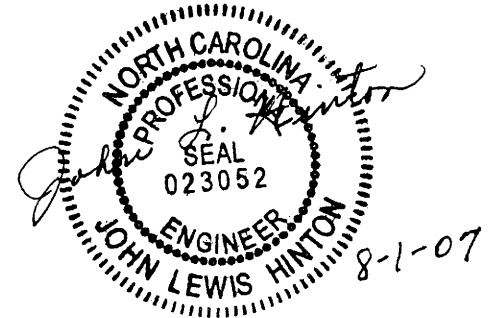


Project: R-2809A County: WAKE

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 shall be responsible for field verifying location, size, type and elevation of all underground utilities, as well as reconnecting any water and/or sanitary sewer services disturbed during construction, even if they are not shown on the plans. The water line shall be installed as to provide a minimum of 1 meter of coverage above the top of pipe from finished grade, unless shown differently on plans. The Contractor shall verify that all new water and sanitary sewer lines have 3(three) meters horizontal clearance between each other.

The Contractor is herein forewarned as to the possibility of having to vary the depth of the 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, storm drainage are shown on the plans or not).

The existing utilities belong to the City of Raleigh. 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 Contractor must call the Public Works at 890-3030 and give the location, project name, individual's name, company name, start date and indicate if it involves water relocations.

Interruption of water service on main lines shall be limited to a maximum of 4 hours unless approved by the Engineer.

Valve Operations:

No valve in the existing City of Raleigh system shall be operated without following the procedure outlined below. Failure to comply with these requirements shall be grounds for suspension of pipe-laying operations until written assurances can be obtained from a company official that such

noncompliance will not occur again. The Contractor should be aware that the City of Raleigh regards violations of these requirements as justifying punitive measures.

Notification procedures are as follows:

- a. The Contractor shall notify the City of Raleigh Public Utilities Department's Maintenance Division at 250-2737 in order to request the operation of any valves. At least forty-eight hours notice should be given to the Public Utilities Department, and at least twenty-four hours notice must be given to each consumer affected by a water cut-off. The Contractor is responsible for notifying the affected consumers. All valve operations shall be done by a Public Utilities Department valve crew or by the City's inspector for a particular project.
- b. The Contractor shall provide the following information when calling for the Water Distribution Division valve operation:
 - (1) Name of person calling
 - (2) Name of company;
 - (3) Telephone number of company;
 - (4) Location of valve and map number if available;
 - (5) Reason for requesting operating and whether to be closed or open;
 - (6) Time valve to be opened or closed, and
 - (7) Approximate time water line to be out of service.
- c. Each time a Contractor needs a valve operated, he/she shall again secure permission, following the steps outlined.
- d. System valves shall be defined as any valve, which has main pressure against either gate face. Newly installed tapping valves and control valves to networks not yet accepted for service are considered as system valves. Valves within a network still under construction are not considered as system valves.

In case of an emergency, the Contractor shall be allowed to take such steps with the valves and hydrants as are necessary for the protection of life and property. Notification must be made after a break in a 100MM (4 inch) or larger water main, or where ruptured smaller lines are causing property damage. After an emergency valve operation, the Contractor shall notify the Maintenance Division and give the details for that operation.

Hydrants shall not be operated without following the above procedures relative to requesting operating permission and reporting emergency use of hydrant.

Construction Water:

The City of Raleigh Public Utilities Department does not provide free or otherwise unmetered construction water for any construction project. Hydrant meters may only be moved with express written permission of the Public Utilities Department. In residential areas hydrant meters may only be used for the filling of swimming pools unless prior approval of the Public Utilities Department. Contractors are responsible for adequate construction water for their job sites in one of the following approved manners:

