



CONTRACT NO.: SA-1815

SANITARY SEWER MAIN LINING (CIPP)

PROJECT MANUAL

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PROJECT MANUAL
SOLICITATION NO.: IFB SA-1815
SANITARY SEWER MAIN LINING (CIPP)

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INFORMATION FOR BIDDERS

If in person, each Bid must be submitted in a sealed envelope addressed to the Prince William County Service Authority, 4 County Complex Court, Woodbridge, Virginia 22192. Each sealed envelope containing a Bid must bear on the outside the Bidder's names, address, state Contractor's license number and the name of the project for which the Bid is submitted.

If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed to the attention of the Purchasing Manager P.O. Box 2266, Woodbridge, Virginia, 22195-2266 and noting that a sealed Bid is enclosed. The Service Authority must receive the Bid before the date and time deadline for bid submission, and all risk of untimely receipt is on the Bidder.

All Bids must be made on the required Bid form. One (1) original and one (1) copy are required. All blank spaces for prices must be filled, in ink or typewritten, and the Bid form must be fully completed and executed when submitted.

Bidders shall become familiar with the requirements of the work by examining thoroughly the Bid Documents and Addenda. Failure to do any of the foregoing shall in no way relieve the Bidder from any obligation with respect to his Bid or any Contract resulting from it.

The Contract Documents contain the provisions required for the construction of the Project. Information obtained from any officer, agent or employee of the Service Authority, or from any other person, before receipt of bids, shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.

A Performance Bond, each in the amount of 100 percent of the specific Work Order Contract Amount, may be required for the faithful performance of each task. The Service Authority may waive this requirement for emergency projects.

Attorneys-in-fact who sign bonds must file a certified and effective dated copy of their Power of Attorney with each bond.

No Bid received after the date and time specified for bid submission will be considered. As provided in the Code of Virginia, any Bidder who wishes to withdraw his Bid after opening, solely due to an alleged clerical error, must give notice in writing of his claim of right to withdraw his Bid within two (2) business days after the conclusion of the bid opening procedure and shall submit original work papers with such notice. Otherwise, no Bidder may withdraw a Bid during the time stipulated in the Bid, should the Contract not be awarded within that time. Should there be reasons why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Service Authority and the low Bidder (which extension shall be binding upon the other Bidders).

The Service Authority may waive informalities or minor defects in a bid, but shall reject non-responsive bids as defined in Va. Code §2.2-4301. Non responsive bids include but are not necessarily limited to:

A. The Bid is on a form other than that furnished by the Service Authority, or if the form

is altered, or any part of it is detached, or special conditions are noted thereon.

- B. There are unauthorized additions, conditions or alternates of any kind that may make the Bid incomplete, indefinite, ambiguous as to its meaning or otherwise unacceptable to the Service Authority.
- C. The Bidder adds provisions purporting to reserve to himself the right (1) to accept or reject any award or (2) to enter a contract pursuant to an award.
- D. The Bid does not contain a unit price for each pay item appearing in any schedule of unit prices.
- E. The Service Authority decides that any of the unit prices in the Bid are unbalanced to the potential detriment of the Service Authority.

The Service Authority may make such investigations as it deems necessary to determine the ability of the Bidder to do the work and to determine that the Bidder is a Responsible Bidder under the Commonwealth of Virginia Code § 2.2-4301, and the Bidder shall furnish to the Service Authority all such information and data for this purpose as the Service Authority may request, which may include financial statements, bank, project or other references, listing of other outstanding work and information regarding bonding or joint checking of other Subcontractors. The Service Authority reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Service Authority that such Bidder is qualified to carry out the obligations of the Agreement and to complete the work contemplated therein. The Service Authority may make multiple awards as a result of this solicitation contingent upon what the Service Authority determines to be in its best interest. The awards will be made to the lowest responsive, responsible bidder or bidders.

The low Bidder shall supply the detailed personnel info, names and addresses of major material suppliers and Subcontractors when requested to do so by the Service Authority or otherwise required by the Bid. If required to do so, each Bidder shall provide appropriate names, addresses, and telephone numbers, Contract number, and any other information requested concerning any city, county, state, or federal projects that they have completed within the past 12 months.

The party or parties to whom the Contract is awarded will be required to execute the Agreement, obtain and attach required Certificates of Insurance within 30 calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement. In case of failure of the Bidder to execute the Agreement and provide the required Certificates, the Service Authority shall, at its option, consider the Bidder in default and the Service Authority reserves its right to pursue any legal remedy at its disposal.

The Service Authority, within thirty (30) calendar days of receipt of Certificates of Insurance and Agreement signed by the party to whom the Contract was awarded, shall have the Agreement signed and return to such party one copy thereof. Should the Agreement not be executed within such period, the Bidder may, by written notice, withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Service Authority.

The Notice to Proceed for each Work Order shall be issued according to the Contract Documents. The Bidder understands and agrees that by executing the Contract, the Service Authority shall not be committed to any amount of work. Individual Work Orders shall commit the Service Authority

to a set amount as stipulated in the individual Work Order.

The Contractor will be required to indemnify and hold harmless the Service Authority, its officers and employees, from all Contract and tort claims that may arise out of or during the work of this Contract by any one directly or indirectly employed on the work.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over the locale and execution of the project shall apply to the Contract throughout.

All Bidders must possess current and valid Virginia and/or Prince William County licenses, if required under Chapter 7, Title 54, Code of Virginia, to be eligible for consideration. Failure to cite the license number(s) on the Bid or to have said license(s), if required, may result in a Bidder being considered nonresponsive.

The Bidder is advised that the quantities shown in the Bid Schedules are estimated and do not reflect the actual amounts of work to be performed. Actual quantities may increase or decrease, and the Bidder shall not be entitled for any additional increase due to any changes in quantities. The Service Authority will not be committed to the Bidder for any amount.

Work Orders under this Contract may be issued on an “emergency conditions” basis. The Contractor will be paid for any Work Orders issued on an “emergency conditions” basis under the Bid Schedule for Extra Work. For work performed on a weekend or holiday for a Work Order that is issued under an “emergency conditions” basis, compensation for work by personnel for those weekend or holiday hours will be as follows:

For Bid items numbers 1 through 10 and 19 and 20 include:

- For weekend hours, compensation will be at 1.5 times the unit price rates outlined in the Bid Schedule for Extra Work.
- For holiday hours, compensation will be at 2 times the unit price rates outlined in the Bid Schedule for Extra Work.

For Bid items numbers 11 through 18a include:

- For weekend hours, compensation will be at 1.15 times the unit price rates outlined in the Bid Schedule for Extra Work.
- For holiday hours, compensation will be at 1.25 times the unit price rates outlined in the Bid Schedule for Extra Work.

Holidays are defined in the section 1.2 Hours of Operation in the Supplementary Conditions.

The Service Authority reserves the right to request a copy of all work papers used to prepare the Bid. The Service Authority will retain copies of the successful Bidder’s work papers. After award of the contract, the Service Authority will return work papers to all other Bidders, if so requested. The Service Authority agrees to not release any information within the work papers to any third party.

Rider Clause

The Contract may be extended, with the authorization of the Contractor, to other public bodies, public agencies, or institutions of the United States to permit their use of the Contract at the same prices and/or discounts and terms and conditions of the Contract. Requesting agencies shall receive a written authorization to utilize this Contract issued by the Prince William County Service Authority. Upon receipt of the written authorization, the Contractor shall deal directly with public bodies utilizing the Contract concerning the issuance of purchase orders, contractual disputes, invoicing and payment. Prince William County Service Authority acts only as the “Contracting Agent” for these public bodies.

It is the Contractor’s responsibility to notify public bodies of the availability of the Contract. Other public bodies desiring to use the Contract shall make their own legal determination as to whether the use of the Contract is inconsistent with their laws, regulations, and other policies. Other public bodies if mutually agreed may add terms and conditions required by their statute, ordinances, and regulations, to the extent that they do not conflict with the Contract’s terms and conditions.

The Contract may contain certain construction elements that each body shall determine whether or not are consistent with their own regulations and policies. The Contract allows that each party may have its own agreement with the Contractor (s) under this Contract.

Prince William County Service Authority shall not be held liable for any costs or damages incurred by other public bodies as a result of any contract extended to other public bodies by the Contractor.

END OF INFORMATION FOR BIDDERS

AGREEMENT

PRINCE WILLIAM COUNTY SERVICE AUTHORITY

AGREEMENT

CONTRACT NO. SA-1815

THIS AGREEMENT, made and entered into this 17 day of April in the year 2018 between the **Prince William County Service Authority**, hereinafter referred to as the Owner or PWCSA, and **AM-Liner East, Inc.**, hereinafter referred to as the Contractor, in consideration of the mutual covenants and agreements hereinafter set forth, provides as follows:

ARTICLE 1. THE PROJECT

- 1.1 The Project is designated as follows: Rehabilitating sanitary sewer lines using the cured-in-place pipe (CIPP) reconstruction process. Individual tasks and pricing are more particularly described in the bid pricing from the Contractor, dated February 22, 2018, which is attached to this Agreement and incorporated herein as Exhibit E.

ARTICLE 2. WORK

- 2.1 Contractor shall provide all materials, tools, equipment, labor, and professional and non-professional services, and shall perform all acts necessary to fully complete the Work in strict accordance with the requirements of the Contract Documents.
- 2.2 The Contractor shall provide and pay for all related facilities described in the Contract Documents, including Work expressly specified as well as Work which can be reasonably inferred as necessary to produce the results intended by the Contract Documents.

ARTICLE 3. CONTRACT ADMINISTRATOR

- 3.1 Individual Work Orders (as defined in the General Conditions) will be designated by the Prince William County Service Authority, 4 County Complex Court, Woodbridge, Virginia 22192. The Project Summary is entitled:

“Sanitary Sewer Main Lining (CIPP), IFB SA 1815”

For the purposes of administration of this Project, Owner designates its Infiltration and Inflow department under O & M division as the Contract Administrator (as defined in the General Conditions) for this Project. The Owner’s Contract Administrator for this Project shall be James McCarroll, Project Manager.

ARTICLE 4. CONTRACT SUM

- 4.1 Owner will pay the Contractor for Work completed in accordance with the tasks assigned per Article 3.1 and payment based on the unit prices set forth in the Contractor’s bid response.

ARTICLE 5. PAYMENTS

5.1 Payment under this Contract shall be made in the manner provided in Article 11 of the General Conditions.

ARTICLE 6. AVAILABILITY OF FUNDS

6.1 It is understood and agreed between the parties herein that Owner shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this Agreement.

ARTICLE 7. CONTRACT DOCUMENTS

7.1 The Contract Documents listed in Article 3.A.1 of the General Conditions comprise the entire agreement between the Owner and the Contractor with respect to the Project.

ARTICLE 8. MISCELLANEOUS

8.1 Capitalized terms which are used and not otherwise defined in this Agreement shall have the meanings given them in Article 1 of the General Conditions.

8.2 This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one document.

8.3 This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia, without reference to conflict of law principles.

8.4 This Agreement is authorized by **Resolution TBD** of Owner's Board of Directors, adopted DATE **TBD** which sets forth, among other things, the basis for Owner's determination to proceed with a procurement with the Contractor for this Project.

ARTICLE 9. WORK AUTHORIZATION

9.1 The Owner will authorize Work upon the Owner's written authorization by the issuance of a Purchase Order or Notice to Proceed. Upon authorization, actual Work shall not exceed the Contractor's estimate without approval by the Owner Project Representative.

9.2 The Owner may require Performance Bond for Work Orders depending upon the complexity of each Work Order. The Owner will reimburse the Contractor for the cost of obtaining bonds.

ARTICLE 10. PERIOD OF CONTRACT

10.1 The term for the Agreement shall be for an initial one (1) year term from the date of execution, ~~April 17, 18~~. Upon mutual consent, the Owner shall have the

option to extend the contract for four (4) additional one (1) year terms, contingent upon need and availability of funds for the purpose.

10.2 Renewal of the Term of the Contract:

- A. The Owner may renew the term of the Contract by written notice to A. the Contractor before the expiration of the Contract, provided that the Owner shall give the Contractor a preliminary written notice of its intent to renew at least sixty (60) days before the Contract expires. The preliminary notice does not commit the Owner to a renewal.
- B. If the Owner elects to exercise the option to renew the contract for an additional one-year period, the Contract Price(s) for the additional one year shall not exceed the Contract Price(s) of the original contract increased by more than the percentage increase of the category of the CPI-W section of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on 04/17/2018 (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

Prince William County Service Authority

Am-Liner East, Inc.

By: *Amyela White*
Title: *Purchasing Manager*

By: *Isidoro Giuliani*
Title: President

(If Contractor is a corporation, or a partnership, attach evidence of authority to sign.)

Attest: *TDR*
Title: *Project Manager*

Attest: *Mel M. Willett*
Title: Vice President

SEAL



Address for giving notices:

Address for giving notices:

4 County Complex Court
Raymond Spittle Building
Woodbridge, Virginia 22192

Am-Liner East, Inc.
601 Jack Enders Blvd.
Berryville, VA 22611

License No.: 2705040998A
(where applicable)

**AGREEMENT
(ACKNOWLEDGMENT OF OFFICER OF OWNER)**

STATE OF: Virginia

COUNTY OF: Prince William

ON THIS April 11 day of 20 18 before me personally appeared Angela White who by me being duly sworn, did depose and say that he is Purchasing Manager of the PRINCE WILLIAM COUNTY SERVICE AUTHORITY, that he executed this Contract as such official pursuant to the authority vested in him by resolution of the said authority and that his signature is so affixed pursuant to that authority.

