

ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
2100 CLARENDON BOULEVARD, SUITE 500
ARLINGTON, VIRGINIA 22201

CONTRACT AWARD COVERPAGE

TO: FORT MYER CONSTRUCTION CORP.	DATE ISSUED:	5/7/2021
2337 33 RD ST NE	CONTRACT NO:	21-DES-ITB-408
WASHINGTON, DC 20018	CONTRACT TITLE:	WATER MAIN CLEANING

THIS IS A NOTICE OF AWARD OF CONTRACT AND NOT AN ORDER. NO WORK IS AUTHORIZED UNTIL THE VENDOR RECEIVES A VALID COUNTY PURCHASE ORDER ENCUMBERING CONTRACT FUNDS.


The contract documents consist of the terms and conditions of AGREEMENT No. 21-DES-ITB-408 including any attachments or amendments thereto.

EFFECTIVE DATE: 5/7/2021
EXPIRES: 365 CONSECUTIVE CALENDAR DAYS FROM NOTICE TO PROCEED
RENEWALS: NONE
COMMODITY CODE(S): 89081
LIVING WAGE: N

EMPLOYEES NOT TO BENEFIT:
NO COUNTY EMPLOYEE SHALL RECEIVE ANY SHARE OR BENEFIT OF THIS CONTRACT NOT AVAILABLE TO THE GENERAL PUBLIC.

<u>VENDOR CONTACT:</u> JOSE RODRIGUEZ	<u>VENDOR TEL. NO.:</u>	<u>(202) 636-9535</u>
<u>EMAIL ADDRESS:</u> FORTMYER@FORTMYER.COM		
<u>COUNTY CONTACT:</u> CARLA ALAYON (DES-WSS)	<u>COUNTY TEL. NO.:</u>	<u>(703) 228-7608</u>
<u>COUNTY CONTACT EMAIL:</u> CALAYON@ARLINGTONVA.US		

PURCHASING DIVISION AUTHORIZATION

	Procurement Officer	5/7/2021
<small>DocuSign Envelope ID: 5D2342428F9D4B4...</small>	Title	Date

**ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
2100 CLARENDON BOULEVARD, SUITE 500
ARLINGTON, VA 22201**

AGREEMENT NO. 21-DES-ITB-408

THIS AGREEMENT is made on 5/7/2021, between Fort Myer Construction Corporation, 2237 33rd Street NE, Washington DC, 20018 (“Contractor”) a Virginia Corporation authorized to do business in the Commonwealth of Virginia, and the County Board of Arlington County, Virginia. The County and the Contractor, for the consideration hereinafter specified, agree as follows:

1. CONTRACT DOCUMENTS

The “Contract Documents” consist of this Agreement, bid of the successful Bidder (hereinafter “Contractor”) and Arlington County (hereinafter “County”) Invitation to Bid No. 21-DES-ITB-408

The Contract Documents set forth the entire agreement between the County and the Contractor. The County and the Contractor agree that no representative or agent of either party has made any representation or promise with respect to the parties’ agreement that is not contained in the Contract Documents. The Contract Documents may be referred to below as the “Contract” or the “Agreement”.

2. SCOPE OF WORK

The Contractor agrees to perform the services described in the Contract Documents (the “Work”), more particularly described in the Scope of Services included with the Invitation to Bid. The primary purpose of the Work is water main cleaning

The Contract Documents set forth the minimum Work estimated by the County and the Contractor to be necessary to complete the Work. It will be the Contractor’s responsibility, at its sole cost, to provide the services set forth in the Contract Documents and sufficient services to fulfill the purposes of the Work.

Nothing in the Contract Documents limits the Contractor's responsibility to manage the details and execution of the Work.

3. PROJECT OFFICER

The performance of the Contractor is subject to the review and approval of the County Project Officer, who will be appointed by the Director of the Arlington County department or agency requesting the Work under this Contract.

4. CONTRACT TERM

Time is of the essence. Work under this Agreement will commence upon issuance of a Notice to Proceed. The Period of Performance shall be Three-Hundred Sixty-Five (365) consecutive calendar days from Notice to Proceed.

5. CONTRACT PRICING

Unless otherwise provided in the Contract Documents, the Contractor shall provide the goods and services covered in the County’s Invitation to Bid No. 21-DES-ITB-408 at the prices provided in the Price Schedule from the Contractor.

6. METHOD OF AWARD

The County will award to the lowest Responsive/Responsible Bidder. The lowest Bidder will be determined by the Determination of Responsibility as set forth in this Invitation to Bid.

7. DETERMINATION OF RESPONSIBILITY

In determining a "Responsible Bidder", in addition to price and other considerations, the County shall consider the following:

- History or good faith assurances;
- Completion by the Bidder and any potential sub-contractors of specified safety training programs established by the U.S. Department of Labor, Occupational Safety and Health Administration;
- Maintenance by the Bidder and any potential sub-contractors or records of compliance with applicable local, state and statutes and regulations.

8. PAYMENT TERMS

The Contractor must submit invoices to the County's Project Officer, who will either approve the invoice or require corrections. Each invoice must certify that the invoice submitted is a true and accurate accounting of the Work performed and goods and/or services provided and must be signed and attested to by the Contractor or authorized designee.

The County will pay the Contractor within Forty-Five (45) days after receipt of an invoice for completed Work that is reasonable and allocable to the Contract and that has been performed to the satisfaction of the Project Officer. The number of the County Purchase Order pursuant to which goods or services have been delivered or performed must appear on all invoices.

9. PAYMENT OF SUB-CONTRACTORS

The Contractor is obligated to take one of the two following actions within Seven (7) days after receipt of payment by the County for Work performed by any sub-contractor under this Contract:

- a. Pay the sub-contractor for the proportionate share of the total payment received from the County attributable to the Work performed by the sub-contractor under this Contract; or
- b. Notify the County and the sub-contractor, in writing, of the Contractor's intention to withhold all or a part of the sub-contractor's payment, with the reason for non-payment.

The Contractor is obligated to pay interest to the sub-contractor on all amounts owed by the Contractor to the sub-contractor that remain unpaid after seven days following receipt by the Contractor of payment from the County for Work performed by the sub-contractor under this Contract, except for amounts withheld as allowed in Sub-Section (b), above. Unless otherwise provided under the terms of this Contract, interest will accrue at the rate of One Percent (1%) per month.

The Contractor must include in each of its sub- contracts, if any are permitted, a provision requiring each sub-contractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier sub-contractor.

The Contractor's obligation to pay an interest charge to a sub-contractor pursuant to this section may

not be construed to be an obligation of the County. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

10. LIQUIDATED DAMAGES

Time is of the essence under this Contract. The work must be completed with the Contract Term. The County and the Contractor agree that damages for failure to achieve Final Completion of the Work by the date specified in the Notice to Proceed are not susceptible to exact determination by that **\$1,000.00 per day** is in proportion to the actual loss that the County would suffer from such delay.

Therefore, the Contractor shall pay the County as Liquidated Damages **\$1,000.00 per day** for each and every day beyond the time for Final Completion that has not been achieved.

11. NO WAIVER OF RIGHTS

The County's approval or acceptance of or payment for any goods or services under this Contract will not waive any rights or causes of action arising out of the Contract.

12. NON-APPROPRIATION

All payments by the County to the Contractor pursuant to this Contract are subject to the availability of an annual appropriation for this purpose by the County Board of Arlington County, Virginia ("Board"). In the event that the Board does not appropriate funds for the goods or services provided under this Contract, the County will terminate the Contract, without termination charge or other liability to the County, on the last day of the fiscal year or when the previous appropriation has been spent, whichever event occurs first.

13. ESTIMATED QUANTITIES/NON-EXCLUSIVITY OF CONTRACTOR

This Contract does not obligate the County to purchase a specific quantity of items or services during the Contract Term. Any quantities that are included in the Contract Documents are the present expectations of the County for the period of the Contract; and the County is under no obligation to buy that or any amount as a result of having provided this estimate or of having had any normal or otherwise measurable requirement in the past.

The County may require more goods and/or services than the estimated annual quantities, and any such additional quantities will not give rise to any claim for compensation other than at the unit prices and/or rates in the Contract.

The County does not guarantee that the Contractor will be the exclusive provider of the goods or services covered by this Contract. The items or services covered by this Contract may be or become available under other County contract(s) and the County may determine that it is in its best interest to procure the items or services through those contract(s).

14. COUNTY PURCHASE ORDER REQUIREMENT

County purchases are authorized only if the County issues a Purchase Order in advance of the transaction, indicating that the ordering County agency has sufficient funds available to pay for the purchase. If the Contractor provides goods or services without a signed County Purchase Order, it does so at its own risk and expense. The County will not be liable for payment for any purchases made by its employees that are not authorized by the County Purchasing Agent.

15. DELIVERY

All goods are purchased F.O.B. destination in Arlington County as described in the specifications. Transportation, handling and all related charges are included in the unit prices or discounts that the Contractor submitted with its bid.

16. WARRANTY

The Contractor guarantees against and will correct at its expense factory defects that occur during the manufacturer's standard warranty period. The Contractor will provide all manufacturers' warranties at the time of delivery.

All Work is guaranteed by the Contractor against defects resulting from the use of inferior or faulty materials or Workmanship for One (1) year from the date of final acceptance of the Work by the County. No date other than the date of final acceptance shall govern the effective date of the Guaranty, unless that date is agreed upon by the County and the Contractor in advance and in a signed writing.

17. INSPECTION, ACCEPTANCE, TITLE, AND RISK OF LOSS

The County will inspect all materials at the delivery location within ten days of delivery and may test the goods at its sees fit before accepting them.

The Contractor warrants that it has good title to and will require all sub-contractors to warrant that they have good title to, all delivered goods.

The Contractor bears title and risk of loss or damage to all delivered goods until the County accepts them.

Neither the Contractor nor any sub-contractor may retain any interest in the goods after the County accepts them.

18. DAMAGE TO PROPERTY

Any damage, as determined by the Project Officer, to the real or personal property, whether owned by the County or others, resulting from the Work performed under this Contract shall be timely repaired or replaced to the County's satisfaction at the Contractor's expense. The County will perform the repairs unless the County agrees that such repairs will be made by the Contractor.

Any such Contractor repairs will be made within Ten (10) days of the date of damage to the satisfaction of the County. All costs of the repair performed by the County shall be deducted from the Contractor's final payment.

19. CLEANING UP

The Contractor shall remove, as frequently as necessary, all refuse, rubbish, scrap materials and debris from any and all Work sites to the extent that the trash is the result of the Contractor's operations, to the end that any and all Work sites shall present a neat, orderly, and Workmanlike appearance at all times.

At completion of the Work, but before final acceptance, the Contractor shall remove all surplus material, falsework, temporary structures including foundations thereof, and debris of every nature resulting from the Contractor's operations or resulting from any activity on the site related to the Contractor's operations and put the site in a neat, orderly condition; if the Contractor fails to do so, the

County shall have the right to remove the surplus material, falsework, temporary structures including foundations thereof, and debris, put the site in a neat, orderly condition, and charge the cost to the Contractor.

The County shall be entitled to offset such cost against any sums owed by the County to the Contractor under this Contract.

20. DISPOSAL OF PACKING MATERIALS, TRASH AND DEBRIS

The Contractor must, at its expense and without using any County waste containers, immediately remove and legally dispose of off-site all packing materials, trash and debris (“Waste”). Otherwise, the County will contract a third party to dispose of the Waste and will deduct the expense from the final payment to the Contractor.

The County will deduct from the final payment the expense to repair any damage to County-owned or controlled property that the Contractor or its agents cause, unless the County agrees that the Contractor can make the repairs, in which case the Contractor must make the repairs at its expense within ten days of the damage and to the satisfaction of the County.

21. OSHA REQUIREMENTS

The Contractor certifies that all material supplied or used under this Contract meets all federal and state Occupational Safety and Health Administration (“OSHA”) requirements. If the material does not meet the OSHA requirements, the Contractor will bear all costs necessary to bring the material into compliance.

