

Quotes will be received in the Office of the Procurement Coordinator, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 4:00 PM (EDST) on November 9, 2016, for the furnishing of Old Creek Road Natural Gas Main Replacement.

Greenville Utilities reserves the right to reject any or all bids.

**SECTION I**  
**GENERAL INSTRUCTIONS FOR INFORMAL QUOTES**  
**GREENVILLE UTILITIES COMMISSION**  
**REQUEST FOR QUOTATION**

**NOVEMBER 9, 2016**

**1.0 NOTICE TO BIDDERS**

Quotations, subject to the conditions made a part hereof, will be received in the Office of the Procurement Coordinator, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 4:00 PM (EDST) on November 9, 2016. **Late Bids will not be considered.**

**2.0 STANDARD FORMS REQUIRED**

Each bidder must submit a proposal on the enclosed request for quotation form. **The quotation must be signed by an authorized official of the firm.**

**3.0 DEPOSIT**

A deposit is **NOT** required for this quotation.

**4.0 NC SALES TAX**

Do **not** include NC sales taxes in the quoted figure; however, Greenville Utilities Commission (GUC) does pay sales tax. Sales tax should be added to the invoice as a separate item.

**5.0 FEDERAL EXCISE TAX**

GUC is exempt from Federal Excise Tax and will issue a Federal Exemption Certificate upon request to the successful bidder.

**6.0 EXCEPTIONS TO BE CLEARLY STATED**

If quote is not in strict accordance with Section II, "Specifications," bidder must list or note all exceptions **on the Request for Quotation Form**, otherwise, it is fully understood that the successful bidder will furnish equipment, materials and services exactly as specified. GUC reserves the right to accept or reject quotes and to determine the lowest responsible, responsive quote from the standpoint of quality, performance, and price.

**7.0 EVALUATION AND AWARD OF QUOTATIONS**

GUC reserves the right to reject any and all quotations, to waive any and all informalities, and to disregard all nonconforming or conditional quotes or counter proposals. In evaluating quotes, GUC shall consider whether the quotes comply with the prescribed requirements, plus all alternates or options requested. GUC reserves the right to include or exclude any option or alternative in GUC's opinion is in GUC's best interests. If a quote is to be awarded, it will be awarded to the lowest responsible, responsive bidder whose evaluation by GUC indicates that the award will be in GUC's best interests.

## **8.0 PROMPT PAYMENT DISCOUNTS**

Bidders are urged to compute all discounts into the price offered. If a prompt payment discount is offered, it may be considered in the award of the contract.

## **9.0 NUMERICAL ERRORS**

In the case of a discrepancy between a unit price and the extension (the unit price multiplied by the number of units), the unit price governs. In the case where numerical quotes are stated both in numbers and in words, the words govern.

## **10.0 QUANTITIES**

Quantities specified are only estimates of Greenville Utilities Commission's (GUC's) needs for a twelve month period. GUC reserves the right to purchase more or less than the stated quantities at firm prices indicated herein based on our actual needs.

## **11.0 EXPECTED START DATE**

December 1, 2016

## **12.0 BID WITHDRAWAL**

A bidder must notify GUC in writing of its request to withdraw a bid within seventy-two (72) hours after the bid opening, not including Saturdays, Sundays, or holidays. In order to justify withdrawal, the bidder must demonstrate that a substantial error exists and that the bid was submitted in good faith.

## **13.0 MINORITY BUSINESS PARTICIPATION PROGRAM**

GUC has adopted an Affirmative Action and Minority and Women Business Enterprise Plan (M/WBE) Program. Firms submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment, and to utilize M/WBE suppliers of materials and labor when available.

## **14.0 CONTACT INFORMATION:**

Questions regarding this bid request should be directed to Cleve Haddock, CLGPO, Procurement Coordinator, (252) 551-1533, [haddockgc@guc.com](mailto:haddockgc@guc.com) or Durk Tyson, Gas Systems Engineer, (252)-551-2048, [tysonfd@guc.com](mailto:tysonfd@guc.com)

## **15.0 TERMS AND CONDITIONS**

The attached Terms and Conditions of Greenville Utilities Commission (GUC) are considered part of the bid proposal.

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**GREENVILLE UTILITIES COMMISSION**  
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**NOVEMBER 9, 2016**

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**GREENVILLE UTILITIES COMMISSION  
NATURAL GAS DEPARTMENT**

**SPECIFICATIONS FOR  
OLD CREEK ROAD NATURAL GAS MAIN REPLACEMENT**

**1     SECTION 1 - GENERAL**

**1.1   Scope of work**

The work included under this Contract shall include supplying all necessary materials not supplied by the Greenville Utilities Commission (GUC), labor and equipment to install natural gas distribution mains and all necessary appurtenances within GUC's natural gas distribution system as specified herein and detailed on the Plans.

Natural gas main installations will include six (6) inch and eight (8) inch main. The piping will be medium-density polyethylene. The work involved will include installation of mains to be operated at 60 psig. All mains will be tested at 90 psig.

This Contract shall require the CONTRACTOR to work on live gas mains.

The types of work required under this Contract shall include: direct burial, plowing and directional drilling installation of polyethylene natural gas mains.

Award of this Contract shall in no way restrict GUC from using its own construction crews or from hiring additional CONTRACTORS to perform the same or similar type work.

**1.2   Compliance**

The CONTRACTOR shall comply with all provisions of GUC's *Operation and Maintenance Plan*, dated April 2011 and CFR Title 49, Part 192.

**1.3   Bidder Qualifications**

GUC may, at its discretion, require bidders to supply pre-qualification information prior to submission of the Bid Proposal. Contact the OWNER for qualification requirements.

**1.4   Operator Qualification (OQ)**

CONTRACTORS are required to provide a current copy of the Company's Operator Qualification (OQ) Plan for natural gas distribution work prior to award of the Contract. Copies of all employee OQ qualifications shall be provided to the OWNER prior to beginning the work. The OQ written plan and employee records shall be in accordance

with Title 49 of the Code of Federal Regulations, Chapter I, Part 192 (49 CFR 192), Subtitle N, "Qualification of Pipeline Personnel."

The CONTRACTOR shall furnish GUC with records of continuous employee qualification for all employees with each monthly progress payment application. Qualification documentation shall be provided for all new employees prior to performing work on GUC's natural gas system.

GUC may, at its discretion, accept the provisions of a CONTRACTOR's Plan. CONTRACTORS shall make available, upon request, written records of their employee's qualifications. At a minimum these records shall include:

- Identification of qualified individual(s)
- Identification of covered task(s) each individual is qualified to perform
- Date that current qualification was received
- Method of evaluation used to obtain qualification
- Name of individual or organization for each covered task
- Training program outlines and materials
- List of non-qualified individuals that will be performing tasks on behalf of GUC while under the direction of a contract qualified individual.

## **1.5 Drug Testing**

Any and all employees of the CONTRACTOR who will be involved with natural gas distribution construction and maintenance operations required by this contract shall be required to participate in an anti-drug/drug testing program. This program shall be administered in accordance with Title 49 of the Code of Federal Regulations, Chapter I, Part 199 (49 CFR 199), "Drug Testing," and Subtitle A, Part 40, "Procedures for Transportation workplace Drug Testing Programs." The program must have been in force for no less than 12 months and the CONTRACTOR must show proof of enforcement to the Owner.

The CONTRACTOR shall furnish GUC with documentation of participation in a qualified drug-testing program. Prior to the performance of any fusion and/or tie-in operations, a negative (no evidence of drug use) test must be documented for all employees who will be involved with these operations.

## **1.6 Bonds**

### **1.6.1 Bid Bond**

A bid bond in the amount of five percent (5%) of the total bid is required per 1.7.1.a Bonds of the *General Conditions*. The Bid Bond shall be submitted with the Bid Form on or prior to the date and time set for bid opening.



### 1.6.2 Performance Bond

The successful Bidder shall be required to provide a performance and payment bond in the amount of one hundred percent (100%) of the contract price per 1.7.1.b Bonds of the *General Conditions*.

The bond shall be executed with the Contract and delivered to GUC within ten (10) days after the date of official Notice of Award.

### 1.7 Insurance

The limits of liability for the insurance shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	<u>Statutory</u>
Federal, if applicable (e.g., Longshoreman's):	<u>Statutory</u>
Employer's Liability:	
Bodily injury, each accident	\$ <u>1,000,000</u>
Bodily injury by disease, each employee	\$ <u>1,000,000</u>
Bodily injury/disease aggregate	\$ <u>1,000,000</u>

2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ <u>1,000,000</u>
Products - Completed Operations Aggregate	\$ <u>1,000,000</u>
Personal and Advertising Injury	\$ <u>1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Bodily Injury:	
Each person	\$ <u>1,000,000</u>
Each accident	\$ <u>1,000,000</u>
Property Damage:	
Each accident	\$ <u>1,000,000</u>
[or] Combined Single Limit of	\$ <u>1,000,000</u>

4. Excess or Umbrella Liability:

Per Occurrence	\$ <u>4,000,000</u>
General Aggregate	\$ <u>4,000,000</u>

## **1.8 Work Hours**

All work shall be performed in such a manner that will not conflict with or increase the normal five-day work week of GUC. The normal work hours are 8:00 a.m. to 5:00 p.m., Monday through Friday. Saturday work and work performed after 5:00 p.m. on Monday through Friday shall normally be limited to clean-up operations and no work will be scheduled for Sundays or holidays.

The CONTRACTOR will typically be allowed to work outside of the normal work hours as long as the work does not require the presence of GUC personnel (non-covered tasks).

Night work is not included in the Contract normal working hours and will not typically be allowed. Occasional work after the normal work hours provided for in this section may be allowed with the OWNER's approval, but is not an expressed privilege of the Contract. GUC may, upon the request of the CONTRACTOR, allow night work with the understanding that the work as described above is being performed entirely for the convenience of the CONTRACTOR, as long as a GUC inspector is available to be onsite and no other GUC personnel are required to be available for assistance. If the CONTRACTOR chooses to perform the night work for his convenience, all additional costs, without exception, to the CONTRACTOR including labor, rental equipment, etc., will not be considered a basis for additional compensation to the CONTRACTOR.

Weekend work is not included in the Contract normal working hours and the CONTRACTOR will not be allowed to perform any work required by the Contract except for cleanup.

The following holidays are observed by GUC and work by the CONTRACTOR on these days, other than cleanup, will not be allowed:

November 11, 2016 – Veterans Day  
November 24 & 25, 2016 – Thanksgiving Day  
December 23-27, 2016 – Christmas  
January 2, 2017 – New Year's Day

## **1.9 Time for Completion and Liquidated Damages**

If awarded the Contract, the CONTRACTOR shall agree to commence the work covered by these Specifications within ten (10) calendar days after receipt of the written "Notice to Proceed" from the Owner or as mutually agreed upon by both parties and to fully complete the work within thirty (30) consecutive calendar days.

Time is an essential element of the Contract and it is important that the work be prosecuted vigorously to completion. It is expressly understood and agreed by and between the CONTRACTOR and the Owner that the Contract Period is a reasonable time

for the completion of the work and that, as a partial consideration for the awarding of this Contract, for each consecutive normal working day (Monday through Friday whether work is performed by the CONTRACTOR or not) that any work shall remain uncompleted after the end of the Contract Period, the CONTRACTOR shall pay to GUC the amount of one thousand dollars (\$1,000.00) per consecutive working day, not as a penalty but as a predetermined and agreed liquidated damage. Such amount shall be deducted by the Owner from any balance due or to become due the CONTRACTOR under the terms of the Contract. During the liquidated damages period, considerations for holidays that are observed by GUC will be provided to the CONTRACTOR. However, the OWNER shall determine if and how much consideration the CONTRACTOR will be allowed for non-performance of work resulting from inclement weather.

Considerations for holidays and inclement weather have been included in the development of the Time for Completion and no extension of the Contract Period will be allowed for weather related downtime, unless the downtime related to inclement weather exceeds the above 10-Year Normals for the Greenville area as recorded by the Greenville Water Treatment Plant.

GUC may grant to the CONTRACTOR an extension of the Contract Period for additional work resulting from any modification(s) to the scope of the project, for delays caused by GUC or for other reasons beyond the control of the CONTRACTOR which in GUC's judgment would justify such extension. A request for a time extension shall be made within seven (7) calendar days following any event causing a delay.

No extension of the Contract Period will be allowed when the actual installed quantities as described in the original contract (Plans and Specifications) are less than twenty five (25) percent in excess of the estimated Contract quantities. If the CONTRACTOR is requested by GUC to install facilities that are not described in the original contract, then the CONTRACTOR shall submit a written request for an extension of time to complete the work. The OWNER will review the request for additional time and make a determination at that time, or defer to a later date within the Contract Period, as to the allowance for additional Contract Time. If the OWNER determines that additional Contract Time is justified, then the OWNER shall make a determination for the length of extension allowed.

The assessment of liquidated damages for failure to complete the work within the Contract Period shall not constitute a waiver of GUC's right to collect any additional damages that GUC may sustain by failure of the CONTRACTOR to carry out the terms of the Contract.

### **1.10 Project Manager**

Greenville Utilities' Gas Systems Engineer, (252-551-2048) is the designated Project Manager.

The term OWNER, as used herein, indicates the individual or firm named above and/or his duly authorized representative(s).

### **1.11 Inspection**

The OWNER shall have access to the work at all times. The CONTRACTOR shall provide proper facilities for such access and for inspection. The OWNER shall be present for all special testing or approval of the work that is required by the Specifications, the OWNER's instructions, laws, ordinances, or any public authority.

The OWNER, in order to be present, shall be given sufficient notice prior to any required testing or approval. The CONTRACTOR shall have no claim against GUC for time or monies when sufficient notice, as described above, is not given to the OWNER.

The OWNER may require re-examination of any of the work. If required, the CONTRACTOR shall provide all labor and equipment necessary to uncover the work. If the work is determined to be in accordance with the Specifications, GUC will pay the costs of re-examination and replacement. If the work is not in accordance with the Specifications, the CONTRACTOR shall pay such costs.

Inspector(s) will be stationed at the work site to report to the OWNER as to the progress of the work, the manner in which it is being performed, and also to report whenever it appears that the materials furnished by either GUC or the CONTRACTOR or the work performed by the CONTRACTOR fails to meet the requirements of the Plans or Specifications.

If a dispute arises between the Inspector and the CONTRACTOR as to the materials furnished or to the manner of performing the work, the Inspector shall have the authority to reject the questionable materials or suspend the work until the issue can be referred to and a decision can be made by the OWNER. Inspectors are not allowed to revoke, alter, enlarge, relax or release any requirements of these Specifications or to issue instructions contrary to the Contract Documents. Inspectors shall in no case act as foremen or perform duties for the CONTRACTOR or interfere with the management of the work by the CONTRACTOR.

The OWNER will make a final inspection of the work included in the Contract as soon as possible after notification from the CONTRACTOR that the work is substantially complete and ready for inspection. If any of the work is not acceptable at the time of the inspection, the OWNER will advise the CONTRACTOR, in writing, as to the particular item(s) to be completed or corrected before the work can be given final approval and final payment for the work is approved.

#### **1.12 Scheduling of work**

The CONTRACTOR shall typically have control of the scheduling of the proposed work, however, GUC reserves the right to require sections of the work to be completed prior to or following other sections of the work.

The CONTRACTOR shall provide a schedule of the work to the OWNER, prior to beginning the work. The schedule shall include station-by-station progression, milestones (dates) for the proposed progress, crew introduction and exit information, and other relevant information deemed necessary by the OWNER.

#### **1.13 Plans and Specification Contradictions**

Where contradictions in the Plans and Specifications occur, the more restrictive provision shall apply unless otherwise authorized by the OWNER. The CONTRACTOR shall immediately notify the OWNER of any such contradiction and shall abide by the OWNER's decision.

#### **1.14 Superintendence**

The CONTRACTOR shall keep on the work at all times during its progress a competent resident Superintendent, having a minimum of three (3) years experience in the installation of natural gas distribution facilities. The Superintendent shall represent all work performed by all of the CONTRACTOR's crews and shall not function as the foreman for any individual crew when more than one crew is onsite performing work required by the Contract. The Superintendent shall not be replaced without written notice to the OWNER except under extraordinary circumstances, as determined by the OWNER. The Superintendent will be the CONTRACTOR's representative at the site and shall have authority to act on behalf of the CONTRACTOR. All communications to or from the Superintendent shall be binding as if given to or received from the CONTRACTOR.

#### **1.15 CONTRACTOR Crew Requirements**

The CONTRACTOR shall provide a sufficient number of crews to efficiently complete the work required by the Contract within the Contract Period. For the purpose of this Contract, the term crew shall be defined as a collective group of CONTRACTOR personnel consisting of a foreman and other necessary personnel knowledgeable and able to perform a specific task or tasks. The CONTRACTOR shall provide a minimum of one mainline crew for this project. The CONTRACTOR shall provide the OWNER with five (5) working days notice prior to introducing new crews to the Project. GUC reserves the right to limit the number of crews or request additional crews to complete the work associated with this Project.

#### **1.16 Implied work**

All incidental work required through the Plans and/or the Specifications, or as otherwise directed by the OWNER, for which no payment is specifically provided, and any and all work or materials not specified herein which may fairly be implied as included in the Contract and necessary to complete the work, and which GUC shall judge to be so included, shall be executed and/or furnished by the CONTRACTOR without extra compensation.

#### **1.17 Required work Not Covered by a Unit Cost**

For any required work that is not covered by a specific unit cost in the Bid Proposal, a price must be submitted to and approved by the OWNER prior to performing the work. Any work performed without prior, written approval from the OWNER will be performed at the sole expense of the CONTRACTOR.

#### **1.18 Payment to CONTRACTOR**

GUC will make monthly progress payments to the CONTRACTOR based on duly certified invoices approved by the OWNER for work completed during the preceding work period.

An amount equal to 10% of the total amount due on the progress estimate will be deducted and retained by GUC until 50% of the work has been completed. When the work is 50% complete, the retainage being held will be reduced to 5% of the total value of all work satisfactorily completed in the opinion of GUC to date, and provided that satisfactory progress in the opinion of GUC is maintained. Five percent retainage will be withheld on all future partial estimates until the work is substantially complete and then will be reduced to only that amount necessary to assure completion.

If the CONTRACTOR does not maintain satisfactory progress or if there is other specific cause, the retainage may be increased to 10%.

The CONTRACTOR shall submit the progress payment invoice to the OWNER for approval on or about the 25th day of each month during the Contract period. GUC shall make payment to the CONTRACTOR following proper submittal and acceptance of the invoice as describe above.