My Commission Expires:

10/31/18

4/17/18

Date

Monica P. Dodson

Notary Public



(ACKNOWLEDGMENT OF OFFICER OF CONTRACTOR, IF A CORPORATION)

STATE OF: Virginia

COUNTY OF: Clarke

ON THIS 10th day of 20 18, April, before me personally appeared Isidorio Giuliani who by me being duly sworn, did depose and say that he is President of Am-Liner East, Inc., the corporation named Contractor in this instrument; that he knows the seal of said corporation, that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

My Commission Expires:

3/31/21

Date

Theresa Alice McShane

Notary Public

#7550988

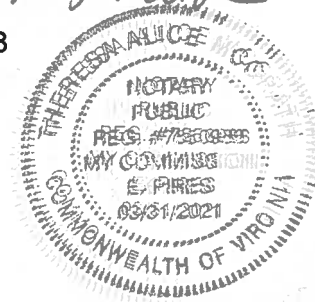


EXHIBIT A

(To be completed by low Bidder and submitted with each application for payment/invoice)
General Contractor's Affidavit of Release of Liens

TO: (Owner)
Prince William County Service Authority

CONTRACT FOR: CONSTRUCTION
CONTRACT DATE: Insert Date
Payment Application: Insert pay app#

PROJECT: SANITARY SEWER MAIN LINING (CIPP)

State of: Insert Name of State

County of: Insert Name of County

The undersigned, pursuant to Article Insert Article Number of the General Conditions of the Construction Contract hereby certifies to the best of his knowledge information and belief that all Subcontractors, material, manpower, suppliers, equipment suppliers or any other person or equity having claim on the above project arising out of the performance of the Construction Contract have been paid or satisfied in full, and the undersigned further holds the owner, heirs, or assigns harmless from liens, claims or demands upon said project property forever, pursuant to the exception noted as follows.

EXCEPTIONS: (if none, write "None") _____.

This Affidavit of Release of Liens is conditioned upon receipt of \$Insert Amount now due and owing to General Contractor from said owner, heirs, and assigns and the signing of this Affidavit is so conditioned for any and all claims arising hereto.

I (we) hereby declare all claims satisfied or paid in full as stated above.

By: Insert Information

Attest: Insert Information

Subscribed and sworn to before me this Insert Number day of Insert Month, 20Insert last two numbers of year.

Notary Public: Insert Name

My Commission Expires: Insert Date

ATTACH BONDING COMPANY'S
POWER OF ATTORNEY
TO THIS SHEET



Joshua S. Linn

Attorney-In-Fact for
Travelers Casualty and Surety
Company of America

(301) 369-9155 x205
(301) 369-9453 (fax)

7901 Sandy Spring Road #102
Laurel, MD 20707

April 2, 2018

Prince William County Service Authority
4 County Complex Court
P.O. Box 2266
Woodbridge, VA 22195

RE: IFB SA1815 – Sanitary Sewer Main Lining (CIPP)

It has been a privilege of Travelers Casualty and Surety Company of America ("Travelers")¹ to provide surety bonds on behalf of AM-Liner East, Inc. for over six years. In our opinion, AM-Liner East, Inc. remains properly financed, well equipped, and capably managed.


At the present time, Travelers Casualty and Surety Company of America can provide a \$25,000,000.00 single project and a \$90,000,000.00 aggregate surety program to AM-Liner East, Inc.

As always, Travelers Casualty and Surety Company of America reserves the right to perform normal underwriting at the time of any bond request, including, without limitation, prior review and approval of relevant contract documents, bond forms, and project financing. AM-Liner East, Inc. has a rate tier as follows:

We possess certificates of authority as an acceptable surety authorized to do business in the Commonwealth of Virginia as published annually in the Federal Register, Department of Treasurer, Fiscal Service, and Department Circular 570.

Travelers Casualty and Surety Company of America is listed on the U.S. Treasury Department's Listing of Approved Sureties (2005 Circular 570), and is rated Grade A+ and Financial Size Category XV by A.M. Best Company.

Very truly yours,

By: 
Joshua S. Linn, Attorney in Fact for
TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

¹Travelers is an A+ (Superior) A.M. Best rated insurance company (Financial Size Category XV (\$2 billion or more)).



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 232225

Certificate No. 007242269

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Aldo Pasquariello, Karen L. Wilson, Michael W. Howell, Maki F. Tyree of Fairfax, Virginia; Anne Schevker of Towson, Maryland; Stephen A. Spencer, Paul M. Troeschel, Daniel R. West, William Cowan, Brenda L. Pattishall, Susan B. Willett, Beatrice Saint-Felix, Arthur H. Jones, Catherine E. Warren, Adam T Grap, Jaime George-Perando, and Joshua S. Linn

of the City of Rockville, State of Maryland, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 30th day of May, 2017.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: Robert L. Raney, Senior Vice President

On this the 30th day of May, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2021.



Marie C. Tetreault
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 2 day of April, 2018

Kevin E. Hughes
Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

EXHIBIT C

Not Used

[Type text]

[Type text]

[Type text]



EXHIBIT D
(to be submitted with Bid)

BID FORM

Prince William County Service Authority

Attention: Purchasing Manager

Subject: SANITARY SEWER MAIN LINING (CIPP)

Ladies and Gentlemen:

We have received and examined the Bid Documents and Addenda concerning the subject SANITARY SEWER MAIN LINING (CIPP). We have made all the necessary inquiries concerning the Work and have familiarized ourselves with the above-mentioned document.

We confirm that we have examined all documents necessary for the proper performance of the Contract.

We are submitting a bid as referenced in the Exhibit E, SCHEDULE OF UNIT PRICES.

We will complete the Work required for each Work Order as part of the Project for the amounts shown on the Schedule of Unit Prices attached hereto. Based upon the quantities listed in the Schedule of Unit Prices, and for bid comparison and evaluation purposes only, our bid price totals:

One Million, Two Hundred Seventy Five Thousand, Five Hundred Seventy Two and 50/100 Dollars (\$1,275,572.50), subject adjustments as may be determined in a manner prescribed in the Contract Documents.

Based upon the Work Order process described for award of Work under this Contract, we acknowledge that the bid price may not actually be the Contract Price for any or all Work performed under the Contract.



We agree to the conditions stated in this solicitation document, and we hereby submit the required Bid in accordance with the Information For Bidders.

We agree that the Work for each Work Order will begin within 14 calendar days after the date of the Notice of Proceed, and that it will be substantially complete within the number of calendar days as stipulated in each respective Work Order. Furthermore, all Work for each Work Order will be completed and ready for final payment according to the General Conditions within the number of days outlined in the respective Work Order from the date of Substantial Completion for the Work Order.

We acknowledge that time is of the essence, and accepts the provisions of the Agreement and each Work Order.

We agree to abide by this Bid for 90 Days from the IFB closing date.

We understand that Prince William County Service Authority reserves the right within its sole discretion to accept or reject all or any part of this Bid.

Sincerely,

AM-LINER EAST, INC.



By: Mel M. Willett

Date: February 22, 2018

VA Contractor's License No.: 2705040998 Class A

Corporate Seal



601 Jack Enders Boulevard, Berryville Virginia 22611
Phone: (540) 955-9671 www.amlinereast.com Fax: (540) 955-2872



Service Authority
Prince William County

Procurement Department

4 County Complex Court, Woodbridge, Virginia 22195-2266 · Fax (703) 335-7954

February 14, 2018

IFB SA 1815 – Sanitary Sewer Main Lining (CIPP)

Addendum #1

THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

Reference PART II, Section 02735, Part 2, PRODUCTS, 2.04. Paragraph L, Warranty: Deleted the word “serious” from the second sentence.

Responses to questions

Acknowledgement: Bidders submitting a bid response for the above named solicitation shall take note of the following changes, additions, deletions, clarification, etc., in the Contract Documents, which shall become a part of and have precedence over anything shown or described in the Contract Documents, and as such shall be taken into consideration and be included in the Bidder’s response. All other terms and conditions of the Invitation For Bid shall remain unchanged.

Bidders must acknowledge receipt of this amendment by signing and returning this addendum with the bid response prior to the bid deadline.

	February 22, 2018
Authorized Signature	Date
Mel M. Willett,	Vice President
Name Printed	Title
AM-LINER EAST, Inc.	
Company Name	

Direct all inquiries to purchasinggroupemail@pwcsa.org

EXHIBIT E (to accompany the bid)

SCHEDULE OF UNIT PRICES

PREAMBLE

All prices and rates are fully inclusive of each and every item, service, equipment or facility as may be required to provide and perform Work Orders covered under the Contract and in full compliance with the Contractor requirements.

The Unit Prices as follows are fixed for the initial term of the Agreement and are all inclusive. There will be no other reimbursement for any other cost whatsoever.

All prices and rates shall remain firm without any escalation, whatsoever during the initial term of the Agreement, until the contract renewal (if any).

Each item shall be priced separately, due allowance being made in the quoted rate for full compliance with the Bid Documents.

All prices and rates are to apply in executing the Work in large or small quantities, to any shaped section, in difficult or easy situations and at any elevation. Owner will not entertain any claim as to the proportions of the Work actually falling into these categories.

In the event the prime Contractor utilizes a subcontractor (s), the price shall be in line with the prime Contractor's Unit Prices. No additional charges are allowed.

The Notice to Bidders and Information for Bidders are hereby made part of this Schedule to the same extent as if bound herein and shall become part of the Contract and shall apply to the Contractor and all Subcontractors and suppliers.

EXHIBIT E

SCHEDULE OF UNIT PRICES

TO ACCOMPANY THE BID OF

AM-LINER EAST, INC.

(Bidder/Contractor)

SANITARY SEWER MAIN LINING (CIPP)

SOLICITATION NO.: IFB SA-1815

Any bidder who enters \$0 on pricing blanks or leaves them blank in the pricing schedule shall be considered nonresponsive.

Bid Evaluation and Award: The Service Authority may make multiple awards as a result of this solicitation contingent upon what the Service Authority determines to be in its best interest. The awards will be made to the lowest responsive, responsible bidder or bidders.

TOTAL BASE BID (All items; 1 through 20)

IN WRITING One Million, Two Hundred Seventy Five Thousand, Five Hundred Seventy Two Dollars and Fifty Cents

IN NUMBERS \$1,275,572.50

SCHEDULE OF UNIT PRICES

TO ACCOMPANY THE PROPOSAL OF BIDDER/CONTRACTOR

SANITARY SEWER MAIN LINING (CIPP)

ANNUAL SERVICES CONTRACT

IFB NUMBER: SA 1815

Item No.	Description	Unit Price	Estimated Quantity	Unit	Computed Total Price
1	CCTV Inspection (6 -10 inch pipe)	\$ 0.85	10,000	LF	\$ 8,500.00
1a	CCTV Inspection (6 -10 inch pipe) off-road	\$ 0.85	1000	LF	\$ 850.00
2	CCTV Inspection (12 -15 inch pipe)	\$ 0.90	5,000	LF	\$ 4,500.00
2a	CCTV Inspection (12 -15 inch pipe) off-road	\$ 0.90	500	LF	\$ 450.00
3	CCTV Inspection (18 -21 inch pipe)	\$ 1.85	5,000	LF	\$ 9,250.00
3a	CCTV Inspection (18 – 21 inch pipe) off road	\$ 2.00	250	LF	\$ 500.00
4	CCTV Inspection (24 -30 inch pipe)	\$ 2.00	2000	LF	\$ 4,000.00
4a	CCTV Inspection (24 – 30 inch pipe) off road	\$ 2.10	1500	LF	\$ 3,150.00
5	Traffic Control four lane road	\$ 500.00	30	Day	\$ 15,000.00
5a	Bypass Pumping of sanitary sewer main (2 – 4 MGD)	\$ 300.00	30	Day	\$ 9,000.00
6	Heavy Cleaning (6 -10 inch pipe)	\$ 0.70	2,000	LF	\$ 1,400.00
6a	Heavy Cleaning (6 -10 inch pipe) off-road	\$ 0.70	500	LF	\$ 350.00

7	Heavy Cleaning (12 -15 inch pipe)	\$ 0.75	1,000	LF	\$ 750.00
7a	Heavy Cleaning (12 -15 inch pipe off-road)	\$ 0.75	250	LF	\$ 187.50
8	Heavy Cleaning (18 -21 inch pipe)	\$ 0.80	1,000	LF	\$ 800.00
8a	Heavy Cleaning (18-21 inch pipe) off road	\$ 0.80	200	LF	\$ 160.00
9	Heavy Cleaning (24 30 inch pipe)	\$ 1.00	1000	LF	\$ 1,000.00
9a	Heavy Cleaning (24 – 30 inch) off road	\$ 1.10	1000	LF	\$ 1,100.00
10	Grout excessive infiltration prior to lining	\$ 11.00	200	Gal	\$ 2,200.00
11	CIPP for 8" sanitary sewer main	\$ 22.00	10,000	LF	\$ 220,000.00
11a	CIPP for 8" sanitary sewer main (off-road)	\$ 31.00	100	LF	\$ 3,100.00
12	CIPP for 10" sanitary sewer main	\$ 24.95	2,000	LF	\$ 49,900.00
12a	CIPP for 10" sanitary sewer main (off-road)	\$ 33.00	250	LF	\$ 8,250.00
13	CIPP for 12" sanitary sewer main	\$ 30.00	2,000	LF	\$ 60,000.00
13a	CIPP for 12" sanitary sewer main (off-road)	\$ 34.00	250	LF	\$ 8,500.00
13b	CIPP for 15" sanitary sewer main	\$ 42.10	2,000	LF	\$ 84,200.00
14a	CIPP for 15" sanitary sewer main (off-road)	\$ 45.00	250	LF	\$ 11,250.00
15	CIPP for 18" sanitary sewer main	\$ 51.00	2,000	LF	\$ 102,000.00
15a	CIPP for 18" sanitary sewer main (off-road)	\$ 59.00	250	LF	\$ 14,750.00
16	CIPP for 21" sanitary sewer main	\$ 62.50	3,000	LF	\$ 187,500.00
16a	CIPP for 21 inch sewer main (off road)	\$ 69.00	250	LF	\$ 17,250.00
17	CIPP for 24" sanitary sewer main	\$ 81.25	1500	LF	\$ 121,875.00

17a	CIPP for 24" sanitary sewer main (off road)	\$ 89.00	1000	LF	\$ 89,000.00
18	CIPP for 30" sanitary sewer main	\$ 115.00	1000	LF	\$ 115,000.00
18a	CIPP for 30" sanitary main(off road)	\$ 120.00	500	LF	\$ 60,000.00
19	Robotic reinstatement and preparation of service lateral after installation of CIPP liner.	\$ 149.00	350	EA	\$ 52,150.00
20	Cut protruding lateral	\$ 22.00	350	EA	\$ 7,700.00

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EXHIBIT F

Not Used



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EXHIBIT G

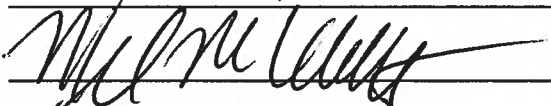
Prince William County Service Authority
4 County Complex Court
Prince William, VA 22195-2266

**SOLICITATION #: IFB SA-1815
SANITARY SEWER MAIN LINING (CIPP)**

WAIVER OF RESPONSIBILITY FOR SUBSURFACE INFORMATION

The undersigned Bidder understands and agrees that any subsurface soil information provided by the OWNER is provided for informational purposes only, and is without warranty or representation of any kind whatsoever. The undersigned Bidder further understands and agrees that any available data concerning subsurface materials or conditions that are based upon soundings, test pits, and/or test borings have been obtained by the OWNER solely for its general use in design of this project. If any or all of this information is furnished to Bidder, the Service Authority makes no express or implied representations or warranties as to the accuracy or completeness of the data. Bidder has the sole responsibility to perform such additional tests as it deems appropriate before submitting its Bid. Any data or tests furnished to Bidder by Owner shall not, under any circumstances, be considered a part of the Contract Drawings or Specifications. The undersigned Bidder hereby irrevocably assumes all risks concerning the subsoil conditions of this project.