22. HAZARDOUS MATERIALS

The Contractor must comply with all federal, state, and local laws governing the storage, transportation, and use of toxic and hazardous materials. The County is subject to the Hazard Communication Standard, 29 CFR § 1910.1200 (“Standard”). The Contractor will provide, no later than delivery or first use of the materials, Material Safety Data Sheets (“MSDS”) for all hazardous materials supplied to the County or used in the performance of the Work. The Contractor will also ensure that all shipping and internal containers bear labels that meets the requirements of the Standard. The County may refuse shipments of hazardous materials that are not appropriately labeled or for which the Contractor has not timely provided MSDS. The Contractor must pay any expenses that it or the County incurs as a result of the County’s refusal of goods under this section or rejection of MSDS.

23. HAZARDOUS WASTE GENERATOR/HAZARDOUS WASTE DISPOSAL

The County and the Contractor shall be listed as co-generators. The Contractor assumes all duties pertaining to the waste generator, including signing the Waste Shipment Record (“WSR”) and manifest. The Contractor shall supply the County Project Officer with the executed original Owner’s Copy of the WSR, as required by applicable regulatory agencies within thirty-five (35) days from the time the waste was accepted by the initial waste transporter, and prior to request for final payment. A separate WSR shall be submitted for each shipment to the disposal site.

Delayed Waste Shipment Records: The Contractor shall report in writing to the EPA Region III office within forty-five (45) days if an executed copy of the WSR is not received from the operator of the disposal site. The report to the EPA regional office shall include a copy of the original WSR and a cover letter signed by the Contractor stating the efforts taken to locate the hazardous waste shipment and

the results of those efforts.

Temporary Hazardous Waste Storage Prohibited: The Contractor shall not temporarily store hazardous waste unless pre-approved by the County. If so approved, hazardous waste stored off-site in a temporary facility shall be monitored and records shall be kept on the number of containers, size, and weight. The Contractor shall inform the County when the hazardous waste is to be transported to the final disposal site.

The County has the right to inspect the temporary site at any time. The Contractor shall submit copies of all relevant manifests, WSRs, and landfill receipts to the County Project Officer prior to the request for final payment. All paperwork shall be signed by the Contractor and disposal site operator as required.

24. PROHIBITION AGAINST ASBESTOS-CONTAINING MATERIALS

No goods, equipment or material that the Contractor or its sub-contractor provides, or installs may contain asbestos. The Contractor must remove any asbestos-containing goods, equipment and material at its sole cost, which includes Worker protection and legal disposal, and must reimburse the County for the replaced goods, equipment and material. The County may offset these costs and reimbursement against any amounts that it owes the Contractor.

25. SAFETY

The Contractor shall comply with, and ensure that the Contractor's employees and sub-contractors comply with, all current applicable local, state and federal policies, regulations and standards relating to safety and health, including, by way of illustration and not limitation, the standards of the Virginia Occupational Safety and Health program of the Department of Labor and Industry for General Industry and for the Construction Industry, the Federal Environmental Protection Agency standards and the applicable standards of the Virginia Department of Environmental Quality.

The Contractor shall provide, or cause to be provided, all technical expertise, qualified personnel, equipment, tools and material to safely accomplish the Work specified to be performed by the Contractor and sub-contractor(s).

The Contractor shall identify to the County Project Officer at least one on-site person who is the Contractor's competent, qualified, and authorized person on the Worksite and who is, by training or experience, familiar with and trained in policies, regulations and standards applicable to the Work being performed.

The competent, qualified and authorized person must be capable of identifying existing and predictable hazards in the surroundings or Working conditions which are unsanitary, hazardous or dangerous to employees, shall be capable of ensuring that applicable safety regulations are complied with, and shall have the authority and responsibility to take prompt corrective measures, which may include removal of the Contractor's personnel from the Work site.

The Contractor shall provide to the County, at the County's request, a copy of the Contractor's written safety policies and safety procedures applicable to the scope of Work. Failure to provide this information within Seven (7) days of the County's request may result in cancellation of the contract.

26. FAILURE TO DELIVER

If the Contractor fails to deliver goods or services in accordance with the Contract terms and conditions, the County, after notice to the Contractor, may procure the goods or services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs.

The County shall be entitled to offset such costs against any sums owed by the County to the Contractor. However, if public necessity requires the use of nonconforming materials or supplies, they may be accepted at a reduction in price to be determined solely by the County.

27. UNSATISFACTORY WORK

The Contractor must within Fifteen (15) days of written notice from the County remove and replace, at its expense, any goods that the County rejects as unsatisfactory. Otherwise, the County may choose to remove or replace the rejected goods at the Contractor's expense.

The County may offset the costs against any amounts that it owes the Contractor. The County may also decide not to remove or replace the unsatisfactory goods and instead to adjust the Contract Amount to account for the unsatisfactory performance. This paragraph applies throughout the Contract Term and any warranty or guarantee period.

28. PROJECT STAFF

The County has the right to reasonably reject staff or sub-contractors whom the Contractor assigns to the Project. The Contractor must then provide replacement staff or sub-contractors satisfactory to the County in a timely manner and at no additional cost to the County. The day-to-day supervision and control of the Contractor's employees and its sub-contractors is the sole responsibility of the Contractor.

29. SUPERVISION BY CONTRACTOR

The Contractor shall at all times enforce strict discipline and good order among the employees and sub-contractors performing under this Contract and shall not employ on the Work any person not reasonably proficient in the Work assigned.

30. BACKGROUND CHECK

All employees or sub-contractors whom the Contractor assigns to Work on this Contract must pass the County's standard background check. The background check will include fingerprinting by the County Sheriff's Office and a credit check.

31. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED

During the performance of its Work pursuant to this Contract:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age or disability or on any other basis prohibited by state law. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- B. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation will be deemed sufficient for meeting the requirements of this section.

- C. The Contractor will state in all solicitations or advertisements for employees that it places or causes to be placed that such Contractor is an Equal Opportunity Employer.
- D. The Contractor will comply with the provisions of the Americans with Disabilities Act of 1990 ("ADA"), which prohibits discrimination against individuals with disabilities in employment and mandates that disabled individuals be provided access to publicly and privately provided services and activities.
- E. The Contractor must include the provisions of the foregoing paragraphs in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each sub-contractor or vendor.

32. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED

In accordance with §2.2-4311.1 of the Code of Virginia, as amended, the Contractor must not during the performance of this Contract knowingly employ an unauthorized alien, as that term is defined in the federal Immigration Reform and Control Act of 1986.

33. DRUG-FREE WORKPLACE TO BE MAINTAINED BY CONTRACTOR

During the performance of this Contract, the Contractor must:

- (i) Provide a drug-free Workplace for its employees;
- (ii) Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's Workplace and specifying the actions that will be taken against employees for violating such prohibition;
- (iii) State in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free Workplace; and
- (iv) Include the provisions of the foregoing clauses in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each sub-contractor or vendor.

For the purposes of this Section, "Workplace" means the site(s) for the performance of the Work required by this Contract.

34. SEXUAL HARASSMENT POLICY

If the Contractor employs more than five employees, the Contractor shall:

- (i) Provide annual training on the Contractor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Department of Human Resource Management, and
- (ii) Post the Contractor's sexual harassment policy in (a) a conspicuous public place in each building located in the Commonwealth that the Contractor owns or leases for business purposes and (b) the Contractor's employee handbook.

35. TERMINATION

The County may terminate this Contract at any time as follows: (1) for cause, if, as determined by the County, the Contractor is in breach or default or has failed to perform the Work satisfactorily; or (2) for the convenience of the County.

Upon receipt of a notice of termination, the Contractor must not place any further orders or subcontracts for materials, services or facilities; must terminate all vendors and subcontracts, except as are necessary for the completion of any portion of the Work that the County did not terminate; and must immediately deliver all documents related to the terminated Work to the County.

Any purchases that the Contractor makes after the notice of termination will be the sole responsibility of the Contractor, unless the County has approved the purchases in writing as necessary for completion of any portion of the Work that the County did not terminate.

If any court of competent jurisdiction finds a termination for cause by the County to be improper, then the termination will be deemed a termination for convenience.

A. TERMINATION FOR CAUSE, INCLUDING BREACH AND DEFAULT; CURE

1. **Termination for Unsatisfactory Performance.** If the County determines that the Contractor has failed to perform satisfactorily, then the County will give the Contractor written notice of such failure(s) and the opportunity to cure them within 15 days or any other period specified by the County ("Cure Period"). If the Contractor fails to cure within the Cure Period, the County may terminate the Contract for failure to provide satisfactory performance by providing written notice with a termination date. The Contractor must submit any request for termination costs, with all supporting documentation, to the County Project Officer within Thirty (30) days after the expiration of the Cure Period.
2. The County may accept or reject the request for termination costs, in whole or in part, and may notify the Contractor of its decision within a reasonable time.

In the event of termination by the County for failure to perform satisfactorily, the Contractor must continue to provide its services as previously scheduled through the termination date, and the County must continue to pay all fees and charges incurred through the termination date.

3. **Termination for Breach or Default.** If the County terminates the Contract for default or breach of any Contract provision or condition, then the termination will be immediate after notice of termination to the Contractor (unless the County provides for an opportunity to cure), and the Contractor will not be permitted to seek termination costs.

Upon any termination pursuant to this section, the Contractor will be liable to the County for costs that the County must expend to complete the Work, including costs resulting from any related delays and from unsatisfactory or non-compliant Work performed by the Contractor or its sub-contractors. The County will deduct such costs from any amount due to the Contractor; or if the County does not owe the Contractor, the Contractor must promptly pay the costs within 15 days of a demand by the County. This Section does not

limit the County's recovery of any other damages to which it is entitled by law.

Except as otherwise directed by the County, the Contractor must stop Work on the date of receipt the notice of the termination.

B. TERMINATION FOR THE CONVENIENCE OF THE COUNTY

The County may terminate this Contract in whole or in part whenever the Purchasing Agent determines that termination is in the County's best interest. The County will give the Contractor at least Fifteen (15) days' notice in writing. The notice must specify the extent to which the Contract is terminated and the effective termination date. The Contractor will be entitled to termination costs plus any other reasonable amounts that the parties might negotiate; but no amount will be allowed for anticipatory profits.

Except as otherwise directed by the County, the Contractor must stop Work on the date of receipt of the notice of the termination.

36. INDEMNIFICATION

The Contractor covenants for itself, its employees and its sub-contractors to save, defend, hold harmless and indemnify the County and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards and commissions (collectively the "County Indemnitees") from and against any and all claims made by third parties for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability, demands or exposure resulting from, arising out of or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees and/or sub-contractors, in performance or nonperformance of the Contract.

This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

The Contractor agrees to defend, indemnify, and hold harmless County from any and all damages, costs, claims, expenses, suits, losses, liabilities, or obligations of any kind including without limitation, environmental assessments, evaluations, remediations, fines, penalties, and clean-up costs which may be asserted against or imposed upon, or incurred by County arising from Contractor's discharge or disposal of any hazardous or toxic materials, trash, debris, refuse, waste or other materials ("Materials") related in any way to contractor's operations herein.

37. INTELLECTUAL PROPERTY INDEMNIFICATION

The Contractor warrants and guarantees that in providing services under this Contract neither the Contractor nor any sub-contractor is infringing on the intellectual property rights (including, but not limited to, copyright, patent, mask and trademark) of third parties.

If the Contractor or any of its employees or sub-contractors uses any design, device, Work or material that is covered by patent or copyright, it is understood that the Contract Amount includes all royalties,

licensing fees, and any other costs arising from such use in connection with the Work under this Contract.