Progress payments shall in no way be considered acceptance of the work, nor as a release of the CONTRACTOR's responsibility for work completed prior to final acceptance.

## **2     SECTION 2 - GENERAL CONSTRUCTION MATERIALS**

The CONTRACTOR shall supply and pay for all labor and materials necessary for the completion of the work specified herein and on the Plans, except as otherwise expressly provided for in the Contract Documents. Unless otherwise specified, all materials shall be new.

### **2.1     Bituminous Paving**

#### **2.1.1     General**

All aggregate, mineral filler, bitumen, and prime coat shall be in accordance with the North Carolina Department of Transportation's (NCDOT) *Standard Specifications for Road and Structures*, latest edition.

#### **2.1.2     Aggregate Base Course**

Aggregate base course material shall conform to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition.

#### **2.1.3     Asphalt Concrete Base Course**

Asphalt concrete base course material shall be NCDOT Type H-B conforming to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition.

#### **2.1.4     Asphalt Concrete Intermediate Course**

Asphalt concrete intermediate course material shall be NCDOT Type H conforming to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition.

#### **2.1.5     Tack Coat and Prime Coat**

Material for tack coat and prime coat shall conform to NCDOT *Standard Specifications for Road and Structures*, latest edition.

#### **2.1.6     Asphalt Concrete Surface Course**

Asphalt concrete surface course material shall be NCDOT Type I-2 conforming to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition.

## **2.2 Coarse Aggregate**

Coarse Aggregate used for road repair and replacement shall consist of crushed stone, crushed slag, or crushed or uncrushed gravel with clean, hard, tough, and durable pieces free from adherent coatings and deleterious amounts of friable, thin, elongated, or laminated pieces; soluble salts; or organic materials, and shall conform to the requirements of NCDOT Specifications.

## **2.3 Stone - Riprap**

Stone for riprap shall be sound, durable, and free from seams, cracks, and other structural defects. Riprap and bedding shall be crushed stone, conforming to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition.

## **2.4 Crushed Aggregate**

Crushed aggregate used for maintaining traffic, and repairing and constructing private access pavements shall be crushed from stone, slag or gravel and shall contain all of the sizes produced when the original aggregate is reduced through a series of crushers to the maximum size specified. It shall be free of all deleterious substances in accordance with the NCDOT *Standard Specifications for Road and Structures*, latest edition.

## **2.5 Sand**

Sand shall be naturally occurring sand or manufactured stone sand. Natural sand shall consist of grains of hard, sound material, predominantly quartz, occurring in natural deposits. Manufactured sand shall consist of sound crushed particles of minimum NCDOT Grade B stone, essentially free from flat or elongated pieces, with sharp edges and corners removed. All sand shall be clean and free from foreign matter such as loam, dirt, sticks, roots, leaves, silt, vegetable matter and oil or dyestuffs.

## **2.6 Concrete**

Concrete shall be Class B (3000 psi minimum) for sidewalks, driveways, and curb and gutters and shall conform to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition Sections 825, 846 and 848.

### **2.6.1 Reinforcing Steel**

Steel reinforcement shall conform to the requirements of NCDOT *Standard Specifications for Road and Structures*, latest edition.



### **3     SECTION 3 - GENERAL CONSTRUCTION REQUIREMENTS**

#### **3.1   Standards**

The work covered by these Specifications consists of, and includes, the performance of all operations and the furnishing of all labor, equipment, supplies and other facilities and incidental materials, as required, necessary for the construction of natural gas distribution mains and other facilities complete. The work shall be complete, tested, accepted and connected to the existing gas distribution systems.

All work on the natural gas distribution system shall be performed in accordance with: Title 49 of the Code of Federal Regulations, Chapter I, Part 192 (49 CFR 192), "Transportation of Natural and other Gas by Pipeline: Minimum Federal Safety Standards," as amended; GUC's *Operation and Maintenance Plan*, as amended; and any other applicable standards which are hereby incorporated into these Specifications by reference.

General construction operations applicable to natural gas facilities installation shall be performed in accordance with: Title 29 of the Code of Federal Regulations, Chapter I (29 CFR 1926), *Occupational Safety and Health Standards for the Construction Industry*; and any other applicable standards which are hereby incorporated into these Specifications by reference.

#### **3.2   Mobilization**

The CONTRACTOR shall furnish all equipment, materials and labor necessary for the performance of construction preparatory operations, including but not limited to: the movement of personnel, material and equipment to and from the project site; the establishment of the CONTRACTOR's offices and storage and equipment areas; the establishment of all markings, signs, traffic detours and controls; and all other facilities necessary to perform the work as specified herein.

##### **Measurement and Payment**

The cost of mobilization is considered incidental to the work and a specific contract unit price will not be provided. The cost of any and all bonds, licenses, equipment, materials, labor, etc., required for startup or mobilization operations shall be included in the unit price bid for the various bid items.

#### **3.3   Equipment, Tools, Labor and Materials**

##### **3.3.1   Equipment, Tools, Labor and Materials To Be Furnished By OWNER**

GUC shall supply no equipment, tools, or labor necessary for the completion of the work as specified herein.

GUC shall supply the CONTRACTOR with all pipe, tees, elbows, reducers, valves, valveboxes, locating stations, locating tape and tracer wire necessary for the completion of the Work specified herein. Material furnished by GUC will be available to the CONTRACTOR at GUC's storage facilities located at the Operations Center, 801 Mumford Road, Greenville, North Carolina. The CONTRACTOR shall requisition materials on the form provided by GUC and shall account for or return all materials so requisitioned. No separate payment will be made to the CONTRACTOR for time, labor and equipment necessary for the CONTRACTOR to receive and haul materials from GUC's storage facilities to the work site(s); such costs are to be included in and absorbed by the unit prices bid in the CONTRACTOR's proposal.

### **3.3.2 Equipment, Tools, Labor and Materials To Be Furnished By CONTRACTOR**

The CONTRACTOR shall supply and pay for all labor and materials necessary for the completion of the work specified herein. The CONTRACTOR shall supply any and all materials incidental to the installation of the gas pipe not supplied by GUC as described in 3.3.1 Equipment, Tools, Labor and Materials To Be Furnished by OWNER, including but not limited to: select fill, sand and gravel; concrete; asphalt; testing equipment and fittings; erosion and sediment control materials; and protective rock shields. Unless otherwise specified, all materials shall be new.

The CONTRACTOR shall provide and pay for all equipment, tools and labor necessary for the proper completion of the work specified herein, including but not limited to: excavation and trenching equipment; pipe cutting, welding and fusing equipment and supplies; pipeline testing equipment; traffic control devices; and any and all applicable safety equipment which may be required.

Workmanship, tools, equipment and materials shall be of good quality meeting established industry standards. The CONTRACTOR shall, as required by the OWNER, furnish satisfactory evidence as to the kind and quality of materials that the CONTRACTOR provides.

Only equipment that will not damage the surfacing along any improved roadways shall be used. When crossing improved roadways with equipment that will damage it, wood boards, flat pads or other approved methods shall be used to prevent damage to the roadway. The CONTRACTOR shall repair any and all resulting damage at no cost to GUC.

The CONTRACTOR shall, as required by the OWNER, furnish a complete list of equipment that will be employed on the job from the commencement of the work and until the OWNER accepts the job.

### **3.4 Inspection By The OWNER**

Prior to installation of the gas distribution facilities, the OWNER shall inspect all pipe, fittings, valves, and other appurtenances in accordance with all provisions specified herein as well as all applicable manufacturers' standards and specifications. The CONTRACTOR shall remove from the work all materials which do not meet the provisions specified herein, as well as any and all manufacturer's standards and specifications, and replace such with acceptable materials.

The CONTRACTOR shall produce evidence, as required by the OWNER, that any and all items of the work have been installed in accordance with the project Plans and Specifications. The OWNER will conduct field inspections and witness field tests as specified herein.

### **3.5 Submittals**

All submittals shall be identified as required by the OWNER, and shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and any and all other data which may be required by the OWNER to show that the materials and equipment the CONTRACTOR proposes to provide and use are in accordance with required Specifications.

#### **3.5.1 As-Built Documents**

GUC and its inspector(s) will collect as-built information for this project. The CONTRACTOR shall allow GUC access to the work during the installations and prior to backfill operations such that the necessary data collection can be completed.

No claims for time extensions or monetary considerations will be allowed by GUC for the work required by the as-built data collection.

### **3.6 Right-of-Way and Easements**

The CONTRACTOR shall confine construction operations to the immediate vicinity of the project location as shown on the Plans and in no case shall the CONTRACTOR encroach beyond the limits of the City of Greenville or of the NCDOT rights-of-way. The CONTRACTOR shall further use due care in placing construction tools, equipment, excavated materials, and pipeline facility materials and supplies so as to cause the least possible damage to property and the least interference with traffic. The placing of such tools, equipment, and materials shall be subject to the approval of the OWNER. Any damage resulting from the placement of equipment and materials or construction operation occurring outside of the City of Greenville or NCDOT rights-of-way or designated work areas shall be the sole responsibility of the CONTRACTOR. The CONTRACTOR shall make satisfactory settlement for any damage directly with the property owner involved.

The CONTRACTOR shall conduct the construction in such a manner to cause the least inconvenience to the citizens of the area, thereby maintaining good public relations. The CONTRACTOR shall not unnecessarily interfere with the use of any public or private improvements, including landscaping; nor unnecessarily damage such improvements. The CONTRACTOR shall repair any damage to such improvements to pre-construction condition, or as otherwise directed by the OWNER.

#### **3.6.1 Protection of Existing Property Irons and Monuments**

The CONTRACTOR shall use care in protecting existing property irons and monuments adjacent to his working area. If a property iron or monument must be removed to install new facilities, the CONTRACTOR shall be responsible for locating the iron or monument in such a manner that a surveyor, registered by the North Carolina Board of Examiners for Professional OWNERS and Surveyors, can accurately replace the iron or monument after construction of the new facilities. If a property iron or monument is destroyed because of neglect on the part of the CONTRACTOR, a surveyor registered by the North Carolina Board of Examiners for Professional OWNERS and Surveyors shall immediately replace it at the CONTRACTOR's expense.

#### **3.7 Cooperation Among CONTRACTORS**

The CONTRACTOR shall not hinder the work being performed by other contractors within the limits of or adjacent to this Project. The CONTRACTOR shall cooperate with other contractors, utilities or entities working in the Project area or adjacent to the Project area. The OWNER shall provide assistance, when necessary, to assure that the Project is completed in a manner which is in the best interest of GUC.

When contracts are awarded to or contracts are active by separate contractors for concurrent construction in or adjacent to the work area, the CONTRACTOR shall update the Project Schedule and submit this schedule to the OWNER for review. For separate contracts awarded by other entities, the OWNER shall review and compare the contractor schedules with the appropriate department(s). If necessary, revisions to the schedule will be provided to the CONTRACTOR. The CONTRACTOR shall be allowed to request modifications to the revised schedule which will not conflict with or hinder the work scheduled to be performed by others.

The CONTRACTOR shall assume all liability, financial or otherwise, in connection with the Contract and shall protect and save harmless GUC from any and all damages and claims that may arise because of any inconvenience, delay, or loss he experiences as a result of the presence and operations of other contractors working in or near the work. The CONTRACTOR shall also assume all responsibility for any of the work not completed due to the presence or operation of other contractors.

Except for an extension of the Contract Length, GUC will not be responsible for any inconvenience, delay, or loss experienced by the CONTRACTOR as a result of his failure to

gain access to the work at the time contemplated. When the failure to gain access is not due to any fault or negligence of the CONTRACTOR, an extension of the Contract Length may be allowed on the basis of the amount of time delayed.

GUC will not assume any responsibility for acts, failures, or omissions that delay the work, except as provided herein.

If the CONTRACTOR or any of their subcontractors or employees cause loss or damage to any other contractor, and if such other contractor makes a claim against GUC, its employees or agents, due to any loss so sustained GUC shall notify the CONTRACTOR, who shall defend, indemnify and save harmless GUC, its employees and agents against any such claim, expense or judgment arising there from.

Upon the written request of the CONTRACTOR, the OWNER may relieve the CONTRACTOR of the requirement of maintaining and protecting certain portions of the work which have been completed in all respects in accordance with the requirements of the Specifications and other Contract Documents and to the satisfaction of the OWNER and of which GUC has taken occupancy or use of, and thereafter except with the OWNER's consent, the CONTRACTOR will not be required to do further work thereon. In addition, such action by the OWNER will relieve the CONTRACTOR of responsibility for injury or damage to said completed portions of the work resulting from work performed by other contractors, utilities or entities. However, nothing in this section will be construed as relieving the CONTRACTOR of full responsibility for repairing, removing and replacing defective work or materials found at any time before the completion and acceptance of all work by the OWNER or within the Guarantee Period for the work.

### **3.8 Maintenance of Traffic**

The CONTRACTOR shall be required to provide maintenance of traffic within the construction area for the duration of the construction period, including during any temporary suspension of work. Maintenance of traffic shall be performed conforming to the current edition of the "Manual on Uniform Traffic Control Devices" (MUTCD).

When requested by the OWNER, the CONTRACTOR shall provide a detailed Traffic Maintenance Plan for portions of the work prior to beginning work to be performed under this Contract. The submitted traffic plan shall be reviewed by the OWNER for completeness and compliance with the requirements of the City of Greenville and NCDOT. If revisions are required for the plan(s), the CONTRACTOR shall be provided with the revised plan or be required to submit a revised plan. The CONTRACTOR must have an approved traffic maintenance plan prior to commencing the work for the section(s) covered by the plan.

Where it becomes necessary to close roadways or sections of roadways, the amount of roadway closure shall be generally limited to the immediate work area and shall be in accordance with the above manual and specifications. In the event that an entire

roadway or section of roadway is required to be closed, the CONTRACTOR will be required to notify and receive authorization from the OWNER prior to closing the road and upon reopening the road.

All materials, equipment and labor used for traffic control measures shall meet the requirements of the NCDOT. Traffic control measures shall be made available to the OWNER for inspection prior to commencement of the work.

### **Measurement and Payment**

Maintenance of traffic is considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for maintenance of traffic, as specified herein, shall be included in the unit prices bid for the various pay items of the work.

#### **3.8.1 Traffic Cones, Barrels, Barricades and Signs**

The CONTRACTOR shall furnish, install and maintain sufficient traffic cones, barrels, barricades and signs to perform the work in accordance with the NCDOT requirements for traffic control. The traffic cones, barrels, barricades and signs shall be in accordance with the specifications provided for in the "Manual on Uniform Traffic Control Devices".

#### **3.8.2 Flagging Operations**

The CONTRACTOR shall furnish sufficient personnel and equipment to perform flagging operations as required by the work. The personnel shall be certified by the NCDOT to perform flagging operation. The equipment shall meet the guidelines and specifications of NCDOT and the MUTCD.

#### **3.8.3 Maintenance of Ingress and Egress**

The CONTRACTOR shall strive to maintain, at all times during the execution of the work, continuous ingress and egress to all affected properties and traveled ways. When ingress and egress to affected parcels must be blocked, due to the direct execution of the work, twenty-four (24) hours advance notice must be given to the affected property owner by the CONTRACTOR. In no case shall the blocking of ingress and egress be allowed for more than twenty-four (24) hours consecutively.

### **3.9 Pavement Removal and Disposal**

The CONTRACTOR shall not cut any NCDOT maintained pavement unless a permit for cutting pavement at the specific location has been obtained from the North Carolina Department of Transportation. The CONTRACTOR shall be responsible for working with the OWNER to obtain the necessary permit.

Removal of pavement includes cutting of the pavement, breaking of the pavement surface and excavating the pavement using conventional trenching, hand and pneumatic equipment. Pavement removal includes removal of all layers of bituminous asphalt and concrete pavement necessary to properly install the pipe and/or appurtenances. Removal of pavement shall be limited to twenty-four (24) inches of width for mainline installations. The removal of pavement for test holes shall be in accordance with 3.13.1.1 Test Hole Excavations.

Maximum cutting dimensions for trenches and bellholes shall be in accordance with 3.17 Pavement and Concrete Replacement. Cutting in excess of these dimensions, unless approved by the OWNER, shall not be measured for payment. Pavement cutting shall be required in all direct burial applications, as indicated on the construction Plans, as required by permit, or as directed by the OWNER.

Where pavement is cut and replaced, the CONTRACTOR shall cut the edges to a straight and even line before repairing the pavement. Non-uniform edges will not be permitted or accepted.

All pavements removed as part of the work shall be removed from the jobsite and disposed of in accordance with the requirements of Federal, State, County, City of Greenville, and all applicable environmental regulations.

#### **Measurement and Payment**

Removal and disposal of pavement along mainline trenches, as described above, will be measured for payment in units of linear feet through the removed pavement section. Unit bid price shall also include cutbacks of surface pavement grades, and stepping of sub and base pavement grades.

Removal and disposal of pavement for excavation of bellholes within previously unexcavated and restored asphalt sections, as described above, will be measured for payment in units of square feet of the removed pavement section. Unit bid price shall also include cutbacks of surface pavement grades, and stepping of sub and base pavement grades.

The cost of removal and disposal of bellhole pavement within the limits of previously excavated and restored trenchlines for this project shall be considered incidental and shall not be measured for payment a second time. The cost of any and all equipment and labor

required for removal and disposal of asphalt for bellholes, as specified herein, shall be included in the various pay items of the work.

The CONTRACTOR should be aware that the thickness and materials of the surface and subgrades may vary.

Payment for removal and disposal of pavement will be made at the unit price bid. The bid price shall include the cost of any and all equipment and labor required for removal and disposal of bituminous and concrete pavement. Pavement removed and disposed of in excess of what is allowable and reasonable for installation of main and appurtenances shall be performed at the expense of the CONTRACTOR and will not be measured for payment.

### **3.9.1 Sidewalk, Driveway, and Curb and Gutter Removal and Disposal**

The CONTRACTOR shall not cut or remove any NCDOT maintained sidewalk or curb and gutter sections unless a permit for cutting/removal of the sections at the specific location has been obtained from the North Carolina Department of Transportation. The CONTRACTOR shall be responsible for working with the OWNER to obtain the necessary permit.

Removal of concrete sidewalks, driveways, and concrete curbing and gutters includes the cutting of or the breaking of the concrete structure using conventional excavating, hand and pneumatic equipment. Removal of concrete sidewalks, driveways, and concrete curbing and gutters shall correspond to existing jointing. Removal of partial sidewalk sections shall not be permitted.

