



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 force main sewers and tie in sections of existing force main sewers, the method of anchoring pipe bends, valves, and related appurtenances will be the responsibility of the Contractor. Tying in to existing force main sewers 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 force main sewer construction. Such approval will not relieve the Contractor of his responsibility of properly anchoring the force main sewers.

Owner and Owner's Requirements:

The existing utilities belong to the City of Lexington. The contact person for the City of Lexington is Mr. Rick Comer. Mr. Comer can be reached by telephone at (336) 248-3930. The Contractor shall provide access for the owner's representatives to all phases of construction. The owners shall be notified two weeks prior to commencement of any work and one week prior to service interruption.

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. Cross connection and

blowoff piping shall be 2 inches in diameter for mains 8 inches in diameter and smaller, and 4 inches in diameter for mains greater than 8 inches but less than 16 inches in diameter. 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 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.

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.

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. Samples of water shall be taken at representative points along the pipeline by the Contractor in approved containers and submitted to a certified testing laboratory for bacterial and chlorine content. Test results shall be provided to the City of Lexington.

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.

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.

Manholes shall be installed above the 100-year flood elevation as noted on the Utility Construction Plans. Manholes installed below the 100-year flood elevation shall have watertight rings and covers, and vent pipes as shown on the Utility Construction Plans (detail sheets) or as directed by the Engineer. The Engineer will contact Mr. Rick Comer with the City of Lexington to verify the top elevation of the manholes prior to construction.

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.

1. 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 Article 300-4 of the Standard Specifications, and incidentals necessary to complete the work as required.

2. DUCTILE IRON RESTRAINED JOINT SEWER PIPE

Ductile Iron Restrained Joint Sewer Pipe shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans and/or as directed by the Engineer.

Ductile Iron Rigid Restrained Joint Sewer Pipe shall be of the thickness class and pressure rating shown on the utility plans and shall conform to ANSI A21.51 (AWWA C151). Push-on joints shall be in accordance with ANSI A21.11 (AWWA C111). Pipe thickness shall be designed in accordance with ANSI A21.50 (AWWA C150) and based on laying conditions and internal pressures as stated on the plans.

Cement mortar lining and seal coating for pipe shall be in accordance with ANSI A21.4 (AWWA C104). Bituminous outside coating shall be in accordance with ANSI A21.51 (AWWA C151).

All Ductile Iron Rigid Restrained Joint Sewer Pipe shall be installed in accordance with the laying condition Type 3 as stated in ANSI A21.51 (AWWA C151) unless otherwise shown on the plans. Pipe shall be installed with

restrained joints as noted on the utility plans. All bolts used for restrained joints shall be high strength, low alloy steel.

Ductile Iron Rigid Restrained Joint Sewer Pipe, installed in accordance with the plans and provisions herein and accepted, will be measured along the pipe from end to end, with no deductions for fittings and valves, and paid for at the contract unit price per foot for, "_____" DI Restrained Joint Sewer Pipe, PC_____". Such prices and payments will be full compensation for all materials, including pipe accessories, excavation, labor, pressure testing, backfilling, and incidentals necessary to complete the work as required.

PROJECT SPECIAL PROVISIONS
UTILITY

UTILITIES BY OTHERS:

GENERAL:

THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES THAT WILL BE IN CONFLICT WITH THE CONSTRUCTION OF THIS PROJECT:

- A. DUKE ENERGY CORPORATION (DISTRIBUTION)
- B. CITY OF LEXINGTON-LEXCOM-TELEPHONE
- C. CITY OF LEXINGTON-LEXCOM-CATV
- D. TIME WARNER-CATV
- E. CITY OF LEXINGTON-POWER
- F. CITY OF LEXINGTON-GAS

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 OWNERS. 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.

A. DUKE ENERGY CORPORATION (DISTRIBUTION)

- 1. THE CONTRACTOR SHALL USE CAUTION WORKING BENEATH OVERHEAD POWER LINES.
- 2. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.

B. CITY OF LEXINGTON-LEXCOM-TELEPHONE

- 1. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.

C. CITY OF LEXINGTON-LEXCOM-CATV

- 1. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.

D. TIME WARNER-CATV

- 1. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.

E. CITY OF LEXINGTON-POWER

1. THE CONTRACTOR SHALL USE CAUTION WORKING BENEATH OVERHEAD POWER LINES.
 2. THE CONTRACTOR SHALL ALLOW THE CITY'S STREETLIGHTS TO REMAIN IN SERVICE AS LONG AS POSSIBLE. THE CITY WILL REQUIRE TWO DAYS NOTICE AND ONE DAY TO REMOVE THE LIGHT POLES. THE CONTACT PERSON FOR THE CITY IS MR. BOBBY CURRY AT (336) 248-3902.
2. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.

F. CITY OF LEXINGTON-GAS

1. IF DESIGN MODIFICATIONS DURING CONSTRUCTION AFFECT EXISTING GAS LINES WITHIN THE PROJECT LIMITS, THE CONTRACTOR SHALL NOTIFY MR. JOHNNY EVERHART (CITY OF LEXINGTON-GAS) ONE WEEK IN ADVANCE AND ALLOW THEM FIVE (5) WORKING DAYS TO COMPLETE THEIR RELOCATION. MR. EVERHART CAN BE CONTACTED AT (336) 240-1975
2. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.