The Contractor covenants for itself, its employees and its sub-contractors to save, defend, hold harmless, and indemnify the County Indemnitees, as defined above, from and against any and all claims, losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability or exposure for infringement of or on account of any trademark, copyright, patented or unpatented invention, process or article manufactured or used in the performance of this Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

38. COPYRIGHT

By this Contract, the Contractor irrevocably transfers, assigns, sets over and conveys to the County all rights, title and interest, including the sole exclusive and complete copyright interest, in any and all copyrightable Works created pursuant to this Contract. The Contractor will execute any documents that the County requests to formalize such transfer or assignment.

The rights granted to the County by this section are irrevocable and may not be rescinded or modified, including in connection with or as a result of the termination of or a dispute concerning this Contract.

The Contractor may not use sub-contractors or third parties to develop or provide input into any copyrightable materials produced pursuant to this Contract without the County's advance written approval and unless the Contractor includes this Copyright provision in any contract or agreement with such sub-contractors or third parties related to this Contract.

39. OWNERSHIP AND RETURN OF RECORDS

This Contract does not confer on the Contractor any ownership rights or rights to use or disclose the County's data or inputs.

All drawings, specifications, blueprints, data, information, findings, memoranda, correspondence, documents or records of any type, whether written, oral or electronic, and all documents generated by the Contractor or its sub-contractors as a result of this Contract (collectively "Records") are the exclusive property of the County and must be provided or returned to the County upon completion, termination, or cancellation of this Contract. The Contractor will not use or willingly cause or allow such materials to be used for any purpose other than performance of this Contract without the written consent of the County.

The Records are confidential, and the Contractor will neither release the Records nor share their contents. The Contractor will refer all inquiries regarding the status of any Record to the Project Officer or to his or her designee. At the County's request, the Contractor will deliver all Records, including hard copies of electronic records, to the Project Officer and will destroy all electronic Records.

The Contractor agrees to include the provisions of this section as part of any contract or agreement related to this Contract into which it enters with sub-contractors or other third parties.

The provisions of this Section will survive any termination or cancellation of this Contract.

40. CONFIDENTIAL INFORMATION

The Contractor and its employees, agents and sub-contractors will hold as confidential all County information obtained under this Contract. Confidential information includes, but is not limited to, nonpublic personal information; personal health information (PHI); social security numbers; addresses; dates of birth; other contact information or medical information about a person; and information pertaining to products, operations, systems, customers, prospective customers, techniques, intentions, processes, plans and expertise. The Contractor must take reasonable measures to ensure that all of its employees, agents and sub-contractors are informed of and abide by this requirement.]

41. ETHICS IN PUBLIC CONTRACTING

This Contract incorporates by reference Article 9 of the Arlington County Purchasing Resolution, as well as all state and federal laws related to ethics, conflicts of interest or bribery, including the State and Local Government Conflict of Interests Act (Code of Virginia § 2.2-3100 et seq.), the Virginia Governmental Frauds Act (Code of Virginia § 18.2-498.1 et seq.) and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended (§ 18.2-438 et seq.).

The Contractor certifies that its bid was made without collusion or fraud; that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or sub-contractor; and that it has not conferred on any public employee having official responsibility for this procurement any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

42. COUNTY EMPLOYEES

No Arlington County employee may share in any part of this Contract or receive any benefit from the Contract that is not available to the general public.

43. FORCE MAJEURE

Neither party will be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to a fire, riot, rebellion, natural disaster, war, act of terrorism or act of God that is beyond the control of the party and that makes performance impossible or illegal, unless otherwise specified in the Contract.

44. AUTHORITY TO TRANSACT BUSINESS

The Contractor must, pursuant to Code of Virginia § 2.2-4311.2, be and remain authorized to transact business in the Commonwealth of Virginia during the entire term of this Contract. Otherwise, the Contract is voidable at the sole option of and with no expense to the County.

45. RELATION TO COUNTY

The Contractor is an independent contractor, and neither the Contractor nor its employees or sub-contractors will be considered employees, servants or agents of the County. The County will not be responsible for any negligence or other wrongdoing by the Contractor or its employees, servants or agents. The County will not withhold payments to the Contractor for any federal or state unemployment taxes, federal or state income taxes or Social Security tax or for any other benefits. The County will not provide to the Contractor any insurance coverage or other benefits, including Workers'

compensation.

46. ANTITRUST

The Contractor conveys, sells, assigns and transfers to the County all rights, title and interest in and to all causes of action under state or federal antitrust laws that the Contractor may have relating to this Contract.

47. REPORT STANDARDS

The Contractor must submit all written reports required by this Contract for advance review in a format approved by the Project Officer. Reports must be accurate and grammatically correct and should not contain spelling errors. The Contractor will bear the cost of correcting grammatical or spelling errors and inaccurate report data and of other revisions that are required to bring the report(s) into compliance with this section.

Whenever possible, proposals must comply with the following guidelines:

- printed double-sided on at least 30% recycled-content and/or tree-free paper
- recyclable and/or easily removable covers or binders made from recycled materials (proposals with glued bindings that meet all other requirements are acceptable)
- avoid use of plastic covers or dividers
- avoid unnecessary attachments or documents or superfluous use of paper (e.g. separate title sheets or chapter dividers)

48. AUDIT

The Contractor may be requested to provide to the County the complete findings and all components of an independent certified public accountant's audit of its finances and program operation within two months after the close of Contractor's fiscal year. If a management letter was not prepared with the audit, the Contractor must so certify in writing as part of the audit report to the County. The Contractor must allow the County to review its records as the County deems necessary for audit purposes within 15 calendar days of the County's receipt of the findings. All accounts of the Contractor are subject to audit.

The Contractor must retain all books, records and other documents related to this Contract for at least five years after the final payment and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request, at the Contractor's expense. Should the County's examination reveal any overcharging by the Contractor, the Contractor must, within Thirty (30) days of County's request, reimburse the County for the overcharges and for the reasonable costs of the County's examination, including, but not limited to, the services of external audit firm and attorney's fees; or the County may deduct the overcharges and examination costs from any amount that the County owes to the Contractor. If the Contractor wishes to destroy or dispose of any records related to this Contract (including confidential records to which the County does not have ready access) within five years after the final payment, the Contractor must give the County at least Thirty(30) days' notice and must not dispose of the documents if the County objects.

49. ASSIGNMENT

The Contractor may not assign, transfer, convey or otherwise dispose of any award or any of its rights,

obligations or interests under this Contract without the prior written consent of the County.

50. AMENDMENTS

This Contract may not be modified except by written amendment executed by persons duly authorized to bind the Contractor and the County.

51. ARLINGTON COUNTY PURCHASING RESOLUTION AND COUNTY POLICIES

Nothing in this Contract waives any provision of the Arlington County Purchasing Resolution, which is incorporated herein by reference, or any applicable County policy.

52. DISPUTE RESOLUTION

All disputes arising under this Agreement or concerning its interpretation, whether involving law or fact and including but not limited to claims for additional Work, compensation or time, and all claims for alleged breach of contract must be submitted in writing to the Project Officer as soon as the basis for the claim arises. In accordance with the Arlington County Purchasing Resolution, claims denied by the Project Officer may be submitted to the County Manager in writing no later than Sixty (60) days after the final payment.

The time limit for a final written decision by the County Manager is Thirty (30) days. Procedures concerning contractual claims, disputes, administrative appeals and protests are contained in the Arlington County Purchasing Resolution. The Contractor must continue to Work as scheduled pending a decision of the Project Officer, County Manager, County Board or a court of law

53. APPLICABLE LAW, FORUM, VENUE AND JURISDICTION

This Contract is governed in all respects by the laws of the Commonwealth of Virginia; and the jurisdiction, forum and venue for any litigation concerning the Contract or the Work is in the Circuit Court for Arlington County, Virginia, and in no other court.

54. ARBITRATION

No claim arising under or related to this Contract may be subject to arbitration.

55. NONEXCLUSIVITY OF REMEDIES

All remedies available to the County under this Contract are cumulative, and no remedy will be exclusive of any other at law or in equity.

56. NO WAIVER

The failure to exercise a right provided for in this Contract will not be a subsequent waiver of the same right or of any other right.

57. SEVERABILITY

The sections, paragraphs, clauses, sentences, and phrases of this Contract are severable; and if any section, paragraph, clause, sentence or phrase of this Contract is declared invalid by a court of competent jurisdiction, the rest of the Contract will remain in effect.

58. NO WAIVER OF SOVEREIGN IMMUNITY

Notwithstanding any other provision of this Contract, nothing in this Contract or any action taken by the County pursuant to this Contract shall constitute or be construed as a waiver of either the sovereign or governmental immunity of the County. The parties intend for this provision to be read as broadly as

possible.

59. ATTORNEY'S FEES

In the event that the County prevails in any legal action or proceeding brought by the County to enforce any provision of this Contract, the Contractor will pay the County's reasonable attorney's fees and expenses.

60. SURVIVAL OF TERMS

In addition to any statement that a specific term or paragraph survives the expiration or termination of this Contract, the following sections also survive: **INDEMNIFICATION; INTELLECTUAL PROPERTY INDEMNIFICATION; RELATION TO COUNTY; OWNERSHIP AND RETURN OF RECORDS; AUDIT; COPYRIGHT; WARRANTY; DISPUTE RESOLUTION; APPLICABLE LAW AND JURISDICTION; ATTORNEY'S FEES.**

61. HEADINGS

The section headings in this Contract are inserted only for convenience and do not affect the substance of the Contract or limit the sections' scope.

62. AMBIGUITIES

The parties and their counsel have participated fully in the drafting of this Agreement; and any rule that ambiguities are to be resolved against the drafting party does not apply. The language in this Agreement is to be interpreted as to its plain meaning and not strictly for or against any party.

63. NOTICES

Unless otherwise provided in writing, all legal notices and other communications required by this Contract are deemed to have been given when either (a) delivered in person; (b) delivered by an agent, such as a delivery service; or (c) deposited in the United States mail, postage prepaid, certified or registered and addressed as follows:

TO THE CONTRACTOR:

Jose Rodriguez, President
fortmyer@fortmyer.com
Fort Myer Construction Corp.
2237 33rd Street NE
Washington, DC 20018

TO THE COUNTY:

Carla Alayon, Project Officer
calayon@arlingtonva.us
4200 28th Street S
Arlington, Virginia 22206

AND

Sharon T. Lewis, LL.M, MPS, VCO, CPPB
Purchasing Agent
Arlington County, Virginia

2100 Clarendon Boulevard, Suite 500
Arlington, Virginia 22201

TO COUNTY MANAGER'S OFFICE (FOR PROJECT CLAIMS):

Mark Schwartz, County Manager
Arlington County, Virginia
2100 Clarendon Boulevard, Suite 318
Arlington, Virginia 22201

64. ARLINGTON COUNTY BUSINESS LICENSES

The Contractor must comply with the provisions of Chapter 11 ("Licenses") of the Arlington County Code, if applicable. For information on the provisions of that Chapter and its applicability to this Contract, the Contractor must contact the Arlington County Business License Division, Office of the Commissioner of the Revenue, 2100 Clarendon Blvd., Suite 200, Arlington, Virginia, 22201, telephone number (703) 228-3060.

65. NON-DISCRIMINATION NOTICE

Arlington County does not discriminate against faith-based organizations.

66. LIMITED ENGLISH PROFICIENCY

The Contractor must comply with Executive Order 13166, Title VI of the Civil Rights Act of 1964 and make reasonable efforts to ensure that as part of the services that it provides, adequate communication services, including interpretation and translation, are available to persons who have limited English proficiency. If such services are not included in the Contract's scope of services and pricing, the Contractor will use a County-contracted service provider, and the County will make arrangements with a County-contracted service provider and pay the fees.

67. ACCESSIBILITY OF WEB SITE

If any Work performed under this Contract results in the design, development or maintenance of or responsibility for the content or format of any County web sites or for the County's presence on Third-Party web sites, the Contractor must perform such Work in compliance with ADA.