The undersigned Bidder hereby releases and discharges the Service Authority from any and all costs, claims, damages or liability of any kind based on subsurface data or conditions.

Bidder: AM-LINER EAST, INC.
Signed: 
Title: Mel M. Willett, Vice President
Date: February 22, 2017

Waiver accepted by Prince William County Service Authority:
By: _____
Date: _____

**EXHIBIT H (to accompany the bid)
Schedule of Proposed Subcontractors**

Estimated Subcontract
Work to be as a
Percentage
of Total Contract

Work to be
Performed

Name Address

None - All work to be self performed

The Bidder shall state in the space provided above or on separate sheets the names of all Subcontractors he proposes to use together with any details of the nature and the scope of work to be subcontracted including resumes of their key personnel.

Subcontractors proposed by Bidder to perform any portion of the Work are subject to the approval of Owner based upon meeting the construction document standards, maintaining insurance limits and requirements as noted in the construction documents.

Upon acceptance of his Bid, Bidder may not change any Subcontractor without the prior written approval of the Owner.

EXHIBIT I (to accompany the bid)
Bidder Personnel

- A. The Bidder shall employ the Bidder's personnel as proposed and accepted for performance of the Work.

- B. The following information is hereby incorporated into the Contract with respect to the Bidder's personnel:
 - 1. Exhibit I-1 – A complete list of all key personnel proposed for performance of the Work.

 - 2. Exhibit I-2 – Copies of résumés attached for the Superintendent, if applicable, and each of the Foremen identified on Exhibit I-1.

 - 3. Exhibit I-3 – Three completed contract references on the form provided for the Superintendent, if applicable, and for each of the Foremen identified on Exhibit I-1. Bidder shall make the necessary number of copies of the form provided as Exhibit I-3.

- C. The Bidder shall notify the Owner of changes to Bidder's key personnel on Change of Bidder's Personnel form provided as Attachment 3 in the Supplementary Conditions after bid submission or after award, as applicable.

EXHIBIT I-1 (to accompany the bid)

BIDDER 'S PROPOSED PROJECT KEY PERSONNEL

IFB SA-1815

Title: SANITARY SEWER MAIN LINING (CIPP)

Attach additional sheets for additional proposed Project Personnel.
Indicate N/A in any spaces that are not used in the table below.

		Name	Years of Employment with Bidder	Years of Experience in Construction
1	Project Manager	MEL M. WILLETT	23	35
2	Project Liaison	TOMMY JONES	13	17
			Years of Employment with Bidder	Years of Pipe Laying Experience
3	Superintendent	JEFF GEIGER	9	22
4	Crew #1 Foreman	ROBERT CHRISTIAN	13	21
5	Crew #1 Crew Member	JOSE ARANDA	14	15
6	Crew #1 Crew Member	NELSON RIVERA	19	20
7	Crew #1 Crew Member	DAVID SHEA	3	5
8	Crew #1 Crew Member			
9	Crew #1 Crew Member			
10	Crew #2 Foreman	MIGUEL HERNANDEZ	20	23
11	Crew #2 Crew Member	CURTIS MURRAY	5	5
12	Crew #2 Crew Member	YOHALMO PENATE	4	4
13	Crew #2 Crew Member	LUIS VASQUEZ	11	11
14	Crew #2 Crew Member	RICKY VON FOSSIN	7	27
15	Crew #2 Crew Member			

EXHIBIT I-2 (to accompany the bid)

Superintendent and Foremen Résumés

Attach résumés for Superintendent and each Foreman listed on Exhibit I-1.



601 Jack Enders BLVD
Berryville, VA 22611
P: 540.955.9671
F: 540.955.2872
www.amlinereast.com

Jeff Geiger

Position

- **Assistant Operations Manager** - AM-Liner East, Inc. - 2008 - Present
- **Superintendent/Crew Member** – AM-Liner East, Inc. - Cured-In-Place (CIPP) Lining - 1994 – 2008

Professional Training

- Premier Pipe Certified Installer
- Flagger – VA
- HAZCOM
- First Aid/CPR
- Confined Space Entry
- Defensive Driving

Experience

- Installed various CIPP lines ranging from 8" to 72" – **See attached AM-LINER EAST, INC., Premier Pipe References – Jeff Geiger** for project information.

Responsibilities

- In charge of overseeing and supervision of several crews on various projects, simultaneously
- Assist in the implementation of the project tracking system, working with Upper Management and the Field Crew.
- Directly responsible for the daily execution of the field work along with the collection of all field related data.
- Managing crew through the completion of numerous CIPP lining rehabilitation projects
- Responsible for supervising flow diversion operations, such as bypass pumping
- Responsible for on-going training of crew members
- Supervising subcontractors to maximize output and quality of work
- Compile daily, weekly reports of field progress and submit for compliance

Keep your city moving.

Berryville, VA | Capitol Heights, MD | Baltimore, MD
Wallace, NC | Bear, DE

AM-LINER
FAST, Inc.
601 JACK ENDERS BLVD.
BERRYVILLE, VA 22611
540-955-9671 PHONE
540-955-2872 FAX

**JEFF GEIGER
PARTIAL REFERENCE LIST**

2/21/2018

CONTRACT #	CUSTOMER	CONTACT INFORMATION	BT	LOCATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
#15-20 LITTLE PATUXENT INTERCEP SWR REHAB BID#2015-14 CAPITAL PROJECT# 56273 CONTR AGREMT CA 10-2015 PO#E200014582	HOWARD CTY DEPT OF COUNTY ADMIN 6751 COLUMBIA GATEWAY DRIVE, STE 501 COLUMBIA, MD 21046	WES DAUBS, CONSTR MGR, PE 410-313-6194 (W) wdaub@howardcountymd.gov	MD	HOWARD COUNTY	CIPP 13258LF 30"	CIPP - 13,389 30"	ON-GOING 4/13/15	\$ 4,591,219.47	\$ 4,480,857.38
#14-59 PEGRAM, STRAWBERRY RUN & HOPF'S RUN SEWERSHEDS SAN SWR REHAB ITB #00000474 PO#151073	CITY OF ALEXANDRIA 100 NORTH PITT ST., SUITE 301 ALEXANDRIA, VA 22314	DARRYL JACKSON CONTRACT SPECIALIST 703-746-6298 (C) 703-838-6493 (F)	VA	CITY OF ALEXANDRIA	CIPP 70,500LF 8"-6,000 10"-55,000 12"-5,000 15"-3,000 18"-1,500	CIPP 50,270 LF 8"-4,010 10"-43,230 12"-2,187 15"-623 18"-0 21"-220	ON-GOING 12/10/14	\$ 2,463,038.75	\$ 1,613,176.62
#14-47 AVION BUSINESS PARK STORM WATER PIPE REPAIRS	BRKA INC 2220 46TH STREET, NW WASHINGTON, DC 20007	BASIM KATTAN 202-342-1933 (C) 202-342-1833 (F) bkaino@t11.net	VA	CHANTILLY	CIPP 4,885LF 15-1455 18-362 21-153 24-664 27-89 30-438 36-470 42-400 53-359 60-178 83-317	CIPP 3,795 LF 15-602 18-101 21-373 24-632 27-89 30-398 33-489 36-0 42-400 53-394 60-0 83-317	COMPLETED 9/13/14 - 05/31/17	\$ 1,296,522.00	\$ 750,346.00
#14-11 IDIQ C15385A12 CABIN JOHN BASIN	ANCHOR CONSTRUCTION 2254 25TH PLACE, N.E. WASHINGTON, DC 20018	BILL CUSTEAD 202-269-6694 (W) 202-529-3144 (F) bcustead@anchortonst.com	MD	MONTGOMERY CTY	CIPP IDIQ 6", 8", 10", 12", 14", 15", 18", 20"/21", 24", 27", 30", 33", 36", 42", 48"	CIPP - 4762.9 LF T.O. 1: 709LF - 8" T.O. 3: 936.4 - 15" T.O. 6: 1126 - 8" T.O. 10: 696.3 - 8" T.O. 13: 195.6 - 8" T.O. 14: 1099.6 - 8"	ON-GOING 2/11/14 -		\$ 292,001.61
#13-47 AGREEMENT #735-13 8"-18" SWR MAINS PWCSA RIDER IP# SA 1213	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	TINA LIU/HUNG TRAN 703-228-6408(C)/7730(C) Tliu@arlingtonva.us Htran@arlingtonva.us	VA	ARLINGTON	CIPP 8"-18" (NO VALUES GIVEN AT CONTRACT)	CIPP - 333,600 LP 8"-301,310 10"-13,350 12"-13,864 15"-4,001 18"-1,1075	ON-GOING 7/24/13 (TIL-04/04/18)	\$ 1,850,000.00	\$ 10,707,802.34
#13-35 CIPP PORTER STREET (TECH LINER)	TEAL CONSTRUCTION 612 MARY STREET DOVER, DE 19904	JOHN STRANT 302-678-9300 (C) 302-678-9715 (F)	DE	SEAFORD	CIPP 393LF 36"-196 60"-197	CIPP 393LF 36"-196 60"-197	COMPLETED 5/22/13 - 08/03/13	\$ 137,000.00	\$ 137,000.00
#13-22 CONTRACT #4400003896 SAN SWR MAIN CIPP LINING PWCSA SA-1213 RIDER PO#8500089419 FY15 PO#8500141012 FY16 PO#8500193869 PO#8500298171	COUNTY OF FAIRFAX/ROBERT McMATH FACILITY 12000 GVN# CTR PKWY, #427/6000 PREDS OAK RD FAIRFAX, VA 22035/BURKE, VA 22015	BOB WHITE 703-239-8493 RUSS RUSSELL, ENV SVCS TECH SPEC. 703-239-8493 TOM RUSSELL, DR LINE MAINT 703-239-8450 JO NATHAN OKAPUR 703-503-8097	VA	FAIRFAX	INDEFINITE	CIPP - 544,699LF (EST QTY) 8"-476,665 10"-31,863 12"-24,335 15"-7166 18"-4708	ON-GOING 4/30/13 -	\$ 1,500,000.00	\$ 21,978,192.29
#13-20 FOUR MILE RUN LG DIAMETER 42736" SEWER MAIN PO#205422 HOWARD CO RIDER#11-12 *AM #12-2011-47 (TECH LINER)	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730/6585 (W/F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP INDEFINITE QTY	CIPP - 16,087 18"-597 21"-598 24"-1015 30"-524 33"-806 36"-9208 42"-3249	COMPLETED 02/19/13 - 02/01/17	\$ 2,000,000.00	\$ 4,528,893.60
#13-12 SAN SWR MAIN LINING 8SA-1213	PRINCE WILLIAM CO. SERVICE AUTHORITY 4 COUNTY COMPLEX CT, PO BOX 2266 PRINCE WILLIAM, VA 22195	JIM MCCARROLL, PM OPS & MAINT 703-335-7900 (D) 703-609-0323 (M) Jmccarroll@pwcsa.org	VA	PRINCE WILLIAM	CIPP 26,330LF 8"-10000 10"-30000 12"-2000 15"-2000 18"-2000 21"-3000 24"-1500 30"-1000 OFF ROAD (OR) 8"-100 10"-250 12"-250 15"-250 18"-250 21"-250 24"-1000 30"-500	CIPP 153,215 LF 8"-59,542 10"-2,377 12"-908 15"-0 18"-0 21"-0 24"-0 30"-0 OFF ROAD (OR) 8"-84,360 10"-6,448 12"-473 15"-1408 18"-1302 21"-0 24"-0 30"-0	ON-GOING 2/27/13 -	\$ 1,374,257.50	\$ 6,152,233.20
ALE #12-30 ANNUAL SEWER INSPECTION & REHAB SERVICES CIPP #12055B-11 CONTR #1400000822	CITY OF RICHMOND 900 EAST BROAD STREET, ROOM 1104 RICHMOND, VA 23219	JOHN KOVASIK 609-709-5000 (M) 804-646-5818(W) 804-646-5989(F)	VA	RICHMOND	CIPP 57,500LF 6"-500 8"-6000 10"-6000 12"-7000 15"-4000 18"-4000 20"-3000 21"-3000 24"-3000 27"-3000 30"-3000 33"-3000 36"-3000 42"-3000 45"-3000 48"-3000	CIPP 45,742LF 8"-15357 12"-11285 15"-5177 18"-4129 20"-1422 21"-718 24"-5701 27"-456 30"-746 33"-396 36"-291	COMPLETED 08/30/12 - 04/30/16 1YR(W/4-1YR RNWL OPTS)	\$ 7,249,900.00	\$ 7,849,740.70
ALE #12-20 HOWARD CTY RIDER #711-12 OCSC LG DIAMETER (OLD ALE# 11-07#407-80)	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP - INDEFINITE QTY	CIPP - 7,683 LF 24"-961 30"-2775 33"-2960 42"-987	CLOSED 01/01/11 - 05/08/13	\$ 1,600,000.00	\$ 1,542,282.00
ALE# 11-39 CRESCENT STREET 21" SEWER LINING	DALE SERVICE CORP 5606 MAPLEDALE PLAZA DALE CITY, VA 22193	NORRIS SISSON/JOE HANKS 703-590-4495 (C)/2259 (F) nraisson.dsc@verizon.net jhanks.dsc@verizon.net	VA	DALE CITY	CIPP - 900LF 21"	CIPP - 900LF 21"	COMPLETED 08/21/11 - 10/31/11	\$ 134,125.00	\$ 135,875.00
ALE #11-11 CONTR#11-192 OCSC	HARFORD COUNTY GOVERNMENT DEPT. OF WATER & SEWER 212 S. BOND STREET, 2ND FLR, BBL AIR, MD 21014	ANGELA HOOVER 410-638-3300 X1460 (C) 410-638-3024 (F) alhoover@harfordcountymd.gov	MD	HARFORD COUNTY	CIPP - 1364 8"	CIPP - 2186 LF 8"-1866 15"-320	COMPLETED 04/19/11 - 06/07/11	\$ 60,266.00	\$ 99,749.00
ALE #11-08 OLD SHILOTT INTERCEPTOR REHAB PHASE I CONTRACT#2009-09R	NEW CASTLE COUNTY 187A OLD CHURCHMANS ROAD NEW CASTLE, DE 19720	JOHN WOLOS CONTRACTS OFFICER 302-395-5700 (W) 302-395-5802 (F)	DE	NEW CASTLE	ORIGINAL CIPP - 4,332 LF FULLY DETERIORATED: 12"-503 18"-2156 21"-239 PARTIALLY DETERIORATED: 12"-295 18"-437	CIPP - 5,092 LF FULLY DETERIORATED: 12"-221 18"-2877 21"-261 PARTIALLY DETERIORATED: 12"-296 18"-437	COMPLETED 07/29/11 - 02/29/12	\$ 992,302.85	\$ 926,506.50
ALE #11-07 RECONSTRU 18"-60" *AM# 11-07-801#448-07 (POW ALE#11-30/#12-30)	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP - MISC LF	CIPP - 8,236 LF 27"-4328 30"-3659 42"-3539	COMPLETED 12/08/07 - 12/31/10		\$ 2,332,815.38

FIN-INNER
EAST, Inc.
601 JACK ENDERS BLVD.
BERRYVILLE, VA 22611
540-955-9671 PHONE
540-955-2672 FAX

**JEFF GEIGER
PARTIAL REFERENCE LIST**

2/21/2018

CONTRACT #	CUSTOMER	CONTRACT INFORMATION	ST	LOCATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
ALE #11-05** #381-10/#432-07 RECONSTRU 8" - 18" *Revised as P07-71	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP - MISC LP 8" 10" 12" 15" 18"	CIPP - 123,526 LP 8"-109538 10"-5458 12"-3902 15"-4121 18"-507	COMPLETED 10/13/11 - 04/30/13	\$ 1,500,000.00	\$ 4,933,866.20
ALE #10-16 FY10 SEWER LINING PROJ CONTRACT#1017-08-SLS	CITY OF FALLS CHURCH 300 PARK AVENUE FALLS CHURCH, VA 22046-3332	MATT JACOBI, ENG ASST 703-248-5070(W)/703-248-5190(W) 703-248-5214(F)	VA	FALLS CHURCH	CIPP - 9,622 LP 8" = 9,134 15"-488	CIPP - 14,024 LP 8" = 13,325 10"-225 15"- 474	COMPLETED 03/18/10 - 07/18/11	\$ 400,000.00	\$ 562,257.16
ALE #09-36 FY-10 RESERVE MAINT	UOSA 14631 COMPTON ROAD CENTREVILLE, VA 20121-2050	JAKE HAMMERSLEY 703-830-2200(W) 703-830-5034(F)	VA	CENTREVILLE	CIPP - 7583 LP 15"-204 18"-244 21"-597 24"-160 30"-1000 36"-2200	CIPP - 7583 LP 15"-204 18"-244 21"-597 24"-160 30"-1000 36"-2200	COMPLETED 06/09/09 - 08/07/10	\$ 1,932,848.80	\$ 1,932,848.80
ALE #08-40 REHAB SEWERS CONTR#15878 CWO#222200015	OLD DOMINION UTIL SVCS 1430 MONROE AVE/POB N FT. EUSTIS, VA 23064	JIM COTTON BRANDON LO GIOCO 757-888-0485 (W)/0487(F) blgocio@dot.us.asustinc.com	VA	FT. EUSTIS	CIPP LINING - 28,275LP 6"-3892 8"-16557 10"-1872 12"-2533 15"-2025 18"-1295	CIPP LINING - 28,275LP 6"-3892 8"-16557 10"-1872 12"-2533 15"-2025 18"-1295	COMPLETED 07/18/08 - 10/16/09	\$ 1,089,795.00	\$ 2,407,533.05
ALE #08-21 CIP SAN SWR REHAB	CITY OF FREDERICK 111 AIRPORT DRIVE EAST FREDERICK, MD 21701	KANDI FULLERTON 301-600-1194 (W) MARC STACHOWSKI 301-600-1438/6250FAX mstachowski@cityoffredrick.com	MD	FREDERICK	CIPP - 9,434 LP 8"-5207 12"-2172 18"-919 36"-39 42"-1097	CIPP - 9,434 LP 8"-5207 12"-2172 18"-919 36"-39 42"-1097	COMPLETED 05/01/08 - 12/15/09	\$ 847,945.80	\$ 847,945.80
ALE #08-08 ITB#0770 TAYLOR RUN SWR REHAB	CITY OF ALEXANDRIA 100 NORTH PITT ST, STE 301 ALEXANDRIA, VA 22314	PAUL HUSTON 703-922-4516 X 165 (W) 703-922-4517 (F) PHUSTON@GREELY-HASON.COM	VA	ALEXANDRIA	CIPP - 73,686 LP 8"-1,957 10"-57,379 12"-3,613 15"-1,812 18"-5,750 24"-175	CIPP - 76,3405 LP 8"-5,620 10"-53,193 12"-5,344 15"-7,760 18"-2,896 21"-885 24"-642	COMPLETED 03/31/08 - 05/26/10	\$ 4,589,401.50	\$ 4,720,990.50
ALE #07-80/#448-07 RECONSTRU 18"-60"	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP - INDEFINITE	CIPP - 6,962 21"-518 24"-4310 30"-350 36"-1784	COMPLETED 12/10/07 - 03/16/10	INDEFINITE	\$ 1,352,322.00
ALE#07-61 CONTR#400000682(formerly #R008 920066-41A) SEWER REHAB - CIPP	COUNTY OF FAIRFAX/ROBERT McMath FACILITY 12000 GWNT CTR PKWY, #427/6000 PREDS OAK RD FAIRFAX, VA 22035/BURKE, VA 22015	BOB WHITE 703-239-8422	VA	FAIRFAX	CIPP - 139000LP 8"-111000 10"-12000 12"-7000 15"-4000 18"-5000	CIPP - 2152313LP 6"-33492 8"-1674114 10"-158186 12"-93981 14"-747 15"-47068 16"-1812 18"-38030 20"-6572 21"-11500 22.5"-140 24"-18613 27"-5643 30"-17471 33"-3387 36"-14802 39"-1173 42"-4689 48"-3191 54"-73 60"-448 72"-353	COMPLETED 10/15/07 - 04/30/13	\$ 4,476,200.00	\$ 16,603,446.65
ALE #07-57 SAN SWR MAIN LINING ITB#SA0907	PRINCE WILLIAM CTY SERV AUTH (PWCSA) 4 COUNTY COMPLEX COURT PRINCE WILLIAM, VA 22195-2266	JIM MCCARROLL, I&I SUPV. 703-335-7900 (M) 703-609-0323 (M) Jmccarroll@pwcsa.org	VA	PRINCE WILLIAM CTY	CIPP LINING - 22,350 LP 8"-10100 10"-2250 12"-2250 15"-2250 18"-2250 21"-3250	CIPP LINING - 270,608 LP 8"-23301 10"-19539 12"-48776 15"-2705 18"-4085 21"-2022	COMPLETED 08/31/07 - 04/04/13	\$ 889,290.00	\$ 9,439,579.25
ALE #06-64 #02.06.040260) SEWER REHAB 42" CIPP LINER	ANCHOR CONSTRUCTION CORP 2250 SOUTH DAKOTA AVE, NE WASHINGTON, DC 20018-1622	WILLIAM CUSTEAD 202-269-6694 (W) 202-529-3144 (F)	DC	WASHINGTON	CIPP LINING - 300 42"	CIPP LINING - 300 42"	COMPLETED 11/20/06 - 11/30/06	\$ 128,497.00	\$ 128,497.00
ALE #05-45 SAN SWR REHAB - 54" LINE #04-0260	ANCHOR CONSTRUCTION 2250 S. DAKOTA AVE, NE WASHINGTON, DC 20018	KEVIN CLARK, PRJ MGR 202-437-7153 (M) 202-269-6694 (W) kclark@anchoroconst.com	DC	WASHINGTON	CIPP LINING - 428 24" - 128 54"-300	CIPP LINING - 428 24" - 128 54"-300	COMPLETED 01/04/06 - 09/07/06	\$ 231,245.00	\$ 231,245.00
ALE #03-09 SANITARY IMPRV TO UPPER ADKINS BRANCH	ATLANTIC COAST CONTRACTORS P.O. BOX 483 DENVER, NC 26037	GUY TITTEBROW, ACC 252-937-2180 (W) gtt@mei.com	NC	KINSTON	CIPP LINING - 11,000 8" - 18"	CIPP LINING - 11,000 8" - 18"	COMPLETED 09/03 - 01/04	\$ 626,000.00	\$ 626,000.00
ALE #03-07 UPPER BUFFALO CREEK & ROSEWOOD INTER IMPRV	JOHNSTON COUNTY UTILITIES P.O. BOX 2283 SMITHFIELD, NC 27577	TIM BROOME, P.E. 919-989-5075 (W)	NC	SMITHFIELD	CIPP LINING - 22,500 8" - 30"	CIPP LINING - 22,500 8" - 30"	COMPLETED 11/04	\$ 1,885,000.00	\$ 1,885,000.00
ALE #3495 REPAIR/REPLACE SANITARY SEWERS BASEWIDE	DEPARTMENT OF THE NAVY NAVFC CONTRACTS, POB 43119 MARINE CORPS LOGISTICS BASE ALBANY, GA 31704	LT RACHELS 912-439-5959 X 19	GA	ALBANY	CIPP LINING - 19,000 8"-8,540 12"-2,680 15"-756 18"-4,500 24"-2,524	CIPP LINING - 19,000 8"-8,540 12"-2,680 15"-756 18"-4,500 24"-2,524	COMPLETED 08/00	\$ 964,000.00	\$ 964,000.00
#61895-BR TRIANGLE ROAD AREA SANITARY SEWER	CITY OF NEW BRUNSWICK 78 BAYARD STREET NEW BRUNSWICK, NJ	JAY CORNELL, P.E. CME ENGINEERS 732-727-8000	NJ	NEW BRUNSWICK	CIPP LINING - 8,800 15"-5,600 18"-3,200	CIPP LINING - 8,800 15"-5,600 18"-3,200	COMPLETED 08/01	\$ 1,076,000.00	\$ 1,076,000.00
CS 370445-03	TOWN OF WALLACE 316 EAST MURRAY STREET WALLACE, NC 28166	PAUL PARKER PUBLIC WORKS DIRECTOR 910-283-2812	NC	WALLACE	CIPP LINING - 13,852 8"-9,617 10"-4,235	CIPP LINING - 13,852 8"-9,617 10"-4,235	COMPLETED 04/99	\$ 694,000.00	\$ 694,000.00
15" SEWER LINING	TRI-STATE GROUTING 567 WALTHER ROAD NEWARK, DE 19702	MARK SCHNEIDER 302-286-0701 (W) 302-286-0704 (F) mshark290@verizon.com	MD	ELKTON	15"-570"	15"-570"	COMPLETED 09/02	\$ 40,000.00	\$ 40,000.00



