



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 January 2002 and the provisions outlined below.

Owner and Owner's Requirements:

The existing water and sewer lines belong to the Town of Dublin and Bladen County. The contact person for Town of Dublin is Mr. Franklin Guill, and he can be reached by telephone at 910-862-4301. The contact person for Bladen County Water District is Mr. Randy Garner, and he can be reached by telephone at 910-862-6996. 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 the owners.

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 1.38 MPa 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 50mm in diameter for mains 200mm in diameter and smaller, and 100mm in diameter for mains greater than 200mm but less than 400mm 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 1.38 MPa.

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 appropriate utility owners.

Water meters and fire hydrants that are noted as being relocated on the Utility Construction plans shall be identified by the Contractor and the owner shall be given the opportunity to substitute either new or rebuilt water meters and/or fire hydrants for installation. The existing water meters and fire hydrants that are to be relocated shall remain the property of the utility owner.

Sanitary sewer cleanouts are identified on the Utility Construction plans from the best available information. The Contractor shall verify the cleanouts that require relocation and provide the Engineer with the number and location of cleanouts that are to be relocated or installed prior to undertaking the sewer work.

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. 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 metric 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. POLYETHYLENE PLASTIC WATER TUBING:

Polyethylene plastic water tubing shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

PE water tubing shall conform to ASTM D2239 or AWWA C901. PE tubing materials shall be PE 2406, PE 3406 or PE 3408 depending upon the required pressure class and dimension ration (SDR) specified on the utility plans. Polyethylene plastic water tubing shall meet the requirements of the National Sanitation Seal of Approval for potable water.

The ends of the plastic water tubing shall be connected using approved compression type couplings and/or compression type fittings. The Engineer shall approve all couplings and fittings.

Polyethylene plastic water tubing, 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 couplings, and paid for at the contract unit price per linear meter for "_____mm PE Water Tubing, SDR ____, _____MPa WP". Such prices and payments will be full compensation fur furnishing all labor, equipment, materials, compression couplings and fittings, excavation, chlorinating, 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) Progress Energy Corp. – Power (Distribution)
- B) Sprint (Telephone)
- C) Time Warner (CATV)
- D) NC Natural 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 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) See Utilities by Others Plans.

NOTE: Progress Energy will complete relocations of their existing power distribution facilities to the new locations as shown on the utilities by others plans by September 29, 2005.

- B) Sprint (Telephone)
 - 1) See Utilities by Others Plans.

NOTE: The contractor shall give Sprint 2 weeks notice prior to completion of clearing and grubbing and allow Sprint 16 weeks to complete relocations of their existing telephone facilities to the new locations as shown on the utilities by others plans.

C) Time Warner (CATV)

- 1) See Utilities by Others Plans.

NOTE: Time Warner will complete relocations of their existing CATV facilities to the new locations as shown on the utilities by others plans by October 29, 2005.

D) NC Natural Gas

- 1) See Utilities by Others Plans.

NOTE: NC Natural Gas will complete relocations of their existing gas facilities to the new locations as shown on the utilities by others plans by June 3, 2005.

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