68. ADA COMPLIANCE

The Contractor is solely responsible for its compliance with the ADA and must defend and hold the County harmless from any expense or liability arising from the Contractor's non-compliance. The Contractor also must respond promptly to and cooperate fully with all inquiries from the U.S. Department of Labor.

The Contractor's responsibilities related to ADA compliance include, but are not limited to, the following:

- a. Access to Programs, Services and Facilities: The Contractor must ensure that its programs, services and facilities are accessible to persons with disabilities. If a particular facility or program is not accessible, the Contractor must provide equivalent services in an accessible alternate location or manner.
- b. Effective Communication: Upon request, the Contractor, must provide appropriate communication aids and services so that qualified persons with disabilities can participate

equally in the Contractor's programs, services and activities. Communication aids and services can include, but are not limited to, qualified sign language interpreters, Braille documents and other means of facilitating communications with people who have speech, hearing or vision impairments.

- c. Modifications to Policies and Procedures: The Contractor must modify its policies and procedures as necessary to ensure that people with disabilities have an equal opportunity to enjoy the Contractor's programs, services and activities. For example, individuals' service animals must be allowed in the Contractor's offices or facilities, even if pets are generally prohibited.
- d. No Extra Charges: The Contractor may not charge a person with a disability or any group of individuals with disabilities to cover the cost of providing aids or services or of reasonable modifications to policies and procedures.

69. SERVICE CONTRACT WAGE REQUIREMENTS

a. LIVING WAGE

The County has determined that the provisions of Section 4-103 of the Arlington County Purchasing Resolution (regarding "Service Contract Wage" or "Living Wage") apply to this Contract. All employees of the Contractor and any sub-contractors Working on County-owned or County-occupied property therefore must be paid no less than the hourly Living Wage rate that is published on the County's web site on the date of Contract execution.

b. COMPLAINTS BY AGGRIEVED EMPLOYEES

If the Contractor fails to pay the Living Wage rate, an aggrieved employee or sub-contractor may file a complaint with the County Purchasing Agent within six months of the underpayment. If the Purchasing Agent determines that the Contractor has failed to comply with the Living Wage rate provisions of the Purchasing Resolution, the Contractor will be liable to the employee for the unpaid wages, plus interest at the current judgment rate set by Virginia law. The Contractor must not discharge, reduce the compensation of or otherwise retaliate against any employee who files a complaint with the County Purchasing Agent or takes any other action to enforce the requirements of this section.

c. ADDITIONAL COMPLIANCE REQUIREMENTS

At all times during the term of the Contract, the Contractor must:

1. Post the current Living Wage rate, in English and Spanish, in a prominent place at its offices and at each location where its employees perform services under this Contract (see sample notice in Attachment A0);
2. Within five days of an employee's request, provide a written statement of the applicable Living Wage rate, using the same form provided in Attachment A
3. Include the provisions of this section in all subcontracts for Work performed under the Contract; and
4. Submit to the Purchasing Agent, within Five (5) Working days of the end of each quarter, certified copies of quarterly payroll reports for each employee Working under the Contract during the quarter and a completed Arlington County Contractor Living Wage Quarterly Compliance Report (Attachment A).

d. **CONTRACTOR RECORD KEEPING**

The Contractor must preserve for five years after the expiration or termination of this Contract records of wages and benefits provided to each employee who Worked under the Contract and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request at the Contractor's expense.

e. **VIOLATIONS**

Violation of this section, as determined by the Purchasing Agent, will be a ground for termination of this Contract and debarment of the Contractor from consideration for future County contracts.

70. INSURANCE REQUIREMENTS

Before beginning Work under the Contract or any extension, the Contractor must provide to the County Purchasing Agent a Certificate of Insurance indicating that the Contractor has in force at a minimum the coverage below. The Contractor must maintain this coverage until the completion of the Contract or as otherwise stated in the Contract Documents. All required insurance coverage must be acquired from insurers that are authorized to do business in the Commonwealth of Virginia, with a rating of "A-" or better and a financial size of "Class VII" or better in the latest edition of the A.M. Best Co. Guides.

- a. **Workers Compensation** - Virginia statutory Workers compensation (W/C) coverage, including Virginia benefits and employer's liability with limits of \$100,000/100,000/500,000. The County will not accept W/C coverage issued by the Injured Worker's Insurance Fund, Towson, MD.
- b. **Commercial General Liability** - \$1,000,000 per occurrence, with \$2,000,000 annual aggregate covering all premises and operations and including personal injury, completed operations, contractual liability, independent contractors, and products liability. The general aggregate limit must apply to this Contract. Evidence of contractual liability coverage must be typed on the certificate.
- c. **Business Automobile Liability** - \$1,000,000 combined single-limit (owned, non-owned and hired).
- d. **Additional Insured** – The County and its officers, elected and appointed officials, employees and agents must be named as additional insureds on all policies except Workers compensation and automotive and professional liability; and the additional insured endorsement must be typed on the certificate.
- e. **Cancellation** - If there is a material change or reduction in or cancellation of any of the above coverages during the Contract Term, the Contractor must notify the Purchasing Agent immediately and must, with no lapse in coverage, obtain replacement coverage that is consistent with the terms of this Contract. Not having the required insurance throughout the Contract Term is grounds for termination of the Contract.

- f. **Claims-Made Coverage** - Any “claims made” policy must remain in force, or the Contractor must obtain an extended reporting endorsement, until the applicable statute of limitations for any claims has expired.
- g. **Contract Identification** - All insurance certificates must state this Contract's number and title.

The Contractor must disclose to the County the amount of any deductible or self-insurance component of any of the required policies. With the County’s approval, the Contractor may satisfy its obligations under this section by self-insurance for all or any part of the insurance required, provided that the Contractor can demonstrate sufficient financial capacity. In order to do so, the Contractor must provide the County with its most recent actuarial report and a copy of its self-insurance resolution.

The County may request additional information to determine if the Contractor has the financial capacity to meet its obligations under a deductible and may require a lower deductible; that funds equal to the deductible be placed in escrow; a certificate of self-insurance; collateral; or another mechanism to guarantee the amount of the deductible and ensure protection for the County.

The County’s acceptance or approval of any insurance will not relieve the Contractor from any liability or obligation imposed by the Contract Documents.

The Contractor is responsible for the Work and for all materials, tools, equipment, appliances and property used in connection with the Work. The Contractor assumes all risks for direct and indirect damage or injury to the property used or persons employed in connection with the Work and for of all damage or injury to any person or property, wherever located, resulting from any action, omission, commission or operation under the Contract or in connection in any way whatsoever with the Work. The Contractor’s insurance shall be the primary non-contributory insurance for any Work performed under this Contract.

The Contractor is as fully responsible to the County for the acts and omissions of its sub-contractors and of persons employed by them as it is for acts and omissions of persons whom the Contractor employs directly.

71. MATERIAL CHANGES

The Contractor shall notify Purchasing Agent within Seven (7) days of any material changes in its operation that relate to any matter attested regarding certifications on its bid form.

72. COUNTERPARTS

This Agreement may be executed in one or more counterparts and all of such counterparts shall together constitute one and the same instrument. Original signatures transmitted and received via facsimile or other electronic transmission (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall be effective as delivery of a manually executed original counterpart.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON

FORT MYER CONSTRUCTION CORP.

COUNTY, VIRGINIA

AUTHORIZED DocuSigned by:
SIGNATURE: Lucas Alexander
5D2342428F9D4B4...

AUTHORIZED DocuSigned by:
SIGNATURE: Christopher M. Kerns
BE7256ABCB724C4...

NAME: LUCAS ALEXANDER

NAME: Christopher M. Kerns

TITLE: PROCUREMENT OFFICER

TITLE: Vice Present & Senior Gen. Counsel

DATE: 5/7/2021

DATE: 5/4/2021

EXHIBIT A - SCOPE OF SERVICES

The Contractor shall furnish all labor, materials, and equipment for cleaning and cement-mortar lining, installation, repair or replacement of water mains and associated appurtenances throughout Arlington County (the "Project"). The Work includes, but is not limited to, cleaning and cement-mortar lining of existing water mains; installation of new water mains and appurtenances; repair and/or replacement of existing water mains and appurtenances; provision of temporary bypass piping on an "as needed" basis; and restoration of each project site, with all associated Work as required in the Contract Documents (hereinafter "the Work").

The Work shall be performed according to the standards established by the Contract Documents read together as a single specification. It shall be the obligation of the Contractor to obtain clarification from the Project Officer concerning any questions about or conflicts in the specifications, drawings and construction notes in a timely way so as not to delay the progress of the Work.

The Contract Documents set forth the minimum Work estimated by the County and the Contractor to be necessary to complete the Work. It shall be the Contractor's responsibility, at solely the Contractor's cost, to provide sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of its Work.

The Contractor will be assigned projects, referred to herein as " Exhibits," based on the needs of the County. Those projects, along with their drawings and specific requirements, will be communicated to the Contractor by County staff in the beginning of each year.

SPECIFICATIONS AND MODIFICATIONS

1. CONSTRUCTION STANDARDS

All Work shall conform to the current edition of the Arlington County Department of Environmental Services Construction Standards and Specifications, a copy of which may be downloaded at no charge on the internet at:

<http://topics.arlingtonva.us/building/construction-standards-specifications/>

2. MODIFICATIONS AND SPECIAL PROVISIONS

In addition to the Arlington County Department of Environmental Services Construction Standards and Specifications, all Work shall also conform to the modifications and special provisions to the Arlington County Construction Standards and Specifications as outlined below.

If there is any discrepancy between the modifications and special provisions outlined in this section and the terms and provisions of the Construction Standards and Specifications identified above, the requirements of the modifications and special provisions shall prevail over the other documents.

The Contractor shall have a copy of the Construction Standards and Specifications, and a copy of the modifications and special provisions outlined in this section readily available at the project site at all times.

DIVISION 2 – SITE WORK

SECTION 02200 – EARTHWORK

PART 3 – EXECUTION

15. Trench Excavation

g. The maximum length of open trench at any time, shall not exceed 150 linear feet.

17. Storage, Handling and Disposal of Excavated Materials

d. Note that due to the requirements of Standard Drawing NO. M-60, approximately 60% of trench excavation is surplus regardless of suitability. No excavated material is to be used in the top 31 vertical inches of a trench dug in pavement.

g. No excavated materials shall be placed on the pavement without permission of the project officer. When so permitted, protect the pavement with a 1" layer of 21-A, or approved substitute material, at no additional cost to Arlington County.

PART 4 – MEASUREMENT AND PAYMENT

27. Over excavation

For this contract, Over Excavation is considered any excavation over a depth of seven (7) feet.

SECTION 02550 – WATER MAINS & APPURTENANCES

PART 2 – MATERIALS

2.2 Iron Pipe

C. Note: Polyethylene encasement with a minimum thickness of 8-mils shall be applied to all underground ductile pipe installations and shall comply with the installation and material requirements of AWWA C-105 and ANSI A21.5. All pipes, fittings, valves, hydrants and branch connections shall be encased as shown on approved plans. All holes and openings of any size shall be repaired in accordance with the manufacturer's recommendations.

2.14 Inserting Valves

Inserting valves for installation on 6-inch through 12-inch water mains shall be Team Insert Valve™ as manufactured by Team Industrial Services, or approved equal.

PART 3 – EXECUTION

3.4 Construction Standards

B. Connecting to Existing Mains

3. Clean and swab or spray new pipe and fittings with minimum one percent (1%) solution of chlorine prior to installation and connection to existing water distribution mains.

D. Thrust restraint shall require and include concrete thrust blocks in addition to megalugs, tie rods and accessories.

L. Discharge of Chlorinated Water

6. Note: Section 01300 requires the plan to be submitted a minimum of ten (10) business days prior to any planned discharge.

