



SECTION 02050

WATER/WASTEWATER GENERAL INFORMATION

PART 1 GENERAL

1.01 SCOPE

- A. These specifications shall apply to all sewer and water utility construction which is or which will become a part of the Knoxville Utilities Board's water distribution and wastewater collection systems. These specifications shall also apply to private water and wastewater systems that are under OWNER'S jurisdictions for inspection. The areas in which work will be performed are various locations in Knox, Jefferson, and Sevier Counties and the City of Knoxville, Tennessee. Any failure to comply with these specifications shall be cause for the Knoxville Utilities Board to refuse acceptance of such distribution or collection lines for operation and maintenance.
- B. The project consists of providing all material, labor, tools, equipment, and incidentals needed to complete construction, testing, and placing into service all water and sewer mains or other appurtenances shown and listed on the plans and contract documents.

1.02 DEFINITIONS

- A. OWNER: Knoxville Utilities Board.
- B. CONTRACTOR: Person, firm or corporation with whom the OWNER has entered into the Agreement.
- C. RESIDENT PROJECT REPRESENTATIVE (RPR): Authorized representative of the OWNER who is assigned to the site or any part thereof.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. PROTECTION OF LIVES AND HEALTH
 - 1. In accordance with generally accepted construction practices, the CONTRACTOR will be solely and completely responsible for conditions at the job site, including the safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The CONTRACTOR shall follow all applicable OSHA Standards and provide documentation of OSHA compliance upon request of the OWNER, RPR, or TOSHA.
 - 2. Pipe and materials shall be stored in a safe location, away from roadways, and properly barricaded for the safety of vehicular and pedestrian traffic. No



smoking, fire, or use of any fire- or explosion-producing tools or equipment will be permitted on the properties of oil companies or other concerns prohibiting same on their premises or at any locations where such may endanger said premises of the current operations thereon.

3. No discharge of wastewater to waterways will be allowed during construction unless a schedule has been approved by the Tennessee Division of Water Pollution Control and the U.S. Environmental Protection Agency pursuant to the terms of the NPDES permit prior to commencing the Work.
4. Under no circumstances will spent oil wastes be discharged anywhere on the site.
5. CONTRACTOR shall comply with all applicable laws, regulations, and requirements which may or may not be included in these technical specifications, including, but not limited to, Contractor Licensing Act of 1994, as amended, and the Tennessee State Safety, Health, and Labor Standards.
6. CONTRACTOR shall provide proof he holds a valid Contractor's license in the state of Tennessee with a Municipal and Utility Construction (MU) classification of sufficient monetary limit to bid on and/or perform water distribution and wastewater collection system installation and construction for the Knoxville Utilities Board. The license number shall be provided to OWNER prior to construction.
7. CONTRACTOR shall obtain all licenses and permits prior to the start of work. Copies of each permit shall be submitted to the Knoxville Utilities Board. CONTRACTOR shall be responsible for obtaining permission to work in the right-of-way from the following agencies, including, but not limited to the City or County Engineering or Highway Department having jurisdiction and the Tennessee Department of Transportation.

1.04 RIGHTS-OF-WAY AND EASEMENTS

- A. All work on water and wastewater mains to be dedicated to the OWNER shall be on public rights-of-way and/or on easements secured by the OWNER or by CONTRACTOR/developer and transferred to the OWNER. Easement areas shall be restored to as near original condition as possible, and to the satisfaction of OWNER.

1.05 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Take special care in working areas to protect public and private property. The CONTRACTOR shall immediately notify the OWNER and/or RPR, and the property owner when damage property occurs. At OWNER'S discretion, CONTRACTOR shall replace or repair in a timely manner at his own expense any damaged water or sewer mains, power and communication lines, or other



public utilities, roads, curbs, gutters, sidewalks, fences, drain pipes, and drainage ditches. It shall be the responsibility of CONTRACTOR to replace damaged vegetation or to compensate the property owner for replacement value for those areas located outside the easement limits. Leave the site in a condition satisfactory to OWNER.

- B. Take reasonable care during construction to avoid damage to vegetation. 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 vegetation throughout all stages of construction. 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 lawful and satisfactory manner. Trim any limbs or branches of trees broken during construction operations with a clean cut, and paint with an approved tree pruning compound. Treat damaged tree trunks with appropriate tree dressing.
- C. CONTRACTOR shall examine the site and become familiar with any construction requirements, such as work related to drainage ways, erosion control, and easements. Any such work shall be considered incidental to the WORK, and no additional payment will be allowed. Sodding, fabric mats, or other methods of re-establishing vegetation may be required by OWNER if difficulty persists in re-establishing vegetation, and shall be considered incidental to construction.

1.06 OBSTRUCTIONS ENCOUNTERED DURING CONSTRUCTION

- A. The locations of existing utilities, public or private, are approximate only. CONTRACTOR is to contact owners of all underground utilities through Tennessee One-Call in accordance with Section 01725, Underground Utility Damage Prevention Act, Protection of Utilities.
- B. 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 repairs of utility lines, and no additional payment will be allowed.
- C. CONTRACTOR shall report damages to the OWNER at 865.524.2911 and proceed as directed and report to other utility owners as required.

1.07 SUBSTITUTIONS

- A. The contract is based on the standards of quality established in the contract documents.



- B. All products proposed for use, including those specified by required attributes and performance shall require approval by OWNER before being incorporated into the work. CONTRACTOR may review approved products at www.kub.org/standards, Section 02080, Water/Wastewater Materials.
- C. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved for this work by OWNER. Where the phrase "or equal" or "or approved equal" occurs in the plans or specifications, do not assume that materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this work by OWNER. The decision of OWNER shall be final.

1.08 CONSTRUCTION CLEANING

- A. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove all such items to the place designated for their storage. Dispose of all materials in accordance with all applicable laws and regulations and, when applicable, with Section 02321, paragraph 3.13.
- B. Maintain the site in a neat and orderly condition at all times.

1.09 WARRANTY

- A. CONTRACTOR shall warranty all materials, equipment, and workmanship for a period of one year from the date of Substantial Completion of the Work as determined by the Certificate of Substantial completion issued by the OWNER. If during this time period any material, equipment, or item of construction proves defective, CONTRACTOR shall make the repairs at his own expense to the satisfaction of OWNER. If OWNER must perform emergency repairs during the guarantee period, CONTRACTOR shall be liable for the costs incurred by OWNER, including labor, equipment and materials. Guarantees shall be covered by CONTRACTOR's performance bond where applicable. Neither the final acceptance, final payment, nor other provision relieves CONTRACTOR of the responsibility for faulty material, equipment or workmanship.

1.10 OWNER'S REPRESENTATION DURING CONSTRUCTION

- A. The RESIDENT PROJECT REPRESENTATIVE (RPR), who is the OWNER'S agent at the site, will act as directed by and under the supervision of OWNER and will confer with OWNER regarding RPR's actions. The RPR's dealings in matters pertaining to the on-site work shall, in general, be with OWNER and CONTRACTOR, keeping OWNER advised as necessary. The RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR.



PART 2. PRODUCTS

2.01 All products and materials utilized in the execution of the work described herein shall meet or exceed the specified characteristics provided herein. All products and materials must be equal to those specified in Section 02080, Water/Wastewater material available for review at www.kub.org/standards or available for review at KUB/Procurement 4505 Middlebrook Pike.

PART 3. EXECUTION (NOT USED)

END OF SECTION