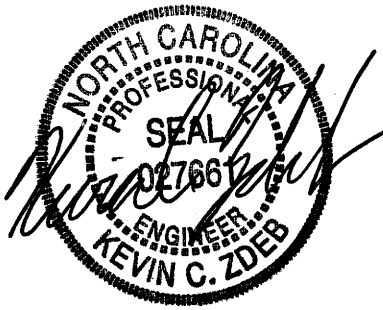

2008-11-20

Project: *TIP R-4430*
County: Henderson

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 2 of Section 1500-2
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 the City of Hendersonville Water & Sewer Department. The contact person for the City of Hendersonville Water & Sewer Department is Mr. Dennis Frady, and he can be reached by phone at 828-697-3073. Any work on these lines, especially operation of water valves, must be coordinated through the Engineer and the utility owner before beginning.*

Page 15-3, Paragraph 3 of Section 1500-7
Provide As-Built plans of the installed utility. The plans shall include notations of the size and type material installed, coordinates of utility controls, and horizontal and vertical locations of the piping. Provide 2 copies to the Utility Owner and 2 copies to the Engineer. *Provide the Utility Owner with 2 copies of surveyed As-Builts of both the water and sewer systems constructed.*

Page 15-3, Paragraph 1 of Section 1500-8
Install a 14 gauge type THHN solid copper locator wire to the top of all non-ferrous pipe. Mechanically fasten locator wire to valve boxes, meter boxes, fire hydrants, manhole covers, and other above grade appurtenances. Install marking tape 18 to 24 inches below finished grade above all pipelines.

Page 15-3, Insert New Paragraph After Paragraph 1 of Section 1500-9
Contractor shall notify the City of Hendersonville 7 business days in advance of performing any tie-in work. Contractor shall notify all affected customers 24 hours in advance of service interruptions. Contractor shall notify all affected critical facilities (i.e. hospital, schools, medical facilities, etc.) 72 hours or more in advance of service interruption.

Page 15-7, Paragraph 2 of Section 1510-3
Apply all the requirements in Section 1505 for excavation, trenching, pipe laying, and backfill to the water line installation. *The minimum trench depth must be 4 feet.*

Page 15-8, Paragraph 13 of Section 1510-3
Sterilize water lines according to DENR requirements and AWWA C651. *The City of Hendersonville Water & Sewer Department shall collect water samples from the water lines and* provide certified bacteriological and contaminant test results from an approved independent testing laboratory in accordance with DENR requirements.

Page 15-9, Paragraph 2 of Section 1515-2
Air release valves shall meet the requirements of AWWA C512. *The air release valve for the water main shall be a combination air valve with one integral casting or 2 valve bodies flange bolted together containing an air and vacuum valve and a separate pressure valve mechanism. The valve shall be a 1-inch NPT screwed inlet connection.* In addition, air release valves for sanitary sewer force mains shall have long bodies, shall be equipped with back-flushing connections and shall have a hood over the outlet.

Page 15-11, Paragraph 1 of Subsection F of Section 1515-4
Install air release valves at the high point of pressurized pipelines. Place a precast manhole around air release valves *located in areas subject to traffic.*

In non-traffic areas, install the air release valve in a cast iron meter box with lid. Locate the meter box 1 foot minimum from the Right-of-Way line. Install a 4-inch diameter perforated drain pipe centered in a 12-inch deep bed of #57 washed stone under the meter box and slope pipe to daylight. Cover end of daylighted pipe with brass mesh and secure to pipe.

Page 15-17, Paragraph 1 of Section 1525-2
Use precast manholes with monolithic bottoms which conform to ASTM C478, AASHTO M199, and are as shown on the plans or in Roadway Standard *Drawing 840.52.* Use ASTM C-443 gaskets or AASHTO M198 flexible sealants for joints between precast manhole sections. Use resilient connectors for piping conforming to ASTM C923. Use ASTM A48 Class 35 cast iron or Grade 60 steel reinforcement steps with polypropylene plastic coating *as per Roadway Standard Drawing 840.66.*

Division 10 of the Standard Specifications is revised as follows:

Page 10-78, Paragraph 1 of Subsection A of Section 1034-2
Use PVC plastic pipe that conforms to the requirements of ASTM D3034 with a minimum SDR of 35. Use pipe with push-on type joints having bells made as an integral part of the pipe conforming to ASTM D3212 *with a solid cross-section rubber o-ring conforming to ASTM C-443. The pipe shall be furnished in standard laying lengths of 20 feet and 12.5 feet.*

A flexible coupling shall be required to join sewer pipes of dissimilar material. The coupling shall be made of virgin PVC and shall be permanently resilient and impervious to all known soil conditions. The coupling shall provide a permanent leak proof seal approved by the Southern Building Code Congress. The flexible coupling shall be approved by the Engineer.