Cutting of the concrete sections shall be performed using appropriate saw(s) and shall be in a neat and workmanlike manner. The CONTRACTOR shall only remove sections necessary for the proper installation of the natural gas mains or sections damaged as a result of the construction activity.

All sidewalk, driveway or curbing and gutter sections removed as part of the work shall be removed from the jobsite and disposed of in accordance with the requirements of Federal, State, County, City of Greenville, and all applicable environmental regulations.

#### **Measurement and Payment**

Removal and disposal of concrete sidewalk and driveway as described above will be measured for payment in units of square feet of the removed sidewalk or driveway section.

Payment for removal and disposal of concrete sidewalk and driveway sections will be made at the unit price bid. The bid price shall include the cost of any and all



equipment and labor required for removal and disposal of concrete sections. Concrete sidewalk and driveway sections removed and disposed of in excess of what is allowable and reasonable for installation of main and appurtenances shall be performed at the expense of the CONTRACTOR and will not be measured for payment.

Removal and disposal of concrete curbing and gutters as described above will be measured for payment in units of linear feet of the removed curb and gutter.

Payment for removal and disposal of concrete curb and gutter sections will be made at the unit price bid. The bid price shall include the cost of any and all equipment and labor required for removal and disposal of curbing and gutters. Sections removed and disposed of in excess of what is allowable and reasonable for installation of main and appurtenances shall be performed at the expense of the CONTRACTOR and will not be measured for payment.

### **3.10 Erosion & Sediment Control**

The CONTRACTOR shall be required to provide a means of protecting and minimizing the effects of erosion and sediment displacement to the construction area and all immediate surrounding areas that may be affected by the construction activity.

Erosion and sediment control measures, including but not limited to: temporary stone construction entrances; silt fences; storm drain inlet protectors; stone for erosion control; soil stabilization mats; topsoil; temporary seeding; and permanent seeding shall be installed and maintained as indicated on the Plans, or as otherwise directed by the OWNER, in accordance with the *North Carolina Erosion and Sediment Control Planning and Design Manual*, the *North Carolina Erosion and Sediment Control Field Manual*, latest editions.

#### **Measurement and Payment:**

Due to the nature of this project, only minimal erosion control measures are expected. Basic erosion control to minimize effects to the construction areas and surrounding properties is considered incidental and will not be measured for payment. The cost of any and all equipment, materials, and labor required for erosion and sediment control, as specified herein, shall be included in the various pay items of the work.

### **3.11 Pipe and Materials Handling**

The CONTRACTOR shall load, unload, haul, receive, sign for, store, and otherwise be responsible for all materials. All materials shall be handled and placed in a manner that prevents damage and does not interfere with public and private travel.

All pipes shall be lifted, rolled, or otherwise handled either manually or by mechanical means so as to not damage the pipe or coating. All damaged pipe or coating shall be repaired and acceptance of it shall be contingent upon approval by the OWNER.

Polyethylene pipe shall be protected from fire, excessive heat, harmful chemicals, and long-term exposure to direct sunlight. The CONTRACTOR shall exercise due care during handling to prevent gouges, scratches, cuts, kinks, flattening, or punctures in the pipe. All defects or damage which could impair the serviceability of the polyethylene pipe, in the opinion of the OWNER, including cuts, gouges or scratches which are deeper than ten (10) percent of the wall thickness of the pipe or pipe that has a non-conforming shape shall be removed from the pipe joint or the piping system. When loading, unloading, moving and placing polyethylene pipe, the CONTRACTOR shall avoid dropping or dragging the pipe. Chains shall not be used for handling polyethylene pipe.

Polyethylene pipe shall be stored in the shade to minimize expansion of the pipe and adverse effects of ultraviolet light to the pipe.

The height of polyethylene pipe stacks shall not exceed four (4) feet. Pipe shall not be stored overnight on the job site unless it is stored in an area protected from vandals. Pipe and other materials shall not be placed directly on the ground but rather on wooden pallets or a similar clean, flat surface.

Fusion operations on polyethylene pipe shall be performed adjacent to the trench and the pipe lifted and lowered into the trench. Where absolutely necessary to fuse polyethylene pipe at another location than adjacent to the trench, as allowed and confirmed by the OWNER, the pipe shall be lifted and carried to the trench. Under no circumstances shall any length or portion of the polyethylene pipe be dragged, slid, pushed or pulled, on any surface to the trench.

In all cases, materials shall be handled and stored in a manner suitable to the OWNER; which will facilitate inspection.

### **3.12 Bending of Pipe**

#### **3.12.1 Polyethylene Pipe**

Pipe bends shall be used, as required, in place of fabricated fittings to change the horizontal and/or vertical alignment of polyethylene pipe.

The bending radius for polyethylene pipe shall not be less than the minimum recommended by the manufacturer for the kind, type, grade, wall thickness, and diameter of the particular polyethylene used as listed in Table 3.12.1.

**TABLE 3.12.1  
MINIMUM BENDING RADIUS OF POLYETHYLENE PIPE**

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (D) (INCHES)	RADIUS OF CURVATURE $R = D(25)$
2"	2.375	5'-0"
4"	4.500	9'-5"
6"	6.625	13'-10"
8"	8.625	18'-0"

A manufactured elbow shall be used if a change in direction cannot be accomplished in accordance with Table 3.12.1. Care shall be taken to prevent kinking in the polyethylene pipe. If the polyethylene pipe becomes kinked, the kinked section shall be cut out and replaced.

All fittings including butt fused, saddle fused and/or electrofused valves, elbows, tees, and couplings shall be installed such that they are located on a straight section of pipe, a minimum of three (3) feet from any field bend.

### **Measurement and Payment**

Pipe bending operations are considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for pipe bending operations shall be included in the unit prices bid for the various pay items of the work.

## **3.13 Pipe Installation**

### **3.13.1 Location of Other Utilities**

The location of existing utilities shown on the drawings was taken in part from records and in part from field surveys, and may not be complete or represent the exact location of the existing utilities. GUC assumes no responsibility for the existence and/or location of any other utilities in the work area. It shall be the responsibility of the CONTRACTOR, to investigate and verify the existence and location of all utilities within the vicinity of the work.

The CONTRACTOR shall comply with all the provisions of the North Carolina Underground Utility Damage Prevention Act (Section 1, Chapter 87, North Carolina General Statutes, 1985, as amended) and hold GUC harmless against any loss, damages or claims of any nature whatsoever arising out of the CONTRACTOR's failure to comply with the requirements of the aforesaid act.

At least seventy-two (72) hours prior to starting the work the CONTRACTOR shall verify the existence and location of all underground utilities, structures and associated appurtenances. The CONTRACTOR shall notify the NC-811 Call-Center (811 or 1-800-632-4949) to locate all participating underground utilities. The

CONTRACTOR shall be responsible for identifying all utilities in the work area that are not participating members of the one-call system. These utility operators shall be provided with a minimum seventy-two (72) hours notice to have their facilities located prior to starting the work.

After 72 hours, the CONTRACTOR may commence excavation only if NC-811 is contacted to confirm that all utilities have either marked their underground line locations or reported that no lines are present within the vicinity of the excavation or demolition site. Prior to commencing any excavation, the CONTRACTOR must inspect the site for clear evidence of unmarked facilities.

After the markings have been made, the CONTRACTOR is required to maintain a minimum clearance of two feet between a marked underground utility line and cutting edge of any power-operated excavating equipment. Care should be taken or excavation should be performed with hand tools if the excavation is within two feet of any marking.

If during the course of the excavation, a utility line has been exposed, before backfilling, the CONTRACTOR must inspect these facilities to ascertain if the facilities have been damaged. If damage of any kind is discovered or suspected, it is the CONTRACTOR's responsibility to notify the utility owner immediately.

The excavation of test holes may, upon the approval and/or direction of the OWNER, be required to ascertain the existence, location, size, type, and alignment of existing utilities or underground structures. The dimensions of these test holes shall be the minimum required to effectively locate the utilities and underground structures.

In the event that any gas lines, water lines, sewer lines, electric lines, cables, conduit, and/or any other existing utility, either underground or above ground, is damaged by the CONTRACTOR during the prosecution of the work, the owner of the damaged utility shall be notified immediately. Any fine, penalty or costs associated with the repair of the damaged utility are the sole responsibility of the CONTRACTOR.

The work shall be coordinated and performed in a manner so that all existing fire hydrants, without exception, shall be accessible at any time during the work.

The CONTRACTOR shall maintain the existing streams, ditches, drainage structures, culverts and flows at all times during the work. The CONTRACTOR shall pay for all personal injury and property damage that may occur as a result of failing to facilitate drainage.

The CONTRACTOR shall maintain sewage flow at all times by pumping and/or diversion, or other means acceptable to the OWNER. At no time shall the CONTRACTOR allow raw sewage to flow out of the sewer system to adjacent land or waterways. At no time shall the CONTRACTOR cause sewage to surcharge the sewage

system such that sewage backs up into any service connection. In the event such backup occurs, the CONTRACTOR shall correct and pay for all damage caused.

### **Measurement and Payment**

Utility locating operations is considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for utility locating operations shall be included in the unit prices bid for the various pay items of the work.

#### **3.13.1.1 Test Hole Excavations**

The excavation of test holes shall be utilized as a means to ascertain the existence, location, size, type, and vertical alignment of existing utilities or underground structures. Failure to take such precautions may result in the CONTRACTOR adjusting the work or having the existing utility relocated, at the CONTRACTORs expense. Unless otherwise approved by the OWNER, the dimensions of these test holes shall be a maximum of twelve-inches by twelve-inches (12"x12"). The CONTRACTOR shall excavate test holes to evaluate the locations of known utilities that will be crossed when boring or directional drilling installation methods are used.

Excavation of test holes shall include cutting, breaking and removal of the pavement surface and excavation of subsurface materials necessary to properly inspect the buried utilities or drainage structures. Excavation of subsurface materials shall be performed using conventional hand, vacuum and/or compressed air methods. Backhoes and other large equipment will not be permitted for the removal of pavement or excavation due to the dimensional limits of the test holes. All excavations and removals shall correspond to the limits as stated above.

All pavement and subsurface materials excavated as part of the work shall be removed from the jobsite and disposed of in accordance with the requirements of Federal, State, County, GUC, and all applicable environmental regulations.

Restoration of surfacing for test holes shall be in accordance with 3.17 Pavement and Concrete Replacement.

## **Measurement and Payment**

The excavation and restoration of test holes, including asphalt and concrete restorations, are considered incidental and will not be measured for payment. The cost of any and all equipment and labor required for excavation and restoration of the test holes shall be included in the unit prices bid for the various pay items of the work.

### **3.13.2 Required Clearance**

All gas mains shall be installed such that a minimum of twelve (12) inches, or as otherwise specified by the OWNER or detailed on the Plans, horizontal and vertical clearance is maintained from all other existing underground utilities and/or structures, thereby permitting proper routine maintenance and protection against damage which may result from proximity to the utilities and/or structures.

### **3.13.3 Alignment**

All gas mains shall be installed true to the horizontal and vertical alignment indicated on the Plans and Contract Documents, or as otherwise directed by the OWNER. The CONTRACTOR shall make no deviations to the proposed horizontal and/or vertical alignment of the gas mains unless otherwise directed to do so by the OWNER.

In such cases where the proposed horizontal and/or vertical pipeline alignment will cause conflict with other utilities and/or structures, or result in less than the specified minimum clearance or cover, the OWNER shall be notified and the pipeline relocated as per his direction. Any and all costs associated with such changes will be paid for at the unit prices bid for the required equipment, incidental material and labor. No additional payments will be made for such work.

### **3.13.4 Required Cover**

Typically, all gas mains shall be installed with a minimum cover of thirty-six (36) inches and a maximum cover of forty-eight (48) inches between the top of the main and the finished grade. The depth shall be continuous along the length of the mains.

The CONTRACTOR may, upon the approval of or at the direction of the OWNER, install the pipe with greater cover than the specified maximum, based on subsurface utility(s) locations and other field conditions.

### **3.13.5 Direct Burial**

The CONTRACTOR shall, unless otherwise indicated on the Plans, specified herein or as directed by the OWNER, install all gas mains and associated facilities by direct burial.

Direct burial of the gas mains and associated facilities shall include, but not be limited to: clearing and grubbing, trench excavation (trenching), rock excavation (as required), trench stabilization (as required), lowering and laying pipe, and backfilling, as described herein.

#### **Measurement and Payment**

Direct burial installation of gas mains will be measured for payment based upon the linear footage of pipe installed. Pipe will be measured horizontally and through in-line fittings, valves and specials.

Direct buried pipe in-place will be paid for at the unit price bid. The bid price shall include the cost of any and all incidental materials, equipment and labor required for pipe laying operations, including: trench excavation; temporary trench stabilization; installation of the pipe, elbows, tees, reducers, transition fittings, sleeves, couplings, end caps, plugs, locating devices; pipe bedding; select fill; backfill; testing; purging; temporary pavement patches; seeding and mulching; and cleanup.

Payment for installed pipe may be requested only after backfilling and testing operations have been completed and cleanup is in progress.

#### **3.13.5.1 Clearing, Grubbing and Tree Removal**

The CONTRACTOR shall clear all brush and timbers located along the alignment of the proposed pipeline, and properly dispose of such, off-site, in a prompt manner prior to commencing trenching operations.

In all cases where cultivated shrubbery, trees or otherwise valuable timber exists along the proposed pipeline route or right-of-way, the OWNER shall reserve the right to require the CONTRACTOR to adjust the alignment of the pipe or use an approved alternative method of installation which will not damage said shrubbery, trees or timber.

#### **Measurement and Payment**

Clearing, grubbing and tree removal operations which can be reasonably and effectively accomplished with a bush hog or standard trenching equipment are considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for such clearing, grubbing

and tree removal, as specified herein, shall be included in the unit prices bid for the various pay items of the work.

Since GUC does not anticipate any clearing operations which will required the removal of larger timber, the clearing and removal of large trees, stumps, etc., which may not be accomplished using a bush hog or standard equipment will be considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for such clearing, as specified herein, shall be included in the unit prices bid for the various pay items of the work.

#### **3.13.5.2 Trenching**

Trenching shall include all excavation necessary to prepare the ditch for the pipe to be installed regardless of what means or methods are necessary to produce such ditch. All trench excavation operations shall be performed in accordance with 29 CFR 1926, Subpart P - Excavations.

Prior to trenching, the CONTRACTOR shall verify the existence, location, elevation and orientation of all underground and aboveground facilities within the vicinity of the work, in accordance with 3.13.1 Location of Other Utilities. The CONTRACTOR shall exercise care in the vicinity of any and all such obstructions.

The trench shall be excavated to a depth that will provide the minimum required cover, as specified in 3.13.4 Required Cover.

The width of the trench shall conform to the dimensions as detailed on the Plans and shall be wide enough to permit backfill to be tamped around the pipe(s) so that voids between pipe and backfill do not occur. Special care must be exercised to be certain there are no longitudinal voids beneath the pipeline.

The trench shall be excavated in a manner that offers smooth, firm and continuous support along the entire length of the pipeline. All sharp objects and debris shall be removed from the trench or the pipe shall be bedded with sand or clean fill to protect the pipe. A minimum of six (6) inches of pipe bedding shall be required in such locations. Where pipe bedding is required, the trench shall be over-excavated to a depth that will provide the minimum required cover, as specified in 3.13.4 Required Cover.

Whenever wet or otherwise unsuitable material, which is incapable of properly supporting the pipe, as determined by the OWNER, is encountered in the trench bottom, such material shall be over-excavated as directed by the OWNER to a depth necessary to allow for construction of stable pipe



bedding. The over-excavated portion of the trench shall then be backfilled with select fill to proper grade to provide the minimum required cover, as specified in 3.13.4 Required Cover.

Unless determined unacceptable by the OWNER for backfilling operations, the CONTRACTOR shall store all excavated materials adjacent to the excavated trench for use in the backfilling operations.

No more than five hundred (500) continuous feet of trench may be open on any single project at any one time without approval from the OWNER.

### **Measurement and Payment**

Trench excavation is considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for trench excavation, as specified herein, shall be included in the unit price bid for direct burial installation of the appropriate size/type pipe.

Select fill material required for adequate pipe support and where wet or otherwise unsuitable material is encountered will be measured for payment in cubic yards of material placed. Payment will not be based on delivered volumes or delivery tickets, unless specifically authorized by the OWNER. The OWNER shall verify the amount of select fill prior to payment. Select fill material placement will be paid for at the unit price bid and shall include the cost of any and all equipment, material and labor required for select fill placement as described above.

Where the CONTRACTOR is directed by the OWNER, the CONTRACTOR will provide extra depth trench excavation for direct burial of pipe. Compensation for extra depth shall only be made when the excavation required is in excess of sixty (60) inches and shoring equipment is utilized for the installation of the pipe.

Extra depth trench excavation will be measured and paid for in units of feet of depth per linear foot of pipe (FT/LF) for all of the excavation exceeding sixty (60) inches when shoring equipment is utilized. Extra depth trench excavation will be paid for at the unit price bid and shall include the cost of any and all equipment and labor required for extra depth trench excavation.

#### **3.13.5.2.1 Blasting**

Blasting will not be permitted for this project.

#### **3.13.5.3 Trench Stabilization**

Where the depth of the trench and/or the type and condition of the soil requires stabilization, the CONTRACTOR shall provide a method of trench stabilization as directed and approved by the OWNER.

All materials and installation methods required for shoring, sheeting, bracing and any other required means of trench stabilization shall conform to any and all requirements of 29 CFR 1926 and applicable appendices.

Trench stabilization system members shall be securely connected together and installed in a manner that prevents sliding, falling, kickouts or other predictable failures of the trench sides. Support systems shall be installed and removed in a manner that protects employees from all forms of trench failure or from being struck by members of the support system.

Cross braces installed above the pipe to support the sheeting shall be removed only after pipe embedment has been completed.

Where trench sheeting is required to be left in place, as directed by the OWNER, such sheeting shall be cut-off at a minimum of three (3) feet below finished grade and the cut-off portion removed from the trench. Sheeting left in place shall not be braced against the pipe, but shall be supported in a manner that will eliminate concentrated loads and horizontal thrusts on the pipe.

#### **Measurement and Payment**

Trench stabilization measures are considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for the installation and maintenance of any required temporary trench stabilization measures shall be included in the unit price bid for extra depth trench excavation.

#### **3.13.5.4 Lowering and Laying Pipe**

Belt slings and/or padded calipers, which are sized to the particular pipe being laid, shall be used to handle the pipe provided such slings or calipers are free of all characteristics which might damage the pipe.