**601 JACK ENDERS BLVD.
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**MIGUEL HERNANDEZ
PARTIAL REFERENCE LIST**

2/21/2018

CONTRACT #	CUSTOMER	CONTACT INFORMATION	ST	LOCATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
#13-23 IDIQ PMS32A12 LITTLE FALLS/ROCK CREEK (E&A)	WSSC 14501 SWITZTER LANE LAUREL, MD 20707	AHMED BAIG - PURCHASING 301-206-8027 aBaig@wsscwater.com	MD	MONTGOMERY CTY	CIPP - ESTIMATED QUANTITIES	CIPP - 282.5 8"	ON-GOING 4/22/13	\$ 7,500,000.00	\$ 834,908.64
#13-22 CONTRACT #4400003896 SAN SWR MAIN CIPP LINING PWCSA 8A-1213 RIDER PO#850089419 FY15 PO#8500141012 FY16 PO#8500193869 PO#8500295171	COUNTY OF FAIRFAX/ROBERT McMATH FACILITY 12000 GVNT CTR PKWY, #427/6000 FRED'S OAK RD FAIRFAX, VA 22035/BURKE, VA 22015	BOB WHITE 703-239-8493 RUSS RUSSELL, ENV SVCS TECH SPEC. 703-239-8493 TOM RUSSELL, DIR LINE MAINT 703-239-8450 JONATHAN OKAFUR 703-303-8097	VA	FAIRFAX	INDEFINITE	CIPP- 544,699LP (EST QTY) 8"-476,685 10"-31,803 12"-24,335 15"-7168 18"-4708	ON-GOING 4/30/13 -	\$ 1,500,000.00	\$ 21,978,192.29
#13-20 FOUR MILE RUN 10 DIAMETER 42"/36" SEWER MAIN PO#203422 HOWARD CO RIDER#711-12 *old #13-201107 (TECH LINER)	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730/6585 (W/F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP INDEFINITE QTY	CIPP - 16,087 18"-597 21"-598 24"-1015 30"-524 33"-806 36"-9298 42"- 3249	COMPLETED 02/19/13 - 02/01/17	\$ 2,000,000.00	\$ 4,528,893.60
#13-17 SEWER LINE REPAIR	EASTON UTILITIES COMMISSION 201 N. WASHINGTON STREET EASTON, MD 21601	KATIE REEDY 410-763-9446 (O) 410-822-0743 (F)	MD	EASTON	CIPP 20,961LP 8"-20337 10"-624	CIPP 20,961LP 8"-20337 10"-624	COMPLETED 3/21/13 - 07/27/13	\$ 866,659.00	\$ 866,659.00
#12-46 SEWER LINING SERVICES PO#611	CITY OF FALLS CHURCH 300 PARK AVE FALLS CHURCH, VA 22046	MATT JACOBI, ENO. ASST. 703-248-5070(W)/703-248-5190(W) 703-248-5214(F) mjacob@fallschurchva.gov	VA	FALLS CHURCH	CIPP 7798LP 6"-227 8"-7361 10"-210	CIPP 7798LP 6"-227 8"-7361 10"-210	COMPLETED 11/05/12 - 03/09/13	\$ 320,107.85	\$ 320,107.85
ALE #11-48 SEWER LINE REPAIR NORTH & SOUTH COLL SYSTEM 8" & 10"	TRI-STATE GROUTING 567 WALTHER RD NEWARK, DE 19702	MARK SCHNEIDER 302-286-0701 (W) 302-286-0704 (F) shark290@verizon.com	MD	EASTON	CIPP - 9,164 LP 8"-8,610 10"-554	CIPP - 15,159 LP 8"-14580 10"-579	COMPLETED 09/22/11 - 02/24/12	\$ 412,249.00	\$ 455,928.00
ALE #11-30 CONTRACT #FMS179A11 IDIC - PAINT BRANCH, LOWER ANACOSTIA & BEAVERDAMN BASINS	WSSC 14501 SWITZTER LANE LAUREL, MD 20707	JASON FLORY 301-206-4908(W) jason.flory@wsscwater.com	MD	PRINCE GEORGE'S & MONTGOMERY COUNTIES	CIPP - IDIQ 46,249.2 LP (AS OF APRIL 2014) 8" = 41350.2 10"=1626 12"=1363 14"/15" = 1538 18"-372	CIPP - IDIQ 55,230.5 LP 8" = 49935.5 10"=2022 12"=1363 14"/15" = 1538 18"-372	ON - GOING 07/24/11	\$ 25,000,000.00	\$23,491,609.88
ALE #11-06** #31-10/#432-07 RECONSTRU 8" - 18" **base on #07-71	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htran@arlingtonva.us	VA	ARLINGTON	CIPP - MISC LP 8" 10" 12" 15" 18"	CIPP - 123,526 LP 8"-109538 10" = 5458 12"- 3902 15"= 4121 18"- 507	COMPLETED 10/19/11 - 04/30/13	\$ 1,500,000.00	\$4,933,866.20
ALE #10-46 S.C. #881 ON CALL TV INSPECTION/CLEANING & CIPP	CITY OF BALTIMORE 1105 ABEL WOLMAN MUNICIPAL BUILDING BALTIMORE, MD 21202	DAVID DRISCOLL 410-396-3671 (O) 410-365-8383 (M) david.driscoll@baltimorecity.gov	MD	BALTIMORE	CIPP SWR - 33,400'/CIPP STORM - 1,750' 8"-10,000 10"-4,000 12"-4,000 15"-3,000/1,000 16"-400' 18"-1,000/250 20"-500/250 21" 500/250 24"=250	CIPP - 18,952-SB/230-SD 8"-13,582 10"-4636 12"-45 15"-652/133 18"-37 24"-0/97	COMPLETED 10/15/10 - 06/04/13	\$ 1,750,125.00	\$ 1,034,254.90
ALE #08-08 ITS#0770 TAYLOR RUN SWR REHAB	CITY OF ALEXANDRIA 100 NORTH PITT ST, STE 301 ALEXANDRIA, VA 22314	PAUL HUSTON 703-922-4516 X 165 (W) 703-922-4517 (F) PHUSTON@GREELY-HASON.COM	VA	ALEXANDRIA	CIPP - 73,686 LP 8"-1,957 10"- 57,379 12"-3,613 15"-4,812 18"-5,750 24"-175	CIPP - 76,340 LP 8"-5,620 10"-53,193 12"-5,344 15"-7,760 18"-2,896 21"-885 24"-642	COMPLETED 03/31/08 - 05/26/10	\$ 4,589,401.50	\$ 4,720,990.50
ALE#07-61 CONTR#440000622(Formerly #RQ08- 930058-41A) SEWER REHAB - CIPP	COUNTY OF FAIRFAX/ROBERT McMATH FACILITY 12000 GVNT CTR PKWY, #427/6000 FRED'S OAK RD FAIRFAX, VA 22035/BURKE, VA 22015	BOB WHITE 703-239-8422	VA	FAIRFAX	CIPP - 139000LP 8"-111000 10"-12000 12"-7000 15"-4000 18"-5000	CIPP - 2152313LP 6"-33492 8"-167414 10"-158186 12"-93981 14"-747 15"-47068 16"-1812 18"-38030 20"-6572 21"-11500 22.5"-140 24"-18613 27"-5643 30"-17471 33"-3387 36"-14802 39"-1173 42"-4689 48"-3191 54"-73 60"-448 72"-353	COMPLETED 10/15/07 - 04/30/13	\$ 4,476,200.00	\$ 16,603,446.65
ALE #07-11 8" LINE PO#052672	CITY OF FREDERICK 111 AIRPORT DRIVE EAST FREDERICK, MD 21701	CHIP CUTTLEY 301-600-1176 (O) 240-409-1814 (M) cuttley@cityoffrederick.com	MD	FREDERICK	CIPP LINING - 413LP 8"	CIPP LINING - 413LP 8"	COMPLETED 2/21/07 - 03/26/07	\$ 19,675.25	\$ 19,675.25
ALE#04-42 SAN SEWER REPAIRS #W91236-04-D-0096	ENGINEERING & ENVIRONMENT, INC. 195 SOUTH ROSEMONT RD, #118 VIROINIA BEACH, VA 23452	SCOTT BRAIO 757-457-0002 (W) 757-457-3636 (F)	VA	FT. MONROE	CIPP LINING - 8,910.7 6"-1,379 8"-5,004.8 10"-1,127.6 12"-1,399.3	CIPP LINING - 8,910.7 6"-1,379 8"-5,004.8 10"-1,127.6 12"-1,399.3	COMPLETED 2/10/05 - 4/18/06	\$ 505,999.20	\$ 505,999.20
ALE #03-11 SAN SWR RELINING PROJ. PHASE II	TOWN OF LEESBURG 25 WEST MARKET STREET LEESBURG, VA 20178	RICK SCHOOLEY 703-737-7075 (W) 703-737-7083 (F)	VA	LEESBURG	P/F 8"	P/F 8"	COMPLETED 07/03 - 08/03		
ALE #OAKLYN #340287-01 IMPROVEMENTS TO OAKLYN SAN SWR SYSTEM	P & D CONSTRUCTION, INC. 1921 SHERMAN AVENUE VINELAND, NJ 08361	BOB FERNA, JR. 856-691-6158 (W) 856-691-0310 (F)	NJ	OAKLYN	CIPP LINING - 2,010 8"-484 10"-1,526	CIPP LINING - 2,010 8"-484 10"-1,526	COMPLETED 11/05/01 - 03/29/02	\$ 75,412.00	\$ 75,412.00



601 Jack Enders BLVD
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Robert Christian

Position

- **Superintendent/Crew Member**– Cured-In-Place (CIPP) Lining - October 12, 2004

Professional Training

- Premier Pipe Certified Installer
- Flagger – VA
- HAZCOM
- First Aid/CPR
- Confined Space Entry
- Defensive Driving
- Responsible Land Disturber

Experience

- Installed various CIPP lines ranging from 8" to 72" – **See attached AM-LINER EAST, INC., Premier Pipe References – Robert Christian** for project information.

Responsibilities

- Directly responsible for the daily execution of the field work along with the collection of all field related data.
- Managing crew through the completion of numerous CIPP lining rehabilitation projects
- Responsible for supervising flow diversion operations, such as bypass pumping
- Responsible for on-going training of crew members
- Supervising subcontractors to maximize output and quality of work
- Compile daily, weekly reports of field progress and submit for compliance

Keep your city moving.

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Wallace, NC | Bear, DE

Miguel Hernandez

Position

- **Superintendent/Crew Member** – Cured-In-Place (CIPP) Lining - May 1997 - Present

Professional Training

- Premier Pipe Certified Installer
- Flagger – VA
- HAZCOM
- First Aid/CPR
- Confined Space Entry
- Defensive Driving

Experience

- Installed various CIPP lines ranging from 8" to 72" – **See attached AM-LINER EAST, INC., Premier Pipe References – Miguel Hernandez** for project information.

Responsibilities

- Directly responsible for the daily execution of the field work along with the collection of all field related data.
- Managing crew through the completion of numerous CIPP lining rehabilitation projects
- Supervising flow diversion operations, such as bypass pumping
- Responsible for on-going training of crew members
- Supervising subcontractors to maximize output and quality of work
- Compile daily, weekly reports of field progress and submit for compliance

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**MIGUEL HIERNADEZ
 PARTIAL REFERENCE LIST**

2/21/2018

CONTRACT #	CUSTOMER	CONTACT INFORMATION	ST	LOCATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
#16-10 EMERSON PUMP Lining SOPER LANE	MIDAS UTILITIES, INC. 9200 EIGHTH WORTH DRIVE CAPITAL HEIGHTS, MD 20743	MATT MOSER matt.moser@midascompaunties.com	MD	CAPITAL HEIGHTS	CIPP - 400LF 24"	CIPP 400LF 24"	COMPLETED 02/16/16 - 03/05/16	\$ 36,000.00	\$ 36,720.00
#16-01 CARDEROCK- NAVAL SURFACE WARFARE CENTER	AMERICAN COMBUSTION INDUSTRIES 7100 HOLLADAY TYLER ROAD, SUITE 233 GLENN DALE, MD 20769	JAMIE LATHROUM 301-779-4600 (O) 301-779-4600 (F) 240-376-3199 E jlathroum@americaindustries.com	MD	CARDEROCK	CIPP - 250LF 8"	CIPP - 250 LF 8"	COMPLETED 01/04/16 - 02/29/16	\$ 18,000.00	\$ 18,000.00
#15-27 EAST SIDE WASTEWATER SYSTEM CIPP - FUSION/SHARP/PI9 SUB CONTRACT 718836 OS	TERRAFIR UTILITY SERVICES, INC. 533 ANTON BLVD., SUITE 350 COSTA MESA, CA 92626	STEPHANIE ALZATE 301-735-4103 (F) 202-309-6058 (M) stephanie_alzate@usaonline.com	MD	ANDREWS AFB	CIPP 7650LF 6"-1090 8"-5570 10"-1200	CIPP 7650 LF 6" - 889 8" - 4963.5 10" - 394	COMPLETED 6/09/15 - 06/01/16	\$ 581,634.75	\$ 478,272.48
#15-08 CONTR #140648XO JOB ORDER#231-201-8877-109	BALTIMORE COUNTY 111 WEST CHESAPEAKE AVE, RM 300B TOWSON, MD 21284-4604	GLEN KELLER 410-887-9781(O) gkeller@balbisonline.gov	MD	BALTIMORE COUNTY	CIPP 3690LF 8"-36368 10"-5410 12"-4882 15"-230	CIPP - 35,961 LF 8"-29,490 10"-5,346 12"-895 15"-230	ON-GOING 2/6/15	\$ 2,584,737.00	\$ 2,444,554.66
#14-10 BANDWAGON UNDRERD CIPP SEWER BELIAS PO#160375 & 160376	NEW CASTLE COUNTY 187A OLD CHURCHMANS ROAD NEW CASTLE, DE 19720	JOHN WOLDS CONTRACTS OFFICER 302-395-5802 (F)	DE	NEW CASTLE	CIPP 76,539 8"-69,486 10"-4992 12"-2761 PO#160375 8"-27763 10"-3055 12"-1353 PO#160376 8"-41763 10"-1237 12"-1468	CIPP 79,004 LF 10"-4441 12"-4056 PO#160375-39,233 8"-3384 10"-3193 12"-77 PO#160376-39,071 8"-3444 10"-1248 12"-3979	ON-GOING 2/10/14	\$ 4,938,112.45	\$ 4,645,511.45
#13-71 PWCSA RIDER - SA 1213 CONTRACT # 1122-13 CIPP PO# 150543-00/PO#160821-00	CITY OF FALLS CHURCH 300 PARK AVENUE FALLS CHURCH, VA 22046-3332	ROBERT OORF 703-248-5013 (O) 571-238-5157 (M)	VA	FALLS CHURCH	CIPP P.O. CONTRACT	CIPP 50,111 LF 8"-48,654 10"-2,103 12"-1,295 15"-59	ON-GOING 11/27/13	\$ 1,374,357.50	\$ 1,871,452.90
#13-67 WSSC C1835A12 IDIQ LOWER ANACOSTIA/ BEAVERDAM/ MONTA WAMIN (BSA)	ANGLER ENVIRONMENTAL 5387 TELEPHONE ROAD WARRENTON, VA 20187	WILL WEAVER 410-672-4328 (O) 410-672-4328 (F) Mweaver@anglenvironmental.com	MD	PRINCE GEORGES CO.	CIPP - IDIQ - 6' - 48"	CIPP - IDIQ - 4,837.3 LF 8"-1,711 10"-532 12"-1,019 30 15"-7090 24"-795 T.O.2 137.1 LF T.O.3 3,500.3 LF	ON-GOING 11/5/13 -	UNKNOWN WFG PO \$	483,558.45
#13-56 PH 1 SWR MAIN RELINING AND MI CLEANING #4-2013	CARNEY'S POINT SEWERAGE AUTHORITY 303 HOUNDING HIGHWAY CARNEY'S POINT, NJ 08069	BENJAMIN D'AMARCO, PE PROFESSIONAL CONSULTING INC. 973-683-0044 973-683-0077	NJ	CARNEY'S POINT	CIPP 10750LF 6"-2600 8"-3750 12"-600 15"-3800	CIPP 9371LF 6"-1945 8"-3719 12"-711 15"-2996	COMPLETED 10/30/13 - 01/17/16	\$ 677,617.00	\$ 594,258.50
#13-64 WSSC PMS32A12 IDIQ LITTLE FALLS/ROCK/RUN BASINS (BAS)	ANGLER ENVIRONMENTAL 5387 TELEPHONE ROAD WARRENTON, VA 20187	WILL WEAVER 410-672-4328 (O) 410-672-4328 (F) Mweaver@anglenvironmental.com	MD	MONTGOMERY CTY	CIPP - IDIQ 6' - 48"	CIPP 3,942.76 LF 8"-161.11 12"-1640.05 14"-215.10 24"-495 T.O.2 131.5 LF 8"-695.3 10"-90.2 12"-346	ON-GOING 11/5/13 -	UNKNOWN WFG PO \$	471,566.17
#13-48 IDIQ PMS337A11 PISCATAWAY BASIN (BSA)	WSSC 14501 SWERTZER LANE LAUREL, MD 20707	AHMED BAIG - PURCHASING 301-206-8027 abaig@wsscwater.com	MD	PRINCE GEORGES CO.	CIPP - 17,522 LF (BSO ON T.O.2 ISSUED) 10"-571 12"-6417 14"/15"-615 15"/18"-1,034	CIPP - 18,315.6 LF 8"-7,603.4 10"-553 12"-5,297 14"/15"-591.5 16"/18"-1987 20"/21"-2483.7	ON GOING 7/25/13	\$ 17,500,000.00	\$ 9,127,091.81
#13-47 AGREEMENT #735-13 8" - 18" SWR MAINS PWCSA RIDER IP# SA 1213	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	THA LU/HUNG TRAN 703-546-0777 (O) Tlu@arlingtonva.us Htrn@arlingtonva.us	VA	ARLINGTON	(NO VALUES GIVEN AT CONTRACT) CIPP 8' 18"	CIPP - 333,600 LF 8"-301,310 10"-13,350 12"-13,864 15"-4,001 18"-1,075	ON-GOING 7/24/13 (MIL - 04/04/18)	\$ 1,850,000.00	\$ 10,707,802.34
#13-46 2013 SAN SWR REHB PROJECT	TOWN OF MOORESVILLE P.O. BOX 878 MOORESVILLE, NC 28115	ALAN SAINI, PE 704-799-4064	NC	MOORESVILLE	CIPP 10825LF 8"-6400 10"-725 12"-1450 18"-2250	CIPP 10825LF 8"-6400 10"-725 12"-1450 18"-2250	COMPLETED 7/12/13 - 02/05/14	\$ 622,645.10	\$ 622,645.10
#13-34 HOWARD CO. RIDER IP# NO. 2012-25 OCBC	CITY OF FREDERICK 111 HUBBARD BLVD #67 FREDERICK, MD 21701	KANDI PULLERTON PURCHASING MANAGER 301-500-1194(W) Kpullerton@cityof frederick.com	MD	FREDERICK	CIPP 8', 12' and 21"	CIPP 11,570LF 18"-92,211-429	COMPLETED 5/23/13 - 10/17/13	\$ 596,161.25	\$ 599,679.05
#13-29 IDIQ C1835A12 LOWER ANACOSTIA BEAVERDAM/MONTA WAMIN BSA	WSSC 14501 SWERTZER LANE LAUREL, MD 20707	JASON FLORY 301-206-4308(W) jason.flory@wsscwater.com	MD	PG & MONT. COUNTIES	CIPP IDIQ, 8,304 T.O.2 - 4,740 LF 8"-1222 10"-1171 12"-1042 24"-1305	CIPP IDIQ - 4,263.5 LF T.O.2 8"-963.5 10"-1149 12"-830 24"-1311	ON-GOING 05/06/13 -	\$ 11,250,000.00	\$ 2,858,893.40
#13-26 ANGLER ENVIRONMENTAL/ WSSC C1821A11 SUCO CREEK	ANGLER ENVIRONMENTAL 1434 OPERATION RD/5587 TELEPHONE RD ODDENTON, MD 21113/WARRENTON, VA 20187	WILL WEAVER 410-672-4328/703-353-4844 (F) 410-672-4328/703-393-2934 (F)	MD	PG & MONT. COUNTIES	CIPP - IDIQ (APPROX. 63,401 LF 6"-2 8"-24160 10"-3315 12"-1835 15"-8640 18"-8830 21"-1710 24"-4185 27"-2 30"-7630 33"-1090 36"-425 42"-1605 48"-2	CIPP - 13,244.5 LF 6"-0 8"-5185.5 10"-961 12"-1299 14"-1112 18"-682 30"-2728 33"-1120 42"-157	ON-GOING 4/26/13 -	\$ 760,876.70	\$ 1,668,411.46

