

SECTION 01010

PROJECT SUMMARY

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Summary of the Work
- B. Project Time
- C. General Requirements

1.02 SUMMARY OF THE WORK

- A. This project consists of making repairs to cracks in the 1.0 MG cast-in-place concrete clearwell to prevent leaking. The clearwell is divided into two individual tanks, each 0.5 MG to allow one half of the clearwell to be taken out of service. Several references will refer to the clearwell. The inference should be – the entire 1.0 MG clearwell. Other references will refer to the North clearwell and to the South clearwell. This is to help clarify certain portions of the work.
- B. Specific work consists of sealing cracks plus constructed joints. Approximately 30 vertical cracks, 14 in the north clearwell, and 16 in the south clearwell. These cracks varied in severity and length. The vertical cracks average length is estimated at 17 feet. Other cracks may be exposed after pressure washing the interior of the clearwell.
- C. Interior work includes pressure washing the interior of the clearwell, cleaning debris off of the floor, proper preparation of each crack for treatment. Treatment shall consist of urethane grout injection into the cracks followed by sealing the cracks with a Hypalon membrane cover. Joints, including the intersection of the floor and walls, will be cleaned and sealed with the Hypalon membrane cover. Following repair work a cementitious waterproof coating to the interior sidewalls, columns and ceiling shall be applied to provide protection to the concrete. A Clearwell plan sheet with dimensions and elevations is attached as Appendix B to allow Bidder to perform a takeoff on lump sum type work. Cleaning the clearwell and cementitious waterproof coatings shall each be performed as 2 units of work – 1 unit for the north clearwell and 1 unit for the south clearwell. Crack/joint repair shall be based on the footage of repair.

- D. Exterior work includes cleaning preparation and urethane grout injection of visible exterior cracks. Work will be performed above and to the ground line. Work shall be based on the footage of repair.
- E. Contractor shall disinfect the clearwell prior to placing it back into operation. This work will be performed in 2 units – 1 unit for the north clearwell, 1 unit for the south clearwell.
- F. Contractor shall test the clearwell for leakage. The purpose of this project is to make the tank watertight according to AWWA Standards. The Contractor shall conduct a watertightness performance test as described in Section 01410. This work will be performed in 2 units – 1 unit for the north clearwell, 1 unit for the south clearwell.

1.03 EXECUTION AND COORDINATION OF THE WORK

- A. It is intended that the work covered by this Contract be done so as to cause minimum interference with the normal operation of the water treatment plant. The Contractor shall organize and schedule his work so as to keep facilities in operation during the construction period insofar as is consistent with the nature of the construction work to be performed.
- B. The Contractor shall have sufficient materials, equipment, labor and supervision available to accomplish the work required in the time allocated for any shutdown.
- C. Specific coordination items are listed for the Contractor's benefit.
 - 1. Contractor shall only take one half of clearwell down at a time.
 - 2. Contractor shall provide three (3) days notice for need to shut down one half of clearwell. Owner shall have responsibility for draining the clearwell. Contractor shall provide assistance in draining the last 6-inches of water.
 - 3. Contractor shall be responsible for adequately cleaning the clearwell interior so to perform the repair work without the entrance of foreign debris which may reduce the quality of the work.
 - 4. Within one half of the clearwell, Contractor shall perform all crack/joint preparation work before proceeding to the urethane grouting phase. Contractor shall provide adequate notice to Engineer that preparation work is ready for inspection. Contractor shall not proceed to the urethane grouting phase until the preparation work has been reviewed and considered acceptable.

5. Within one half of the clearwell, Contractor shall perform all urethane grouting before proceeding to the installation of the Hypalon Membrane. Contractor shall provide adequate notice to Engineer that grouting work is ready for inspection. Contractor shall not proceed to the next phase of work until the grouting work has been reviewed and considered acceptable.
6. Within one half of the clearwell, Contractor shall perform all Hypalon Membrane sealing of cracks and joints before proceeding to the installation of the cementitious water proofing system. Contractor shall provide adequate notice to Engineer that membrane installation is ready for inspection. Contractor shall not proceed to the next phase of work until the membrane work has been reviewed and considered acceptable.
7. Within one half of the clearwell, Contractor shall perform all cementitious water proofing before testing and disinfecting the clearwell. Contractor shall provide adequate notice to Engineer that finished work is ready for inspection. Contractor shall not proceed to the second half of the clearwell until the finished work has been reviewed and considered acceptable.
8. Scheduling the second half of the clearwell work shall follow the same requirements.
9. The schedule described allows for 8 inspection visits. The Contractor shall be responsible for payment of time and travel for the designated inspector, should more than 8 total inspections be necessary.

1.04 PROJECT TIME

- A. Final completion for this project is set at 60 calendar days after the date the Contract Time commences.

1.05 GENERAL REQUIREMENTS

- A. Smoking and Fire Precautions: No smoking, fire, or use of any fire or explosion producing tools or equipment shall be permitted on the premises or at any locations where such may endanger said premises or the current operations thereon.
- B. Manufacturers Qualifications: The manufacturers of all materials and equipment used must be reputable and regularly engaged in the manufacture of the particular material or equipment for the use and service to which it will be subjected.

- C. Compliance with State and Local Laws: Comply with all applicable requirements of state and local laws and ordinances to the extent that such requirements do not conflict with federal laws or regulations.
- D. Protection of Public and Private Property: Take special care in working areas to protect public and private property. The contractor shall replace or repair at his own expense any damaged water pipes, power and communication lines, or other public utilities, roads, curbs, gutters, sidewalks, drain pipes, ponds or pond structures, sewer drainage ditches, all properties and fixtures (both permanent and temporary) fences, and all plantings, including grass or sod on the site of the work. Leave the site in original or better condition after all cleanup work has been done.
- E. Markers: Preserve all USGS, TVA, and State of Tennessee property markers and private markers. Do not remove or disturb any such markers without prior approval from the Owner. Any removal and replacement of such markers shall be at the expense of the Contractor.
- F. Non-discrimination: The Contractor agrees to hire qualified persons without regard to race, creed, color, sex, or national origin for the performance of the work specified in this contract.
- G. Approved Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. The use of all such chemicals and the disposal of residues shall be in strict conformance with instructions.
- H. Catalogue Data for Owners: Provide duplicate, complete, bound sets of a compilation of catalog data of each manufactured item of mechanical and electrical equipment used in the work, and present this compilation to the Engineer for transmittal to the Owner before payment of more than ninety percent (90%) is made. Include descriptive data and printed installation, operating, and maintenance instruction (including a parts list for each item of equipment) Provide a complete double index as follows:
 - 1. Listing the products alphabetically by name.
 - 2. Listing alphabetically the names of manufacturers whose products have been incorporated in the work, together with their addresses and the names and addresses of the local sales representative.
- I. Drawings of Record: Provide a complete, up-to-date record set of blueline prints, which shall be corrected daily to show every change, and the approved shop drawings. Keep this set of prints at the job site and use only as a record set. Turn the set over to the Engineer upon completion of the project. The Contractor shall, prior to request for final payment, supply the Owner with a set of as-built drawings of the project. These drawings

shall indicate the location of the gas line and all appurtenances, and shall include dimensions to the centerline of the pipe and each appurtenance. The Engineer shall supply the Contractor at the beginning of the project a set of construction drawings, which may be used for modification to create as-built documents. The drawings shall be delivered to the Engineer and verified before submittal to the Owner.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION