



PROJECT SPECIAL PROVISIONS
Utility Construction

I. 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).

Owner and Owner's Requirements:

The existing utilities belong to the City of Asheboro. 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.

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.

The City of Asheboro will be providing all new corporation stops, curb stops, gate valves, fire hydrants, transition couplings, and tapping saddles as described in the following special provisions. The City will also be providing new meter setters and meter boxes where required on the utility plans and these special provisions. In addition, the City will provide compression fittings and nipples for reconnections and relocations on the road side of meters. The City will not provide fittings for connections on the house or business side of the meter or in locations where the meter is staying in place and being reconnected to the new water main. The Contractor will be required to pick up all of these materials at the City of Asheboro's Public Works Facility located at 1312 North Fayetteville Street.

II. 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

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. CORPORATION STOP:

Corporation stops shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

Corporation stops shall be installed at each reconnected water service connection, on small water service lines, or at other locations as specified by the Engineer.

Corporation stops shall be provided by the City of Asheboro.

Corporation stops, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "____" Corporation Stop". Such prices and payments will be full compensation for all equipment, excavation, labor, installation, backfilling, and incidentals necessary to complete the work as required. Required service pipe to connect any disrupted water pipe to corporation stop will be paid for as new pipe as described in Section 1510 of the Standard Specifications.

3. CURB STOP:

Curb stops and curb boxes shall be installed in accordance with the applicable utility provisions herein as shown on the plans and as directed by the Engineer.

Curb stops shall be installed at each relocated water meter or at other locations as directed by the Engineer.

Curb stops shall be provided by the City of Asheboro.

Curb stops shall be installed with an approved curb box. Curb boxes shall be of the telescopic type with a removable plug and lid with the word "WATER" cast therein. Curb boxes shall be coated inside and out with a tar base enamel. Curb boxes shall be made from cast iron conforming to ASTM A48 Class 35.

Curb stops and curb boxes, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "_____" Curb Stop" of the appropriate types and sizes required. Such prices and payments will be full compensation for all equipment, excavation, labor, curb stop box with necessary extension pieces, connecting curb stop to relocated water line, backfilling, and incidentals necessary to complete the work as required. Service pipe required for relocation of water meters and connection of curb stops will be paid for as new pipe as described in Section 1510 of the Standard Specifications.

4. GATE VALVE AND VALVE BOX:

Gate valves and valve boxes shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

Gate valves shall be provided by the City of Asheboro.

All gate valves shall be installed with an approved valve box, normally 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. Valve boxes shall be made of cast iron conforming to ASTM A48, Class 35, unless otherwise shown on the utility plans and/or as directed by the Engineer.

The quantity of gate valves and valve boxes, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "_____" Gate Valve And Valve Box, 200 # WP". Such prices and payments will be full compensation for all labor, excavations, installation, sterilization, pressure testing, valve box and valve box installation with the necessary extension pieces, backfilling, and incidentals necessary to complete the work as required.

5. TAPPING SADDLE:

Tapping saddles shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

Tapping saddles shall be provided by the City of Asheboro.

Tapping saddles, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for " _____ " X " _____ " Tapping Saddle". Such prices and payments will be full compensation for all equipment, excavation, labor, connecting tapping saddle, backfilling, and incidentals necessary to complete the work as required.

6. TRANSITION COUPLING:

Transition couplings shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

Transition couplings shall be provided by the City of Asheboro.

The Contractor shall verify the size, type material, etc. of the existing and proposed pipes prior to requesting materials from the City. If a transition coupling is deemed unnecessary for making final connections, the Contractor shall use a ductile iron sleeve and necessary fittings to make final connections.

The quantity of transition couplings, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for " _____ " Transition Coupling _____ ". Such prices and payments will be full compensation for all labor, installation, equipment, and incidentals necessary to complete the work as required.

7. INSTALL ¾" WATER METER ASSEMBLY W/NEW METER BOX:

Relocate existing water meters and install new meter box assemblies which include new meter setters and new meter boxes at the locations shown on the utility plans, in accordance with Section 1510 of the Standard Specifications, the applicable utility provisions herein, and/or as directed.

New meter setters and meter boxes shall be provided by the City of Asheboro.

Pipe shall meet the requirements of Section 1036 of the Standard Specifications.

The quantity of water meters relocated and meter box assemblies installed and accepted will be measured and paid for at the contract unit price each for "Install ¾" Water Meter Assembly w/New Meter Box". Such price and payment will be full compensation for all materials, labor, excavation, installing and connecting the meter, meter box and meter setter, necessary fittings to reconnect service line, backfilling, and incidentals necessary to complete the work as required.