EXHIBIT I-3 (to accompany the bid)

Contract References for Superintendent and Foremen

Contract References

SUPERINTENDENT REFERENCE (to accompany the bid)

CONTRACT#

1. Project identification, location, and date placed in-service.

ALE #14-47
Chantilly, VA
Completed 05/31/17

2. Job Title: **AVION BUSINESS PARK**

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: **BK&A, Inc.**

Address: **2220 46th Street, NW, Washington, DC 20007**

Telephone/Email: **202-342-1933/bkainc@att.net**

Point of Contact: **Basim Kattan**

Title: **Executive Vice President**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP 3,795 LF
15"=602 30"=398
18"=101 33"=489
21"=373 42"=400
24"=632 53"=394
27"=89 83"=317

SUPERINTENDENT REFERENCE
CONTRACT#2

1. Project identification, location, and date placed in-service.

ALE #13-47: Agreement #735-13
Arlington County, VA
On-going since July 2013 extended with 3 of 4 renewals to date

2. Job Title: 8" – 18" Sewer Mains

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: **Arlington County**

Address: **2100 Clarendon Blvd. #500, Arlington, VA 22201**

Telephone/Email: **703-228-7730/Htran@arlingtonva.us**

Point of Contact: **Hung Tran**

Title: **Eng. Tech. III**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 333,600 LF (to date)
8" – 301,310
10" – 13,350
12" – 13,864
15" – 4,001
18" – 1,075

SUPERINTENDENT REFERENCE

CONTRACT#3

1. Project identification, location, and date placed in-service.

ALE #13-22: Contract #6600003896
Fairfax County, VA
On-going since July of 2013 extended with 4 of 4 extensions

2. Job Title **Sanitary Sewer Main CIPP Lining**

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: Fairfax County
Address: 12000 Government Center Parkway, #427, Fairfax, VA 22035
Telephone/Email: 703-239-8493/Russell.Russell@fairfaxcounty.gov
Point of Contact: Russell Russell
Title: Env. Svcs. Tech Specialist

Contractor, if any, on whose behalf applicant performed the work

Contractor: N/A
Address: Enter Address
Telephone/Email: Enter phone and email address
Point of Contact: Enter Name
Title: Enter Title

4. Description of specific work performed (including type, size, and length).

CIPP – 544,699 LF (to date)
8" – 476,685
10" – 31,803
12" – 24,335
15" – 7,168
18" – 4,708

SUPERINTENDENT REFERENCE
CONTRACT#4

1. Project identification, location, and date placed in-service.

ALE #13-20
Arlington County, VA
Completed 02/01/17

2. Job Title: Four Mile Run – Large Diameter Sewer Main

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: **Arlington County**

Address: **2100 Clarendon Blvd. #500, Arlington, VA 22201**

Telephone/Email: **703-228-7730/Htran@arlingtonva.us**

Point of Contact: **Hung Tran**

Title: **Eng. Tech. III**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 16,087 LF
18" – 597 33" – 806
21" – 598 36" – 9,298
24" – 1,015 42" – 3,249
30" – 524

CREW #1 FOREMAN REFERENCE
CONTRACT#1

1. Project identification, location, and date placed in-service.

ALE #15-35: Contract #4400006118
Fairfax County, VA
On-going since July 2015 extended with 2 extension to date

2. Job Title: Sewer Lines & MH Rehab, Colonial Avenue

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: **County of Fairfax**

Address: **12000 Government Center Parkway, #427, Fairfax, VA 22035**

Telephone/Email: **703-239-8493/Russell.Russell@fairfaxcounty.gov**

Point of Contact: **Russell Russell**

Title: **Env. Svcs. Tech Specialist**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 5,761 LF (to date)
36" – 4,189 LF
42" – 1,572 LF

CREW #1 FOREMAN REFERENCE
CONTRACT#2

1. Project identification, location, and date placed in-service.

ALE #13-47: Agreement #735-13
Arlington County, VA
On-going since July 2013 extended with 3 of 4 renewals to date

2. Job Title: 8" – 18" Sewer Mains

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed .

Owner : **Arlington County**

Address: **2100 Clarendon Blvd. #500, Arlington, VA 22201**

Telephone/Email: **703-228-7730/Htran@arlingtonva.us**

Point of Contact: **Hung Tran**

Title: **Eng. Tech. III**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 333,600 LF (to date)
8" – 301,310
10" – 13,350
12" – 13,864
15" – 4,001
18" – 1,075

CREW #1 FOREMAN REFERENCE

CONTRACT#3

1. Project identification, location, and date placed in-service.

ALE #13-22: Contract #6600003896
Fairfax County, VA
On-going since July of 2013 extended with 4 of 4 extensions

2. Job Title **Sanitary Sewer Main CIPP Lining**

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: Fairfax County

Address: 12000 Government Center Parkway, #427, Fairfax, VA 22035

Telephone/Email: 703-239-8493/Russell.Russell@fairfaxcounty.gov

Point of Contact: Russell Russell

Title: Env. Svcs. Tech Specialist

Contractor, if any, on whose behalf applicant performed the work

Contractor: N/A

Address: Enter Address

Telephone/Email: Enter phone and email address

Point of Contact: Enter Name

Title: Enter Title

4. Description of specific work performed (including type, size, and length).

CIPP – 544,699 LF (to date)
8" – 476,685
10" – 31,803
12" – 24,335
15" – 7,168
18" – 4,708

SUPERINTENDENT REFERENCE
CONTRACT#S

1. Project identification, location, and date placed in-service.

ALE #13-12: SA#1213
Prince William County, VA
On-going since 02/29/13 extended with 4 of 4 options

2. Job Title: Sanitary Sewer Main Lining

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: **PWCSA**

Address: **4 County Complex Court, Prince William, VA 22195**

Telephone/Email: **703-335-7900/Jmccarroll@pwcsa.org**

Point of Contact: **Jim McCarroll**

Title: **Project Manager Operations and Maintenance**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 155,215 LF (to date)
8" – 143,902
10" – 7,822
12" – 781
15" – 1,408
18" – 1,302

CREW #1 FOREMAN REFERENCE
CONTRACT#1

1. Project identification, location, and date placed in-service.

ALE #15-35: Contract #4400006118
Fairfax County, VA
On-going since July 2015 extended with 2 extension to date

2. Job Title: Sewer Lines & MH Rehab, Colonial Avenue

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: **County of Fairfax**

Address: **12000 Government Center Parkway, #427, Fairfax, VA 22035**

Telephone/Email: **703-239-8493/Russell.Russell@fairfaxcounty.gov**

Point of Contact: **Russell Russell**

Title: **Env. Svcs. Tech Specialist**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 5,761 LF (to date)
36" – 4,189 LF
42" – 1,572 LF

CREW #1 FOREMAN REFERENCE
CONTRACT#2

1. Project identification, location, and date placed in-service.

ALE #13-47: Agreement #735-13
Arlington County, VA
On-going since July 2013 extended with 3 of 4 renewals to date

2. Job Title: 8" – 18" Sewer Mains

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed .

Owner : **Arlington County**

Address: **2100 Clarendon Blvd. #500, Arlington, VA 22201**

Telephone/Email: **703-228-7730/Htran@arlingtonva.us**

Point of Contact: **Hung Tran**

Title: **Eng. Tech. III**

Contractor, if any, on whose behalf applicant performed the work

Contractor: **N/A**

Address: **Enter Address**

Telephone/Email: **Enter phone and email address**

Point of Contact: **Enter Name**

Title: **Enter Title**

4. Description of specific work performed (including type, size, and length).

CIPP – 333,600 LF (to date)
8" – 301,310
10" – 13,350
12" – 13,864
15" – 4,001
18" – 1,075

CREW #1 FOREMAN REFERENCE

CONTRACT#3

1. Project identification, location, and date placed in-service.

ALE #13-22: Contract #6600003896
Fairfax County, VA
On-going since July of 2013 extended with 4 of 4 extensions

2. Job Title **Sanitary Sewer Main CIPP Lining**

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: Fairfax County

Address: 12000 Government Center Parkway, #427, Fairfax, VA 22035

Telephone/Email: 703-239-8493/Russell.Russell@fairfaxcounty.gov

Point of Contact: Russell Russell

Title: Env. Svcs. Tech Specialist

Contractor, if any, on whose behalf applicant performed the work

Contractor: N/A

Address: Enter Address

Telephone/Email: Enter phone and email address

Point of Contact: Enter Name

Title: Enter Title

4. Description of specific work performed (including type, size, and length).

CIPP – 544,699 LF (to date)
8" – 476,685
10" – 31,803
12" – 24,335
15" – 7,168
18" – 4,708

CREW #2 FOREMAN REFERENCE
CONTRACT#4

1. Project identification, location, and date placed in-service.

ALE #13-22: Contract #6600003896
Fairfax County, VA
On-going since July of 2013 extended with 4 of 4 extensions

2. Job Title: Sanitary Sewer Main CIPP Lining

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed.

Owner: Fairfax County
Address: 12000 Government Center Parkway, #427, Fairfax, VA 22035
Telephone/Email: 703-239-8493/Russell.Russell@fairfaxcounty.gov
Point of Contact: Russell Russell
Title: Env. Svcs. Tech Specialist

Contractor, if any, on whose behalf applicant performed the work

Contractor: N/A
Address: Enter Address
Telephone/Email: Enter phone and email address
Point of Contact: Enter Name
Title: Enter Title

4. Description of specific work performed (including type, size, and length).

CIPP – 544,699 LF (to date)
8" – 476,685
10" – 31,803
12" – 24,335
15" – 7,168
18" – 4,708

CREW #2 FOREMAN REFERENCE
CONTRACT#S

1. Project identification, location, and date placed in-service.

ALE #13-20 Arlington County, VA Completed 02/01/17
--

2. Job Title:

Four Mile Run – Large Diameter Sewer Main

3. Names, titles, addresses, and telephone numbers of the owner and the contractor, if any, on whose behalf the work was performed .

