



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.

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).

On new force main sewers or water lines, and tie in sections of existing force main sewers or water lines, the method of anchoring pipe bends, valves, and related appurtenances will be the responsibility of the Contractor. Tying in to existing force main sewers or water lines may alter such lines to the extent that these pipelines with existing pipe bends, valves and related appurtenances may also require reaction backing; this work shall also be the responsibility of the Contractor.

The Contractor shall submit his proposed method of anchoring to the Engineer for review and approval prior to any applicable force main sewer construction. Such approval will not relieve the Contractor of his responsibility of properly anchoring the force main sewers. Concrete thrust blocking and/or thrust collars shall be installed as noted on the utility construction plans and details, and as directed by the Engineer, and shall be incidental to the pipe being anchored.

Owner and Owner's Requirements:

The existing water and sewer lines belong to the City of High Point. The utility representative for the City of High Point is Mr. Joey D. Mooney. Mr. Mooney can be reached by telephone at (336) 883-3466. 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.

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 (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 50mm (2 inches) in diameter for mains 200mm (8 inches) in diameter and smaller, and 100mm (4 inches) in diameter for mains greater than 200mm (8 inches) but less than 400mm (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 1.38 MPa (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 by the City of High Point representatives points along the pipeline in approved containers and submitted to a certified testing laboratory for bacterial and chlorine content. The City of High Point will provide copies of the certified test reports to the Engineer who will in turn provide certified copies to the Contractor for his records.

Water meters that require relocation shall be relocated as shown on the utility construction plans. Relocation of the water meters shall be paid for as noted in the Standard Specifications. Should backflow prevention devices be present on the existing water meters, relocation of such devices shall be incidental.

The owners shall be notified in advance of any interruptions of water or sewer 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.

Utilities and 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.

Proposed water lines shown on the Utility Construction Plans shall be installed as noted, as close to the right-of-way line as possible. Lines have been shown on the plans as being nominally 1.5 meters inside the right-of-way. This dimension may vary according to field conditions. However, changes from locations noted on the plans must be specifically approved by the Engineer prior to construction.

Existing Fire Hydrants:

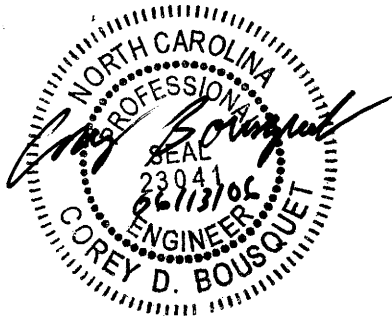
Fire hydrants that are to be relocated may be replaced with new or reconditioned fire hydrants provided by the City of High Point. The Contractor shall notify the City of High Point three days prior to relocation of the fire hydrants in order to allow the city sufficient time to provide replacement fire hydrants to the Contractor. After the existing fire hydrant is removed but prior to relocation, the Contractor shall make arrangements for the City of High Point to take possession of the removed hydrant and to provide the replacement hydrant. Should the City of High Point elect not to provide the replacement hydrant in a timely manner, the Contractor may, with prior approval of the engineer, provide a replacement hydrant or relocate the existing hydrant being removed.

Gate Valves and Butterfly Valves:

All butterfly valves and gate valves shall conform to the requirements of ANSI/AWWA C504 and/or ANSI/AWWA C509. The direction of rotation of the handwheel or wrench nut to open the valve shall be counterclockwise or to the left.

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.



Project: R-2606A
County: Randolph

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.

Lay water mains at least 10ft (3.05 M) laterally from existing or proposed sanitary sewers.

The thrust block shown at each tie-in shall be sized by the contractor for the engineer approval. The cost for the thrust blocks, rods, and restrained retaining glands shall be incidental to the ductile Iron restrained joint fittings.

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.

The proposed water main shall be laid to within one pipe length of the final connection prior to flushing and testing. Temporary end caps shall be installed on the water main. 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 (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. Taps for the cross connection piping shall be made to the portion of the existing water main that will be removed from service. All flushing and chlorination work shall be preformed 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.

Copies of bacteriological testing reports shall be provided to the utility owner prior to activating new water mains.

Owner and Owner's Requirements:

The existing utilities belong to The Davidson Water. 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 a set of as built plans to the City of Durham after all the work shown on the Utility Construction Plans is completed.

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. 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 and the detail sheets that are part of the Utility Construction Plans.

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.

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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) Duke Energy – Power
- B) North State Communications – Telephone
- C) MCI – Telecommunications
- D) Time Warner Cable – Cable TV

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) Duke Energy - Power

- 1) Duke Energy will relocate its temporary lines and poles within the Project Limits at the locations shown on the Utilities by Others Plans prior to date of availability.
- 2) There are temporary poles located in the -Y9- Tuttle Road area. Upon completion of the new -Y9-Tuttle Road crossing Duke Energy will relocate its poles and lines to the new locations in the -Y9- Tuttle Road area as shown on the Utilities by Others Plans and remove the temporary poles and lines. They are to be notified four (4) weeks prior to completion of the -Y9- Tuttle Road and will take four (4) weeks to complete this work.
- 3) In the -Y8- NC 62 area the existing poles and lines will remain until the completion of the new -Y8- NC 62 crossing. Duke Energy will then relocate their poles and lines to the new locations in the -Y8- NC 62 area as shown on the Utilities by Others Plans and remove the existing poles and lines. They are to be

notified four(4) weeks prior to completion of the -Y8- NC 62 and will take four (4) weeks to complete this work.

4) Contact person for Duke Energy is Mr. Carl Hamilton at 336-854-4736.

B) North State Communications – Telephone

1) North State Communications will relocate its temporary lines to poles within the Project Limits at the locations shown on the Utilities by Others Plans prior to date of availability.

2) North State Communications is to be provided the same notifications as Duke Energy to complete their work in areas of -Y8- NC 62 and -Y9- Tuttle Road.

3) Contact person for North State Communications is Mr. Mark Gilmore at 336-886-3648

C) MCI – Telecommunications Fiber Optics

1) MCI will relocate its lines to poles within the Project Limits at the locations shown on the Utilities by Others Plans

2) MCI is to be provided the same notifications as Duke Energy to complete their work in the -Y8- NC 62 Area.

3) Contractor to exercise caution when working around these underground facilities. FAA (Air Traffic Control) circuits exist within these facilities.

4) Contact person for MCI is Mr. Robert Clements at 919-603-0645.

D) Time Warner Cable – Cable TV

1) Time Warner Cable will relocate its temporary lines to poles within the Project Limits at the locations shown on the Utilities by Others Plans prior to date of availability

2) Time Warner Cable is to be provided the same notifications as Duke Energy to complete their work in areas of -Y8- NC 62 and -Y9-Tuttle Road.

3) Contact person for Time Warner Cable is Mr. Ron Holmes at 336-217-6742.

PROJECT: R-2606A
COUNTY: RANDOLPH

PROJECT SPECIAL PROVISIONS

UTILITIES BY OTHERS

General:

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

- A. DUKE POWER
- B. PIEDMONT NATURAL GAS
- C. NORTH STATE TELEPHONE
- D. TIME Warner Cable TV

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. The utility owners will do all utility work listed herein. All utilities are shown on the plans 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
See utility By Others plans
- B. Piedmont Natural Gas
See Utilities By Others Plans
- C. North State Telephone
See Utilities By Others Plans
- D. Time Warner Cable
See Utilities By Others Plans