8. INSTALL ¾" WATER METER ASSEMBLY AND RELOCATE EXISTING METER BOX:

Relocate existing water meters and meter boxes and install new meter box assemblies which include new meter setters at the locations shown on the utility plans, in accordance with Section 1510 of the Standard Specifications, the applicable utility provisions herein, and/or as directed.

New meter setters shall be provided by the City of Asheboro.

Pipe shall meet the requirements of Section 1036 of the Standard Specifications.

The quantity of water meters and meter boxes relocated and meter box assemblies installed and accepted will be measured and paid for at the contract unit price each for "Install ¾" Water Meter Assembly and Relocate Existing Meter Box". Such price and payment will be full compensation for all materials, labor, excavation, installing and connecting the meter, meter box and meter setter, necessary fittings to reconnect service line, backfilling, and incidentals necessary to complete the work as required.

9. FIRE HYDRANT:

Fire hydrants shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

Fire hydrants shall be provided by the City of Asheboro.

Hydrants shall be painted with one coat of red lead paint and two coats of approved paint of the owner's standard color. Final coat shall be applied after hydrant installation.

Fire hydrants shall be located and installed as shown on the utility plans. Each hydrant shall be connected to the main with a 6-inch branch line having at least as much cover as the distribution main. Hydrants shall be set plumb with the pumper nozzle facing the roadway and with the breakaway safety flange between 1 and 4 inches above the finished surrounding grade. Except where approved otherwise, the backfill around hydrants shall be thoroughly compacted to the finished grade line immediately after installation to obtain beneficial use of the hydrant as soon as possible. Not less than 7 cubic feet of

clean crushed stone shall be placed around the base of the hydrant to insure drainage of hydrant barrel.

Fire hydrants, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "Fire Hydrant, 150# WP". Such prices and payments will be full compensation for all labor, excavation, reaction backing, stone, installation, backfilling, and incidentals necessary to complete the work as required.

10. REMOVE AND STOCKPILE EXISTING FIRE HYDRANT:

The existing fire hydrants to be removed and stockpiled will be separated at the hydrant base from the existing pipe and stockpiled in an area accessible by truck or as directed by the Engineer.

After the fire hydrants are stockpiled, the Contractor shall contact the City of Asheboro in order for them to receive and remove the fire hydrants.

The quantity of fire hydrants removed, stockpiled, and accepted, will be measured and paid for at the contract unit price per each for "Remove and Stockpile Exist Fire Hydrant". Such price and payment will be full compensation for all labor, excavation, removal, stockpiling, and incidentals necessary to complete the work as required.

11. PVC SEWER PIPE, SCHEDULE 40:

Polyvinyl chloride (PVC) 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.

PVC sewer pipe schedule 40 is to be used for sewer laterals only.

PVC sewer pipe and fittings shall be glue joint type conforming to ASTM D-1785 and ASTM D-2665, shall be the size and schedule as noted on the utility plans and shall be installed in accordance with approved bedding methods.

The pipe shall be assembled in accordance with the recommendations of the manufacturer and in accordance with the specifications.

PVC pipe shall have its location marked by using a detectable marking tape, installed 18" to 24" below finished grade. Such tape shall be as approved by the Engineer. Polyvinyl chloride (PVC) sewer pipe and fittings installed and accepted will be measured and paid for at the contract unit price per linear foot for "_____ " PVC Sewer Pipe, Schedule 40". Such prices and payments will be full compensation for all labor, equipment, material, pipe accessories, fittings, detectable marking tape, pipe plugs, excavation, backfilling, and incidentals necessary to complete the work as required.

12. RESTRAINED RETAINER GLANDS:

Restrained Retainer glands shall be installed in accordance with the applicable provisions herein, as shown on the plans and/or as directed by the Engineer.

Restrained Retainer glands shall be heavy duty ductile iron conforming to ASTM A536. Restrained Retainer glands shall meet the specifications for ANSI A21.11 (AWWA C111). Restrained Retainer glands shall be capable of restraining mechanical joints for a minimum working pressure of 250 psi with a minimum factor of safety of 2:1, using high strength steel angled set screws meeting AISI 4140 or ductile iron wedges. Twist-off nuts shall be used to insure proper torquing of retaining devices.

Restrained Retainer glands, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "_____" Restrained Retainer Gland ". Such prices and payments will be full compensation for all materials, labor, excavation and backfilling, installation, testing and incidentals necessary to complete the work as required.