11. The Contractor shall submit a signed De Chlorination Policy Acknowledgement Form in accordance with Section 01300. This form is available at:
<http://topics.arlingtonva.us/building/discharging-chlorinated-water/>

PART 4 – MEASUREMENT AND PAYMENT

Bid Form Pricing clarifications for some of the Bid Form Items are discussed below.

Bid Form Sections I-III

In addition to the components listed under the applicable sub-sections of the County Specifications, unit prices shall also include:

- Mobilization,
- Submittals,
- Job site layout, safety and traffic maintenance,
- Excavation,
- Removal and disposal of all surplus and unsuitable material,
- Standard bedding,
- Backfill per Standard Drawing No. M-6.0 (**Note requirement of 18" of 21-A sub base**),

- Cutting,
- Pipe, valve, etc. material,
- Polyethylene encasement,
- Thrust restraint,
- Fittings,
- Laying of pipe,
- Cleaning and swabbing or spraying with a minimum one per cent (1%) solution of chlorine,
- Disinfection,
- Flushing,
- Erosion and sediment control,
- Support of existing utilities,
- Certification,
- Testing,
- De-Watering,
- Proper handling and disposal of chlorinated water,
- Site cleaning,
- Trench maintenance for One (1) year after Final Acceptance,
- As-built drawings,
- and all other Work incidental to providing a complete installation.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Bid Form Section IV per Standard Section 02650.

Bid Form Section III: Water Services (3/4-Inch and 1-Inch)

Items 1-5 **In accordance with Standard Section 02200.3.14, Service Taps/Retaps bid items shall not be paid for repair of damages caused by the Work. Nor shall these bid items be used to pay for Work required as part of cleaning and lining Work.**

Bid Form Section IV: Related Work - Including All Materials

Items 1-2 **Pavement Restoration**
Per Standard Drawing M-6.0, price of pavement restoration includes saw cut of edges, 6-inches of 21-A aggregate stone sub base, 5”(min.) bituminous concrete base, 2-inch bituminous concrete surface and tack coat of edges.

Item 11 **VDOT #57 Stone**
VDOT #57 stone will be paid for by the ton for use in trench bedding where directed by the Project Officer.

Item 12 **Aggregate VDOT #21-A**
VDOT #21-A will be paid for by the ton when used as directed by the Project Officer for bike trails, stone shoulders, driveway stone or as needed.

Item 13 **Select Borrow**
Select borrow to be paid for by the cubic yard (YD³) in place and will be used for back fill when existing material is deemed unsuitable by the Project Officer. Standard Drawing M-6.0 dictates upper limit of select borrow for actual measurement of quantity.

Items 21-24 **Temporary Bypass Piping and Connections**

This item shall be paid, as instructed by the Project Officer, whenever temporary water service is required for water main Work. It shall be paid for by the linear foot (LF) of each size bypass piping actually installed, regardless of the number of service connections or length of time in operation. Payment shall include mobilization, placement and connection of all pipes, fittings, and connections required to supply water services in the project area per Section 02678.3.03; Disinfection, Bacteriological Testing, and Chlorine Residual Sampling; maintenance of water supply; and any pavement restoration required by piping placement.

Bid Form Section V - Unlisted Work

Work required under this contract that is not on an emergency basis and is not listed under Section I, II, III or IV of this Contract Bid Form shall be covered under this section. All Work under this section shall require a written estimate from the Contractor using the bid hourly rates. Materials will be furnished by the County when available. When the Contractor supplies materials, the county shall reimburse the contractor for actual cost.

The Bidder shall submit pricing for unlisted Work that includes schedule of equipment and labor rates in the space provided in the Bid Form.

Item 13 Track Excavator with Operator

Contractor is responsible for properly sizing equipment. Payment for this bid Item will be for any track excavator of 50,000 pounds or less.

Item 15 Tool Truck or Trailer

Tool truck or trailer is to be paid for by the hours used on the job. This pay item is to be the Contractor's compensation for necessary small tools and incidentals that are commonplace to water main installation and repairs. This pay item shall cover but not be limited to ladder, shovels, brooms, cables, slings, pipe saws, saw blades, pumps up to 3-inch, jumping jacks, plate compactors, hoses, dirt discharge bags, and small generators and necessary fuel. Necessary small tools will be considered any equipment which has a new cost value of \$3,000 or less.

SECTION 02650 – RESTORATION OF ROADWAYS

PART 3 - EXECUTION

3.2 Note: Excavation in the pavement area shall require that pavement surfaces be saw-cut to provide a straight and smooth edge. Cut out pavement 24-inches (12-inches each side) wider than the trench width or excavation opening as shown on Construction Standard M-6.0.

PART 4 – MEASUREMENT AND PAYMENT

4.1 Non-linear pavement restoration, such as utility patches, shall be measured in square yards of the surface area actually restored. Restoration in such areas shall still conform to Standard Drawing M-6.0

SECTION 02678 - CLEANING AND LINING WATER MAINS

PART 1 - GENERAL

1.1 Description of Work

Provide all plant, labor, supervision, materials and equipment to clean and line existing water mains of various sizes as indicated in accordance with the Contract Documents and as described herein for a complete and operable water distribution system.

1.2 **Related Work Specified Elsewhere**

Section 02200 – Earth Work for Structures and Pipelines

Section 02550 – Water Mains & Appurtenances

1.3 **Applicable Codes, Standards, and Specifications**

- A. American National Standards Institute (ANSI)
- B. American Society for Testing and Materials (ASTM).
- C. American Water Works Association (AWWA).
- D. National Fire Protection Association (NFPA)
- E. Arlington County Fire Protection Code (Chapter 8 of the Arlington County Code)
- F. Arlington County Plumbing Code (Chapter 18 of the Arlington County Code).
- G. Arlington County Utilities Code (Chapter 26 of the Arlington County Code).
- H. American Water Works Association Standard for Cement-Mortar Lining of Water Pipelines In Place – 4 in. (100 mm) and Larger (ANSI/AWWA C602)

If there is any discrepancy between the specifications and modifications outlined in this section and the terms and provisions of the codes, standards and specifications identified above, the requirements of the specifications and modifications described herein shall prevail over the other documents.

1.4 **Applicable References**

- A. Erosion and Sediment Control Ordinance (Chapter 57 of the Arlington County Code)
- B. Virginia Department of Health (VDH) Water Works Regulations (12 VAC 5-590)

1.5 **Submittals**

Submit full descriptions and details of all pipe, valves, hydrants, and other appurtenances (including for by-pass piping system) proposed for the project Per Section 01300 Submittals.

Also include:

- 1. Work drawings and description that includes method of sheeting and shoring of access excavations, method of creating and closing access opening in the pipe, method of covering access excavations during non-Working periods, and proposed method for disposal of debris and water used for cleaning and lining.
- 2. Cement mortar lining mix data including dry weights of cement; sand; admixture name, type and quantity, if used; volume of water per mixing batch or cubic yard.
- 3. Certificate of compliance before delivery of sand and cement.

1.6 **Quality Assurance**

- A. The Project Officer has the authority to inspect all material and equipment at all stages of the construction. On-site Work will be subjected to continuous inspection. Such continuous inspection may follow the application of the cement-mortar lining to identify defective areas in the lining, to determine the quality of the lining, and to determine compliance with the Standards and Specifications. Inspection by the Project Officer will

not release the Contractor from responsibility or liability with respect to material or equipment.

- B. When specified inspections or tests are required by the Contract Documents, the Work involved shall not proceed beyond that point until such inspections or tests have been approved by the Project Officer. The Contractor shall inform the Project Officer on the progress of the Work and shall give the Project Officer a minimum of 48 hours notice prior to specified inspections and tests. The Contractor shall provide all labor and materials, and necessary facilities at the site and ensure that the portion of Work to be inspected is safe, accessible, dry, ventilated and well lit.

PART 2 – MATERIALS

2.1 Temporary Bypass Water Service System

Temporary bypass and fire hydrant piping to maintain water service and fire protection shall be provided by the Contractor. Such piping shall be of adequate size as approved by the Project Officer and may be of any type pipe or hose material that will withstand the Working pressure at the location without leakage and is acceptable per AWWA and/or Virginia Department of Health regulations for drinking water.

2.2 Cleaning and Lining

- A. **Material**
 - 1. Sand shall conform to requirements of ASTM C144 and shall be kept clean and free of foreign materials during transportation and storage on the site.
 - 2. Portland cement shall be Type II and in conformance with the requirements of ASTM C150. Cement-mortar, as tested using standard test cylinders, shall attain a minimum compressive strength of 4,500 psi in 28 days. Cement shipped to the construction site shall be contained in unopened sacks and stored so it is kept dry. Broken sacks of cement shall not be used for lining operations.
 - 3. Proportions of cement and sand in the mortar for lining shall be one-part cement to one-part sand (1:1).
 - 4. Polyethylene encasement with a minimum thickness of 8-mils shall be applied to all underground ductile pipe installations and shall comply with the installation and material requirements of AWWA C-105 and ANSI A21.5. All pipes, fittings, valves, hydrants and branch connections shall be encased as shown on approved plans. All holes and openings of any size shall be repaired in accordance with the manufacturer's recommendations.
 - 5. All pipes, bends, reducers, valves, tees, fittings, and other materials used for closure of access openings in main shall be new and conform to Arlington County Specification 02550.

- B. **Equipment**
 - 1. Cleaning equipment shall be drag and cable or hydraulic type. Knocker type will not be allowed.
 - 2. Equipment for placing cement mortar lining shall have the following characteristics:
 - 3. An applicator head that will, in one course, centrifugally project the mortar against the surface of all pipe sections and long radius bends, without injurious

rebound, and with sufficient velocity to cause the mortar to be densely packed and to adhere in place. The rate of travel of the machine and the rate of discharge of mortar against the wall of the pipe shall be entirely mechanically controlled so as to produce a smooth, uniform thickness of lining throughout the interior of the pipe.

4. An attachment with rotating or drag steel trowels that will follow the applicator head and trowel the cement mortar lining to a smooth, hard surface of uniform thickness. Operation of the trowels shall be continuous during the application of cement mortar and forward movement of the applicator head.
5. The machine shall move ahead of the lining so that nothing will come in contact with the troweled surface until it has attained its final set. Control of the forward movement of the machine and of the mechanical placing of the mortar shall be provided to assure a uniform thickness of mortar lining as specified in AWWA C602.

PART 3 – EXECUTION

3.1 County Responsibility

- A. Furnish water required for the cleaning and lining, disinfection, flushing and testing of water mains to the Contractor from the existing water system at no charge to the Contractor.
- B. Operate existing and permanently installed valves and shutdown and reinstate water mains as required. No existing and permanently installed valves shall be operated by the contractor without prior approval. shutdowns and reinstatements will be made within 72 hours after request from Contractor. No claims resulting from delays shall be made by the contractor.
- C. Notify all property owners in advance of Work.
- D. Notify the Utility Billing Section when the Contractor is removing and installing meters for the temporary bypass system.
- E. Furnish field books and intersection drawings for the cleaning and lining areas that will be used to verify the location and quantity of access openings.

3.2 Excavation

The Contractor shall submit a detailed excavation plan at least ten (10) days prior to beginning any excavation Work to the County Project Officer for review and approval. The submitted plans shall show specific locations and extent of proposed excavation Work.

3.3 Temporary Bypass Water System

Before any section of water main is cleaned and lined, it will be taken out of service. The Contractor shall provide and maintain a temporary bypass piping system of adequate size to provide water service and fire protection to abutting properties at all times, as required herein and as directed by the Project Officer.

A. Weather Limitation

Temporary above-ground water service connections and bypass piping shall only be in place between March 15th and November 15th of each year. Bypass piping shall not be put in place during freezing weather. If already installed, it must be protected from freezing.

