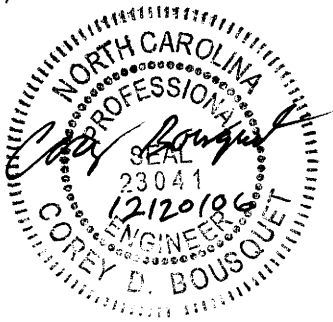


Project: U-4010
County: Durham

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 July 2006, and the following provisions.

Lay water mains at least 10ft laterally from existing or proposed sanitary sewers.

The depth of pipeline installation may vary 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).

After the installed pipe, fittings, valves, hydrants, corporation stops and end plugs are inserted and secured, the pipe line shall be subjected to a hydrostatic pressure test of 200 psi for a period of 3 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 and backflow prevention devices required for chlorination and testing shall be incidental to the cost of the proposed pipe being tested.

Contractor shall make such arrangements, as the utility owner requires, for measuring and paying for water required to flush and test water mains.

The City of Durham's chemist shall do all bacteriological testing for new water lines. The contractor shall not activate new water mains until the City of Durham approves the bacteriological testing.

The existing fire hydrants and meter boxes to be relocated shall be replaced with new fire hydrants and meter boxes supplied by City of Durham. The contractor shall return the existing fire hydrants to the City of Durham and dispose of meter boxes properly.

43**Owner and Owner's Requirements:**

The existing utilities belong to The City of Durham. The Contractor shall provide access for the owner's representatives to all phases of construction. Notify the owner two weeks before commencement of any work and one week before service interruption. The contractor shall provide the City of Durham with as built drawings for the proposed water mains installed.

Utility Locations Shown on the Plans:

The location, size, 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.

1. INSTALL NEW WATER METER BOX:

The existing water meter boxes that are to be replaced with new meter boxes shall be installed at the locations shown on the utility plans, and/or as directed by the Engineer.

The installation of new water meter boxes supplied by the City of Durham shall consist of removing the existing meter boxes and the installation of the new meter boxes. Any pipe or fittings necessary to complete the work will be considered incidental.

All work shall be in accordance with the applicable plumbing codes, as shown on the plans, and as directed by the Engineer.

Meter boxes shall be placed with the top flush with the finish grade.

After the existing water meter boxes are replaced with new meter boxes, the existing meter boxes shall be disposed of properly.

The installation of new water meter boxes, installed in accordance with plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "Install New Meter Box". Such prices and payments will be full compensation for all materials, installation of new water meter box supplied by the City of Durham, equipment, labor, installation, backfilling, and incidentals necessary to complete the work as required.

2. INSTALL NEW VALVE BOX:**44**

The existing water valve boxes that are to be replaced with new valve boxes shall be installed at the locations shown on the utility plans, and/or as directed by the Engineer.

The new valve box shall be set flush with the ground or pavement. Valve boxes shall be of the screw or slip type with a base to fit the valve yoke and removable plug cap with the word "WATER" cast therein. Cast iron valve boxes shall conform to ASTM A48, Class 30, unless otherwise shown on the utility plans and/or as directed by the Engineer.

The installation of new valve boxes, installed in accordance with plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "Install New Valve Box". Such prices and payments will be full compensation for all materials, installation of new valve box, equipment, labor, installation, backfilling, and incidentals necessary to complete the work as required.

3. RELOCATE SANITARY SEWER CLEANOUT:

Relocated sanitary sewer cleanouts shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer. Cleanouts shall have screw type covers installed flush with the ground as approved by the Engineer.

Cast iron soil pipe and fittings shall conform to the requirements of ASTM A74 and shall be classified as SV (Service Weight). Single or double hub is acceptable. No-hub pipe shall not be used. All pipe and fittings shall be uniformly coated with a coal tar pitch. All cast iron joints shall have rubber gasket. Rubber gaskets shall conform to ASTM C564.

PVC sewer pipe and fittings shall conform to the requirements of ASTM D2665 Sch. 40 (Type I) with solvent cement joints.

Abandoned sanitary sewer cleanout shall be plugged with a watertight plug.

Relocated sanitary sewer cleanouts, installed in accordance with the City of Durham's Engineering Department Detail C-11 and utility provisions herein and accepted, will be measured and paid for at the contract unit price each for "Relocate Sanitary Sewer Cleanout". Such price and payment will be full compensation for all labor, excavation, Class B concrete, pipe, water tight plugs, sewer pipe fittings, backfilling, and incidentals necessary to complete the work as required.

February 19, 2007

PROJECT: U-4010
COUNTY: Durham

PROJECT SPECIAL PROVISIONS
Utility

UTILITY CONFLICTS:

General:

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

- A. Duke Power
- B. Verizon
- C. PSNC Gas

The conflicting facilities will be adjusted prior to the date of availability except where 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.

Utilities Requiring Adjustment:

A. Duke Power

- 1. See "Utility By Others Plans" for utility conflicts.
- 2. All Power Poles have been relocated.

B. Verizon

- 1. See "Utility By Others Plans" for utility conflicts.
- 2. All Telephone facilities have been relocated.

C. PSNC Gas

- 1. See "Utility By Others Plans" for utility conflicts.
- 2. The new gas main will be installed by directional bore. All work has been completed.
- 3. All other gas mains will remain in place, and be adjusted as necessary. The gas company will need one week notice and three weeks to complete the work at each conflict.