Inspection of the trench shall be made by the CONTRACTOR prior to lowering the pipe to ensure that no rocks or other sharp objects that may damage the pipe are located within the trench.

When polyethylene pipe is laid in the trench, sufficient slack in the placed pipe should be provided to allow for the contraction of the placed pipe.

When piping is lowered into the trench, care shall be exercised to avoid over stressing or buckling the piping or imposing excessive stress on the joints.

Anchors and supports shall be provided as directed and where required for fastening work into place.

Where the work is suspended, at night or for any other reason, the open ends of the pipe shall be securely plugged or closed to prevent entrance of water and other foreign material.

### **Measurement and Payment**

Pipe lowering and laying operations are considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for lowering and laying pipe shall be included in the unit prices bid for the various pay items of the work.

#### **3.13.5.5 Backfilling**

Backfilling operations shall include the furnishing of all labor, materials and equipment necessary for the backfilling and compaction of all trenches, bellholes, and excavations over the entire length of the pipeline, as specified herein.

Trenches shall not be backfilled until the pipe has proper cover, bedding and smooth, firm and continuous support along the entire length of the pipe, as specified in 3.13.5.2 Trenching.

The trench shall be backfilled as soon as possible after the pipe has been properly placed.

Where the trench crosses driveways, roads, streets, or other places used for the travel of vehicles or pedestrians, proper care shall be taken so as not to impede the flow of traffic. All traveled ways, including driveways; walks, streets, or alleys crossed by the trench shall be compacted by mechanical means at +/- 20% of optimum moisture content to 95% of the theoretical maximum density as determined in accordance with the requirements of VTM-1. Where deemed necessary, the OWNER may elect to have density tests performed on the backfilled trench by an independent contractor or consultant at GUC's expense.

Unsuitable material encountered during trench excavation shall not be used as backfill. Unsuitable material shall be removed to the limits established by the OWNER and replaced with select fill, as specified herein.

All backfill material shall be free from all objects that might damage the pipe. Wherever it is deemed necessary by the OWNER, hand labor shall be used in starting the backfill. The backfill placed from the bottom of the ditch to the top of the pipe shall be placed in the trench simultaneously on both sides of the pipe for the full width of the trench in layers not to exceed six (6) inches in depth. The backfill material shall be thoroughly compacted under and on each side of the pipe to provide solid backing against the external surface of the pipe and to remove all voids. The trench may be backfilled from one foot above the pipe to the top of the trench with mechanical equipment provided the machine is operated parallel to the trench, and the material is placed in the trench in layers not to exceed six inches for the full width.

The CONTRACTOR shall use materials removed during the excavation operation for the backfilling operation, unless these materials are unsuitable as determined by the OWNER.

All trenched construction shall be adequately compacted by means of rolling, tamping with mechanical rammers, or hand tamping such that no future settlement of the trench backfill will occur. If vibratory rollers are used for backfill compaction, vibratory motors shall not be activated until at least three (3) feet of backfill has been placed and compacted around the pipe. Flooding shall not be permitted as a means of backfill consolidation. Backfill compaction achieved by means of driving any type of construction equipment and/or vehicles, other than those specifically designed for trench compaction work, across any part of the trench shall not be permitted. The CONTRACTOR shall place additional fill soil and compact backfill areas where settlement occurs.

### **Measurement and Payment**

Backfilling operations are considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for the completion of backfilling operations, shall be included in the unit prices bid for the various pay items of the work.

Select fill material required for adequate pipe support, where wet or unsuitable material is encountered will be measured for payment in cubic yards of material placed. The OWNER shall verify the amount of select fill prior to payment. Select fill material placement will be paid for at the unit price bid and shall include the cost of any and all equipment, material and labor required for select fill placement as described above. No payment will be allowed if the CONTRACTOR chooses to replace the excavated material, which in the opinion of the OWNER is suitable for the backfilling operation, with select fill.

### **3.13.6 Directional Drilling**

The CONTRACTOR may, upon the approval and/or direction of the OWNER, choose or otherwise be directed to utilize directional drilling as an alternative method of installing the polyethylene gas mains.

Prior to commencing directional drilling operations, the CONTRACTOR shall be required to provide proof to the OWNER that the personnel performing the drilling operations have a minimum of one year of experience performing directional drilling operations of this type.

All directionally drilled gas main shall be installed in accordance with 3.12 Bending of Pipe; 3.13.2 Required Clearance; 3.13.4 Required Cover; and all other applicable requirements specified herein.

The length of each continuous directionally drilled installation shall be limited by the size and type of drilling equipment utilized for the operation, or as otherwise determined by the OWNER.

A minimum of one (1) bellhole per drilled section shall be excavated around the pipe to verify its location, depth and structural integrity. The sending and receiving pits for the directional drilling operation shall not be considered as part of the required number of inspection bellholes.

Tracer wire shall be installed along with all directionally drilled polyethylene pipes. Tracer wire installation shall be in accordance with 3.13.8 Pipe Locating Devices.

### **Measurement and Payment**

Directionally drilled mains will be measured for payment based upon the linear footage and diameter of pipe installed. Pipe will be measured horizontally and through all in-line fittings.

Directionally drilled pipe in-place will be paid for at the unit price bid for the appropriate diameter polyethylene pipe. The cost of any and all equipment, incidental materials and labor required for directional drilling operations, including: excavating and backfilling sending and receiving pits and inspection bellholes; directionally drilling the mains and fittings; testing and purging; and restoration shall be included in the unit price bid.

The cost of any and all equipment, material and labor required for the removal, disposal, and restoration of bellhole pavement shall be paid for at the unit prices bid for bellhole pavement removal and disposal, and for restoration.

#### **3.13.6.1 Equipment**

The directional drilling system/equipment used for pipe installation as specified herein shall be subject to the approval of the OWNER and shall incorporate the following features:

1. The system shall be remotely steerable permitting control of horizontal and vertical alignment within a window of  $\pm$  two (2) inches.
2. The system shall provide for electronic monitoring of horizontal and vertical alignment. The locating tool shall be calibrated daily to an accuracy of  $\pm$  two (2) inches.
3. The system shall be capable of turning 90° in a radius of 160 feet.
4. The system may utilize an inert and environmentally risk free drilling fluid. No toxic or otherwise hazardous chemical additive shall be added to the drilling fluid. A dry boring system is also acceptable.
5. Back reaming bits shall be of a diameter at least two (2) inches larger than the outside diameter of the pipe to be installed.

Drilling equipment shall be fitted with a permanent alarm system capable of detecting an electric current. The system shall have an audible alarm to warn the operator when the drill head nears electrified cables.

#### **3.13.6.2 Procedure**

The leading end of the pipe shall be capped prior to insertion through the boring hole or sleeve.

A “weak link” shall consist of a stainless steel breakaway connector, utilizing a single use connector pin system. The “weak link” shall be connected between the leading end of the pipe being pulled and the connection to the directional drill rods.

If the weak link breaks or is otherwise substantially damaged, as determined by the OWNER, during installation, the drilling operation shall be abandoned and new undamaged piping reinstalled at the CONTRACTOR’s expense. No payment will be granted for the abandoned section(s) of pipe.

The leading six (6) feet of the installed pipe shall be pulled through the receiving pit and inspected. If any abrasions, gouges or cuts are present which, in the opinion of the OWNER, may compromise the integrity of the pipe, the pipe shall be exposed back to the point where the damage

originated. All damaged pipe that is determined by the OWNER to be unacceptable shall be removed and replaced at the CONTRACTOR's expense.

All fused joints contained within the polyethylene piping to be installed by directional drilling shall be allowed to cool down in accordance with the manufacturer's recommended fusion procedures prior to commencing the pulling operation.

#### **3.13.7 Plowing**

When the integrity of the pipe will not be compromised, polyethylene gas pipe may be installed by plowing as an alternative means of installation. Plowing shall not be allowed in rocky soils, congested areas, or any other areas deemed inappropriate by the OWNER. The OWNER will make all determinations as to where the CONTRACTOR shall be allowed to plow-in pipe.

The CONTRACTOR shall be allowed to plow-in sections of pipe three hundred (300) feet or less in length at a time. The pipe shall be inspected at sufficient intervals, by means of bellholes, and at all exit holes to determine the condition of the pipe. A minimum of one bellhole, located at the midpoint of the plowed segment, shall be required for inspection purposes. Stretched, gouged, scratched, kinked or cut pipe will not be accepted. If damage to the pipe is noted, the earth shall be excavated away from the pipe in both directions until the full extent of the damage is exposed to the satisfaction of the OWNER. The damaged pipe shall then be cut out and replaced at no additional cost to GUC.

Polyethylene pipe shall be allowed to relax for a sufficient length of time, as determined by the OWNER, prior to joining sections of plowed-in pipe or making tie-ins to existing mains. Sections of plowed-in pipe to be joined or tied into existing mains shall be sufficiently overlapped in the tie-in bellholes to allow for shrinkage due to relaxation of the pipe. Fused joints shall be allowed to cool for a minimum of twenty (20) minutes prior to being installed by plowing.

Tracer wire shall be installed along with all plowed in polyethylene pipe. Tracer wire installation shall be in accordance with 3.13.8 Pipe Locating Devices.

## **Measurement and Payment**

Installation of polyethylene gas mains by plowing will be measured for payment based upon the linear footage of appropriate diameter pipe being installed.

Plowed-in pipe in-place will be paid for at the unit price bid. The bid price shall include the cost of any and all equipment, incidental materials and labor required for plowing operations, including: excavating and backfilling exit holes and inspection bellholes; plowing in the pipe and associated fittings; locating devices, testing, purging, seeding and mulching, and cleanup.

### **3.13.8 Boring**

The CONTRACTOR may, upon the approval and/or direction of the OWNER, choose or otherwise be directed to bore the gas mains beneath certain traveled ways and/or watercourses.

All boring methods shall be subject to the approval of the OWNER, and may include: dry boring, boring and jacking, auguring, pushing, and piercing.

The boring methods and equipment utilized shall be industry proven and accepted, subjected to the approval of the OWNER. All employees of the CONTRACTOR utilized in boring operations shall be trained and experienced with the specific boring method and equipment chosen. The CONTRACTOR shall, as required, provide the OWNER with documentation of said training and experience.

All boring equipment utilized shall be properly sized to install the carrier pipe without removing any excess spoil. The diameter of the auger used in any boring operation shall not, in any case, be greater than four (4) inches larger than the outside diameter of the casing or carrier pipe to be installed.

Boring operations shall be performed in such a manner that settlement, displacement, distortion, or any other damage to the existing ground surface, utilities and or structures will not occur. Where a utility is damaged or severely displaced, the authority having jurisdiction over the utility or structure shall be contacted immediately. The CONTRACTOR shall be responsible for promptly repairing or having repaired any such damage, to the OWNER's and the affected utility owner's satisfaction, at no cost to GUC.

Boring operations shall, at all times, be conducted in a manner that does not create a hazard or impede the flow of traffic.

Carrier pipe installation shall be performed immediately upon completion of the boring operation. Soil voids that remain around the pipe after installation shall be



properly filled with hydraulic cement grout, as directed by the OWNER. The grout shall be placed under pressure in a manner approved by the OWNER.

The CONTRACTOR shall, as directed, repair or replace, at his own expense any pipe that is damaged during boring operations.

If the bored carrier pipe strikes an obstruction during the boring operation, the cost of removing the obstruction shall be borne by the CONTRACTOR. If the obstruction cannot be removed, the boring operation shall be: abandoned; the pipe filled with cement grout, plugged and abandoned in place; and the bore re-attempted at a different location, as directed by the OWNER. The CONTRACTOR shall be responsible for any and all costs associated with an abandoned bore. No payment will be allowed for the abandoned section(s) of pipe.

When, in the opinion of the OWNER, a completed bore results in a deficiency which renders the pipe unusable, including but not limited to: insufficient cover; insufficient clearance with existing underground utilities and/or structures; excessive curvature of the pipe; excessive damage to the pipe and/or coating; or failure to stay within the right-of-way, the bore shall be abandoned; the pipe filled with cement grout, plugged and abandoned in place; and a new bore completed at no additional cost to GUC.

The lengths of all required bores shall be as shown on the Plans or as otherwise directed by the OWNER. The typical allowance of five (5) feet outside of the edge of pavement or travel area outside of the roadway being bored will be provided for installation of pipe by bore methods.

Tracer wire shall be installed along with all polyethylene carrier pipes bored without a casing pipe. Tracer wire installation shall be in accordance with 3.13.8 Pipe Locating Devices.

### **Measurement and Payment**

Gas mains installed by boring the pipe in-place will be measured for payment based upon the linear footage of pipe installed. The pipe will be measured horizontally and through in-line fittings and specials.

Boring will be paid for at the unit price bid. The cost of any and all equipment, incidental material and labor required for boring, including: excavating and backfilling sending and receiving pits; boring the main and fittings; testing and purging; and restoration, shall be included in the unit price bid.

Payment shall be made based upon the minimum required length of bore. Bored distances in excess of the minimum required length shall not be paid for as boring,

but shall be paid for at the unit price bid for direct burial of the appropriate size/type pipe.

Payment for pavement replacement shall be in accordance with 3.17 Pavement and Concrete Replacement.

#### **3.13.8.1 Casing Pipe Installation**

The CONTRACTOR may be required to install the gas mains within a steel casing pipe by boring, as indicated on the Plans or as otherwise directed by the OWNER in accordance with 3.13.7 Boring.

The casing pipe shall be a minimum of two (2) nominal pipe sizes larger than the carrier pipe.

The CONTRACTOR may, upon the approval of the OWNER, install a larger diameter casing pipe than is specified or otherwise shown on the Plans. If a larger diameter casing pipe is installed, all minimum cover and clearance requirements, as specified herein, shall be met.

The casing pipe shall be installed true to line and grade; sloping to one end with an even bearing throughout its length. The casing pipe installation shall be made so as to allow free and unrestricted movement of the carrier pipe during installation.

Lengths of steel casing pipe shall be joined by welding the joints completely around the circumference of the pipe.

Casing pipe vent(s) shall be installed at the end(s) of the casing pipe as directed by the OWNER. The vents shall be painted above grade with a corrosion resistant primer paint as directed by the OWNER. The vent opening(s) shall be screened and turned downward. Approved gas warning signs shall be attached to the vent pipe(s) or placed immediately adjacent to the casing vent(s) at each end of the casing pipe.

Both ends of all casing pipe installations shall be sealed. Sealed casing shall have a minimum of one (1) two (2) inch vent welded on the casing before the carrier pipe is inserted.

Casing spacers shall be set within one (1) foot of each end of the casing and placed along the carrier pipe at a maximum spacing of ten (10) feet.

The casing pipe shall be prepared to the extent necessary to remove any sharp edges, projections, or abrasive material which could damage the polyethylene pipe during and after the insertion. Polyethylene pipe shall be

inserted into the casing pipe in such a manner so as to protect the polyethylene pipe from damage. The leading end of the polyethylene pipe shall be capped prior to insertion.

### **Measurement and Payment**

Casing pipe installation will be measured for payment based upon the linear footage of casing pipe and carrier pipe installed horizontally between the ends and includes casing vent pipes, carrier pipe spacers, and casing end seals.

Casing pipe installed by bore with carrier pipe inserted will be paid for at the unit price bid. The cost of any and all equipment, incidental materials and labor required for the installation of casing pipe by bore, including: excavation and backfilling of sending and receiving pits, boring the casing pipe; installation of vent pipes, installation of casing/carrier pipe spacers, installation of ends seals, insertion of carrier pipe, testing and purging, and restoration, shall be included in the unit price bid.

The cost of any and all equipment and labor required for the removal, disposal, and restoration of pavement shall be paid for at the unit price bid for pavement removal and disposal and for pavement restoration.

No additional payment will be made for the substitution of a larger diameter casing pipe.

### **3.13.9 Pipe Locating Devices**

The CONTRACTOR shall install tracer wire with all uncased polyethylene pipes to facilitate location of the pipe with commercially available electronic pipe locators. Warning tape shall also be installed with all direct buried mains and shall be continuous over the length of the mains. Installation of tracer wire and warning tape shall be as included in Table 3.13.8

**TABLE 3.13.8  
INSTALLATION OF LOCATING DEVICES**

<b>Method of Construction</b>	<b>Tracer Wire Location</b>	<b>Warning Tape Location</b>
Direct Bury	6" Min./12" Max. Above Pipe	6" - 12" Below Grade
Directional Drill	Pull Through Bore Hole With Pipe	Not Required
Plowing	6" Min./12" Max. Above Pipe	Not Required
Bored	Pull Through Bore Hole With Pipe	Not Required

The tracer wire shall be installed a maximum of twelve (12) inches above the pipe and a minimum of six (6) inches above the pipe for direct bury and plow-in

installations. The locating tape shall be installed approximately six (6) to twelve (12) inches below finished grade.

### **Measurement and Payment**

Unless specifically outlined below, all work associated with the installation of pipe locating devices is considered incidental and will not be measured for payment. The cost of any and all equipment, incidental material and labor required for the installation of pipe locating devices shall be included in the unit prices bid for the various pay items.

#### **3.13.9.1 Electrically Conductive Tracer Wire**

The CONTRACTOR shall be required to install an electrically conductive tracer wire (tracer wire) as a means of facilitating the location of buried or inserted polyethylene pipe. The tracer wire insulation color shall be yellow for gas.

When polyethylene pipe is installed by boring without a casing pipe, the tracer wire or locating tape shall be attached to the bull-nose in order to facilitate installation.

The tracer wire shall be pulled into each locating station with sufficient slack to extend a minimum of twenty-four (24) inches above finished grade. The tracer wire shall not be cut, but should remain continuous.

In the event that the continuity of the tracer wire is broken during installation, the CONTRACTOR shall install, at no additional cost to GUC, a replacement tracer wire by either open trenching or plowing, as directed by the OWNER. Prior to the completion of the project, the OWNER may perform a continuity test. If the test determines that there are disruptions to the continuity, the CONTRACTOR shall excavate and repair the damaged wire at no expense to GUC.

Tracer wire shall not be mechanically fastened to the pipe.

Under no circumstances shall the tracer wire be wrapped around the polyethylene pipe.

Where new tracer wire is connected to existing tracer wire or where separate spools of tracer wire are connected, the tracer wire shall be spliced using an approved mechanical split bolt connector or an approved waterproof slicing kit. These connections shall be wrapped using splicing tape and/or plastic electrical tape in order to waterproof the splice. Tracer wire shall be spliced to locating tape using splice clamps as approved by the locating tape manufacturer, or an approved equal.

