodium hypochlorite in accordance with all applicable state and federal regulations
- Disposing of all removed materials and equipment unless otherwise specified
- Testing, startup, and commissioning of new equipment
- Providing training to District staff for new equipment
Figure 1 – Bollman WTP Site Map

Bollman WTP (location where work will occur is shaded in yellow)
Figure 2 - Seismic Strengthening of Sedimentation Basin No. 1 Launders
Figure 3 - Replacement of Chemical Piping, Recoating of Containment Area, and Stormwater Drainage Improvements in Caustic Soda Bulk Storage Area
Figure 4 - Stormwater Drainage Improvements in Sulfuric Acid Storage Area
NOTES:
1. INSTALL LINER ON ENTIRE INTERIOR OF T-044 PER SPEC.
2. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND PENETRATIONS.
3. CONTRACTOR SHALL DISCONNECT EXISTING WIRE AND CONDUIT AND REMOVE EXISTING LEVEL SENSOR AND TEMPERATURE SENSOR BEFORE LINER INSTALL.
4. CONTRACTOR SHALL PROVIDE A PROJECT SPECIFIC CONFINEO SPACE ENTRY AND HEALTH AND SAFETY PLAN FOR THIS WORK, REFER TO SECTION DOBJD FOR MORE DETAILED REQUIREMENTS.
5. CLEAN AND PRESSURE WASH T-044 INTERIOR TO REMOVE ALL RESIDUE AND MAKE TANK SAFE FOR ENTRY. CONTRACTOR SHALL DISPOSE OF EXISTING TANK AND CHEMICAL PIPING WILL BE EMPTY PRIOR TO CONTRACTOR'S WORK. PRIOR TO START OF LINING WORK, CONTRACTOR SHALL DISCONNECT EXISTING WIRE AND CONDUIT AND REMOVE EXISTING LEVEL SENSOR AND TEMPERATURE SENSOR BEFORE LINER INSTALL.

Figure 5 - Relining of Sodium Hypochlorite Tank
Figure 6a - Concrete Repair and Demolition/Replacement of Pipe Supports in Maintenance Area

- Repair leaking concrete joints per vertical feet approx. 5.
- Convert embedded struts on east wall to be removed and patch per.
- Expose existing cable tray supports and replace supports.
- Where embedded struts on east wall are to be removed and patch.
- Exposed existing cable tray supports should be removed and patch.
- Repair leaking concrete joints per vertical feet approx. 6.
- Repair leaking concrete joints per vertical feet approx. 7.
- Repair leaking concrete joints per vertical feet approx. 8.
- Repairs leaking concrete joints per vertical feet approx. 9.
- Repair leaking concrete joints per vertical feet approx. 10.
- Repair leaking concrete joints per vertical feet approx. 11.
- Repair leaking concrete joints per vertical feet approx. 12.

Notes:
- 1. EX = existing embedded strut in concrete core supporting suspended fans.
- 2. EX = existing embedded strut in east wall.
- 3. CO = existing embedded strut in west wall.
- 4. EX = existing embedded strut in west wall to be removed and patch per.
- 5. EX = existing embedded strut in west wall to be removed and patch per.
- 6. Refer to section 102 for photographs of each repair area.
- 7. Protect existing piping in place.

Waterwork Engineers

Concord, California

San Diego District

Date: 6/17/2022
Issued for Bid: 6/17/2022

Bid Item No. 10

Waterwork Engineers

Contact: 811 Waterworks, Call before digging.

1/4" = 1'-0"

Project No. 2SM-2

Storage Improvements, Phase 2

Concrete Repair Plan 1

Date: 6/17/2022
Figure 6b - Concrete Repair and Demolition/Replacement of Pipe Supports in Maintenance Area
Figure 7 - Reconstruction of Fluorsilicic Acid Concrete Tank Pedestals and Installation of Level Sensors

NOTES:

1. REMOVE EXISTING TANK WITH CRANE PRIOR TO FOOTING DEMOLITION. PRIOR TO REMOVING TANK, DISCONNECT ALL EXISTING PIPING. COMPLETE FINAL GROUND REPLACEMENT AS SHOWN ON DRAWING G-J.

2. OWNER SHALL FLUSH ALL HYDROFLUORIC ACID CHEMICAL PIPING AND CONTRACTOR SHALL CAPTURE THIS WASTE PRIOR TO PIPING DEMOLITION. REFER TO SECTION 02200 FOR DEMOLITION REQUIREMENTS AND SECTION 01020 FOR DISPOSAL REQUIREMENTS.

3. CONTRACTOR SHALL TRANSFER REMAINING CHEMICAL IN TANK TO TOTES FROM THE TANK DRAIN CONNECTION. TOTES SHALL BE AVAILABLE TO THE DISTRICT IN THE CASE THAT THE CHEMICAL IS NEEDED IN AN EMERGENCY RETURN TO SERVICE (VENT. CHEMICAL SHALL BE RETURNED TO TANK AFTER PROJECT IS COMPLETE.)
Figure 8 - Reconstruction of Alum Day Storage Concrete Tank Pedestals and Pipe Replacement
- DEMOLISH EXISTING PIPE PENETRATION THROUGH WALL
- DRILL NEW HOLE WITH SAME CENTERLINE THROUGH WALL FOR NEW 3" PIPE WITH MODULAR
- EXISTING PIPING
- ALL CPVC PIPING TO BE PAINTED AFTER INSTALLATION PER SECTION 09900.
- INSTALL EXISTING ACTUATOR ON NEW CPVC BALL VALVE. PROVIDE NEW VALVE ACTUATOR ADAPTER, 1/4" SS MOUNTING PLATE, AND ACTUATOR SUPPORT PER STANDARD DETAIL 1104.
- ALL CPVC PIPING TO BE PAIRED AFTER INSTALLATION PER SECTION 09900.

**Figure 9 - Reconstruction of Caustic Day Storage Concrete Tank Pedestals and Pipe Replacement**

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**bid item no. 3**

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**SECTION 09900**

- ALL CPVC PIPING TO BE PAINTED AFTER INSTALLATION.

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**CAO FILE: IPLOT A D!**

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**DATE: 6/17/2022**

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**TO BID ITEM NO. 3**

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**CONTRACTORS:**

- BOLLMAN WTP CHEMICAL STORAGE, IMPROVEMENTS, PHASE 2, AND ELECTRICAL AND PIPING REPLACEMENT PROJECT
- BY BOLLMAN PUBLIC WORKS DISTRICT

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**DESIGN CERTIFICATION**

- CALIFORNIA ENGINEERS CORPORATION
- CONCORD, CALIFORNIA
Figure 10 - Replacement and Recofating of Sump Pump Control Panels
NOTICE OF EXEMPTION

Filing Time: 09:39 AM
Filing Total: $50.00
Filing Fee: $50.00
Total Amount Due: $50.00

Check Tendered: $50.00
#236448
Amount Due: $0.00

THANK YOU
PLEASE KEEP FOR REFERENCE