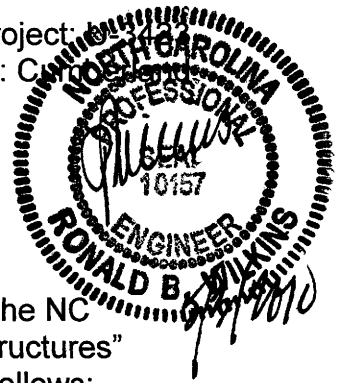


PROJECT SPECIAL PROVISIONS  
Utility Construction



All proposed utility construction shall meet the applicable requirements of the NC Department of Transportation's "Standard Specifications for Roads and Structures" dated July 2006. Division 15 of the Standard Specifications is revised as follows:

Page 15-1, Paragraph 4

Provide access for Department personnel and the owner's representatives to all phases of construction. Notify Department personnel and the utility owner two weeks prior to commencement of any work and one week prior to service interruption. Keep utility owner's representatives informed of work progress and provide opportunity for inspection of construction and testing. *The water and sewer lines on this project belong to Fayetteville PWC. The contact person for Fayetteville PWC is Mr. Joe Glass, PE and he can be reached by phone at (910) 223-4740. Any work on these lines must be coordinated through the Engineer and the utility owner before beginning.*

Ductile iron water pipe shall be of the thickness and pressure rating class shown on the utility plans and shall conform to ANSI A21.51 (AWWA C151). Data supplied by the pipe manufacturers indicates that restrained joint ductile iron pipe in diameters larger than 12" must be rated at pressure class (PC) 350. Accordingly, all restrained joint ductile iron pipe shall be PC 350 per the manufacturer's recommendations. Pipe shall be either mechanical joint or push-on-joint and installed with rubber gaskets in accordance with ANSI A21.11 (AWWA C111). All water pipe shall be provided and installed in accordance with Articles 1036 and 1510 of the Standard Specifications. All water pipe on this project shall be ductile iron unless otherwise specified on the utility construction plans.

Ductile iron sewer pipe shall meet the requirements of ANSI A21.51/AWWA C151. Ductile iron sewer pipe shall be PC 350. Joints shall be mechanical joint or rubber ring gasket slip joint, each conforming to ANSI A21.11/AWWA C-111. The pipe and fittings shall have an asphaltic exterior coating as specified in AWWA C151. Interior of the pipe joints shall be coated with ceramic epoxy to produce a minimum dry film thickness of 40 mils. Calcium aluminate mortar lining of the ductile iron pipe shall also be acceptable.

All water services being installed or relocated shall be provided with copper tubing. PE tubing or piping will not be used on this project. Valves on water mains that are being abandoned shall either be removed, or closed and the top of the valve box removed and backfilled in accordance with NCDOT standards.

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.

**SANITARY SEWER MANHOLES:**

Sanitary sewer manholes shall be installed in accordance with the utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer. These provisions cover only the six-foot diameter offset manhole shown on the detail sheet UC-10 identified as "Offset Precast Sewer Manhole".

Sanitary sewer manholes shall be precast concrete, and shall conform to ASTM C478 and shall be as shown on the plans.

Joints between precast manhole sections shall be O-ring rubber gaskets conforming to ASTM C-443 or butyl rubber gaskets conforming to AASHTO M198.

Connection of pipe to manholes for cored or precast holes shall be by a resilient connector conforming to ASTM C923.

Sewer manholes over 3 feet in depth shall have steps, spaced 16 inches on center, of the type shown in Standard Detail 840.66. Cast iron shall be ASTM A48 Class 30. Steps shall be installed in accordance with the plans or standard details and shall be tested as required in ASTM C478.

Sanitary sewer manholes shall be constructed with invert channels, as shown on the plans or standard details, to confine and direct the flow through the manhole. The invert channels shall be smooth finished and shaped to provide an easy transition from inlet to outlet. The benches or shelves shall be finished to a non-slip texture and shall be sloped toward the invert channel. Precast invert channels are recommended but not required.

Manhole frames and covers shall be of cast iron conforming to ASTM A48 Class 30, shall be traffic bearing, and shall have machined contact surfaces. Manhole frames and covers shall be as shown on Standard Detail 840.54B or an approved equal. Covers shall have 2 one inch diameter air vents.

Sanitary sewer manholes will be measured on the "per each" basis.

Measurements will be made for the appropriate diameter of manhole on the actual number constructed as required and accepted. The height of the manhole will be measured to the nearest tenth of a foot from the manhole invert to the top of the

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manhole ring; however, no payment is being made for "Manhole Wall". The Contractor shall be responsible for determining the actual required depth of each manhole installed in accordance with the utility construction plans and these provisions.

Sanitary sewer manholes measured as provided above and accepted will be paid for at the contract unit price per each for "6' Diameter Utility Manhole" Such prices and payments will be compensation in full for all materials, labor, equipment, excavation and backfill, and incidentals necessary to complete the work as required.

**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) CenturyLink – Telecommunications
- B) Level 3 – Telecommunications
- C) Piedmont Natural Gas – Natural Gas
- D) Progress Energy – Power Distribution
- E) Public Works Commission of Fayetteville – Power Distribution
- F) Public Works Commission of Fayetteville – Communications
- G) Time Warner- Cable Television

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 or his Contractor. 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) CenturyLink – Telecommunications**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Mr. Kevin Godwin @ 910-336-2142

**B) Level 3 – Telecommunications**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Turnkey Project Management, Mr. David Fleming @ 910-250-8470

**C) Piedmont Natural Gas – Natural Gas**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Mr. Paul Johnson @ 910-483-1501 ext.2914

**D) Progress Energy – Power Distribution**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Mr. Alan Dasen @ 910-944-5274

**E) Public Works Commission of Fayetteville – Power Distribution**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Mr. David Willis @ 910-223-4518

**F) Public Works Commission of Fayetteville – Communications**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Mr. Darlene Goodheart @ 910-223-4526

**G) Time Warner - Cable Television**

- See Utilities by Others Plans for Details. All work to be started by March 1, 2010 and to be completed by August 15, 2010.
- Contact Mr. Wallace Frazee @ 910-401-5090