### **3.13.9.2 Locating Stations**

Locating stations shall be installed at all locations indicated on the Plans, or as otherwise directed by the OWNER. When a locating station is installed at a lateral connection, the station shall be installed directly over the center of the tee or lateral branch connection. Locating stations shall be installed behind the curb and gutter or outside of the roadway at all locations other than lateral connections and intersections.

Locating station installations shall include valve boxes (top section only) and a lid. The valve box lid shall be marked "TEST" or "T".

Locating station installation shall include excavating, setting of the valve box sections(s), coiling the tracer wire into the box, properly setting the valve box lid, backfilling and compacting around the box, and restoration.

When locating stations are not installed over the main or fitting, the tracer wire shall be installed inside one-half ( $\frac{1}{2}$ ) inch or one (1) inch polyethylene tubing and the tubing shall terminate at a point between twelve (12) inches and six (6) inches below the top of the valve box.

### **Measurement and Payment**

Locating station installations will be measured for payment based upon the number installed.

The unit price bid shall include the cost of any and all equipment, incidental material and labor required for locating station installation, as described above.

## **3.14 Abandonment of Existing Facilities**

The CONTRACTOR shall, as indicated on the Plans or as otherwise directed by the OWNER, be required to remove from service certain sections of the existing gas distribution facilities, including but not limited to: mains, fittings, valves and valve boxes.

Abandonment of existing facilities shall be accomplished by either in-place abandonment or complete removal of these facilities, as indicated on the Plans or otherwise directed by the OWNER.

In-place abandonment shall consist of: restraint of existing facilities, disconnection of the facilities from the existing system; purging of natural gas from all gas mains; properly sealing the ends of all abandoned pipe; backfilling all exposed portions of abandoned pipe;

removing top section of abandoned valve boxes and backfilling with sand and asphalt; and restoration of the affected area as directed by the OWNER.

Sealing of natural gas mains shall be accomplished using an appropriate welded or fused fitting to the open end(s) as directed by the OWNER. For abandonment of two (2) inch and smaller diameter mains, the CONTRACTOR shall use an internal rubber-based compression stopper.

Valves and valve boxes shall be abandoned in place, unless otherwise directed by the Plans or the OWNER. The abandonment shall not be performed until the abandonment of the main is complete. A one (1) foot square hole shall be cut around valve boxes located in the pavement or concrete and the CONTRACTOR shall render the valve inoperable by breaking off the top section of the valve box a minimum of six (6) inches below the surface of the surrounding pavement or grade and filling the valve box with the same material (asphalt, concrete, dirt, etc.) directly adjacent to the valve box. Compaction of the material used to fill the valve box shall be completed such that settlement will not result. Asphalt shall be compacted with an approved roller or vibratory plate.

Purging of gas mains shall be performed, as directed by the OWNER, with compressed air and shall continue until a reading of zero (0) percent gas is measured using an approved, calibrated combustible gas indicator (CGI). **All purging operations shall be done under the direct supervision of the OWNER. A minimum of eight (8) hours advance notice shall be provided to the OWNER.**

Detailed information concerning all abandoned facilities, including, but not limited to; size of pipe, length of pipe abandoned, fittings installed, etc. shall be collected and submitted to the OWNER by the CONTRACTOR for all projects.

The CONTRACTOR shall be required, as directed by the OWNER, to return various abandoned distribution facility components to GUC in working condition.

### **Measurement and Payment**

In-place abandonment of existing distribution facilities is considered incidental work and will not be measured for payment. The cost of any and all equipment, incidental material and labor required for in-place abandonment operations shall be included in the unit price bid for the various pay items of the work.

#### **3.14.1 Removal of Facilities**

The work covered by this Contract shall require the CONTRACTOR to remove sections of abandoned piping, valves, and valve boxes.

After isolating and purging, the facilities shall be removed from the ditch and the ditch shall be backfilled and compacted. Compaction shall be equal to that of the surrounding soil or as otherwise specified on the project Plans or as required by the OWNER. Compaction within traveled ways, including driveways, sidewalks, streets or alleys shall meet the density requirements as specified in Section 3.13.5.6 Backfilling. Following backfilling and compaction, the surface shall be graded to match the existing grade and contour. Removed piping and materials shall be properly disposed of or otherwise handled as directed by the OWNER.

The CONTRACTOR shall be required to remove short sections of piping at tie-in locations, at the direction of the OWNER or as deemed necessary by the CONTRACTOR, to facilitate tie-in operations. Additionally, removal of pipe will only be required where indicated on Plans, or as directed by the OWNER.

#### **Measurement and Payment**

Abandonment of facilities by removal is considered incidental and will not be measured for payment. Seeding, mulching and tacking of the surface are considered incidental and shall not be measured for separate payment.

The cost of any and all equipment, material and labor required for the removal, disposal, and restoration (including seeding, mulching and tacking of the surface) shall be included in the unit prices bid for various pay items of the work. Pavement removal/disposal and replacement, where necessary, will be paid for at the respective unit prices bid for this work.

#### **3.15 Clean Up**

The CONTRACTOR shall keep the right-of-way reasonably clear of construction debris during the progress of the work. Cleanup shall consist of all work necessary to restore the affected area to pre-construction condition. This operation shall include, but not be limited to, the removal of excess excavated materials, equipment, rock and other materials that cannot be placed in the trench backfill. Cleanup shall also consist of the repairing or restoration of trenches, restoration to pre-construction topography, disposal of vegetative debris and re-seeding and mulching as directed by the OWNER, in accordance with the NCDOT Specifications.

The CONTRACTOR will keep all paved surfaces clear of soil (compacted or loose) and loose gravel or stone. When a mechanical sweeper is used, the sweeper attachment shall be covered to minimize dust and shall utilize a wet sweeper system.

Finish grading shall be performed as necessary to re-establish slopes. The grades shall be formed to easy contours sloping towards inlets and ditches. This grading shall eliminate low spots and pockets that do not drain. Ditches shall be excavated to the section and elevations shown and shall be excavated with smooth slopes to avoid low spots and pockets that do not drain.

Developed property including but not limited to walks, steps, fences, mailboxes, paper boxes, disturbed by the work shall be restored or replaced to their original or better condition, except as shown on the Plans or directed by the OWNER. Ditches shall be restored to their original shape and slope. All disturbed areas not covered by pavement or structures shall be fertilized, limed, seeded, and mulched. Any washing or erosion of the surface, and any areas where grass seed does not germinate, shall be repaired and reseeded until an adequate stand of grass is achieved.

The CONTRACTOR shall be required to dress-up all work areas daily. The daily dress-up shall include backfill and compaction, removal of rocks and large dirt clods, raking to a consistent grade, removal of construction materials and debris, providing and placing a straw covering as required, and providing and placing soil stabilization measures as required by the OWNER. Final cleanup and restoration shall be performed within five working days of completion of all work within individual properties or sections of properties as designated by the OWNER. The work required prior to final cleanup and restoration shall include the installation and activation of the distribution mains and the completion of all required abandonments. This cleanup shall continuously follow, as described above, to the OWNER's satisfaction. Untimely cleanup resulting from the pipeline construction activities may result in the suspension of new construction, as deemed necessary by the OWNER.

### **Measurement and Payment**

Cleanup operations are considered incidental work and will not be measured for payment. The cost of any and all equipment and labor required for cleanup shall be included in the unit prices bid for the various pay items of the work.

### **3.16 Pavement and Concrete Replacement**

Within ten (10) days of the completed installation of the mains, the CONTRACTOR shall be required to re-pave or otherwise restore, as directed by the OWNER, all surfaced roadways and driveways and all concrete structures damaged by the construction. All restoration work within the City of Greenville or NCDOT rights-of-way shall be performed as specified herein, as directed by the OWNER and to the satisfaction of NCDOT or the City of Greenville Department of Public works.

The CONTRACTOR shall replace roadway, driveway and walkway surfaces necessarily removed for the installation of the mains. It is the intent of these Specifications that the CONTRACTOR returns all paved surfaces affected by the work to as near pre-construction condition as possible in conformance with approved methods.



The CONTRACTOR assumes all responsibility for the restoration of pavement, and for safely maintaining the pavement cuts and normal traffic flow until final restoration is complete.

No asphalt paving shall be performed unless the atmospheric temperature is above 40° Fahrenheit. Where required, rolling shall be performed with an approved 10-ton roller. Hand operated vibratory plate equipment will not be allowed for finishing work on the surface course.

In all cases, the type of paving section used, as outlined below, shall be as directed by the OWNER prior to commencing paving operations.

### **Measurement and Payment**

Replacement of asphalt pavement along standard mainline trenchlines utilizing the standard paving section, as described below, will be measured for payment in units of linear feet and paid for at the unit price bid for this pay item.

Replacement of asphalt pavement along standard bellholes utilizing the standard paving section, as described below, will be measured for payment in units of square feet and paid for at the unit price bid for this pay item.

Payment for pavement section replacement shall be limited along the trenchline to a width equal to the maximum trench widths allowed in Item 3.17 Pavement and Concrete Replacement. Paving of tie-in bellholes, bore pits, push pits, etc. will be limited to the minimum pit size required to complete the work. The cost of any and all equipment, material and labor required for the complete restoration of the asphalt pavement, as specified herein, shall be included in the unit price bid.

No additional payment for pavement replacement will be granted for any work or quantities in excess of the trench and bellhole limits as described in 3.9 Pavement Removal and Disposal without the approval of the OWNER.

Payment for pavement section replacement of test holes shall be in accordance with 3.13.1.1 Test Hole Excavations.

The stone subgrade will not be measured for payment and should be included in the cost of the asphalt replacement. Payment will not be granted to the CONTRACTOR for providing and placing excess stone.

Tack and prime coats will not be measured for payment. They are considered incidental to the pavement replacement work and their cost should be included in the CONTRACTOR's unit price bid for the replacement of asphalt restoration.

Only the amount of asphalt necessary to achieve pavement replacement conforming to the above requirements will be measured for payment. Payment will not be granted to the CONTRACTOR for providing and placing excess materials. Payment shall not be granted for surface repair that is in excess of what is reasonable to perform the installation of the pipe.

### **3.16.1 Standard Roadway Asphalt Pavement Replacement**

Within NCDOT right-of-ways, City of Greenville right-of-ways, and where directed by the OWNER, roadway pavements shall be restored in conformance with the applicable sections of the NCDOT “Standard Specifications for Roads and Structures”, latest edition.

For asphalt pavement replacement within City of Greenville rights-of-way, the pavement section shall consist of six (6) inches of NCDOT Type H intermediate course mixture and (2) two inches of NCDOT I-2 surface mixture over a compacted subgrade consisting of eight (8) inches of stone.

For asphalt pavement replacement within NCDOT rights-of-way, the pavement section shall consist of six (6) inches of NCDOT Type H-B base course mixture, six (6) inches of NCDOT Type H intermediate course mixture, and two (2) to three (3) inches of NCDOT Type I-2 surface course mixture over a compacted subgrade.

Proper tack coat placement shall be required for all pavement replacement to insure adequate bonding with the existing adjacent surface. Pavement replacement will not be permitted or accepted where the tack coat has not been properly applied.

Subgrade Preparation: The subgrade preparation shall conform to Section 500 of the NCDOT “Standard Specifications for Road and Structures” (latest edition).

Aggregate Base Course: Aggregate base course shall conform to Section 520 of the NCDOT “Standard Specifications for Road and Structures” (latest edition).

Bituminous Concrete Base Course: The bituminous base course shall conform to Section 630 of the NCDOT “Standard Specifications for Road and Structures”, (latest edition), for Type H-B material.

Bituminous Concrete Intermediate Course: The binder course shall be placed on a prepared base course or existing pavement in accordance with Section 640 of the NCDOT “Standard Specifications for Road and Structures” (latest edition) for Type H material.

Tack Coat: The work shall be performed in accordance with Section 605 of the NCDOT “Standard Specifications for Road and Structures” (latest edition).

Bituminous Concrete Surface Course: The work shall be performed in accordance with Section 640 of the NCDOT “Standard Specifications for Road and Structures” (latest edition) for Type I-2 material.

Traffic Markings: The CONTRACTOR shall repair and restore any traffic markings that were damaged during the performance of the work. All repairs shall be in accordance with the requirements and specifications of NCDOT and the MUTCD Manual, (latest edition).

Existing Structures: All existing structures which fall under or near repaired or restores bituminous areas shall be adjusted to final grade prior to application of bituminous concrete.

### **3.16.2 Gravel and Other Surfacing**

Gravel and dirt roadways and driveways shall be repaired and replaced to their original condition, or as otherwise directed by the OWNER.

#### **Measurement and Payment**

Gravel roadway and driveway restoration shall be measured for payment based on the tons of gravel placed. Excess quantities of gravel shall not be included in the measurement for payment. The cost of any and all equipment, material and labor required for gravel roadway and driveway restoration operations shall be included in the unit prices bid.

Dirt road restoration is considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for dirt roadway and driveway restoration operations shall be included in the unit prices bid for the various pay items of the work.

### **3.16.3 Sidewalk, Driveway, and Curb and Gutter Replacement**

Sidewalks and driveways shall be repaired or replaced to the thickness of the adjacent, undisturbed sections or four (4) inches whichever is greater. Concrete curb and gutter sections shall be replaced to match adjacent curb and gutter sections. The finish shall be floated or broomed to match the existing. Joints shall be tooled to match the spacing of the existing sections.

#### **Measurement and Payment**

Concrete sidewalk and driveway restoration costs, directly resulting from the installation of gas facilities, will be measured for payment in units of cubic yards. Concrete pavement restoration will be paid for at the unit price bid. The bid price shall include the cost of any and all equipment, material and labor required for concrete restoration, including: the replacement (including: reinforcement, finishing and jointing) of all classifications, thickness', and widths of concrete. Any unnecessary damage to concrete incidental to the work shall be repaired at the CONTRACTOR's expense.

Concrete curb and gutter section restoration cost, directly resulting from the installation of the water and gas facilities, will be measured for payment in units of linear feet. Concrete curb and gutter restoration will be paid for at the unit price bid. The bid price shall include the cost of any and all equipment, material and labor required for concrete restoration, including: the replacement (including: reinforcement, finishing and jointing) of all classifications, thickness', and widths of

concrete. Any unnecessary damage to concrete curbing and gutters incidental to the work shall be repaired at the CONTRACTOR's expense.

#### **3.16.4 Concrete Structures**

Concrete structures, including but not limited to headwalls and drainage structures damaged during construction, shall be promptly and satisfactorily restored to pre-construction condition, as directed by the OWNER, in accordance with all North Carolina Department of Transportation.

##### **Measurement and Payment**

Concrete structure restoration costs, directly resulting from the installation of water and gas facilities, will be measured for payment in units of cubic yards. Concrete structure restoration will be paid for at the unit price bid. The bid price shall include the cost of any and all equipment, material and labor required for concrete structure restoration, including: the cutting, removal, disposal and replacement (including: reinforcement, finishing and jointing) of all classifications, thickness', and widths of concrete. Any damage to concrete structures incidental to the work shall be repaired at the CONTRACTOR's expense.

## 4 **SECTION 4 - MATERIALS FOR GAS FACILITY INSTALLATION**

Material descriptions are included to provide the CONTRACTOR with information necessary for proper equipment selection and installation procedures. GUC will provide materials as described in 3.3.1 Equipment, Tools, Labor and Materials To Be Furnished By OWNER

### 4.1 **Pipe**

#### 4.1.1 **Polyethylene Gas Pipe**

All polyethylene gas pipe shall be PE 2406, medium-density polyethylene. The polyethylene pipe shall be manufactured and tested in accordance with ASTM specification D2513. The minimum material cell classification, as determined in accordance with ASTM D3350 shall be 234363E. All polyethylene pipes shall be Iron Pipe Size (IPS), unless noted as copper tubing size (cts).

PE 2406 polyethylene pipe properties shall be as listed in Table 4.1.1.

**TABLE 4.1.1  
POLYETHYLENE PIPE PROPERTIES**

<b>SIZE (INCHES)</b>	<b>SDR</b>	<b>WEIGHT (LB./FT.)</b>	<b>COIL/STRAIGHT LENGTH (FT.)</b>
¾	11	0.12	Coil
2	11	.063	Coil
4	11.5	2.17	40' (Straight Length)
6	11.0	4.89	40' (Straight Length)
8	11.0	8.28	40' (Straight Length)

### 4.2 **Pipe Fittings**

#### 4.2.1 **Polyethylene Pipe Fittings**

Polyethylene pipe fittings shall be butt fusion; saddle fusion or electrofusion fittings manufactured by an approved manufacturer and shall be composed of the same material as the pipe, as specified in 4.1.1 Polyethylene Gas Pipe. All one-half (1/2) and one (1) inch fittings must be 0.090 wall thickness copper tubing size (CTS). All fittings larger than one (1) inch shall be SDR 11, iron pipe size (IPS).

##### 4.2.1.1 **Fabricated Tees**

Polyethylene fabricated tees shall consist of line pipe and a branch saddle fitting. The line pipe shall be similar in length to a standard molded tee. The branch saddle fitting shall be fusion applied, the line pipe tapped

through the branch saddle fitting with a full outlet opening, and a section of pipe with a minimum length of twelve (12) inches fused to the outlet of the branch saddle fitting in the manufacturer's facilities. The branch saddle and line pipe shall be composed of the same material as the pipe, as specified in 4.1.1 Polyethylene Gas Pipe.

#### **4.2.2 Electrofusion Fittings**

Electrofusion fittings shall be manufactured of polyethylene resins compatible with PE 2406, high-density pipe. The fittings shall be OWNERed to be used with and meet or exceed the resistance properties of SDR 11, polyethylene pipe.

### **4.3 Valves**

All valves to be installed in the gas distribution system shall be wrench operated, low maintenance or no maintenance valves as indicated on the Plans.

#### **4.3.1 Main Valves**

##### **4.3.1.1 Polyethylene Valves**

All main valves shall be polyethylene, full opening, ball type and maintenance free, as manufactured by Nordstrom Valve, Inc. (Polyvalve) or Kerotest (Polytec). The valves shall be composed of the same material as the pipe, as specified in 4.1.1 Polyethylene Gas Pipe. Valve outlets shall be manufactured for butt fusion. The valves shall have factory applied PE 2406 extensions, in conformance with 4.1.1 Polyethylene Gas Pipe above, on both ends. Extensions shall be joined by butt fusion.

### **4.4 Locating Stations and Valve Boxes**

Locating station boxes shall be installed to facilitate the location of the mains. Valve boxes shall be installed to facilitate the operation of the valve.