- a. Apply for permanent water service connection at the Inspections Department Permit Office, 4th floor, Raleigh Municipal Building, 222 West Hargett Street, (890-3450). Sufficient lead-time (6 weeks) should be provided for all new service taps and all fees must be paid in full prior to the work order being authorized.
- b. Apply in person with the Public Utilities Meters Division Office, 3304 Lake Woodard Drive, for rental of a hydrant meter. There are a limited number of these meters and they are reserved in advance by contacting the Meter Division (250-2797). A deposit is required along with a per month rental fee per account plus the cost of the water used, at the outside City rate. Hydrant meters are read in 100 cubic feet (ccf). There is a minimum rental fee and an administration fee for billing and closing an account. A service charge is charged when accounts are closed. Customers are responsible for notifying the Meters Division if the meter is not registering usage. The following information is required:
 - (1) Meter location;
 - (2) Billing address, telephone number, responsible party name, and federal tax id#;
 - (3) Location of hydrant;
 - (4) Water to be used for;
 - (5) Duration of use and frequency of meter reading,
 - (6) Meters must be brought to the Utilities Operations Center for monthly reading.
- c. Upon application approval, the City shall install hydrant meters and approved backflow prevention Devices on the fire hydrant requested by the customer, but acceptable to the City, within three (3) business days of the application and deposit being received.
- d. Hydrant meters accounts are billed monthly. Failure to report usage in a timely manner for billing or accounts that are not paid in full will result in the loss of water service and the closing of the

account with the City.

- e. Hydrant meters will only be set when the temperature is over 35 degrees. Damage to meters from cold weather or abuse will be charged to the customers.
- f. Hydrant meters used for long term use shall be returned at the end of every one year block for inspection.

Upon completion of hydrant usage, deposits shall be refunded to customers within 30 days provided the following has occurred:

1. Hydrant meter and backflow device have been returned in good condition, with no excessive wear nor damage.
 2. All outstanding water usage charges and rental charges for the meter and backflow device have been paid in full by the customer.
- g. The cut off to apply for new accounts is 3:00 PM each business day.
 - h. It is a violation of the City Code to establish a direct connection to a fire hydrant to fill a tank or tank vehicle. It is also illegal to use a RP or Double detector check valve on a domestic or fireline service for temporary water service. Violations of the City Code will result in loss of service, fines, and other measures as specified by the code.
 - i. Continued use of a hydrant meter, when usage readings are not being registered is considered theft of City water and subject to civil penalties of \$500.00/day. It is the responsibility of the customer to notify the Meters Division at 250-2737 when the meter is not registering/recording the water usage properly.
 - j. Hydrant meters and backflow assemblies approved for use in this program is the property of the City of Raleigh Utilities Department. Failure to return the hydrant meter and backflow preventor at the end of the rental period will be considered theft of City property and prosecuted to the fullest extent of the law.

Note: Individuals caught using water unmetered and/or unauthorized by the Public Utilities Department will be prosecuted to the fullest extent of the law.

Setting Hydrants:

Specific directions are required for the setting of all hydrants. In streets where paving is proposed in the near future, the Contractor will be given line and grade

stakes for hydrants. It is mandatory for the Contractor to preserve these stakes for the inspector to verify that the hydrant was set correctly. In areas where paving is not anticipated in the near future, hydrants shall be set according to the inspector's directions. When fire hydrants are installed behind guardrails the breakaway flange will be flush with top of the guardrail. In general, hydrants shall be located in a manner to provide complete accessibility and minimize possibility of damage from vehicles or injury to pedestrians.

Hydrant installation shall be as shown in details and will be rodded from the main to the hydrant with a maximum one rod coupling. When hydrants are used as blow-offs assemblies, the valves shall be rodded to a thrust block. Restraining rods and accessories shall be "hot dipped" galvanized.

Before a hydrant is set, all dirt and foreign matter shall be removed from the interior of the hydrant.

Hydrants shall be bagged, to indicate "out of service", until all testing is complete and the mains are placed in service. Bags shall be large enough to cover entire hydrant and shall be black in color. Bags shall be secured with duct tape at the base of the hydrant and shall be removed immediately after the hydrants are placed in service.

Sealed As Built Plans:

Certified surveyed "As built" plans and profiles, sealed by a Professional Land Surveyor, shall be furnished to the Public Utilities Department, by the Engineer who inspects the utility installation, upon completion and acceptance of the public main by the City and completion of private systems. The surveyed "as built" plans shall have North Carolina Geodetic Survey grid coordinates to all meter boxes, valves, manholes, and mains along with the depth information. The water permit number information must also be included. Surveyed "As built" plans of installed utilities shall be furnished to the City prior to issuance of the letter of acceptance. All service stubs shall be shown on the surveyed "as built" plans.

