

PROJECT SPECIAL PROVISIONS

Utility Construction

GENERAL CONSTRUCTION REQUIREMENTS:

Specifications:

The proposed utility construction shall meet the applicable requirements of the NC Department of Transportation's "Standard Specifications for Roads and Structures" dated January 2002 and the following provisions.

The Contractor is herein forewarned as to the possibility of having to vary the depth of pipeline installation to achieve minimum clearance of existing or proposed utilities or storm drainage while maintaining minimum cover specified (whether existing or proposed pipelines, conduits, cables, mains, and storm drainage are shown on the plans or not).

On new mains and tie in sections of existing mains, the method of anchoring pipe bends, valves, and related appurtenances will be the responsibility of the Contractor. Tying in to existing mains may alter such lines to the extent that these pipelines with existing pipe bends, valves and related appurtenances may also require reaction backing; this work shall also be the responsibility of the Contractor.

The Contractor shall submit his proposed method of anchoring to the Engineer for review and approval prior to any applicable water line or force main sewer construction. Such approval will not relieve the Contractor of his responsibility of properly anchoring water lines and force main sewers.

Owner and Owner's Requirements:

The existing water lines belong to the Wayne Water District. The contact person for the owner is Mr. Joey Threewitts, Operational Manager. Mr. Threewitts can be reached by telephone at (919) 731-2310. The Contractor shall provide access for the owner's representatives to all phases of construction. The owner shall be notified two weeks prior to commencement of any work and one week prior to service interruption. This requirement applies to all proposed shutdowns.

After the installed pipe, fittings, valves, hydrants, corporation stops and end plugs are inserted and secured, the pipeline shall be subjected to a hydrostatic pressure of 200 PSI for a period of 2 hours, by pumping the section full of clean water using an approved pressure pump. Cross connection for flushing and chlorination shall be made by means of a temporary connection from the supply pipe with an approved backflow prevention device. Sufficient cross connections shall be installed to provide a minimum flushing velocity in the water main of not less than 2.0 feet per second. Taps for the cross

connection piping shall be made to the portion of the existing water main that will be removed from service. The proposed water main shall be laid to within one pipe length of the point of final connection prior to flushing and testing. All valves on the lines being sterilized shall be opened and closed several times during the chlorinating period. The pipeline shall then be flushed with clean water until the residual chlorine is reduced to less than 1.0 ppm or at the same level as in the existing water mains. All flushing and chlorination work shall be performed in accordance with AWWA C651-99. All fittings, valves, backflow prevention devices required for chlorination and testing shall be incidental to the cost of the proposed pipe being tested. Samples of water shall be taken by the Contractor at representative points along the pipeline in approved containers and submitted to a certified testing laboratory for bacterial and chlorine content. Copies of the certified test reports shall be provided to the owner.

Any cracked, damaged, or defective pipe, fittings, valves, hydrants, or other attachments discovered as a result of the pressure test, shall be removed and replaced with sound material. The tests shall be repeated until test results are satisfactory.

After the pressure test is complete, the Contractor shall make a leakage test. Such leakage test shall last at least 2 hours at a pressure of 200 PSI. The pressure test and leakage test may be performed concurrently.

The owners shall be notified in advance of any interruptions of water service with ample time to make arrangements. Interruption of water service on main lines shall be limited to a maximum of 4 hours unless approved by the Engineer. The existing water line shall be kept in service during the life of the project, and any shut downs shall be coordinated with the utility owner, Wayne Water District.

Utility Locations Shown on the Plans:

The location, size, and type material of the existing utilities shown on the plans is from the best available information. The Contractor will be responsible for determining the exact location, size, and type material of the existing facilities necessary for the construction of the proposed utilities and to avoid damage to existing facilities.

Valves:

All gate valves shall conform to the requirements of ANSI/AWWA C509. The direction of rotation of the wrench nut to open the valve shall be to the left or counterclockwise.

COMPENSATION:

No direct payment will be made for utility construction work required by the preceding provisions, which are general requirements applying to utility construction, and all of the requirements stated will be considered incidental work, paid for at the contract unit prices of the various utility items included in the contract.

BEDDING MATERIAL:

Bedding material for utility lines shall be installed in accordance with the applicable utility provisions herein, as shown on the utility construction plans, and/or as directed by the Engineer.

Bedding material shall meet the requirements of Article 1016-3 of the Standard Specifications. Bedding material shall be installed in accordance with Articles 300-6 and 300-7 of the Standard Specifications.

Bedding material installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per ton for "Bedding Material, Utilities Class _____". Such prices and payments shall be full compensation for all materials, labor, equipment, compaction and shaping the bedding material in accordance with the Standard Specifications, and incidentals necessary to complete the work as required.

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UTILITIES BY OTHERS

General:

The following utility companies have facilities that will be in conflict with the construction of this project.

- A) Tri-County EMC (Distribution)
- B) Sprint - Telephone

The conflicting facilities of these concerns will be adjusted prior to the date of availability, unless otherwise noted and are therefore listed in these special provisions for the benefit of the Contractor. All utility work listed herein will be done by the utility owner. All utilities are shown on the plans from the best available information.

The Contractor's attention is directed to Article 105-8 of the Standard Specifications.

Utilities Requiring Adjustment:

- A) Tri-County EMC (Distribution)
 - 1) See Utilities by Others Plans.
- B) Sprint - Telephone
 - 1) See Utilities by Others Plans.

NOTE: Sprint buried telephone and fiber optic cables in conflict with this project will be replaced with proposed buried telephone and fiber optic cables in the same trench as shown on the utilities by others plans.

NOTE: All other utilities will remain in place and will be adjusted as necessary.