#### **4.4.1 Main Line Valve Boxes and Locating Stations**

Locating and valve boxes, extension pieces, collars and covers shall be 2-piece screw type adjustable or 2-piece sliding type adjustable boxes as manufactured by Bingham and Taylor or OWNER approved equivalent. Valve box covers shall have the word "GAS" embossed on top. Locating station covers shall have the word "TEST" or "T" embossed on top.

#### **4.5 Other Materials**

Special material specifications may be listed on any supplemental Plans or drawings.

The CONTRACTOR shall provide special materials, as directed by the OWNER.

## **5     SECTION 5 - GAS DISTRIBUTION FACILITIES INSTALLATION**

### **5.1   CONTRACTOR Qualifications**

The CONTRACTOR shall use only competent and skilled workmen for the performance of any and all work on the natural gas distribution system, as specified herein. The workmen shall not perform any heat fusion operations on any pipe or associated fittings within the system until they have been qualified to perform such operations in accordance with the test requirements specified in 5.1.1 Heat Fusion Qualifications.

The CONTRACTOR shall furnish evidence, as required by and to the satisfaction of the OWNER, that the specified testing requirements have been met for each employee prior to their utilization on the work.

#### **Measurement and Payment**

Qualification of the CONTRACTOR's personnel for heat fusion operations is considered incidental and will not be considered for payment. All costs associated with qualifying the CONTRACTOR's personnel, including but not limited to testing and certification, as specified herein, shall be included in the unit prices bid for the various pay items of the work.

#### **5.1.1   Heat Fusion Qualifications**

Operators of heat fusion equipment, including: butt fusion, saddle fusion and electrofusion, shall be tested and certified in accordance with the requirements of 49 CFR 192, Subpart F, Paragraph 285 along with any and all additional requirements of the specific pipe and/or fitting manufacturer.

In addition to and in accordance with the requirements above, all personnel performing heat fusion operations shall be certified by GUC to join polyethylene pipe approved for use as included in Section 4.1.1 Polyethylene Gas Pipe, prior to commencing work, by the following procedures:

Certification: Each technician making joints in polyethylene pipe must provide evidence of current heat fusion certification from an approved pipe manufacturer, pipe vendor, or gas distribution company. Additionally each technician must be qualified by the Gas Superintendent, or designee, before making joints on polyethylene pipe that will be installed in the gas distribution system operated by GUC.

Testing: Each technician must show proof of satisfactory training and practice in making heat fused joints on polyethylene pipe and fittings. A technician will be tested with the following procedure:



- 1) Make a specimen joint by joining material equal to the material being used which passes visual inspection during and after assembly and is found to have the same appearance as an acceptable joint or photograph of an acceptable joint.
- 2) Specimen is physically tested by cutting into at least three (3) longitudinal strips. Each strip shall:
  - Show no voids or discontinuities or any cut surface in the joint area.
  - Be deformed by bending, torque, or impact and if failure occurs, it must not be in the joint area.

Re-qualification must be completed if during any twelve (12) month period that person:

- (i) Does not make any fusion joints.
- (ii) During the course of the work, any employee of the CONTRACTOR that cumulatively performs three unsatisfactory fuses for incorporation in the natural gas distribution system that are subsequently determined to be unacceptable to the OWNER shall not be allowed to perform fusion operations until evidence of re-training from an acceptable source is provided to the OWNER.

If the technician performs unsatisfactorily in the fusion of the joints or fittings for which the technician is approved for as indicated on his fusion permit, GUC reserves the right to revoke his/her permit to fuse polyethylene pipe on GUC's gas system.

## **5.2 Heat Fusion**

All polyethylene pipe and/or fitting connections and other fabrications within the gas distribution system shall be made by heat fusion, unless otherwise directed by the OWNER. Heat fusion shall include: butt fusion, saddle fusion and electrofusion.

### **Measurement and Payment**

Heat fusion operations are considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for heat fusion operations and inspection thereof, including: heat fusion machines and wind guards, shall be included in the unit prices bid for the various pay items of the work.

#### **5.2.1 Procedure**

All heat fusion jointing procedures shall be performed in accordance with 49 CFR 192 and any and all recommended Specifications and procedures provided by the pipe and/or fitting manufacturer.

Heat fusion equipment shall, at all times, be protected from damage and kept in good working condition. Fusion equipment that shows signs of deterioration or damage shall be replaced. Heat fusion machines that, in the opinion of the OWNER, are in poor repair or are not of sufficient capacity to perform the work shall not be used in conjunction with work on GUC facilities.

Suitable windguards shall be provided to protect the work during periods of excessive wind or cold weather. When the ambient temperature is below 32°F care must be taken to maintain the proper heater plate temperature.

The CONTRACTOR shall, at the direction of the OWNER, temporarily suspend all heat fusion operations whenever conditions are not conducive to the performance of good work.

All fused joints and other connections shall be air-cooled. Accelerated cooling by any method shall not be permitted.

Fusion operations on polyethylene pipe shall be performed adjacent to the trench and the pipe lifted and lowered into the trench. Where absolutely necessary to fuse polyethylene pipe at another location than adjacent to the trench, as allowed and confirmed by the OWNER, the pipe shall be lifted and carried to the trench. Under no circumstances shall any length or portion of the polyethylene pipe be dragged, slid, pushed or pulled, on any surface to the trench.

#### **5.2.2 Inspection**

Visual, nondestructive and/or destructive testing procedures shall be implemented, as required by the OWNER, to determine the quality of the fused joints.

The OWNER may, at his discretion, require nondestructive testing and inspection of any or all fused joints prior to the initiation of backfilling or insertion operations.

The OWNER shall make all determinations as to what constitutes an acceptable fused joint as well as the disposition of all defective joints. These determinations shall be made upon completion of a visual inspection. Defective joints shall be removed from the piping system at the OWNER's direction and at no cost to GUC.

### **5.3 Valves**

Valves shall be installed at all locations indicated on the Plans, or as otherwise directed by the OWNER.

Valve installations shall include the valve, complete valve box assembly, any required blocking.

Prior to installation, all valves shall be fully opened and fully closed a sufficient number of times to ensure that all parts are in proper working order.

All polyethylene valves shall be installed below grade by butt fusion, unless otherwise directed by the OWNER. Butt fusion operations on polyethylene valves shall be in accordance with 5.2 Heat Fusion.

Valve boxes shall be installed so as not to hinder the operation of the valve.

Valve boxes shall be insulated from the valve by blocking under the valve box with brick, concrete block or suitable masonry material. Similar material shall be used to block under the center of the valve.

Backfill shall be carefully tamped around each valve box to a distance of four (4) feet on all sides of the box, or to the undisturbed trench face if less than four (4) feet, such that the plumbness of the valve box is maintained.

A pre-manufactured concrete collar or a poured in place concrete collar shall be installed around the lid area of each valve box which is installed outside of paved roadways. Each poured in place concrete collar shall be eighteen (18) inches by eighteen (18) inches and shall be composed of concrete capable of reaching a compressive strength of 3000 psi.

All valves shall be in the open position during pressure testing, and shall remain as such upon completion of the tests. **Under no circumstances shall the CONTRACTOR operate any valves within the existing gas distribution system, or otherwise interrupt or restore gas service to any customer. GUC personnel shall perform all valve operations and service restoration, as required.**

Following the complete installation, backfill, testing and acceptance of the valve and valve box assembly, a section of two (2) inch polyethylene pipe shall be placed inside the valve box. The section of polyethylene pipe shall be sufficient in length to be retrieved and removed during the operation of the valve and such that it does not interfere with the normal placement of the lid.

### **Measurement and Payment**

Valve installations will be measured for payment based upon the number installed.

The unit price bid shall include the cost of any and all equipment, incidental materials and labor required for valve installation, including blocking as describe above.

#### 5.4 **Pressure and Leak Testing**

Each gas main installed within GUC's distribution system shall be pressure and leak tested, as specified herein. The CONTRACTOR shall provide the necessary materials, labor and pumps required to pressurize the gas main in a satisfactory and efficient manner. **All pressure and leak testing shall be done in the presence of the OWNER. Tests done without supervision will not be accepted and the CONTRACTOR shall be required to retest at his expense.**

When the length of any pipe section exceeds 1,000 feet, the OWNER reserves the right to require the pipe to be tested in sections determined by the OWNER.

All new gas mains shall be pressure tested using compressed air or nitrogen. Water shall not be used as a test medium for gas mains. The method and procedure for each pressure test shall be subject to the approval of the OWNER.

Natural gas shall not be admitted into any gas main prior to the OWNER's approval and the successful completion of all required pressure tests.

#### **Measurement and Payment**

Pressure and leak testing operations are considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for pressure and leak-testing operations shall be included in the unit prices bid for the various pay items of the work.

##### 5.4.1 **Preparation**

Prior to testing, each section of two (2) inch or larger nominal diameter main shall be thoroughly cleaned by forcing a pig type mechanical cleaner through the pipe a sufficient number of times to remove all foreign matter which may have been trapped inside the pipe during construction. A minimum of two pig runs shall be required. Mains that have a nominal diameter of less than two (2) inches shall be cleaned by swabbing or by forcing compressed air through the pipe at a sufficient rate such that all foreign matter is removed.

With the exception of certain bellholes required for the installation and operation of testing equipment, each test segment shall be completely backfilled along its entire length prior to testing.

**Twenty-four (24) hours prior to commencing any testing operations, the CONTRACTOR shall submit a test schedule to the OWNER for approval.**

#### 5.4.2 Procedure

After the pipe has been prepared in accordance with 5.4.1 Preparation, pressure and leak tests shall be performed as specified herein in accordance with 49 CFR 192, Subpart J.

Pressure testing procedures shall not be initiated until at least twenty minutes after the last fused joint has been completed.

All pressure tests shall be monitored by means of chart recording devices with an attached pressure gauge located, as directed by the OWNER, along the main(s) to be tested. The chart recording devices shall be capable of recording the sustained test pressure for the duration of the test. The gauge shall be liquid filled and capable of measuring pressures to a minimum of one hundred (100) psig. The CONTRACTOR shall provide evidence of recent and accurate calibration of all chart-recording instruments. The date and time of the commencement and completion of the pressure test shall be recorded on the pressure chart, which shall be signed by the CONTRACTOR's superintendent and the OWNER. The original test chart shall be submitted along with a Test Record form and submitted to the OWNER for verification.

GUC reserves the right to utilize its own test recording apparatuses, on any job at the discretion of the OWNER.

All gas mains installed within the distribution system shall be tested at ninety (90) psig or as directed by the OWNER for the minimum duration specified in Table 5.4.2.

**TABLE 5.4.2  
PRESSURE TEST DURATIONS**

<b>PIPE LENGTH (FEET)</b>	<b>DURATION OF TEST MAINS</b>
0 – 250	15 Minutes
Over 250 – 500	30 Minutes
Over 500 – 1000	1 Hour
> 1,000	8 Hours

Any variations in the test durations specified in Table 5.4.2 shall be subject to the approval of the OWNER.

The hourly pressure along with the ambient temperature at the beginning and end of the test shall be recorded for the duration of the test on GUC's standard form. The date and time of the commencement and completion of the pressure test shall be recorded on the form, which shall be signed by the CONTRACTOR's inspector and submitted to the OWNER for verification.

After correcting for temperature changes, the test shall show no loss of pressure over the duration of the test.

All tie-in fuses and fittings not included in the pressure test shall be leak tested with a foaming leak locating compound solution after the main line has been placed into service.

Any and all breaks, leaks or defects in the pipe, valves and fittings discovered during the pressure and/or foaming leak locating compound tests shall be located, repaired or replaced, and re-tested by the CONTRACTOR, at the CONTRACTOR's expense, as directed by the OWNER.

## **5.5 Purging**

Upon the successful completion of the pressure and/or foaming leak locating compound test, and after the gas main or each section thereof has been cleaned and approved in every respect to the satisfaction of the OWNER, GUC will be notified and, under their supervision, natural gas will be admitted into the completed mains in sufficient quantities such that all air is purged out of the line(s).

All purging operations will be done under the direct supervision of the OWNER. The CONTRACTOR shall provide a minimum of twenty-four (24) hours notice to the OWNER prior to commencing any purging operations.

**Under no circumstances shall the CONTRACTOR operate any existing valves within GUC distribution system.**

When a reading of 100-percent gas is measured using an approved, calibrated CGI, all valves shall be closed and gas pressure continuously maintained on the line(s). The CGI shall be provided by the CONTRACTOR and operated by qualified personnel.

GUC will provide all of the natural gas necessary for the initial purging operations. Any natural gas required for subsequent purging operations, if so required shall be provided at the CONTRACTOR's expense.

## **Measurement and Payment**

Purging operations are considered incidental work and will not be measured for payment. The cost of any and all equipment, material and labor required for purging operations shall be included in the unit prices bid for the various pay items of the work.

## 5.6 **Tie-Ins to Existing System**

It is the responsibility of the CONTRACTOR to connect the work to existing or previously installed facilities as shown on the Plans or as directed by the OWNER.

The Plans describe generalized tie-in procedures and materials. The CONTRACTOR shall be aware that additional fittings or alignment changes may be necessary to properly and efficiently complete the tie-in operations. The CONTRACTOR, at no cost to GUC, shall furnish the necessary incidental materials and install the necessary materials required to complete the tie-in as shown on the Plans or as directed by the OWNER.

The CONTRACTOR shall have available the appropriate drilling, tapping and stopping equipment necessary for the various fittings shown on the Plans and trained and experienced personnel to operate this equipment. The tie-in operations shall be performed in a sequence as directed by the OWNER.

The CONTRACTOR shall have available the appropriate squeeze-off tools for plastic pipe. All points on the plastic pipe where the squeeze-off is applied shall have a full encirclement clamp or an electrofusion coupling installed to mark the location and to reinforce the pipe.

All tie-in operations, including but not limited to installation of the tie-in fitting and main blow-downs shall be performed under the direct supervision of the OWNER. The CONTRACTOR shall provide the OWNER with at least forty-eight (48) hours advance notice prior to initiating tie-in procedures.

The CONTRACTOR shall not commence any tie-in operations until the new mains have been cleaned and tested as specified in 5.4 Pressure and Leak Testing.

**Under no circumstances shall the CONTRACTOR operate any valves within the existing gas distribution system, or otherwise interrupt or restore gas service to any customer. GUC personnel shall perform all valve operations and service restorations, as required.**

### **Measurement and Payment**

Squeeze off, fused, and coupled tie-in operations are considered incidental to the work and will not be measured for payment. The cost of any and all equipment, incidental material and labor required for these tie-in operations shall be included in the unit prices bid for the various pay items of the work.

**APPROVED NCDOT ENCROACHMENT AGREEMENT SR 1524**



ROUTE	SR-1524 (Old Creek Road)	PROJECT	COUNTY OF	STATE OF NORTH CAROLINA PITT
DEPARTMENT OF TRANSPORTATION		RIGHT OF WAY ENCROACHMENT AGREEMENT		
-AND-		PRIMARY AND SECONDARY HIGHWAYS		
GREENVILLE UTILITIES COMMISSION		283-G	AUG 22 2016	

THIS AGREEMENT, made and entered into this the 8 day of August 2016, by and between the Department of Transportation, party of the first part; and party of the second part,

#### WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as SR 1524, located as shown by attached map with the construction and/or erection of: tying into an existing 8-inch steel natural gas main located at the intersection of US 264 (Martin Luther King Jr. Highway) and SR 1524 (Old Creek Road) to install 3,280 linear feet of 8-inch PE natural gas main within five feet of the back edge of right-of-way and a 50 linear feet horizontal directional drill of a 6-inch PE natural gas main under SR 1524 at the intersection of Sugg Parkway. The installation will either be done by an open trench or horizontal directional drill, as indicated by the attached plans.

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment with in the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the installation, operation, and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Division Engineer or State Utility Agent of the party of the first part.

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities, that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

That the party of the second part agrees to have available at the construction site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

During the performance of this contract, the second party, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

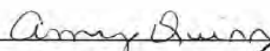
- Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U. S. Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

- c. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- d. Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
- e. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to,
  - (1) withholding of payments to the contractor under the contract until the contractor complies, and/or
  - (2) cancellation, termination or suspension of the contract, in whole or in part.
- f. Incorporation of Provisions: The contractor shall include the provisions of paragraphs "a" through "f" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Department of Transportation to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

R/W (161) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

ATTEST OR WITNESS:

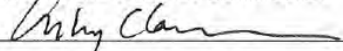
  
Amy Quinn, Executive Secretary



DEPARTMENT OF TRANSPORTATION

BY:   
DIVISION ENGINEER

GREENVILLE UTILITIES COMMISSION

  
Anthony C. Cannon, General Manager/CEO

Second Party

#### INSTRUCTIONS

When the applicant is a corporation or municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the Manager of Right of Way. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the existing and/or proposed encroachment.
4. Length, size and type of encroachment.
5. Method of installation.
6. Dimensions showing the distance from the encroachment to edge of pavement, shoulders, etc.
7. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
8. Drainage structures or bridges if affected by encroachment (show vertical and horizontal dimensions from encroachment to nearest part of structure).
9. Method of attachment to drainage structures or bridges.
10. Manhole design.
11. On underground utilities, the depth of bury under all traveled lanes, shoulders, ditches, sidewalks, etc.
12. Length, size and type of encasement where required.
13. On underground crossings, notation as to method of crossing - boring and jacking, open cut, etc.
14. Location of vents.

#### GENERAL REQUIREMENTS

1. Any attachment to a bridge or other drainage structure must be approved by the Head of Structure Design in Raleigh prior to submission of encroachment agreement to the Division Engineer.
2. All crossings should be as near as possible normal to the centerline of the highway.
3. Minimum vertical clearances of overhead wires and cables above all roadways must conform to clearances set out in the National Electric Safety Code.
4. Encasements shall extend from ditch line to ditch line in cut sections and 5' beyond toe of slopes in fill sections.
5. All vents should be extended to the right of way line or as otherwise required by the Department.
6. All pipe encasements as to material and strength shall meet the standards and specifications of the Department.
7. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.
8. The Department's Division Engineer should be given notice by the applicant prior to actual starting of installation included in this agreement.