Page 10-78, Paragraph 1 of Subsection A of Section 1034-4
Use ductile iron pipe that conforms to ANSI/AWWA C151/A21.51. *All ductile iron pipe shall be Class 350 unless otherwise specified and shall be lined with cement mortar not less than 1/16 inch thick conforming to ANSI Specification A21.4.*

Page 10-80, Paragraph 1 of Section 1036-5
Use ductile iron pipe that conforms to ANSI/AWWA C151/A21.51. *All ductile iron pipe shall be Class 350 unless otherwise specified and shall be lined with cement mortar not less than 1/16 inch thick conforming to ANSI Specification A21.4.*

Page 10-81, Subsection B of Section 1036-7
Replace title "**Bronze Gate Valves**" with "***Brass Gate Valves***".
Gate Valves 2 inches and smaller in diameter shall be all brass, conforming to AWWA C-800. Each valve shall have a tee handle for operation. Use valves with a design working pressure of 200 psi.

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.

CITY OF HENDERSONVILLE PREFERRED PRODUCT LIST

WATER

1. Air Release Valve: CRISPIN, Model C-10 Combination Air and Vacuum Valve with 1-inch NPT inlet
2. Restrained Retainer Gland: MEGA-LUG
3. Butterfly Valve: MUELLER, Lineseal III
4. Hydrant: MUELLER, Centurion
5. Tapping Saddle: MUELLER, Model H-615
6. Meter Box with Lid: RUSSCO, Model MBX5A

SEWER

1. Flexible Coupling: FERNCO JOINT SEALER COMPANY

MISCELLANEOUS STRUCTURES

1. Manhole Frame and Cover: US FOUNDRY, Model #RCR-2001
2. Precast Manhole Structures subject to H20 loadings: TINDALL, Model G48
3. Grade Rings: LADTECH, INC.
4. Grade Ring Sealant: PRESS-SEAL CORPORATION, EZ-STIK Butyl Rubber Sealant in rope form or EZ-STIK #3 Butyl Rubber Sealant in trowelable form
5. Casing Spacer (used in Encasement Pipes): CASCADE WATERWORKS MANUFACTURING COMPANY

County: Henderson
Project : R-4430

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 Power Company
B) Media Communications
C) AT&T
D) PSNC Energy

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 performed 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 for Roads and Structures.

Utilities Requiring Adjustments:

A) Duke Power Company

1. See "Utilities By Others Plans" for utility conflicts
2. Duke Power will begin to relocate 30 days after date of availability at the two bridge locations.
3. At the Bat Fork Creek bridge Duke will make a temporary move to the south side of the existing bridge and will require 2 weeks for construction time. After new bridge is complete Duke will make a permanent move to the north side of new bridge and will require 2 weeks notice and 2 weeks to complete work.
4. At the I-26 bridge, Duke will relocate to the south side of the temporary bridge and will require 4 weeks construction time.
5. Duke will coordinate with the contractor to move according to the contractors proposed schedule at remaining locations. Duke will require 2 weeks notice and 4 weeks construction time at each scheduled location.

B) Media Communications

1. See "Utilities By Others Plans" for utility conflicts
2. Media Communication will require 30 days notice to begin construction and will begin attaching to Duke's new pole line 30 days after Duke begins relocation work. Media Communication will complete their relocation work 30 days after Duke Power completes their construction.

C) AT&T

1. See "Utilities By Others Plans" for utility conflicts
2. AT&T will be installing new underground lines at the following locations and will require the contractor to clear and bring proposed alignment to rough grade before installing. AT&T will require 3 weeks notice to begin underground construction.

    - Y1 sta. 14+60 – 18+60 sheet UO-3
    - Y4 sta. 12+00 – 13+00 sheet UO-3
    - Y7 sta. 11+50 – 17+20 sheet UO-6
    - Y8 sta. 11+00 – 14+50 sheet UO-7
    - L sta. 99+50 – 101+00 sheet UO-8
    - Y15 sta. 10+00 – 15+50 sheet UO-8 & UO-14
    - Y16 sta. 12+50 – 13+50 sheet UO-9
    - L sta. 118+00 – 121+00 sheet UO-9 & UO-10
    - Y17 sta. 10+50 – 16+00 sheet UO-10 (old alignment)
    - Y19 sta. 10+00 – 16+35 sheet UO-11 (old alignment)
    - Y20 sta. 14+50 – 15+20 sheet UO-12

3. AT&T will begin attaching to Duke's new pole line 60 days after Duke begins relocation work.
4. AT&T has a duct bank on the west side of Spartanburg Hwy and will perform test holes at Y1 stations 15+60, 17+60, and 20+05 due to proposed drainage structures. AT&T will adjust their facilities at these locations if necessary.

D) PSNC Energy

1. See "Utilities By Others Plans" for utility conflicts
2. PSNC Energy will be installing new lines at the following locations and will require the contractor to clear and bring proposed alignment to rough grade before installing. PSNC Energy will require 3 weeks notice and 3weeks construction time at each scheduled location.

    - 2" plastic Y2 sta. 14+40 – 16+00 sheet UO-3
    - 6" steel L sta. 45+80 – 52+00 sheet UO-4
    - 8" steel & 2" plastic Y7 sta. 13+50 – 17+75 sheet UO-6
    - 8" plastic L sta. 69+00 – 90+00 sheet UO-6 & UO-7
    - 8" plastic L sta. 97+25 – 149+75 sheet UO-8 – UO -12
    - 4" plastic Y17 sta. 12+00 – 16+33 sheet UO-10
    - 4" plastic Y18 sta. 10+00 -12+50 sheet UO-10