Owner: Arlington County
Address: 2100 Clarendon Blvd. #500, Arlington, VA 22201
Telephone/Email: 703-228-7730/Htran@arlingtonva.us
Point of Contact: Hung Tran
Title: Eng. Tech. III

Contractor, if any, on whose behalf applicant performed the work

Contractor: N/A
Address: Enter Address
Telephone/Email: Enter phone and email address
Point of Contact: Enter Name
Title: Enter Title

4. Description of specific work performed (including type, size, and length).

CIPP – 16,087 LF (to date)
18" – 597 33" – 806
21" – 598 36" – 9,298
24" – 1,015 42" – 3,249
30" – 524

EXHIBIT J (to accompany the bid)

Bidder's References

BIDDERS SHALL PROVIDE REFERENCES ON THIS FORM

1.

Firm Name: Arlington County Contact: Hung Tran Title: Eng. Tech III Mailing Address: 2100 Clarendon Blvd. #500, Arlington, VA 22201 Phone/Email: 703-228-7730/Htran@arlingtonva.us
--

2.

Firm Name: County of Fairfax Contact: Russ Russell Title: Env. Svcs. Tech. Specialist Mailing Address: 12000 Gvn't Ctr Pkwy, #427, Fairfax, VA 22035 Phone/Email: 703-239-8493/Russell.Russell@fairfaxcounty.gov
--

3.

Firm Name: City of Falls Church Contact: Robert Goff Title: Supt. Of Operations Mailing Address: 300 Park Avenue, Falls Church, VA 22046 Phone/Email: 703-248-5013/rgoff@fallschurchva.gov
--

4.

Firm Name: City of Frederick Contact: Chip Stitley Title: Wastewater Supt. Mailing Address: 111 Airport Road, Frederick, MD 21701 Phone/Email: 301-600-1176/cstitley@cityoffrederick.com
--

5.

Firm Name: Prince William County Service Authority Contact: Jim Mc Carroll Title: Project Manager Operations and Maintenance Mailing Address: 4 County Complex Court, Prince William Cty, VA 22195 Phone/Email: 703-335-7979/Jmccarroll@pwcsa.org

6.

Firm Name: St. Mary's County Metropolitan Commission Contact: Ed Hogan Title: Superintendent of Wastewater Collection Division Mailing Address: 23121 Camden Way, California, MD 20619 Phone/Email: 301-737-7400/ehogan@metcom.org
--

EXHIBIT K
Addenda Acknowledgment
(to be received on or prior to bid opening date and time)

The undersigned Bidder acknowledges receipt of the following Addenda, and any required adjustments have been included in the bid sum:

Addendum No #1, dated 2.14.2018

Addendum No Enter #, dated Enter Date

Addendum No. Enter #, dated Enter Date

Addendum No. Enter #, dated Enter Date

Addendum No. Enter #, dated Enter Date

CONTRACTOR  (sign)

CONTRACTOR: Mel M. Willett, Vice President (print)

FIRM NAME: AM-LINER EAST, INC.

ADDRESS: 601 Jack Enders Blvd.,

ADDRESS: Berryville, VA 22611

EXHIBIT L
Virginia Contractor's License

Contractor to include a copy of their current Virginia Contractor's License with their Bid Submission.

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
08-31-2019

NUMBER
2705040998

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H



AM-LINER EAST INC
601 JACK ENDERS BLVD
BERRYVILLE, VA 22611



Jerry W. DeBorja
107 W. Delaware Street

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

CLASSIFICATIONS H/H
NUMBER: 2705040998 EXPIRES: 08-31-2019

AM-LINER EAST INC
601 JACK ENDERS BLVD
BERRYVILLE, VA 22611



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (02/2017)

EXHIBIT M

Certificate of Insurance

ATTACH CERTIFICATE OF INSURANCE



ADDITIONAL REMARKS SCHEDULE

AGENCY Danaher-Skewes & Associates		NAMED INSURED Am-Liner East, Inc. 601 Jack Enders Boulevard Berryville, VA 22611	
POLICY NUMBER SEE PAGE 1			
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
 FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Description of Operations/Locations/Vehicles:
 Contract Period. The deductible for Property Damage on the Commercial General Liability policy is \$10,000 per occurrence (no deductible for Bodily Injury). The deductibe for Pollution Liability is \$10,000 per claim.

**BLANKET ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS --
WITH PRODUCTS-COMPLETED OPERATIONS COVERAGE**

It is understood and agreed that this endorsement amends the **COMMERCIAL GENERAL LIABILITY COVERAGE PART** as follows:

SCHEDULE (OPTIONAL)

Name of Additional Insured Persons Or Organizations
(As required by "written contract" per Paragraph A. below.)

Locations of Covered Operations
(As per the "written contract," provided the location is within the "coverage territory" of this Coverage Part.)

A. Section II - Who Is An Insured is amended to include as an additional insured:

1. Any person or organization whom you are required by "written contract" to add as an additional insured on this Coverage Part; and
2. The particular person or organization, if any, scheduled above.

B. The insurance provided to the additional insured is limited as follows:

1. The person or organization is an additional insured only with respect to liability for "bodily injury," "property damage," or "personal and advertising injury" caused in whole or in part by:
 - a. Your acts or omissions, or the acts or omissions of those acting on your behalf, in the performance of your ongoing operations specified in the "written contract"; or
 - b. "Your work" that is specified in the "written contract" but only for "bodily injury" or "property damage" included in the "products-completed operations hazard," and only if:
 - (1) The "written contract" requires you to provide the additional insured such coverage; and
 - (2) This Coverage Part provides such coverage.
2. If the "written contract" specifically requires you to provide additional insurance coverage via the 10/01 edition of CG2010 (aka CG 20 10 10 01), or via the 10/01 edition of CG2037 (aka CG 20 37 10 01), or via the 11/85 edition of CG2010 (aka CG 20 10 11 85), then in paragraph B.1. above, the words 'caused in whole or in part by' are replaced by the words 'arising out of'.
3. We will not provide the additional insured any broader coverage or any higher limit of insurance than:
 - a. The maximum permitted by law;
 - b. That required by the "written contract";
 - c. That described in B.1. above; or
 - d. That afforded to you under this policy,
 whichever is less.



4. Notwithstanding anything to the contrary in Condition 4. **Other Insurance (Section IV)**, this insurance is excess of all other insurance available to the additional Insured whether on a primary, excess, contingent or any other basis. But if required by the "written contract" to be primary and non-contributory, this insurance will be primary and non-contributory relative to insurance on which the additional insured is a Named Insured.
5. The insurance provided to the additional insured does not apply to "bodily injury," "property damage," or "personal and advertising injury" arising out of:
 - a. The rendering of, or the failure to render, any professional architectural, engineering, or surveying services, including:
 - (1) The preparing, approving, or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and
 - (2) Supervisory, inspection, architectural or engineering activities; or
 - b. Any premises or work for which the additional insured is specifically listed as an additional insured on another endorsement attached to this Coverage Part.

C. SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS is amended as follows:

1. The **Duties In The Event of Occurrence, Offense, Claim or Suit** condition is amended to add the following additional conditions applicable to the additional insured:

An additional insured under this endorsement will as soon as practicable:

- (1) Give us written notice of an "occurrence" or an offense which may result in a claim or "suit" under this insurance, and of any claim or "suit" that does result;
- (2) Except as provided in Paragraph B.4. of this endorsement, agree to make available any other insurance the additional insured has for a loss we cover under this Coverage Part;
- (3) Send us copies of all legal papers received, and otherwise cooperate with us in the investigation, defense, or settlement of the claim or "suit"; and
- (4) Tender the defense and indemnity of any claim or "suit" to any other insurer or self insurer whose policy or program applies to a loss we cover under this Coverage Part. But if the "written contract" requires this insurance to be primary and non-contributory, this provision (4) does not apply to insurance on which the additional insured is a Named Insured.

We have no duty to defend or indemnify an additional insured under this endorsement until we receive from the additional insured written notice of a claim or "suit."

- D. Only for the purpose of the insurance provided by this endorsement, **SECTION V – DEFINITIONS** is amended to add the following definition:

"Written contract" means a written contract or written agreement that requires you to make a person or organization an additional insured on this Coverage Part, provided the contract or agreement:

1. Is currently in effect or becomes effective during the term of this policy; and
2. Was executed prior to:
 - a. The "bodily injury" or "property damage"; or
 - b. The offense that caused the "personal and advertising injury,"for which the additional insured seeks coverage under this Coverage Part.

All other terms and conditions of the Policy remain unchanged.

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GENERAL CONDITIONS

ARTICLE 1	DEFINITIONS
ARTICLE 2	CONTRACTOR'S RESPONSIBILITY
ARTICLE 3	THE CONTRACT
ARTICLE 4	CONFORMANCE WITH CONTRACT DOCUMENTS
ARTICLE 5	ROYALTIES AND PATENTS
ARTICLE 6	PROTECTION OF PERSONS AND PROPERTY
ARTICLE 7	WORK AUTHORIZATION AND STATUS REPORTS
ARTICLE 8	CHANGES IN THE WORK; RECORDS
ARTICLE 9	TIME PROVISIONS
ARTICLE 10	TERMINATION
ARTICLE 11	PAYMENT
ARTICLE 12	INSURANCE
ARTICLE 13	CONTRACT SECURITY
ARTICLE 14	SUBCONTRACTS AND ASSIGNMENTS
ARTICLE 15	INDEMNIFICATION AND HOLD HARMLESS
ARTICLE 16	POWERS OF OWNER'S REPRESENTATIVES
ARTICLE 17	BOUNDARIES
ARTICLE 18	CORRECTION PERIOD
ARTICLE 19	APPLICABLE LAW
ARTICLE 20	NON-DISCRIMINATION
ARTICLE 21	CONTRACTOR'S EMPLOYEES AND DRUG FREE WORKPLACE
ARTICLE 22	FREIGHT CLAIMS
ARTICLE 23	TAX EXEMPTION
ARTICLE 24	DIFFERING SITE CONDITIONS AND HAZARDOUS MATERIALS
ARTICLE 25	TRAINING, OPERATION AND MAINTENANCE OF EQUIPMENT
ARTICLE 26	CLAIM AND RESOLUTION OF DISPUTES
ARTICLE 27	NOT USED
ARTICLE 28	NOT USED
ARTICLE 29	STOP-WORK/SUSPENSION OF WORK
ARTICLE 30	CONTRACTOR MUST BE AUTHORIZED TO TRANSACT BUSINESS IN THE COMMONWEALTH
ARTICLE 31	OTHER WORK AT THE SITE
ARTICLE 32	TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

ARTICLE 1 – DEFINITIONS

A. Definitions: The following words and terms, or pronouns used in their stead, shall, wherever they appear in these Contract Documents (if at all), be construed as follows, unless a different meaning is clear from the context:

"ADDENDUM" or "ADDENDA" shall mean additional contract provisions issued in writing by the Owner prior to the due date for the submission of bids.

"AWARD LETTER" shall mean a letter issued by Owner to the Contractor, providing notice of the award of the Contract.

"BID" shall mean the offer of a Bidder to provide goods and/or services in accordance with all terms, conditions and specifications indicated in a solicitation. The word "Bid" is synonymous with the word "Proposal" and the two terms are used interchangeably in these Contract Documents.

"BID DOCUMENT" shall mean the bidding requirements, the proposed Contract Documents, and all Addenda.

"BIDDER" shall mean the corporation, limited liability company, partnership or other entity which submits a Bid to Owner for performance of the Work.

"CHANGE ORDER" shall mean a contractual modification recommended by the Engineer and signed by the Engineer, the Contractor and the Owner which orders any combination of an addition to, deletion or revision of the Work, an adjustment to the Contract Price or an adjustment to the Contract Times.

"CHANGE PROPOSAL" shall mean a request by the Contractor for any combination of an addition to, deletion or revision of the Work, an adjustment to the Contract Price or an adjustment to the Contract Times. In order to the Owner to consider a Change Proposal, the Contractor shall include sufficient documentation of the Work to be added or deleted, the reasons for the change of the Contract Price or Contract Times and any other information required by the Owner to consider the Change Proposal. The Contractor shall not be entitled to receive any compensation for any Work included in a Change Proposal unless such Work is included in a properly approved Change Order or Work Change Directive.

"CONTRACT" or "CONTRACT DOCUMENTS" shall mean each and all of the various parts of the Contract referred to in Article 3.A.1 of these General Conditions. Such terms shall be used interchangeably in these Contract Documents.

"CONTRACT ADMINISTRATOR" shall mean the Individual employed by Owner to act as such and designated to observe the performance of the Work of the Contractor and to consult with and advise Owner during construction, acting directly or through duly authorized representatives. Owner specifically reserves the right (but is not required) to designate one or some group of its employees as the "Contract Administrator" for this Project.

"CONTRACT DRAWINGS" or "DRAWINGS" shall mean only those drawings specifically referred to as such in the Contract Documents.

"CONTRACT ITEM" or "ITEM" shall mean a component of the Work required or described in the Contract Documents.

"CONTRACT PRICE" shall mean the amount specified in each Work Order and may be adjusted from time to time in accordance with the Contract Documents.

"CONTRACT TIMES" shall mean the total number of days specified for completion of the Work, as such period may be adjusted from time to time in accordance with the Contract Documents.

"CONTRACTOR" shall mean the corporation, limited liability company, partnership or other entity which contracts with Owner to perform the Work.

"DAY" shall mean calendar day.

"DEFECTIVE" shall mean that the Work is unsatisfactory, faulty, or deficient, in that it does not conform to the requirements of the Contract Documents, or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to the determination of final completion of the Work (unless responsibility for the protection thereof shall have been assumed by Owner following the Date of Substantial Completion).

"ENGINEER" shall mean the Architect or Engineers employed by Owner to act as such and designated to observe the performance of the Work of the Contractor and to consult with and advise Owner during construction, acting directly or through duly authorized representatives. The terms "Architect" and "Engineer" are used interchangeably in these Contract Documents. Owner specifically reserves the right (but is not required) to designate one or some group of its employees as the "Engineer" or "Architect" for this Project.

"EXTRA WORK" shall mean work (other than that required either explicitly or implicitly by the Contract in its original form) which is authorized by Change Order or Work Change Directive.

"FIELD ORDER" shall mean a written order issued by Project Representative, in consultation with the Engineer where applicable, which requires minor changes in the Work but does not change the Contract Price, the Contract Times or quality or performance of the Work product. Any Field Order that changes the appearance of the Work must be approved by the Owner.