PAT McCrory  
Governor

NICHOLAS J. TENNYSON  
Secretary

August 29, 2016

Greenville Utilities Commission  
PO Box 1847  
Greenville, NC 27835-1847

**SUBJECT:** Encroachment Contract – Pitt County (074-16-52) 283-G

Attached hereto, for your files, is a copy of the Right of Way Encroachment Contract, which has been properly executed. The contract covers the following: Tie into existing 8-inch steel natural gas main located at the intersection of US 264 (Martin Luther King Jr. Highway) and SR 1524 (Old Creek Road) in Pitt County to install 3,280 LF of 8-inch PE natural gas main within 5 ft. of the back edge of right-of-way and a 50 LF horizontal directional drill of a 6-inch PE natural gas main under SR 1524 (Old Creek Road) at the intersection of Sugg Parkway. The installation will either be done by an open trench or horizontal directional drill as indicated on the attached drawings.

**APPROVED SUBJECT TO SPECIAL PROVISIONS:**

**Specific Requirements:**

- 1.) *That the party of the second part agrees to provide traffic control devices, lane closures, road closures, positive protection and/or any other warning or positive protection devices necessary for the safety of road users during construction and any subsequent maintenance. This shall be performed in conformance with the latest NCDOT Roadway Standard Drawings and Standard Specifications for Roads and Structures and Amendments or Supplements thereto. Where there is no guidance provided in the Roadway Standard Drawings or Specifications, comply with the Manual on Uniform Traffic Control Devices for Streets and Highways and Amendment or Supplement thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.*
- 2.) *All lanes of traffic shall be open on thoroughfares from 6:00 AM until 8:30 AM and from 4:30 PM until 6:00 PM on weekdays. Approval must be received by the District Engineer's office at (252) 946-3689 prior to any lane closure.*
- 3.) *The encroaching party shall notify the District Engineer's office at (252) 946-3689 prior to beginning construction and upon completion of construction.*
- 4.) *An executed copy of this encroachment agreement, contract, and plans shall be present at the construction site at all times during construction. If safety or traffic conditions warrant such action, NCDOT reserves the right to further limit, restrict, or suspend operations within the right of way.*

Nothing Compares™

State of North Carolina | Department of Transportation | Division 2 – District 1 Office  
1701 West 5<sup>th</sup> Street | Washington, NC 27889  
(252) 946-3689

**General Requirements:**

- 1) NCDOT Work Zone Control Qualifications and Training Program. Effective July 1, 2010, all flagging operations within NCDOT Right of Way require qualified and trained Work Zone Flaggers. Effective July 1, 2011, qualified and trained Work Zone Traffic Control Supervisors will be required on Significant Projects. Training for this certification is provided by NCDOT approved training sources and by private entities that have been pre-approved to train themselves. If you have questions, contact our web site at [www.ncdot.org/-wztc](http://www.ncdot.org/-wztc), or contact Roger Garrett with NCDOT Work Zone Traffic Control Unit at (919) 661-4809 or [rmgarrett@ncdot.gov](mailto:rmgarrett@ncdot.gov).
- 2) Ingress and egress shall be maintained to all businesses and dwellings affected by the project. Special attention shall be paid to police, fire stations, fire hydrants and hospitals.
- 3) Proper temporary and permanent measures shall be used to control erosion and sedimentation in accordance with all local, State and Federal regulations.
- 4) The contractor shall not begin the construction until after the traffic control and erosion control devices have been installed to the satisfaction of the District Engineer.
- 5) All workmanship and materials shall conform to North Carolina Department of Transportation Standards and Specifications manual.
- 6) All utilities shall be placed in accordance with the manual on Policies and Procedures for Accommodating Utilities on the Highway Rights of Way.
- 7) The encroaching party shall comply with all applicable federal, state and local environmental regulations, and shall obtain all necessary federal, state and local environmental permits, including but not limited to, those related to sediment control, storm water, wetland, streams, endangered species and historical sites.
- 8) NCDOT does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought about by any property owner by reason of this installation.
- 9) Any work requiring equipment or personnel within 5' of the edge of any travel lane of an undivided facility and within 10' of the edge of any travel lane of a divided facility shall require a lane closure with appropriate tapers.
- 10) The encroaching party is required to contact the appropriate Utility Companies involved and make satisfactory arrangements to adjust the utilities in conflict with the proposed work prior to beginning construction.
- 11) Trenching, bore pits and/or other excavations shall not be left open or unsafe overnight. The Contractor shall comply with all OSHA requirements and provide a competent person on site to supervise excavation at all times.
- 12) Excavation material shall not be placed on pavement. Drainage structures shall not be blocked with excavation materials. Any drainage structure disturbed or damaged shall be restored to its original condition as directed by the District Engineer.

- 13) All fill areas/backfill shall be compacted to 95% density in accordance with AASHTO T99 as modified by the NCDOT. All material to a depth of 8 inches below the finished surface of the subgrade shall be compacted to a density equal to 100% of that obtained by compacting a sample of the material in accordance with AASHTO T99 as modified by the Department. The Contractor shall dry or add moisture to the subgrade when required to provide a uniformly compacted and acceptable subgrade. All material placed in a maximum of 6" lifts.
- 14) All earth areas disturbed shall be graded, dressed, seeded, mulched, and tacked with liquid asphalt or other approved means within 10 days of completion of work in any area.
- 15) Vegetative cover shall be established on all disturbed areas in accordance with the recommendations of the Division Roadside Environmental Engineer.
- 16) Any disturbed guardrail shall be reset according to the applicable standard or as directed by the District Engineer.
- 17) All roadway signs that are removed due to construction shall be reinstalled as soon as possible, but at least by the end of the same workday.
- 18) Right of way monuments disturbed during construction shall be referenced by a Registered Land Surveyor and reset after construction.
- 19) Work requiring lane or shoulder closures shall not be performed on both sides of the road simultaneously within the same area.
- 20) No parking or material storage shall be allowed along the shoulders of any state-maintained roadway.
- 21) Excavation within 500 feet of a signalized intersection will require notification by the party of the second part to Steve Hamilton, PE, Division Traffic Engineer at telephone number (252) 439-2800. All traffic signal or detection cables must be located prior to excavation.
- 22) All existing structures, pavement, drainage or otherwise, located inside the Right of Way that are affected by this work shall be restored to meet the *NCDOT Standards and Specifications* as directed by the District Engineer.
- 23) All concrete and asphalt driveways within NCDOT right of way shall be crossed by dry bore methods. Any deviation shall be replaced with like materials and be warranted for three years to cover all damages resulting from the open cut. Proper Traffic Control; Devices, Signs, etc., Shall be Installed to Insure Public Safety.
- 24) Minimum two feet clearance required for utility installations beneath crossline pipes. Crossline pipe shall be removed to allow for proper installation of utility. If crossline pipe is damaged it shall be replaced with new pipe. The utility shall be encased if the clearance is less than four feet.
- 25) Minimum of two feet clearance below the stream bed or flowline of crossline is required. The utility shall be encased for a minimum distance of ten feet on each side of the centerline of the stream. The utility cannot be located closer than five feet from the end of crossline pipe.



26) Directional drilling methods have not been given statewide approval for use on NCDOT right of way. Under no condition shall jetting alone or wet boring with water of utility pipelines be allowed. Directional boring using jetting with a Bentonite (or equivalent material) slurry is approved at a minimum depth of ten (10) feet below the pavement surface [fifteen (15') feet below the surface of partial and/or full control of access roads] and two (2) feet below any ditch line. Directional boring is not allowed in embankment material. Directional boring is allowed beneath embankment material in naturally occurring soil. Any parallel installation utilizing the directional boring method shall be made at a minimum depth of three (3') feet (~~cover~~) below the ground surface and outside the theoretical 1:1 slope from the existing edge of pavement except where the parallel installation crosses a paved roadway. All directional bores shall maintain ten (10) feet minimum (clear) horizontal distance from the nearest part of any structure, including but not limited to bridges, footings, pipe culverts or box culverts. All directional bores shall maintain ten (10) feet minimum (clear) vertical distance from the nearest part of pipe culverts or box culverts. Directional bores **are not** allowed beneath bridge footings, culvert wingwall footings or retaining walls. The tip of the drill string shall have a cutter head. Detection wire shall be installed with non-ferrous material. Any changes shall be submitted to the District Engineer for approval prior to construction. For multiple conduit installations (including perpendicular & parallel installations), install conduits with five (5) feet minimum (clear) horizontal separation between each conduit or install multiple conduits within a single duct. An overbore shall not be more than two (2") inches greater than the diameter of the pipe or encasement. An overbore exceeding two (2") inches greater than the diameter of the pipe or encasement will be considered if the encroachment agreement includes a statement signed and sealed by a licensed North Carolina Professional Engineer indicating that an overbore in excess of two (2") inches of the diameter of the pipe or encasement will arch and no damage will be done to the pavement or sub-grade. HDPE pipe installed by directional boring shall not be connected to existing pipe or fittings for one (1) week from the time of installation to allow tensional stresses to relax.

27) During non-working hours, equipment shall be parked as close to right of way lines as possible and be properly barricaded in order to not have any equipment obstruction within the Clear Recovery Area.

28) All soils located inside the Right of Way shall be considered a type "C" soil. All trenching, shoring and excavation shall follow the OSHA guidelines for this type of soil.

29) All shoulder installation shall remain a minimum of 1 foot distance per 1 foot depth (1:1 slope) from the edge of pavement to the nearest inside wall of excavation.

30) Crossing by bore only no open cuts will be permitted.

31) Roadway bores shall be installed perpendicular to the centerline.

32) Directional boring using jetting with a Bentonite (or equivalent material) slurry is approved at a minimum depth of 10 (ten) feet below the roadway surface (15 feet for controlled access roadways) and 5 (five) feet below any ditch line. Any changes shall be submitted to the District Engineer for approval prior to construction.

33) All splice boxes, manholes, and other appurtenances within the NCDOT right of way shall be located at/outside the right of way line. Manholes and/or vaults shall not be placed in the ditch line, side slopes of the ditches, or in the pavement.

- 34) Manhole rings and covers, valve covers, and storm drain grates and frames shall be of the traffic bearing types approved by NCDOT for use within the highway right of way.
- 35) Where utility is installed in the Right of Way and are not of ferrous material, a locating tape shall be installed with the pipeline.
- 36) Any drop off greater than 2" from the edge of pavement shall be made safe by using a 6:1 slope or flatter for a width of 6 feet.
- 37) Any utility marker required shall be as close to the right of way line as possible. If it is not feasible to install markers at or near the right of way line, written approval specific to the site shall be obtained from the District Engineer prior to installation.

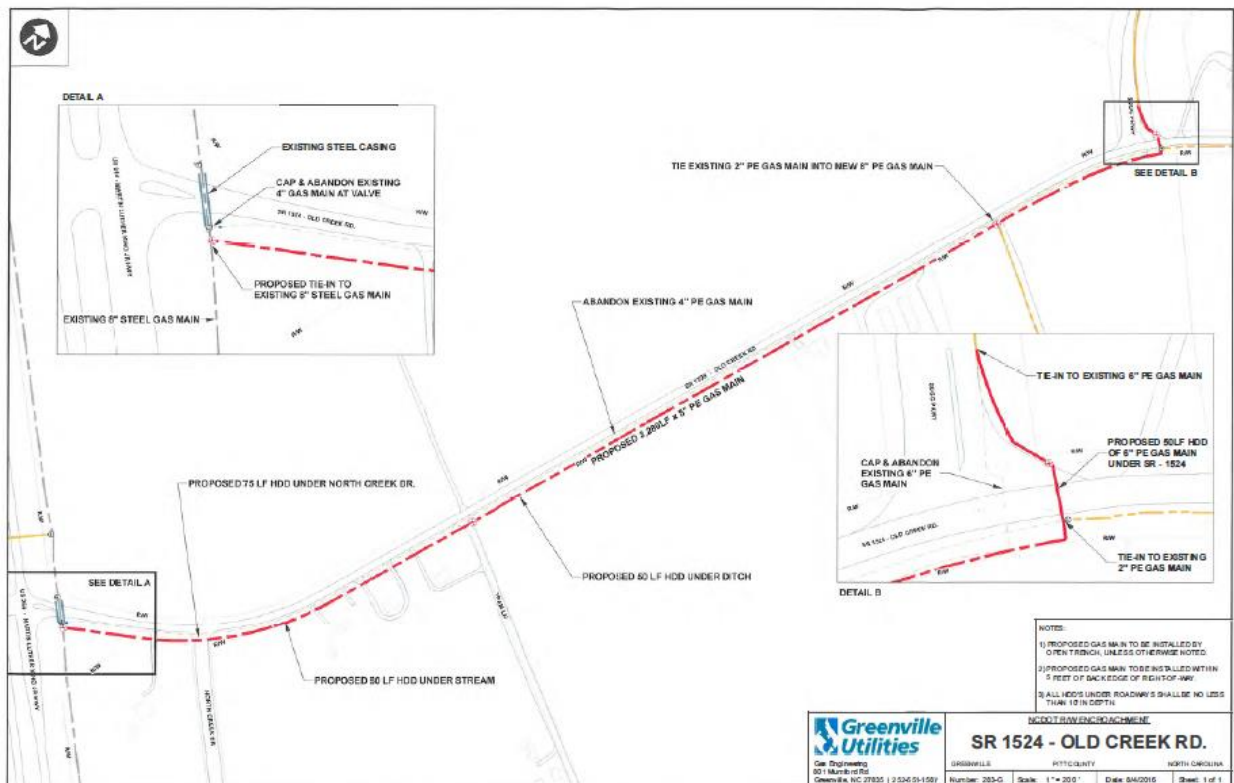
Sincerely,

*J. W. Rouse, Jr.*

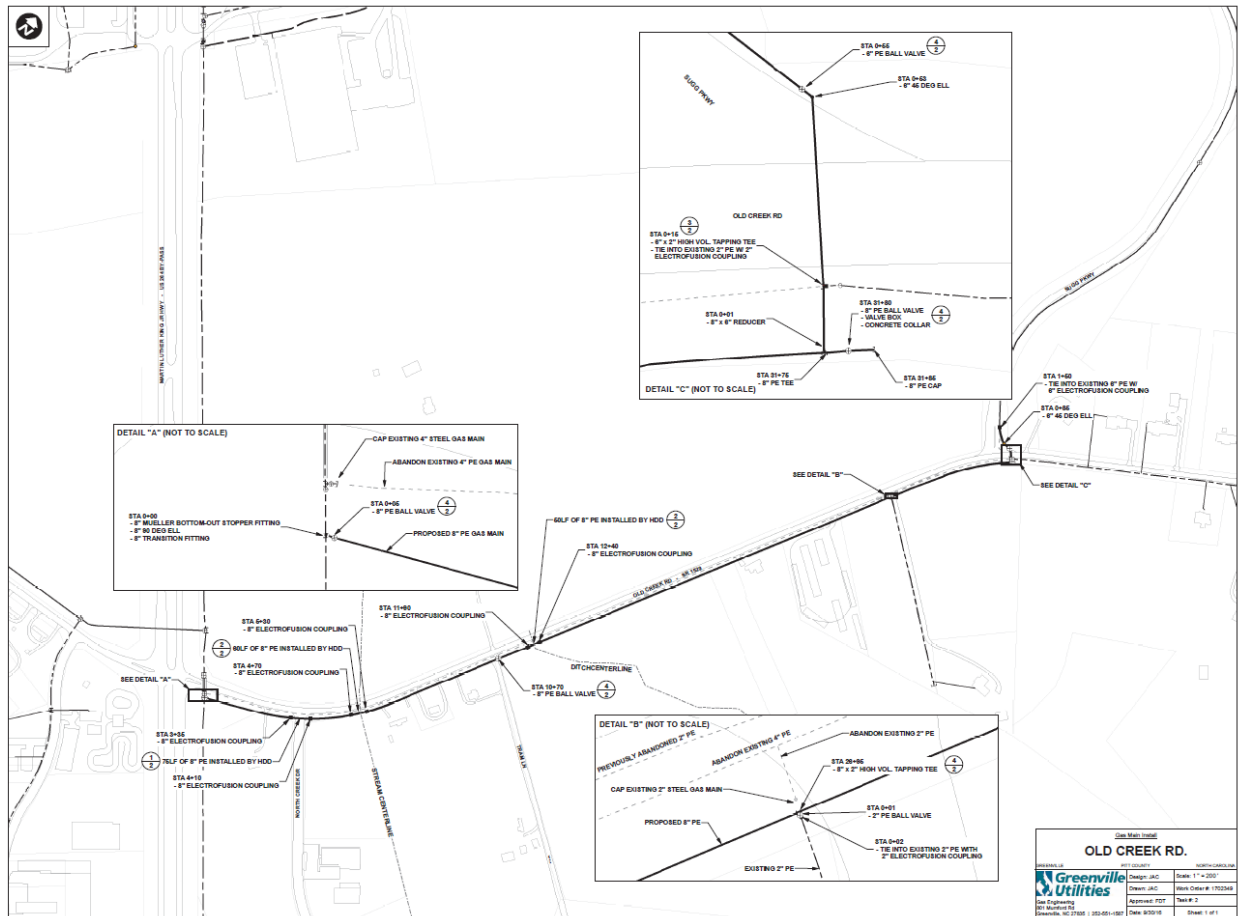
J. W. Rouse, Jr., P.E.  
Division Engineer