B. Bypass Design Criteria

- a. The Contractor shall be responsible for designing an adequate bypass system, conforming to AWWA C602 Section 4.6. A Temporary Bypass Water System Plan shall be submitted to the Project Officer at least ten (10) days prior to proposed date of bypass pipe placement. No bypass piping shall be placed or installed in the project area until the Contractor receives approval of the bypass plan from the Project Officer.
- b. Water for temporary bypass service shall be taken from the nearest appropriate fire hydrant. The Contractor shall not use fire hydrants outside of the given area's pressure zone for temporary bypass. When required, below ground taps shall be made where fire hydrants cannot be used. Install backflow preventers on temporary bypass piping connections. Make temporary bypass service attachments to fire hydrants in a manner that will permit removal, if required, so fire hydrants may be used for fire-fighting purposes with a minimum of effort.
- c. Contractor shall schedule water usage with the Project Officer to result in a minimum interference to water service throughout the existing water system.
- d. Unless otherwise directed by the Project Officer, no more than 3,000 feet of existing main will be removed from service within each project area at a time for the cleaning and lining operation.
- e. Temporary bypass piping for service connections 3-inch and larger diameter and for temporary fire protection shall be a minimum of 4-inch diameter.
- f. Temporary taps for removing air and flushing the main shall be provided by the Contractor as necessary.

C. Temporary Service Connections

- a. **Provide each dwelling, shop, place of business and building served by the main to be put out of service, whether occupied at the time or not, with a temporary service connection approved for potable water use.**

Connect temporary service by removing outside meter and making temporary connection to existing house connection; or provide temporary connection as directed by the Project Officer.

- b. The Project Officer shall be notified at least 48 hours before removing service meters. Contractor shall not handle meters unless Project Officer is present. Meters shall be capped at both ends when not in use and hung inside the meter pit to prevent damage, switching and misplacement. The County utilizes an Automatic Meter Reading (AMR) system with Encoder Receiver Transmitters (ERT) throughout the water distribution system. Special handling is required during the temporary removal of the meter. Meter covers with holes for insertion of temporary service "jumpers" will be provided by the County and shall be used at all locations. The contractor shall not leave any meter boxes ajar at any time and shall not replace any meter covers unless they can be secured as designed within the meter box frame so as to eliminate the possibility of a tripping hazard.

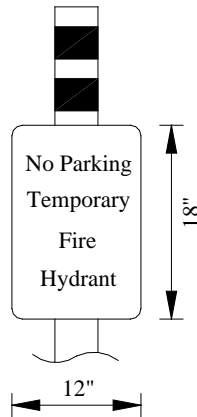
- c. **METER READING REQUIREMENTS: The contractor shall perform water meter readings during the transfer from permanent to temporary bypass water service. Additionally, the contractor shall take a photo of each meter, showing the reading, at the time of removal and furnish a report, in electronic spreadsheet format, for these readings to the County Project Officer.**

The data in this report shall include current reading at time of removal, address and date of the removal. The contractor shall furnish an updated report with the date of the re-installation of meter.

- d. If during any stage of the Contract Work, the Contractor finds it necessary to use water from a service, or run a house-to-house connection, the Project Officer shall be contacted so arrangements are made to have the meters replaced with straight pipe. Caution shall be exercised to prevent meters from being switched and meter settings from being damaged. The Project Officer shall be notified whenever additional bypass services are made and whenever problems develop with any meters or services.

D. Temporary Fire Hydrants

- a. Provide a temporary fire hydrant whenever a fire hydrant is removed from service. The location of the temporary hydrant shall be as close as field conditions permit to the hydrant removed from service. If spacing for fire hydrants exceeds 500 feet in residential areas or 300 feet in commercial and high density areas, additional temporary fire hydrants may be required, as directed by the Project Officer.
- b. Install a 12-inch by 18-inch sign, as shown below, behind each temporary fire hydrant. This sign shall be mounted, on a 4" X 4" wooden pole of sufficient length so the bottom of the sign is at least 44 inches above grade and visible to the pumper truck operator at nighttime. The wooden pole shall be extended 8 inches minimum beyond the top of the sign in order to apply two reflectorized bands, approximately 3 inches in width each, to the pole and above the sign.



E. Piping Placement

- a. **Maintain reasonable access to all driveways in the Work area at all times. The contractor shall use manufactured wedges/ramps to bridge and protect any temporary piping where piping interferes with driveway access.**

Access ramps for driveways shall not cause damages to vehicles using the driveway, whether it is against the ramp material, the street, or the concrete driveway apron. Bridging measures for temporary piping shall not create or contribute to endangerment of property by storm water nor damage or mark up private or public property. Alternate methods of bridging the temporary piping may be submitted to the Project Officer for consideration.

- b. Bypass lines shall be placed below grade whenever the bypass line crosses a street. The bypass line shall be backfilled with bituminous asphalt to provide a temporary patch contiguous with the surface of the street and safe for vehicles, pedestrians, and bicycles.
- c. **Whenever bypass lines cross handicap access ramps, the contractor shall utilize manufactured wedges/ramps to maintain suitable wheelchair access between the sidewalk and the street.**

An alternate method may be used if approved by the Project Officer. Such ramps shall meet all applicable sections of ANSI A117.1, including a maximum slope of 1:12. Alternately, the contractor may place the temporary piping below the surface of the road at any ramp crossings and backfill with aggregate material as described above.

- d. The contractor shall ensure that all catch basins and other surface water drainage facilities are maintained free and clear of any obstructions or construction debris at all times. The contractor shall also ensure that the placement of temporary bypass piping or other construction debris does not obstruct the flow of storm water to existing or intended drainage structures.

3.4 **Cleaning and Lining**

Perform cleaning and lining in accordance with requirements of AWWA C602 as supplemented herein. **Clean and line all sections as indicated on contract drawings.**

Where cleaning and lining is impractical, such as at tees, crosses, valves, bends, fittings, and sections of pipe and other obstructions removed to access the water main, the contractor shall remove and replace these with new materials, unless otherwise directed by Project Officer.

- A. Access Openings in Water Main
 - 1. Access the water main at locations required to facilitate the Work as required herein and as approved by the Project Officer. Remove all in-line valves, bends, fittings, sections of pipe, and other obstructions preventing the passage of the cleaning and lining equipment as required to perform the Work.
 - 2. Excavate, provide sheeting and shoring, de-water and backfill in accordance with Arlington County Construction Standards and Specifications Sections 2100, 2200, 2201 and 2400. Provide Sediment Controls in accordance with Section 01500.
 - 3. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and Workers.
 - 4. Make access openings in pipe with ample space to admit and withdraw equipment with the least delay and without causing damage to existing pipe. Contractor shall be responsible for repairing any damage caused to existing pipe, including reconnecting service connections damaged in the execution of the Work at no additional cost to the owner.
 - 5. After the County completes shut-down, de-water pipeline and drain low spots. Provide measures as required to prevent water from entering the Work sections and maintain in a dry condition.
 - 6. Remove pipe at access points by cutting with power operated pipe cutting machines, capable of making fast, true and smooth cuts so valves or the pipe sections removed may be replaced in true alignment. Where difficulties due to utility conflicts or other local conditions make it impossible to use preceding method of cutting pipe, other methods may be used provided the same results are attained and with no additional cost to the County.
 - 7. Measure the outside diameter of all cut pipe in order to properly determine the class of pipe in each cut. The class of pipe will determine the proper sized sleeves and/or couplings to be used in setting the cleaned and lined pipe back in place. Oversized couplings with adapter gaskets for smaller pipe are not acceptable. Exposed lead or poured joints shall be replaced with mechanical joint fittings or couplings as directed.
- A. Cleaning

1. Clean the interior surfaces of the pipe to be lined by machine, where practicable, and by hand where access by machine is not possible. Clean the interior of all pipe and fittings to be lined. Remove loose scale, tuberculation, oil, grease, remains of old coating materials and accumulations of water on the bottom of the interior of the pipe.
2. All water from cleaning and other construction operations shall be disposed of in a manner that prevents or minimizes the amount of sediment or other pollutants which discharge to the County storm sewer system, which includes curb and gutter, or any open watercourse. Any discharge shall be properly filtered prior to being discharged and shall not create any erosion nor flooding.
3. **When the method of cleaning the pipe does not include the use of water, service laterals less than 2 in. in diameter shall be cleared after cleaning by backflushing with air or water.**

B. Lining

1. Place lining with machine in one course as specified herein.
2. Perform cement mortar lining of sharp bends, specials and areas closely adjacent to valves or other points where machine access is impossible or impractical, and the correcting of defective areas by hand. Hand mortar Work shall be equal in appearance to machine placed Work and the same materials shall be used. If necessary, moisten prior to placement of mortar. Use steel trowels except where curvature of bends prohibit their use. Complete hand Work in a section of the pipeline within 24 hours after the machine Work in that section is complete. Feather edges between newly lined areas and unlined areas.
3. **Service connections to the lined main shall not be left obstructed by the lining operations. After the mortar lining has been placed, but before it takes final set, laterals and services 2 in. and smaller in diameter shall be cleared by backflushing with air or water. The backflushing shall be performed in a manner that will not damage the freshly applied lining.**
4. All water from lining operations shall be disposed of in a manner that prevents or minimizes the amount of cement, sediment or other pollutants which discharge to the County storm sewer system, which includes curb and gutter, or any open watercourse. Any discharge shall be properly filtered and shall not create any erosion nor flooding.
5. Immediately, after completing the lining of a length of pipe between access openings or at the end of a day's run, close that section of pipe at each end and cover the access openings to prevent the circulation of air. As soon as practicable after the placing of the lining, introduce a sufficient amount of water into the section between bulkheads or gate valves to create a moist atmosphere and keep the lining damp.
6. Pipe lining shall cure for a minimum of 72 hours before proceeding with chlorination.
7. Lining Thickness

The thickness of the cement mortar lining shall be uniform and meet requirements of AWWA C602 Section 4.4.5. For cast iron and ductile iron pipe the required thickness of cement-mortar lining for 4- through 10-inch diameter pipe shall be 3/16 inch, for 11- through 23-inch shall be 1/4 inch, for 24- through 35-inch shall be 5/16 inch, and for 36- inch and larger shall be 5/16 inch. Tolerance for the lining thickness shall be plus 1/8 inch and minus 1/16 inch. Lining not within the specified tolerance shall be corrected as directed by the Project Officer.

C. **Cement-Mortar Strength Test**

Sets of standard test cylinders shall be made from cement-mortar lining, as required by the Project Officer, up to two per day. Cement-mortar test cylinders shall attain a minimum compressive strength of 4,500 psi in 28 days.

D. **Removal of Test Pipe Section**

When and where directed by the Project Officer, the Contractor shall excavate, cut and remove a test section of pipe not less than two nor more than three feet long for applied cement lining thickness verification and inspection. If the thickness is not within the requirements specified herein, the Contractor shall correct the lining thickness as directed by the Project Officer. After inspection, the Contractor shall restore the tested section using new pipe and sleeves, backfill excavation and provide pavement repair as required.

E. **Television Inspection**

The Contractor shall provide video recordings of television inspections of pipe segments when and where required by the Project Officer.

F. **Hydrostatic Test**

Prior to backfilling, the Contractor shall perform hydrostatic testing on the lined main sections in accordance with Section 2550.3.4.H. This test shall not be performed until at least 24 hours after completing the final lined section.

G. **Head Loss Test**

The Contractor shall guarantee to restore all cleaned and cement-mortar lined water mains to the following minimum Hazen-Williams C Factor (C_{hw}) based on nominal pipe diameters with proper allowances being made for bends and fittings in accordance with accepted practice:

NOMINAL PIPE DIAMETER	GUARANTEED HAZEN - WILLIAMS C _{hw} FACTOR
4 inch and smaller	90
6 inch	100
8 inch	110
10 inch	115
12 inch	120
14 inch	125
16 inch	125
20 inch	125

Above 20 inch

130

The Contractor shall arrange for the services of an independent testing laboratory to perform such tests as required to determine the Hazen-Williams C Factor (C_{hw}).