Certified surveyed "As built" should be provided in a digital format. The digital file of utilities needs to show the overall water and sewer system layout along with the property of subdivision boundaries and connecting manhole. The water distribution system drawings should show mains sizes, material, hydrants, valves, blow-off assemblies, and any other relevant information (backflow preventers, air release valves, etc.). The digital file should be delivered in DXF format. If this is not possible, then, DWG, DGN, and SHP are also acceptable formats.

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 work, paid for at the contract unit prices of these various utility items included in the contract.

1. 400MM BUTTERFLY VALVE AND MANHOLE

Butterfly valves and manholes shall be furnished and installed as shown on the plans, as required by the provisions herein, and/or as directed by the Engineer.

Butterfly valves shall conform to ANSI/AWWA C504 for Class 150B valves, with O-ring shaft seals. Such valves shall be short or long body with flanged ends. Butterfly valve shall open left using a manual actuator with a 50MM (2 inch) operating nut and a position indicator.

Manholes to house the butterfly valves shall be precast concrete conforming to ASTM C478. The manhole lid shall indicate "WATER" on it. The access point in the top of the manhole for the valve wrench shall be directly over the valve operating nut. The manhole ring and cover shall be of an approved type and shall be traffic bearing. The manholes shall be placed as shown on the utility plans and/or as directed by the Engineer.

All 300MM (12") valves, after being removed, shall become the property of the Contractor. All 400MM (16") valves, after being removed, shall be stockpiled on the project site and become the property of the City of Raleigh. Please contact Perry Allen with the City at telephone # (919) 857-4540 when the valves are ready to be picked up.

Butterfly valves and manholes, installed in accordance with the plans and utility provisions herein and accepted, will be measured and paid for at the contract unit price per each for "400MM Butterfly Valve and Manhole". Such prices and payments will be full compensation for all labor, materials, equipment, excavation, backfilling, sterilization, pressure testing, manhole construction, ring and cover, and incidentals necessary to complete the work as required.

2. BEDDING MATERIAL, UTILITIES CLASS V:

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 which 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 metric 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.



Project: R-2809A County: WAKE

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) Progress Energy- Power (Distribution)
- B) Wake Electric Membership Corporation-Power (Distribution)
- C) Town of Wake Forest - Power (Distribution)
- D) Embarq - Telephone
- E) Public Service of North Carolina - Natural Gas
- F) Time Warner - CATV
- G) City of Raleigh - Water

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 NCDOT "Standard Specifications For Roads and Structures" dated January 2002.

Utilities Requiring Adjustments:

- A) Progress Energy - Power (Distribution)
 - 1. All Progress Energy Power will be adjusted by the date of availability. See Utilities By Others Plans for details.
- B) Wake Electric Membership Corporation - Power (Distribution)
 - 1. All Wake EMC Power will be adjusted by the date of availability. See Utilities By Others Plans for details.
- C) Town of Wake Forest - Power (Distribution)
 - 1. All Town of Wake Forest Power work within the limits of this project will be completed by March 15, 2008. See Utilities By Others Plans for details.
- D) Embarq - Telephone
 - 1. All Embarq Telephone work within the limits of this project will be completed by March 30, 2008. See Utilities By Others Plans for details.

E) Public Service of North Carolina - Natural Gas

1. All Public Service of North Carolina Natural Gas buried gas lines located within the limits of this project shall remain in place and be adjusted if necessary. The Contractor shall give PSNC 2 (two) weeks prior notice before beginning work and 2 (two) weeks to complete construction at each location in conflict. See Utilities By Others Plans for details.

F) Time Warner - CATV

1. All Time Warner CATV will be adjusted by the date of availability. See Utilities By Others Plans for details.

G) City of Raleigh - Water

1. The City of Raleigh will be installing a new water line by the date of availability. It will be a new 400MM (16") water line located inside the project limits. See Utilities By Others Plans for details.