JWR/MBH/SGP/ts

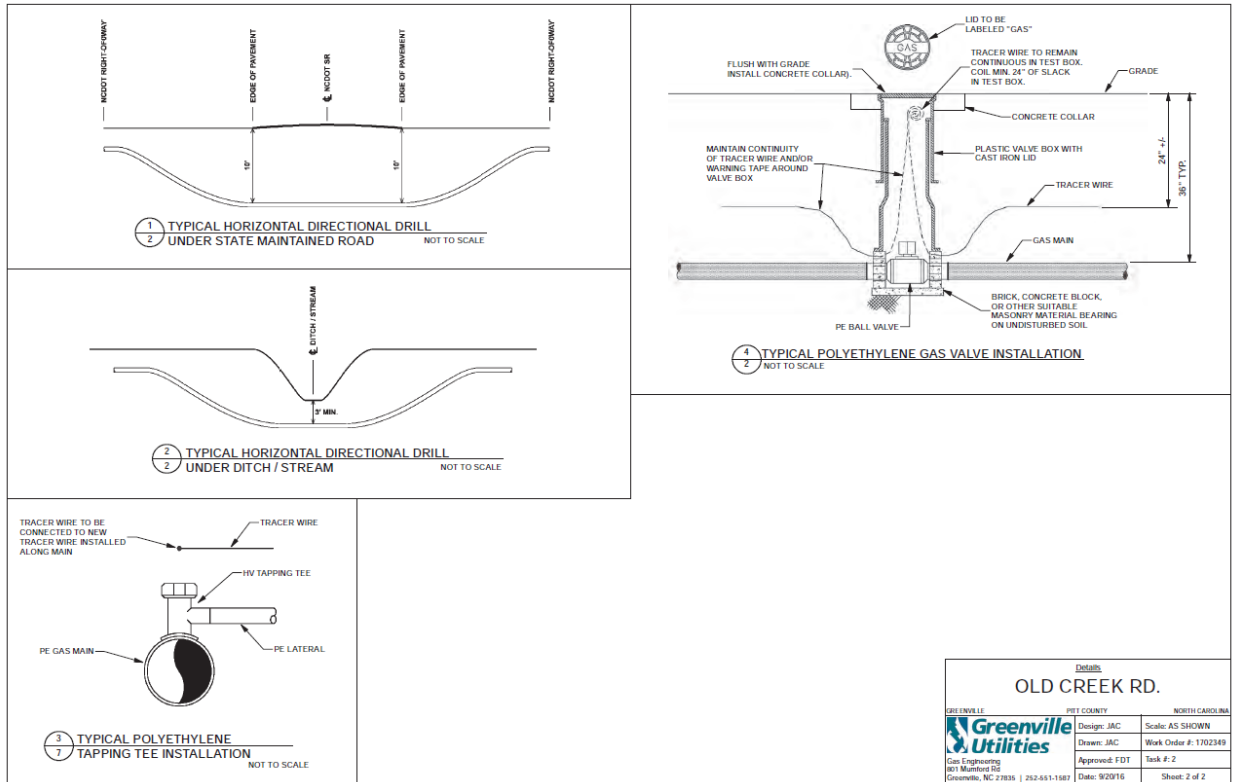
cc: M. B. Houston, P.E., District Engineer  
S. G. Pittman, Assistant District Engineer



# PLANS AND DETAILS







Details			
OLD CREEK RD.			
GREENVILLE	PITTS COUNTY	NORTH CAROLINA	
	Design: JAC	Scale: AS SHOWN	
	Drawn: JAC	Work Order #: 1702349	
	Approved: FDT	Task #: 2	
	Date: 9/20/16	Sheet: 2 of 2	

**GREENVILLE UTILITIES COMMISSION**

**REQUEST FOR QUOTATION**

**FOR OLD CREEK ROAD NATURAL GAS MAIN REPLACEMENT**

<b><u>INSTALL PRICE BID SHEET</u></b>					
Item No.	Quantity	Unit	Description	Unit Price	Total \$
1	100	LF	Install 6" PE pipe by Direct Burial or Plow		
2	50	LF	Install 6" PE pipe by HDD		
3	3,175	LF	Install 8" PE pipe by Direct Burial		
4	185	LF	Install 8" PE pipe by HDD		
5	1	EA	Install 2" PE Valve with Box and Concrete Collar		
6	1	EA	Install 6" PE Valve with Box and Concrete Collar		
7	3	EA	Install 8" PE Valve with Box and Concrete Collar		
8	1	LS	Install Tap on Existing 8" Steel Main		
9	1	LS	Tie-in existing 2" PE Service		
10	1	LS	Tie-in existing 6" PE Main		
<b>Total of Pipeline Install Price</b>					<b>\$_____</b>

[Balance of page left blank intentionally]

**GREENVILLE UTILITIES COMMISSION**  
**REQUEST FOR QUOTATION**  
**FOR OLD CREEK ROAD NATURAL GAS MAIN REPLACEMENT**

In the space below, please provide a price quote for the following Old Creek Road Natural Gas Main Replacement per the GUC Specifications.

Vendor \_\_\_\_\_

Estimated Completion Date \_\_\_\_\_

Installation Total \$ \_\_\_\_\_

**QUOTATIONS SHOULD BE RECEIVED BY 4:00 PM ON (EDST) NOVEMBER 9, 2016.**

Quotations can be mailed to Cleve Haddock, Procurement Coordinator, 401 South Greene Street, Greenville, N.C. 27834 or e-mailed to: [haddocgc@guc.com](mailto:haddocgc@guc.com) . Greenville Utilities reserves the right to reject any and all quotes that are not in GUC's best interest.

**Notes:**                   (1) **Bidders shall include in their bid the estimated completion date**

(2) **See attached SR 1524 - Old Creek RD Map**

**Method of Award:**   **Old Creek Road Natural Gas Main Replacement will be awarded as a TOTAL QUOTE.**

[Balance of page left blank intentionally]

**Letter of Compliance to E-Verify for Greenville Utilities Commission**

1. I have submitted a bid for contract or desire to enter into a contract with the Greenville Utilities Commission;
2. As part of my duties and responsibilities pursuant to said bid and/or contract, I affirm that I am aware of and in compliance with the requirements of E-Verify, Article 2 of Chapter 64 of the North Carolina General Statutes, to include (mark which applies):
3. \_\_\_\_ After hiring an employee to work in the United States I verify the work authorization of said employee through E-Verify and retain the record of the verification of work authorization while the employee is employed and for one year thereafter; or
4. \_\_\_\_ I employ less than twenty-five (25) employees in the State of North Carolina.
5. As part of my duties and responsibilities pursuant to said bid and/or contract, I affirm that to the best of my knowledge and subcontractors employed as a part of this bid and/or contract, are in compliance with the requirements of E-Verify, Article 2 of Chapter 64 of the North Carolina General Statutes, to include (mark which applies):
6. \_\_\_\_ After hiring an employee to work in the United States the subcontractor verifies the work authorization of said employee through E-Verify and retains the record of the verification of work authorization while the employee is employed and for one year thereafter; or
7. \_\_\_\_ Employ less than twenty-five (25) employees in the State of North Carolina.  
Specify subcontractor: \_\_\_\_\_

\_\_\_\_\_ (Company Name)

By: \_\_\_\_\_ (Typed Name)

\_\_\_\_\_ (Authorized Signatory)

\_\_\_\_\_ (Title)

\_\_\_\_\_ (Date)

**Letter of Compliance to the Iran Divestment Act Certification**

Name of Vendor or Bidder: \_\_\_\_\_  
\_\_\_\_\_

**IRAN DIVESTMENT ACT CERTIFICATION  
REQUIRED BY N.C.G.S. 143C-6A-5(a)**

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**As of the date listed below, the vendor or bidder listed above is not listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 143-6A-4.**

**The undersigned hereby certifies that he or she is authorized by the vendor or bidder listed above to make the foregoing statement.**

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Signature	Date
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Printed Name	Title
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## **Special Instructions to Bidders**

### **City of Greenville/Greenville Utilities Commission Minority and/or Women Business Enterprise (M/WBE) Program**

#### **GUC Construction Guidelines and Affidavits \$100,000 and above**

These instructions shall be included with each bid solicitation.

## City of Greenville/Greenville Utilities Commission Minority and/or Women Business Enterprise Program

### \$100,000 and Construction Guidelines for M/WBE Participants

#### Policy Statement

It is the policy of the City of Greenville and Greenville Utilities Commission to provide minorities and women equal opportunity for participating in all aspects of the City's and Utilities' contracting and procurement programs, including but not limited to, construction projects, supplies and materials purchases, and professional and personal service contracts.

#### Goals and Good Faith Efforts

Bidders responding to this solicitation shall comply with the M/WBE program by making Good Faith Efforts to achieve the following aspiration goals for participation.

	GUC	
	MBE	WBE
<b>Construction</b> This goal includes Construction Manager at Risk.	7%	4%

Bidders shall submit M/WBE information with their bids on the forms provided. This information will be subject to verification by GUC prior to contract award. **As of July 1, 2009, contractors, subcontractors, suppliers, service providers, or M/WBE members of joint ventures intended to satisfy GUC M/WBE goals shall be certified by the NC Office of Historically Underutilized Businesses (NC HUB) only.** Firms qualifying as "WBE" for GUC's goals must be designated as a "women-owned business" by the HUB Office. Firms qualifying as "MBE" for the GUC's goals must be certified in one of the other categories (i.e.: Black, Hispanic, Asian American, American Indian, Disabled, or Socially and Economically Disadvantaged). Those firms who are certified as both a "WBE" and "MBE" may only satisfy the "MBE" requirement. A complete database of NC HUB certified firms may be found at <http://www.doa.nc.gov/hub/>. An internal database of firms who have expressed interest to do business with the City and GUC is available at [www.greenvillencmwbe.org](http://www.greenvillencmwbe.org). However, the HUB status of these firms must be verified by the HUB database. GUC shall accept NCDOT certified firms on federally funded projects only. Please note: A contractor may utilize any firm desired. However, for participation purposes, all M/WBE vendors who wish to do business as a minority or a female must be certified by NC HUB.

The Bidder shall make good faith efforts to encourage participation of M/WBEs prior to submission of bids in order to be considered as a responsive bidder. Bidders are cautioned that even though their submittal indicates they will meet the M/WBE goal, they should document their good faith efforts and be prepared to submit this information, if requested.

The M/WBE's listed by the Contractor on the **Identification of Minority/Women Business Participation** which are determined by the GUC to be certified shall perform the work and supply the materials for which they are listed unless the Contractors receive prior authorization from the GUC to perform the work with other forces or to obtain materials from other sources. If a contractor is proposing to perform all elements of the work with his own forces, he must be prepared to document evidence satisfactory to the owner of similar government contracts where he has self-performed.

The Contractor shall enter into and supply copies of fully executed subcontracts with each M/WBE or supply signed Letter(s) of Intent to the Project Manager after award of contract and prior to Notice to Proceed. Any amendments to subcontracts shall be submitted to the Project Manager prior to execution.

MBForms 2002-  
Revised July 2010

## Instructions

The Bidder shall provide with the bid the following documentation:

☐ Identification of Minority/Women Business Participation  
(if participation is zero, please mark zero—Blank forms will be considered nonresponsive)

☐ Affidavit A (if subcontracting)

OR

☐ Identification of Minority/Women Business Participation  
(if participation is zero, please mark zero—Blank forms will be considered nonresponsive)

☐ Affidavit B (if self-performing; must attest that bidder does not customarily subcontract work on this type of project—includes supplies and materials)

Within 72 hours or 3 business days after notification of being the apparent low bidder who is subcontracting anything must provide the following information:

☐ Affidavit C (if aspirational goals are met or are exceeded)

OR

☐ Affidavit D (if aspirational goals are not met)

After award of contract and prior to issuance of notice to proceed:

☐ Letter(s) of Intent or Executed Contracts

**\*\*With each pay request, the prime contractors will submit the Proof of Payment Certification, listing payments made to M/WBE subcontractors.**

**\*\*\*If a change is needed in M/WBE Participation, submit a Request to Change M/WBE Participation Form. Good Faith Efforts to substitute with another M/WBE contractor must be demonstrated.**

### Minimum Compliance Requirements:

All written statements, affidavits, or intentions made by the Bidder shall become a part of the agreement between the Contractor and the GUC for performance of contracts. Failure to comply with any of these statements, affidavits or intentions or with the minority business guidelines shall constitute a breach of the contract. A finding by the GUC that any information submitted (either prior to award of the contract or during the performance of the contract) is inaccurate, false, or incomplete, shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of the GUC whether to terminate the contract for breach or not. In determining whether a contractor has made Good Faith Efforts, the GUC will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, intensity, and results of these efforts.



## Identification of Minority/Women Business Participation

I, \_\_\_\_\_ (Name of Bidder)

do hereby certify that on this project, we will use the following minority/women business enterprises as construction subcontractors, vendors, suppliers or providers of professional services.

[illegible]

\*M/WBE categories: Black, African American (**B**), Hispanic, Latino (**L**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**S**) Disabled (**D**)

**If you will not be utilizing M/WBE contractors, please certify by entering zero "0"**

**The total value of MBE business contracting will be (\$)**\_\_\_\_\_.

The total value of WBE business contracting will be (\$)                    .

# Greenville Utilities Commission AFFIDAVIT A – Listing of Good Faith Efforts

County of \_\_\_\_\_

(Name of Bidder)

Affidavit of \_\_\_\_\_

I have made a good faith effort to comply under the following areas checked:

**Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive.** (1 NC Administrative Code 30 I.0101)

- ☐ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☐ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☐ **3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ☐ **5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- ☐ **6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☐ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ **8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ **9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☐ **10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority/Women Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority/women business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

MBForms 2002-  
Revised July 2010

**Greenville Utilities Commission --AFFIDAVIT B-- Intent to Perform  
Contract with Own Workforce.**

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_  
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the \_\_\_\_\_  
\_\_\_\_\_ contract.  
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

**Greenville Utilities Commission - AFFIDAVIT C - Portion of the Work to be  
Performed by M/WBE Firms**

County of \_\_\_\_\_

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by M/WBE businesses as defined in GS143-128.2(g) and the COG/GUC M/WBE Plan sec. III is equal to or greater than 11% of the bidders total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of \_\_\_\_\_ I do hereby certify that on the  
(Name of Bidder)

Project ID# \_\_\_\_\_ (Project Name) Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority business enterprises and a minimum of \_\_\_\_\_% of the total dollar amount of the contract with women business enterprises. Minority/women businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required

Name and Phone Number	*M/WBE Category	Work description	Dollar Value

\*Minority categories: Black, African American (**B**), Hispanic or Latino (**L**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**S**) Disabled (**D**)

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with M/WBE Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

## Greenville Utilities Commission AFFIDAVIT D – Good Faith Efforts

County of \_\_\_\_\_

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 11% participation by minority/women business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of \_\_\_\_\_ I do hereby certify  
that on the \_\_\_\_\_

(Name of Bidder)

Project ID# \_\_\_\_\_ (Project Name) \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority business enterprises and a minimum of \_\_\_\_\_% of the total dollar amount of the contract with women business enterprises. Minority/women businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*M/WBE Category	Work description	Dollar Value

\*Minority categories: Black, African American (B), Hispanic or Latino (L), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (S) Disabled (D)

**Examples** of documentation required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with M/WBE Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

## LETTER OF INTENT M/WBE Subcontractor Performance

**Please submit this form or executed subcontracts with M/WBE firms after award of contract and prior to issuance of notice to proceed.**

PROJECT: \_\_\_\_\_  
(Project Name)

TO: \_\_\_\_\_  
(Name of Prime Bidder/Architect)

The undersigned intends to perform work in connection with the above project as a:

\_\_\_\_ Minority Business Enterprise

\_\_\_\_ Women Business Enterprise

The M/WBE status of the undersigned is certified the NC Office of Historically Underutilized Businesses (required). \_\_\_\_ Yes \_\_\_\_ No

The undersigned is prepared to perform the following described work or provide materials or services in connection with the above project at the following dollar amount:

Work/Materials/Service Provided	Dollar Amount of Contract	Projected Start Date	Projected End Date

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Name & Phone No. of M/WBE Firm)

\_\_\_\_\_  
(Name & Title of Authorized Representative of M/WBE)

\_\_\_\_\_  
(Signature of Authorized Representative of M/WBE)

## REQUEST TO CHANGE M/WBE PARTICIPATION

(Submit changes only if notified as apparent lowest bidder, continuing through project completion)

**Project:** \_\_\_\_\_

**Bidder or Prime Contractor:** \_\_\_\_\_

**Name & Title of Authorized Representative:** \_\_\_\_\_

**Address:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

\_\_\_\_\_ **Email Address:** \_\_\_\_\_

**Total Contract Amount (including approved change orders or amendments):** \$ \_\_\_\_\_

Name of subcontractor: \_\_\_\_\_

Good or service provided: \_\_\_\_\_

### **Proposed Action:**

☐ Replace subcontractor

☐ Perform work with own forces

For the above actions, you must provide one of the following reasons (Please check applicable reason):

☐ The listed MBE/WBE, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract.

☐ The listed MBE/WBE is bankrupt or insolvent.

☐ The listed MBE/WBE fails or refuses to perform his/her subcontract or furnish the listed materials.

☐ The work performed by the listed subcontractor is unsatisfactory according to industry standards and is not in accordance with the plans and specifications; or the subcontractor is substantially delaying or disrupting the progress of the work.



*If replacing subcontractor:*

Name of replacement subcontractor: \_\_\_\_\_

The M/WBE status of the contractor is certified by the NC Office of Historically Underutilized Businesses (required). ☐ Yes ☐ No

Dollar amount of original contract \$ \_\_\_\_\_

Dollar amount of amended contract \$ \_\_\_\_\_

**Other Proposed Action:**

☐ Increase total dollar amount of work

☐ Add additional subcontractor

☐ Decrease total dollar amount of work

☐ Other

Please describe reason for requested action: \_\_\_\_\_

*If adding\* additional subcontractor:*

The M/WBE status of the contractor is certified by the NC Office of Historically Underutilized Businesses (required). ☐ Yes ☐ No

*\*Please attach Letter of Intent or executed contract document*

Dollar amount of original contract \$ \_\_\_\_\_

Dollar amount of amended contract \$ \_\_\_\_\_

**Interoffice Use Only:**

Approval ☐ Y ☐ N

Date \_\_\_\_\_

Signature \_\_\_\_\_

Pay Application No. _____ Purchase Order No. _____
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## Proof of Payment Certification

### M/WBE Contractors, Suppliers, Service Providers

Project Name: \_\_\_\_\_

Prime Contractor: \_\_\_\_\_

Current Contract Amount (including change orders): \$ \_\_\_\_\_

Requested Payment Amount for this Period: \$ \_\_\_\_\_

Is this the final payment? Yes \_\_\_ No \_\_\_

Firm Name	M/WBE Category*	Total Amount Paid from this Pay Request	Total Contract Amount (including changes)	Total Amount Remaining

\*Minority categories: Black, African American (B), Hispanic or Latino (L), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (S) Disabled (D)

Date: \_\_\_\_\_ Certified By: \_\_\_\_\_  
Name

\_\_\_\_\_ Title

\_\_\_\_\_ Signature

GREENVILLE UTILITIES COMMISSION

By: \_\_\_\_\_  
Anthony C. Cannon

Title: General Manager/CEO  
(Authorized Signatory)

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Name (Print): Amy Carson Quinn

Title: Executive Secretary

Date: \_\_\_\_\_

(OFFICIAL SEAL)

COMPANY NAME:

By: \_\_\_\_\_

Name (Print): \_\_\_\_\_

Title: \_\_\_\_\_  
(Authorized Signatory)

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Name (Print): \_\_\_\_\_

Title: Corporate Secretary

Date: \_\_\_\_\_

(CORP. SEAL)

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

By: \_\_\_\_\_  
Jeff W. McCauley

Title: Chief Financial Officer

Date: \_\_\_\_\_

APPROVED AS TO FORM AND LEGAL CONTENT:

By: \_\_\_\_\_  
Phillip R. Dixon

Title: General Counsel

Date: \_\_\_\_\_