H. **Disinfection, Bacteriological Testing, and Chlorine Residual Sampling**

The Contractor is responsible for disinfection, flushing and bacteriological testing of the cleaned and lined mains as well as the temporary bypass piping system in accordance with Section 2550.3.4 subsections G, I, J and K. Additionally, the contractor must also show that residual chlorine levels do not exceed 4 parts per million (ppm) prior to beginning service on cleaned and lined mains or temporary bypass lines.

I. **Discharge of Chlorinated Water**

The contractor shall handle, discharge, and dispose of all chlorinated water in accordance with Standard Section 02550.3.4.L as amended herein.

6. Note: Section 01300 requires the plan to be submitted a minimum of ten (10) business days prior to any planned discharge.

11. The Contractor shall submit a signed De-Chlorination Policy Acknowledgement Form in accordance with Section 01300. This form is available at:

<http://topics.arlingtonva.us/building/discharging-chlorinated-water/>

J. **Reinstating Services and Restoration**

After approval by the Project Officer, the Contractor shall perform the following:

1. Backfill excavated areas per Standard Drawing M-6.0.
2. Reactivate house connections and remove temporary bypass piping system. Reinstall removed meters at the same location from which they were removed with the water flow in the correct direction and using **new gaskets**. Meters that are found to be improperly installed by the Contractor will be removed and correctly installed by the County. A cost of \$100.00 per incident will be deducted from payment to the Contractor.
3. Bleed service lines to remove air prior to connection of meter. Upon bleeding services, contractor shall exercise appropriate caution necessary to prevent "water hammer" damage to private plumbing. Any damages to private plumbing will be the sole responsibility of the contractor.
4. After permanent service is restored and temporary bypass piping is removed, restore disturbed areas and leave streets, sidewalks and adjacent properties in a neat and orderly condition as near as practical to the condition that existed prior to being disturbed.
5. Provide seeding and sodding as required to restore disturbed areas in accordance with Section 2801 within seven days after main is back in service.

3.5 **Minimum Requirements for As-Built Drawings**

The Contractor shall provide drawings, in pdf format or other format approved by the Project Officer, to portray as-built construction. The drawings shall be neatly and clearly drafted in conformance with Arlington County Construction Specifications Section 02550.3.3,i-viii.

All drafting performed on the as-built drawings shall conform to good drafting practice and shall include such supplementary notes, legends and details as may be necessary for legibility and clear portrayal of the as-built construction. The contractor shall keep and have a copy of the as-built drawings available for the term of the contract.

These drawings shall be submitted with every relevant payment request. At the completion of the Project and prior to request for Final Payment, the Contractor shall turn over to the Project Officer a complete set of As-Built drawings.

3.6 **Final Inspection/Test**

After the Contractor has shown that all equipment and systems function in accordance to the requirements set forth by the Contract Documents and the project Work is substantially completed for the project area in question, a final inspection/test shall be scheduled and conducted.

This inspection/test shall demonstrate that all elements of the project are ready to be placed in service and turned over to the County for operation, including successful completion of all required tests and certifications. During this final inspection/test, a retest and re-demonstration of equipment and systems that had to be corrected and/or adjusted during previous inspections/tests shall be conducted. A punch list of items that require completion and/or correction by the Contractor before Final Acceptance will be prepared.

3.7 **Final Acceptance Certificate**

After a successful final inspection/test, demobilization and clean-up operations shall proceed. The punch list items noted in the final inspection/test shall be corrected by the Contractor and checked by the Project Officer.

Final completion shall include a successful final inspection/test with punch list items corrected and checked by the Project Officer and completion of all Work as defined in the Contract Documents, demobilization, restoration Work, final clean up, acceptance of as-built drawings and other incidentals. After final completion of the Work for each Area, a certificate of Final Acceptance will be issued.

PART 4 - MEASUREMENT AND PAYMENT

4.1 CLEAN AND LINE WATER MAINS (Section I, Bid Items 1, 2 and 3)

- A. Cleaned and lined water mains shall be measured for payment by the linear foot of the various sizes of water main actually cleaned and lined, measured along the pipe centerline with no deduction made for fittings or valves. **Where cleaning and lining is impractical, such as at tees, crosses, valves, bends, fittings, short sections of pipe and other components of the water main removed for the cleaning and lining Work,**

payment to remove and replace these with new materials shall be included in the unit price per linear foot to clean and line water mains.

- B. Payment shall include:
- Mobilization
 - Submittals
 - Job site layout, safety and traffic maintenance
 - Provision, maintenance and removal of temporary bypass piping system
 - Excavation(including for making access openings in pipe)
 - Standard bedding
 - Backfill per Section 02200 (**Note requirement of 18-inches of 21-A subbase per Standard Drawing M-6.0**)
 - Removal and disposal of all surplus and unsuitable material
 - Cutting
 - Furnishing and installing necessary fittings, mechanical couplings, pipe, valves, valve boxes, bends, service re-taps and reducers including accessories
 - **Removal and replacement of all tees, crosses, valves, bends, fittings, short sections of pipe and other components of the water main where cleaning and lining is impractical**
 - Polyethylene encasement of all pipes, fittings, valves, hydrants and branch connections
 - Thrust restraint
 - Complete cleaning and lining procedure
 - Erosion and sediment control including inlet protection and other stormwater-related measures as required
 - Support of existing utilities
 - Certification,
 - Testing and sampling,
 - Disinfection,
 - Flushing,
 - Dewatering,
 - Proper handling and disposal of chlorinated water
 - Trench/patch maintenance for one (1) year after Final Acceptance
 - As-built drawings
 - All other Work incidental to providing a complete cleaning and lining operation.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Bid Form Section IV per Standard Section 02650.

- C. **Payment will be made for 40 percent of the unit price per linear foot for each size of pipe as listed in the Bid Schedule to be cleaned and lined when temporary bypass piping system is complete and the existing main is taken out of service for the cleaning and lining procedure.**

The remaining 60 percent, adjusted for actual linear feet of water main cleaned and lined, of the unit price per linear foot as listed in the Bid Schedule covers the

remainder of the Work under this bid item. Payment will be made after Final Acceptance is made for each Area.

- D. If in any tested section of cleaned and lined water main, the Hazen-Williams C Factor, as determined by the loss of head tests, fails to meet the guaranteed figure, the Contract price for payment will be described as follows:
1. For a drop of up to five points below the guaranteed C Factor, there will be a Two Percent (2%) reduction in the price.
 2. Between five and ten points below the guaranteed C Factor, the price shall be reduced One Percent (1%) per point for that section failing the test.
 3. For a drop in excess of ten points below the guaranteed C Factor, the County shall have the option to make further reductions at a rate of One Percent (1%) of the unit price for every Two (2) points of C Factor below the guaranteed C Factor or to order the Contractor to make the needed correction repairs to obtain a satisfactory lining at no additional cost to the County.

4.2 **OBSTRUCTIONS IN WATER MAIN (Section I, Bid Item 4)**

- A. Obstructions shall be defined per AWWA C602 Section 4.7 as obstructions in the pipeline that prohibit the passage of cleaning or lining equipment. These include, but are not limited to:
- a) Bends, reducers, valves, or other fittings **not shown** on maps or as-built field notes provided
 - b) Overpoured lead joints
 - c) Deformations in the pipe wall, out-of-round pipe, or defective pipe
 - d) Protruding lateral or service connections
 - e) Internal tie rods
 - f) Successive cocked joints
- C. Fittings not explicitly indicated on contract drawings, but which can be reasonably understood, such as tees at pipe intersections, shall be considered to have been shown for the purpose of this definition.
- B. Utility conflicts and other site conditions impacting the Work shall not be considered under this line item but shall be considered incidental to the Work.
- C. Additional Work required by obstructions will be measured for payment by each access opening in the water main, regardless of length, required to clean and line the obstructed portion of Work as directed by the Project Officer. Contractor shall receive authorization from the Project Officer prior to excavation to make additional access openings in the pipe.
- D. Payment shall include:
- Excavation
 - Standard bedding

- Backfill per Section 02200 (**Note requirement of 18-inches of 21-A subbase per Standard Drawing M-6.0**)
- Removal and disposal of all surplus and unsuitable material
- Cutting
- Furnishing and installing necessary fittings, mechanical couplings, pipe, valves, valve boxes, bends, service re taps and reducers including accessories
- Polyethylene encasement of all pipes, fittings, valves, hydrants and branch connections
- Thrust restraint
- Erosion and sediment control including inlet protection and other stormwater-related measures as required
- Support of existing utilities
- Dewatering,
- Trench/patch maintenance for one (1) year after Final Acceptance
- And all other Work incidental to completing the Work.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Bid Form Section IV per Standard Section 02650.

4.3 **PROVISION OF PIPE SECTIONS FOR LINING THICKNESS TEST (Section I, Bid Item 5)**

- A. Provision of test sections as directed by the Project Officer will be measured for payment by the each.
- B. Payment shall include:
 - Excavation
 - Standard bedding
 - Backfill per Section 02200 (**Note requirement of 18-inches of 21-A subbase per Standard Drawing M-6.0**)
 - Removal and disposal of all surplus and unsuitable material
 - Cutting
 - Furnishing and installing necessary fittings, mechanical couplings, pipe, valves, valve boxes, bends, service re-taps and reducers including accessories
 - Polyethylene encasement of all pipes, fittings, valves, hydrants and branch connections
 - Thrust restraint
 - Erosion and sediment control including inlet protection and other stormwater-related measures as required
 - Support of existing utilities
 - Dewatering,
 - Trench/patch maintenance for one (1) year after Final Acceptance
 - All other Work incidental to completing the Work.

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Bid Form Section IV per Standard Section 02650.

4.4 **TELEVISION INSPECTION OF PIPELINE (Section I, Bid Item 6)**

- A. Television inspection of cleaned and lined pipe sections shall be measured for payment by each section inspected, up to a maximum of 300 feet. Television inspections shall be conducted as directed by the Project Officer and inspection reports, including video, shall be submitted.
- B. Payment shall include:
- All Work required to access and restore the pipe and excavated area
 - Complete television inspection procedure and report
 - All other Work incidental to completing the inspection

Note: Restoration of pavement, curb and gutter, sidewalk and seeding and sodding shall be paid as separate bid items under Bid Form Section IV per Standard Section 02650.

ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
INVITATION TO BID NO.

