

## 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:
  - 1. Subsurface preparation for the new clearwell including subgrade prep, unclassified excavation, sheeting, shoring, and dewatering, etc.
  - 2. All site grading, finish grading and site restoration, including the retaining wall adjacent to the new clearwell.
  - 3. Fencing including one new double gate complete.
  - 4. Concrete sidewalks and concrete paving.
  - 5. Asphalt paving.
  - 6. Sediment and Erosion Control including maintenance throughout the project.
  - 7. Yard piping, complete and operable with fittings, restraint devices, connections to existing lines, disinfection, testing, etc., and two new precast manholes.
  - 8. Yard valves and valve boxes, complete and operable.
  - 9. New reinforced concrete clearwell, complete with all walls, columns, beams, pipe openings, overflow with valve, sluice gate, vent assembly, hatches, ladders, guardrail, and concrete coating for top of new clearwell, as well as leakage testing and disinfection, etc.

- 10 Changes to the existing clearwell including demolition of block wall, new baffle wall, two new ladders, new pipe connection with wall modification, cleaning and disinfection, etc. and coating of the top of the clearwell, complete.
- 11 Furnish and install two high service pumps with motors, valves, and piping in the pump room.
- 12 Soft starts for the two new high service pumps, complete and operable
- 13 Pump and electrical building complete including CMU walls, brick facing, joists, metal decking, insulation and roof membrane, parapet wall with cap, ladder, roof hatches, three single doors, one double door, electric garage door, painting, finishes, hardware, etc.
- 14 Demolition of existing high service pumps and motors in the filter building, and their associated systems
- 15 Furnish and install rooftop HVAC unit, ducting, two natural gas heaters with flue, and appurtenances in the new building, complete and operable
- 16 Plumbing – water / sewer and natural gas systems for the new building, complete and operable
- 17 Electrical and control systems for the new building, complete and operable
- 18 Electrical modifications in the filter building
- 19 New raw water magnetic flowmeter and piping modifications with butterfly valve and electric actuator in the filter building, complete and operable
- 20 Chemical feed systems: six chemical feed pumps and two scales and piping and valve modifications, to make a complete and operable system (including chemical room plumbing drain modification)
- 21 Decant Mechanism, sludge pump and associated piping in the sludge holding tank, complete and operable
- 23 SCADA for the water plant including software, hardware, and instruments, and programming and commissioning, complete and operable
- 24 Telemetry system modifications at remote sites including panels, level sensor, and electrical, complete

- 25 Electrical modifications at the intake including new panel and generator hookup, complete and operable

### 1.03 PROJECT TIME

- A. The project time shall be 420 consecutive calendar days for Substantial Completion and 450 consecutive calendar days for Final Completion to complete the work as shown on the Contract Documents.

### 1.04 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. Contractor Shall Pay for All Laboratory Inspection Service: All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Contractor and approved by the Engineer and/or Owner. Contractor to pay for all laboratory inspection services as a part of the Contract. Submit all material test reports to the Owner in triplicate.
- D. 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.
- E. 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.
- F. Markers: Preserve all USGS, TVA, State of Tennessee, and City 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.

- G. 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.
- H. Pavement Repair and/or Replacement: Whenever pipe trenches are cut across or along existing pavement or shoulders, backfill same and restore traffic over the cuts as quickly as possible by constructing a temporary surface with twelve (12) inches of Class A, grade D crushed stone. Add material and otherwise maintain such surface until the permanent pavement is restored by the Contractor or until the entire project is accepted.
- I. 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
- J. 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.
- K. Operation and Maintenance Instruction to Owner: Where the specifications for specific equipment require that a factory service representative provide operation and maintenance instruction to the Owner for that equipment, this service is to be performed by prior arrangement with the Owner after and in addition to the manufacturer's instructions to the Contractor for installation and start-up. The individual performing the instruction to the Owner shall be trained and/or certified by the manufacturer as its authorized operation, maintenance, and service specialist. If the said specialist is not a regular full-time employee of the manufacturer, the specialist's qualifications shall be submitted to the Owner for review and approval prior to scheduling the site visit for instructions to the Owner.

- L. Drawings of Record: Provide a complete, up-to-date record set of blue line prints, which shall be corrected daily to show every change to the approved shop drawings and shall be deducted from any amounts that are due or become due to the Contractor.
  
- M. Preservation of Existing Vegetation: Take reasonable care during construction to avoid damage to vegetation. Where the area to be excavated is occupied by trees, brush, or other uncultivated vegetable growth, clear such growth from the area, and dispose of it in a satisfactory manner. Leave undisturbed any trees, cultivated shrubs, flowers, etc., situated within public rights-of-way and/or easements through private property but not located directly within excavation limits. Transplant small ornamental trees, cultivated shrubs, flowers, etc., located directly within excavation limits so they may be replaced during property restoration operations. Do not remove or disturb any tree larger than 6 inches in diameter without the permission of the Engineer. Take special precautions (including the provision of barricades and the temporary tying back of shrubbery and tree branches) for the protection and preservation of such objects throughout all stages of construction; the Contractor will be held liable for any damage that may result to said objects from excavation or construction operations. Trim any limbs or branches of trees broken during construction operations with clean cut, and paint with an approved tree pruning compound. Treat tree trunks receiving damage from equipment with a tree dressing.
  
- N. Utilities: The Contractor is to contact the Owner of all underground utilities before beginning construction in the area. Contractor shall determine exact location of all existing utilities prior to beginning construction in accordance with *State of Tennessee, Title 65 – Public Utilities and Carrier, Chapter 31 Underground Utility Damage Prevention Act*. Carefully protect from damage all utilities in the vicinity of the work at all times. If it is necessary to repair, remove, and/or replace any such utility in order to complete the work properly, do so in compliance with the rules and regulations of the particular utility involved. Any such work shall be considered incidental to the construction of repairs of utility lines, and no additional payment will be allowed therefore.

**PART 2 - PRODUCTS**

N/A

**PART 3 - EXECUTION**

N/A

**END OF SECTION**