

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. Addition of a third filter unit and rehabilitation of two existing filter units at the existing water treatment plant in Gladeville, TN , using one new Trident ® Filter units to match the existing two units. New piping and valves and actuators are to be provided for the new filter unit as well as a new air scour blower . Replacement items for the two existing filters include level sensors, waste gaskets, media retaining screens, underdrain gaskets, and other items. A new 3-unit filter control is to be provided and all signaling is to be moved from the existing 2-filter control unit to the new 3-filter control unit. The two existing units shall be painted on both the interior and exterior of each unit. The new filter unit shall include exterior painting to match the two existing units. In addition, all 3 filter units shall receive exterior condensate drains.
 - 2. A new electrical room consisting of block walls, a double door, a metal joist and concrete decking ceiling, and a roof-mounted HVAC system to serve the new electrical room. Also included are equipment pads to set the new electrical equipment on and all conduit and wiring for each new electrical device. New electrical room also requires minor demolition prior to construction of new room.
 - 3. Electrical modifications including:
 - a. Furnish and install VFD's for three transfer pumps (2 existing and 1 new); three existing high service pumps; and three well pumps (2 existing and 1 new).
 - b. Emergency pushbuttons for all pumps (excluding backwash pump)

- c. Demolition of items while installing new items will require the use of a temporary generator.
 - d. Power and signal wiring and conduit for the new filter unit and the two existing filter units.
 - e. Motor Replacements for the 3 high service pumps and the 2 existing well pumps.
 - f. Demolition of existing high service pump VFD adjacent to the existing switchgear and installation of new 1200A disconnect in same location including all wiring and conduit.
 - g. Installation of new switchgear section adjacent to the electrical room to serve the new equipment.
4. Plant lighting for the existing filter room and existing pump room and new electrical room.
 5. One new transfer pump, piping and valves, and connection to existing header.
 6. One new well pump and yard piping and valves and connection to existing yard piping. Installation of the new permanent well casing will be by the Owner. Contractor shall supply and install new well pump and provide piping insulation and an insulated cover for the pump and motor.
 7. All SCADA and instrumentation including wiring, conduit, computer system, software, level transmitters, devices, RTU's, etc., for a complete and operable SCADA system.
 8. Updates to the chemical feed system including peristaltic pumps, tanks and scales.
 9. Steel/aluminum stairways for access to the new filter unit.
 10. Modifications to the existing high pressure air system.
 11. Other miscellaneous improvements as noted on the plans and as defined in the specifications.
 12. Demolition and relocation of unit heaters, water lines and eyewash/shower.

1.03 PROJECT TIME

- A. The project time shall be 300 consecutive calendar days for Substantial Completion and 330 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. Department of Transportation Permits: The Owner shall secure any permits and provide bond as required by the Tennessee Department of Transportation, All such work shall be coordinated with and be subject to the approval of the Department of Transportation and/or the County.
- J. 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
- K. 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.
- L. 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.
- M. 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.

- N. 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.
- O. 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