SUBMIT AN ORIGINAL SIGNED BID FORM AND ONE COPY

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) FORT MYER CONSTRUCTION CORPORATION IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2701015396 WAS ISSUED ON THE 22ND DAY OF JUNE, 1976. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

BIDDERS SHALL PROVIDE THEIR BID PRICES IN THE CELLS HIGHLIGHTED IN BLUE BELOW. BIDDERS SHALL INCLUDE A BID PRICE FOR ALL ITEMS. FAILURE TO PROVIDE A PRICE FOR ALL ITEMS, OR ANY MODIFICATIONS OR ADDITIONS TO THE BID FORM MAY RESULT IN BID REJECTION. LOW BID DETERMINATION WILL BE MADE BASED ON THE SUM OF THE "BASE CONTRACT WORK"

CONSTRUCTION COST ESTIMATE
Water Main Cleaning & Cement-Mortar Lining

MASTER ID#	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
I. CLEANING AND LINING WORK (INCLUDING ALL MATERIALS)					
1	CLEAN AND LINE 6" WATER MAIN	LF	26,500	\$ 46.25	\$ 1,225,625.00
2	CLEAN AND LINE 8" WATER MAIN	LF	10,000	\$ 46.25	\$ 462,500.00
3	CLEAN AND LINE 12" WATER MAIN	LF	5,000	\$ 67.00	\$ 335,000.00
4	REMOVE AND REPLACE OBSTRUCTION IN WATER MAIN	EA	15	\$ 4,625.00	\$ 69,375.00
5	PROVISION OF PIPE SECTION FOR LINING THICKNESS TEST, AS DIRECTED BY PROJECT OFFICER	EA	5	\$ 2,543.60	\$ 12,718.00
6	TELEVISION INSPECTION OF PIPELINE, UP TO 300 LF, AS DIRECTED BY PROJECT OFFICER	EA	1	\$ 2,313.40	\$ 2,313.40
SUBTOTAL					\$ 2,107,531.40

II. WATER MAIN WORK (INCLUDING ALL MATERIALS)					
1	8-INCH WATER MAIN, DIP CL-52	LF	250	\$ 144.55	\$ 36,137.50
2	6-INCH WATER MAIN, DIP CL-53	LF	440	\$ 138.75	\$ 61,050.00
3	REMOVE & REPLACE 8-INCH WATER MAIN	LF	1,300	\$ 144.55	\$ 187,915.00
4	REMOVE & REPLACE 6-INCH WATER MAIN	LF	100	\$ 138.75	\$ 13,875.00
5	12-INCH GATE VALVE & VALVE BOX	EA	1	\$ 5,781.00	\$ 5,781.00
6	8-INCH GATE VALVE & VALVE BOX	EA	10	\$ 4,625.00	\$ 46,250.00
7	6-INCH GATE VALVE & VALVE BOX	EA	50	\$ 4,050.00	\$ 202,500.00
8	CONNECT TO EXISTING 10-INCH to 16-INCH WATER MAIN	EA	1	\$ 5,780.86	\$ 5,780.86
9	CONNECT TO EXISTING 4-INCH to 8-INCH WATER MAIN	EA	20	\$ 2,312.35	\$ 46,247.00
10	2-INCH BLOWOFF VALVE ASSEMBLY & BOX	EA	6	\$ 4,047.00	\$ 24,282.00
11	ABANDON/REMOVE EXISTING FIRE HYDRANT	EA	5	\$ 1,156.10	\$ 5,780.50
12	REMOVE AND REPLACE EXISTING FIRE HYDRANT	EA	15	\$ 1,156.17	\$ 17,342.55
13	INSTALL NEW FIRE HYDRANT	EA	10	\$ 1,156.17	\$ 11,561.70
14	FIRE HYDRANT VERTICAL EXTENSION	VF	1	\$ 578.09	\$ 578.09
15	CUT & CAP 4-INCH – 8-INCH WATER MAIN	EA	1	\$ 2,890.43	\$ 2,890.43
16	REMOVE EXISTING VALVE BOXES	EA	3	\$ 578.09	\$ 1,734.27
17	12" x 8" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$ 5,713.65	\$ 5,713.65
18	12" x 6" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$ 5,356.55	\$ 5,356.55
19	8" x 8" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$ 4,523.31	\$ 4,523.31
20	8" x 6" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$ 4,166.20	\$ 4,166.20
21	6" x 6" TAP/SLEEVE, VALVE & VALVE BOX	EA	1	\$ 3,690.07	\$ 3,690.07
22	2" TEMPORARY BLOW-OFF	EA	1	\$ 1,190.34	\$ 1,190.34
23	4-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$ 7,142.06	\$ 7,142.06
24	6-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$ 8,332.41	\$ 8,332.41

Bidders Name FORT MYER CONSTRUCTION CORPORATIONBidders Initials MM

25	8-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$ 10,713.09	\$ 10,713.09
26	12-INCH TEAM INSERTION VALVE AND BOX	EA	1	\$ 14,284.13	\$ 14,284.13

SUBTOTAL \$ 734,817.71

III. WATER SERVICES

DIRECT LABOR RATES ONLY (PRICES FOR ¾ INCH AND 1 INCH WATER SERVICES, METERS ARE SUPPLIED BY THE COUNTY)

1	SERVICE TAPS (TAP MAIN, INSTALL COPPER TUBING, INSTALL ANGLE VALVES, CORPORATION COCK, METER BOX AND METER YOKE/METER, CONNECT TO EXISTING PRIVATE SERVICE LINE, BACKFILL AND EXCAVATION)--UP TO 10 FT.	EA	5	\$ 2,312.35	\$ 11,561.75
2	SERVICE TAPS PER ADDITIONAL LINEAR FOOT OVER 10 FT.	LF	20	\$ 58.00	\$ 1,160.00
3	SERVICE RE-TAPS (TAP MAIN, INSTALL COPPER TUBING, CONNECT TO EXISTING SERVICE LINE, ABANDON CORPORATION COCK FROM EXISTING SERVICE LINE, BACKFILL AND EXCAVATION)-UP TO 10 FT.	EA	30	\$ 2,312.35	\$ 69,370.50
4	SERVICE RE-TAPS PER ADDITIONAL LINEAR FT. OVER 10 FT.	LF	100	\$ 58.00	\$ 5,800.00
5	WATER METER RELOCATIONS.(INSTALL COPPER TUBING, CONNECT TO EXISTING COUNTY AND PRIVATE SERVICE LINES, PROVIDE NEW ANGLE VALVES, RELOCATE METER HOUSING AND METER YOKE, BACKFILL AND EXCAVATION)--UP TO 10 FT.	EA	5	\$ 2,312.35	\$ 11,561.75
6	SERVICE RELOCATIONS PER ADDITIONAL LINEAR FOOT OVER 10 FT.	LF	20	\$ 58.00	\$ 1,160.00

SUBTOTAL \$ 100,614.00

IV. RELATED WORK, INCLUDING ALL MATERIALS

1	PAVEMENT RESTORATION PER SPECS. DRAWING No. M-6.0 (PRICE INCLUDES 2-INCH SM-2A BITUMINOUS CONCRETE SURFACE, 5-INCH (MIN) BM-2 BITUMINOUS CONCRETE BASE, 6" 21-A AGGREGATE BASE AND 12" SAW CUT BENCH ON EACH SIDE OF TRENCH)	SY	3000	\$ 97.00	\$ 291,000.00
2	PAVEMENT RESTORATION, 8" BASE ASPHALT FLUSH WITH STREET (PRICE INCLUDES 8-INCH (MIN) BM-2 BITUMINOUS CONCRETE BASE, 6" 21-A AGGREGATE BASE AND 12" SAW CUT BENCH ON EACH SIDE OF TRENCH)	SY	100	\$ 92.50	\$ 9,250.00
3	PAVEMENT RESTORATION, 2" TEMPORARY HOT MIX FLUSH WITH STREET(ONLY TO BE PAID AS A SEPARATE ITEM WHEN DIRECTED BY THE PROJECT OFFICER)	SY	100	\$ 92.50	\$ 9,250.00
4	REMOVE & REPLACE 4" CONCRETE SIDEWALK	SY	50	\$ 92.50	\$ 4,625.00
5	REMOVE & REPLACE PAVERS SIDEWALK	SY	25	\$ 289.00	\$ 7,225.00
6	REMOVE & REPLACE CONCRETE CURB & GUTTER	LF	150	\$ 63.60	\$ 9,540.00
7	REMOVE & REPLACE CONCRETE HEADER CURB	LF	25	\$ 58.00	\$ 1,450.00
8	ROCK EXCAVATION	CY	25	\$ 144.52	\$ 3,613.00
9	CONCRETE PIER, CRADLE OR ENCASEMENT	CY	25	\$ 462.47	\$ 11,561.75
10	SHEETING & BRACING WHEN LEFT IN PLACE	MFBM	1	\$ 2,312.34	\$ 2,312.34
11	VDOT #57 STONE	TON	100	\$ 98.27	\$ 9,827.00
12	AGGREGATE, VDOT #21A FOR DRIVEWAY, SHOULDER, TRAILS AS DIRECTED BY PROJECT OFFICER	TON	100	\$ 75.15	\$ 7,515.00
13	SELECT BORROW	CY	100	\$ 62.43	\$ 6,243.00
14	OVER EXCAVATION	CY	100	\$ 86.71	\$ 8,671.00
15	SEEDING AND SODDING	SY	50	\$ 17.34	\$ 867.00
16	REMOVE 8" to 10" REINFORCED CONCRETE PAVING	SY	50	\$ 86.71	\$ 4,335.50
17	REMOVE & REPLACE 8" to 10" REINFORCED CONCRETE PAVING	SY	50	\$ 260.14	\$ 13,007.00
18	TEST PIT	EA	5	\$ 2,312.34	\$ 11,561.70
19	REMOVE & REPLACE 6" CONCRETE DRIVEWAY ENTRANCE	SY	20	\$ 208.11	\$ 4,162.20
20	REMOVE & REPLACE 9" CONCRETE DRIVEWAY ENTRANCE	SY	20	\$ 242.80	\$ 4,856.00
21	2" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	500	\$ 23.12	\$ 11,560.00
22	3" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	100	\$ 28.90	\$ 2,890.00

23	4" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	1000	\$ 28.90	\$ 28,900.00
24	6" TEMPORARY BYPASS PIPING AND CONNECTIONS	LF	100	\$ 34.69	\$ 3,469.00

SUBTOTAL \$ 467,691.49

**V. UNLISTED WORK EQUIPMENT AND LABOR RATES – ALL
LABOR RATES MUST BE FULLY-LOADED HOURLY RATES**

1	FOREMAN W/PICKUP TRUCK	HOURLY	8	\$ 120.00	\$ 960.00
2	BACKHOE W/OPERATOR	HOURLY	8	\$ 173.50	\$ 1,388.00
3	TANDEM/TRI-AXLE DUMP TRUCK W/DRIVER	HOURLY	8	\$ 208.00	\$ 1,664.00
4	SINGLE AXLE DUMP TRUCK W/DRIVER	HOURLY	8	\$ 173.50	\$ 1,388.00
5	LABOR-PIPE LAYER	HOURLY	8	\$ 63.59	\$ 508.72
6	LABOR-SKILLED	HOURLY	8	\$ 58.00	\$ 464.00
7	LABOR-UNSKILLED	HOURLY	8	\$ 52.00	\$ 416.00
8	FLAGMAN	HOURLY	8	\$ 52.00	\$ 416.00
9	BOOM TRUCK WITH DRIVER/OPERATOR	HOURLY	8	\$ 208.00	\$ 1,664.00
10	TRACTOR TRAILER W/DRIVER	HOURLY	8	\$ 208.00	\$ 1,664.00
11	RUBBER TIRE LOADER W/OPERATOR	HOURLY	8	\$ 208.00	\$ 1,664.00
12	SKID STEER LOADER W/OPERATOR	HOURLY	8	\$ 173.50	\$ 1,388.00
13	TRACK EXCAVATOR W/OPERATOR (50,000 POUNDS OR LESS)(SEE	HOURLY	8	\$ 208.00	\$ 1,664.00
14	AIR COMPRESSOR WITH TOOLS	HOURLY	8	\$ 69.50	\$ 556.00
15	TOOL TRUCK OR TRAILER WITH TOOLS INCIDENTAL TO WORK (SEE	HOURLY	8	\$ 173.50	\$ 1,388.00
16	TRENCH COMPACTOR/ASPHALT ROLLER	HOURLY	8	\$ 173.50	\$ 1,388.00
17	PAVEMENT BREAKER	HOURLY	8	\$ 92.50	\$ 740.00
18	TAP MACHINE ¾-INCH – 2-INCH	DAILY	1	\$ 116.00	\$ 116.00
19	LIGHTING WITH GENERATOR	HOURLY	8	\$ 29.00	\$ 232.00
20	ROADWAY STEEL PLATES - EA	DAILY	1	\$ 231.25	\$ 231.25
21	EXCAVATION TRENCH BOX – EA	DAILY	1	\$ 925.00	\$ 925.00
22	ELECTRONIC ARROW BOARD	HOURLY	8	\$ 29.00	\$ 232.00
23	4-INCH TO 6-INCH DEWATERING PUMP	HOURLY	8	\$ 29.00	\$ 232.00

SUBTOTAL \$ 21,288.97

TOTAL BID PRICE (SUM OF TOTALS FOR SECTIONS I THROUGH V ABOVE) \$ 3,431,943.57