

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.

## Owner and Owner's Requirements:

The existing water lines belong to the Onslow County Public Utilities. 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. The contact person for the Onslow County Public Utilities is Mr. Todd Cerecke. Mr. Cerecke can be reached by telephone at (910) 455-0722.

The owner shall be notified in advance of any interruptions of water service with ample time to make arrangements. Interruption of water service or force main sewer service on main lines shall be limited to a maximum of 6 hours and at night 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.

## Waterline Installation:

All water pipe, fittings, and appurtenances shown on the plans shall be installed in accordance with Section 1510 of the Standard Specifications or as otherwise directed by the Engineer.

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

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 150 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. 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.

Contractor shall make arrangements with the utility owner for measuring and paying for water required for flushing and testing water mains.

Copies of bacterial testing reports shall be provided to the utility owner prior to activating new 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.

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 150 PSI. The pressure test and leakage test may be performed concurrently.

All gate valves shall conform to the requirements of ANSI/AWWA 504 and/or 509. The direction of rotation of the handwheel or wrench nut to open the valve shall be to the left or counterclockwise. Valve boxes shall be slip types with a base to fit the valve yoke and removable plug cap with the word "WATER" cast therein.

Existing fire hydrants are to be removed and stock piled. Contractor shall notify the utility owner to pick up the stock piled fire hydrants. Removing and stock piling the existing fire hydrants will be considered incidental work as a part of the installation of the new fire hydrants.

#### 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 IV". 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 (PE) 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.

Polyethylene plastic water tubing shall conform to the requirements of ASTM D 2737 or AWWA C901. PE tubing materials shall be either PE 2406, PE 3406 or PE 3408 depending upon the required pressure class and dimension ratio (DR) 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. Such couplings and fittings shall be approved by the Engineer prior to installation.

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 foot for "¾" PE Water Tubing, SDR 9, 200# WP". Such prices and payments will be full compensation for furnishing all labor, equipment, material, compression couplings and fittings, excavation, chlorination and 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) Jones Onslow EMC - Power (Distribution)
- B) Sprint - Telephone
- C) Time Warner Cable - CATV

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) Jones Onslow EMC - Power (Distribution)

- 1) See Utilities by Others Plans.

- B) Sprint - Telephone

- 1) See Utilities by Others Plans.

- C) Time Warner Cable - CATV

- 1) See Utilities by Others Plans.

NOTE: Time Warner will complete relocation of its facilities by July 2, 2005.

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