



PROJECT SPECIAL PROVISIONS
Utility Construction

GENERAL CONSTRUCTION REQUIREMENTS:

Specifications:

The proposed utility construction shall meet the applicable requirements of the NC Department of Transportation "Standard Specifications for Roads and Structures" dated July 2006 and the provisions outlined below.

Owner and Owner's Requirements:

The existing water and all sanitary sewer belong to the Public Works Commission of Fayetteville (PWC). The contact person for PWC is Mr. Joseph Glass, PE. Mr. Glass can be reached by telephone at (910) 223-4740. 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. Interruption of water service or force main sewer service on main lines shall be limited to a maximum of 4 hours unless approved by the Engineer. All water meters and meter boxes will be provided by PWC.

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 Public Works Commission of the City of Fayetteville (PWC).

All fittings on ductile iron water pipe shall be restrained by using restrained retainer glands. Restrained retainer glands will not be allowed on PVC water pipe. The Contractor shall restrain PVC pipelines by using concrete thrust blocking. Catalog cut sheets for the restrained retainer glands the Contractor proposes to use shall be provided for the Engineer's review. No additional payment will be made for restrained retainer glands. The cost of the restrained retainer glands shall be incidental to installation of water pipe.

Utility Locations Shown on the Plans:

The locations, sizes, and type material of the existing utilities shown on the plans are 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.

Dewatering will not be measured and paid for as a separate bid item. All costs involved in dewatering shall be included in the applicable bid item for the various forms of work, i.e. pipe, structures, etc.

Sterilization will not be measured and paid for as a separate bid item. All costs including chlorinating equipment, materials, excavation, barricades, backfilling, and any taps and corporations and re-sterilization shall be included in the applicable bid price for piping and other forms of work.

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. PVC WATER LINE:

PVC water 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.

All PVC water pipe shall be provided and installed in accordance with Section 1510 of the Standard Specifications for Roads and Structures. PVC pipe installed on this project shall be AWWA C-900, DR18.

PVC water 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 or valves, and paid for at the contract unit price per linear foot for "_____" PVC Water Line". Such prices and payments will be full compensation for all materials, including pipe accessories, gaskets, excavation, labor, anchoring pipe fittings, pressure testing, sterilization, backfilling, and incidentals necessary to complete the work as required.

2. DUCTILE IRON WATER LINE:

Ductile iron water 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 water pipe shall be PC350 and shall conform to ANSI A21.51 (AWWA C151). Pipe shall be either mechanical joint or push-on-joint and installed with rubber gaskets in accordance with ANSI A21.11 (AWWA C111). All water pipe shall be provided and installed in accordance with Articles 1036 and 1510 of the Standard Specifications for Roads and Structures. Water pipe shall be restrained as noted on the utility construction plans.

Ductile iron water 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 or valves, and paid for at the contract unit price per linear foot for "_____" DI Water Line". Such prices and payments will be full compensation for all materials, including pipe accessories, gaskets, excavation, labor, anchoring pipe fittings, pressure testing, sterilization, 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) Progress Energy Corp. - Power (Distribution)
- B) Time Warner – Cable TV
- C) Sprint - Telephone
- D) N. C. Natural Gas Corporation

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) Progress Energy Corp. - Power (Distribution)

- 1) Progress Energy Corp. will relocate its lines and poles within the Project Limits to the locations shown on the Utilities by Others Plans prior to May 1, 2007.
- 2) Contact person for Progress Energy is Mr. Walter Massey at 910-429-3102.

B) Time Warner Cable TV

- 1) Time Warner Cable TV will relocate its lines to poles within the Project Limits at the locations shown on the Utilities by Others Plans prior to May 1, 2007.
- 2) Contact person for Time Warner Cable TV is Mr. Wallace Frazee at 910-401-5090.

C) Sprint - Telephone

- 1) Sprint will abandon its aerial telephone lines and bury them underground at new and existing locations within the Project Limits prior to May 1, 2007 as shown on the Utilities by Others Plans.
- 2) Contact person for Sprint Telephone is Mr. Josh Sturtz at 910-797-1695.

D) N. C. Natural Gas Company

- 1) The Contractor shall provide a two (2) weeks notice to N. C. Natural Gas Company that N. C. Natural Gas Company's facilities are in conflict with proposed construction and allow N. C. Natural Gas Company one (1) week to make the necessary adjustments.
- 2) Two (2) possible locations where there may be conflicts with the proposed drainage system are at approximate -L- Station 14+10 Right drainage structure # 20 and -L- Station 19+85 Left drainage structure # 3.
- 3) Contact person for N. C. Natural Gas Company is Mr. Ernst McDaniel 910-321-2906.