"FINAL COMPLETION" shall mean the point at which all of the Work has been completed in accordance with the requirements of the Contract Documents and final cleaning has been performed, all as determined and certified in writing by the Project Representative.

"FURNISH" and "PROVIDE" shall mean to supply and equip in accordance with the requirements of the Contract Documents. Unless otherwise expressly specified, any item that is to be furnished or provided hereunder is required to be installed by the Contractor in accordance with all applicable requirements of the Contract Documents. The terms "furnish" and "provide" are used interchangeably in these Contract Documents."

"GENERAL MANAGER" shall mean the General Manager of Owner, or his designee.

"INSTALL" shall mean put in place and ready for use in accordance with the requirements of the Contract Documents. Installation shall include but not be limited to: (a) the provision of all required spare parts, all operation and maintenance manuals, all maintenance summaries, all certificates of proper installation, and documentation of the satisfactory completion of all testing requirements; and (b) the completion of all other specified services, including but not limited to any staff training requirements.

"LAWS AND REGULATIONS" or "LAWS OR REGULATIONS" shall mean any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction, which are in effect at the time of execution of the Agreement.

"MEMBERS" shall mean the members of the governing body of the Prince William County Service Authority.

"NOTICE" shall mean written notice. Written notice shall be deemed to have been duly served on the Contractor if delivered by U.S. Mail, hand delivery, or facsimile transmission to the Contractor's office at the Project or to the business address or fax number of the Contractor as provided in writing to Owner; or if delivered in person to the Contractor, to the Contractor's foreman or superintendent for the Project, or any officer or director of the Contractor. Unless otherwise specified herein, Notice shall be deemed to have been duly served on the Owner if delivered by U.S. Mail, hand delivery, or facsimile transmission to Owner, P.O. Box 2266 (by mail)/4 County Complex Court (by hand), Woodbridge, Virginia, 22195, fax number (703) 335-7954. Any Notice that is sent by fax to a party hereunder shall be effective, and shall be deemed to have been received, only upon delivery of a duplicate copy by another means of delivery authorized herein. Either party may, by written notice delivered in the manner prescribed herein, change its address for receipt of Notices hereunder.

"NOTICE TO PROCEED" shall mean the Notice issued by Owner establishing the date of commencement of the Contract Times.

"OVERHEAD" shall mean the cost of administration, field office and home office costs (including extended costs), general superintendence, office engineering and estimating costs, other required insurance, materials used in temporary structures (not including form work), additional premiums on the performance bond of the Contractor, the use of small tools, scheduling costs, cumulative impact costs and all other costs incidental to the performance of a change in the Work or to the cost of doing business. Small tools are defined as any tool with a replacement value less than \$1,000.

"OWNER" shall mean the Prince William County Service Authority, a public body politic and corporate organized and existing under the laws of the Commonwealth of Virginia.

"RESPONSIBLE PERSON" shall mean the Contractor's designated responsible English-speaking person on site, such as Superintendent or his designee.

"PROJECT REPRESENTATIVE" shall mean a representative of the Owner acting within the scope of his duties.

"PROJECT" shall mean the entire improvement which is the subject of each Work Order.

"SHOP DRAWINGS" shall mean all drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work. Shop Drawings are not Contract Drawings as so defined.

"SITE" shall mean the area upon or in which each Work Order is performed and such other areas adjacent thereto as may be designated as such by the Engineer.

"SPECIFICATIONS" shall mean all of the directions, requirements and standards of performance applying to the Work, hereinafter detailed and designated as such, or issued in an Addendum or in a Change Order, including but not limited to Owner's *Water and Sewer Utility Standards Manual*.

"SUBSTANTIAL COMPLETION" shall be the date certified in writing by the Owner when the construction of the Work or specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Work can be utilized by the Owner for the purpose for which it was intended.

"SUBCONTRACTOR" shall mean any person or entity, other than an employee of the Contractor, who contracts with the Contractor to furnish, or who actually furnishes labor, materials, services, or equipment or any combination of labor, materials, services and equipment to the Contractor or other subcontractors.

"SUPPLIER" shall mean a manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with the Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by the Contractor or any Subcontractor.

"SURETY" shall mean any person or entity that has executed as a surety the Contractor's Performance Bond, Payment Bond, Maintenance Bond or all three, securing the Contractor's performance of this Contract and the payment of his obligations in connection herewith.

"UNDERGROUND FACILITIES" shall mean all underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

"WORK" shall mean everything explicitly or implicitly required to be furnished and done by the Contractor pursuant to the Contract Documents, including any Extra Work.

"WORK ORDER" shall mean a written directive to the Contractor issued on or after the Effective Date of the Agreement and signed by the Owner and recommended by the Project Representative ordering specific tasks to be performed.

"DIRECTED," "PERMITTED," "ORDERED," "DESIGNATED," "PRESCRIBED" and words of like import when used shall mean the direction, requirement, permission, order, designation, or prescription of the Owner or the Engineer. "ACCEPTABLE," "SATISFACTORY," "IN THE JUDGMENT OF," and words of like import when used shall mean acceptable to, satisfactory to or in the judgment of the Owner or Engineer.

- B. Number and Gender of Words: Whenever the context so admits or requires, all references to one number shall be deemed extended to and including the other number, whether singular or plural, and the use of any gender shall be applicable to all genders.

ARTICLE 2 - CONTRACTOR'S RESPONSIBILITY

- A. Contractor's Responsibility: The Contractor shall perform all of the Work and shall furnish, at his own cost and expense, all labor, materials, equipment, and other facilities, except as herein otherwise provided, as may be necessary and proper for performing and completing the Work. The Contractor shall be responsible for the entire Work until completed and finally accepted by Owner. Unless the specification text expressly states that another party will be responsible for performing certain activities or providing certain material, the Contractor shall be responsible for performing the Work. Among other things, the Contractor acknowledges its responsibilities with respect to Shop Drawings and the construction schedule as specified in the Contract Documents.
 - 1. Unless otherwise expressly provided, the Work must be performed in accordance with the best modern practice utilizing the highest and best standard of care and with materials

and workmanship of the highest quality, all as determined by, and entirely to the satisfaction of, Owner and the Project Representative.

2. Unless otherwise expressly provided, the means and methods of construction shall be such as the Contractor may choose; provided, however, that the Contractor shall employ adequate and safe procedures, methods, structures and equipment. Neither Owner's approval nor its failure to exercise approval shall relieve the Contractor of its obligation to accomplish the result intended by the Contract, nor shall Owner's approval or failure to approve create a cause of action for damages. Notwithstanding the rights and remedies retained by Owner and the Project Representative hereunder, including without limitation, Owner's and the Project Representative's right to monitor the progress of the Work and to accept or retract acceptance of Subcontractors, the Contractor expressly acknowledges and agrees that it is in charge of and in control of the Work.
 3. The Contractor understands that for all or some of the Contract Times there may be other contractors on the site which are working under their own contracts with Owner. The Contractor acknowledges that it is obligated to coordinate its activities and to cooperate with any such contractors and also affirms that it has included in its bid price the full cost of doing so. The Contractor agrees that it will not make a claim against Owner for additional compensation as a result of unforeseen coordination costs arising from the activities of such other contractors except where such coordination results in an "unreasonable delay" as defined in Article 9 hereof.
 4. The Contractor shall in no event be or become entitled to receive additional compensation from the Owner based upon a claim following the submission of its bid, or following its execution of the Agreement, in connection (i) with the imposition or increase of any tax or charge not previously anticipated nor (ii) with any escalation in the cost of materials, equipment, supplies, services, labor, permits, or any other items of expense associated with the Contractor's full and complete performance of the Work.
- B. Approval Requests: The Contractor shall submit to Owner in writing all items required to be brought to Owner's attention or to be submitted for approval. These items must be submitted sufficiently in advance of the date upon which the information or approval is actually required by the Contractor to allow Owner to take appropriate actions so as not to delay the Work. The Contractor shall not have any right to an extension of time due to delays caused by his failure to submit any item in a timely fashion.

ARTICLE 3 - THE CONTRACT

A. The Contract:

1. The following documents, except for such portions thereof as may be specifically excluded, and the titles, subtitles, headings, running headlines, and tables of contents contained therein constitute the Contract and are defined as the Contract Documents:

Notice to Proceed
Agreement
Bidder's Bid
Solicitation
General Conditions
Specifications

Supplementary Conditions
Drawings
any Change Orders
any Work Orders,
any Addenda or modifications, and

All provisions required by law to be included in this Contract, regardless of whether such provision is set forth herein or not.

Only printed or hard copies of the items listed above are Contract Documents. Electronic files shall not be considered Contract Documents.

The Contract Documents will in no event be deemed to include any soil, geotechnical or other reports, and surveys or analysis of any type which may be made available to the Contractor for review or information in connection with the Project.

2. The Contract Documents are intended to be complementary: what is called for by one is as binding as if called for by all. The Contractor has a duty to thoroughly review the Contract Documents and to identify any conflicts, errors, or ambiguities therein. When the Contractor finds a conflict, error, ambiguity or discrepancy in the Contract Documents, he shall immediately call it to the attention of the Owner's Project Representative for this Project, with a copy to Contract Administrator, in writing before proceeding with the Work affected thereby. Owner will promptly resolve the matter in writing. Work performed by the Contractor after issuance of the Notice to Proceed and prior to written resolution of a conflict, error, ambiguity or discrepancy by Owner, shall be performed at the Contractor's own risk. In resolving such conflicts, errors, ambiguities and discrepancies, the Contract Documents shall be accorded the following order of precedence:

Change Orders
Notice to Proceed
Work Orders
Award Letter
Addenda or Amendments
Supplementary Conditions
General Conditions
Agreement
Instructions to Bidders
Specifications
Drawings
Contractor's Completed Bid Form

3. The Specifications are divided into sections solely for purposes of convenience and clarity. The Contractor shall not construe such sections as a division of the Work into various subcontractor units. The Contractor is responsible for furnishing all Work as shown in the Specifications.
4. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

- a. the provisions of any standard, specification, manual, code, or custom of any technical society, organization or association (whether or not specifically incorporated by reference in the Contract Documents); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

The Contractor shall immediately report any conflict, error, ambiguity, or discrepancy between the Contract Documents and any provision of any such Law or Regulation or of any such standard, specification, manual, code, or custom to the Owner's Project Representative and Contract Administrator in writing, and shall not proceed with the Work affected thereby until Owner resolves the matter in writing; provided, however, that the Contractor shall not be liable for damages to Owner or the Project Representative for failure to report any such conflict, error, ambiguity, or discrepancy unless Contractor knew or reasonably should have known thereof.

5. The Contractor and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with Owner:
 - a. shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of the Engineer or Engineer's consultant or furnished by Owner in connection with the Project; and
 - b. shall not reuse any of such Drawings, Specifications, other documents, or copies on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by the Engineer.
- B. Entire Contract: This Contract constitutes the entire agreement between the parties with respect to its subject matter and supersedes all prior and contemporaneous agreements, including the Notice to Proceed, which is hereby incorporated as a Contract Document. This Contract may not be modified or amended except by written agreement signed by the Contractor and Owner. This requirement for any modifications to be in writing may not be orally modified.
- C. Project Documents
 1. Access to Documents: Owner and any of its Project Representatives shall have access to all records and documents in the possession, custody, control or ownership of the Contractor relating in any way to the Project (the "Project Documents"). The Project Documents shall include, but not be limited to, the following: bid worksheets, daily reports, invoices, sub-contracts, internal memoranda, notes and other data. Owner and its Project Representatives shall, at any time during the term of this Contract and until the expiration of three (3) years from the date of final payment under this Contract, have the right to examine and copy the Project Documents, and the Contractor hereby covenants to maintain the Project Documents for such time and to deliver the Project Documents to Owner within seven (7) days after receipt of its request.

ARTICLE 4 - CONFORMANCE WITH CONTRACT DOCUMENTS

- A. No Estoppel: No action or failure to act by Owner shall be construed at any time to estop Owner from: (a) demonstrating that its actions comply with the Contract Documents; (b) asserting that the Contractor has violated, or seeks relief that would violate, the terms of the Contract Documents; (c) showing the true and correct classification, amount, quality, or character of the Work performed, or that any determination, decision, acceptance, return certificate or payment is incorrect or was improperly made in any respect, or that the Work or any part thereof does not in fact conform to the requirements of the Contract Documents; and/or (d) demanding and recovering from the Contractor any overpayment made to him or such damages as Owner may sustain by reason of the Contractor's failure to comply with the requirements of the Contract Documents.
- B. No Waiver of Rights: Unless expressly provided otherwise in writing by the General Manager, Owner will not be deemed to have waived any rights or any provisions of the Contract Documents. By way of example, but without limitation, none of the following actions shall be construed as a waiver of any provisions of this Contract or of any powers provided herein:
1. Inspections conducted by Owner or the Project Representative, any of its or their employees, officers or Project Representatives;
 2. Orders for the payment of money; and
 3. Payments for, or acceptance of, all or any part of the Work.
- C. In no event shall any waiver on the part of Owner of any breach of this Contract by the Contractor constitute or be construed to be a waiver of any subsequent breach of this Contract by the Contractor. The terms of this Contract shall be in addition to, and not a limitation on, any and all rights and remedies which Owner has or may have at law or in equity. Owner will have the right to enjoin the Contractor against any breach of the terms of this Contract without any showing that such relief is necessary to avoid irreparable injury or that there is no adequate remedy at law.

ARTICLE 5 - ROYALTIES AND PATENTS

- A. Patented Devices, Material and Processes: The Contract Price includes all royalties and costs arising from any patents, trademarks and/or copyrights incorporated or otherwise involved in the Work. Whenever the Contractor uses any design, device, material or process covered by letters of patent or copyright, the Contractor shall indemnify and hold harmless Owner and the Engineer, their officers, Members, Project Representatives and employees from any and all claims for infringement by reason of the use of any such patented or copyright-protected design, device, tool, material, equipment, or process to be employed, supplied or performed under the Contract, and shall indemnify and hold harmless Owner and the Project Representative, their officers, Members, Project Representatives, and employees for any costs, expenses and damages which may be incurred by reason of any such infringement at any time during the prosecution or after the completion of the Work. Notwithstanding the foregoing, the Contractor shall not have liability under this Article 5 to the extent that any infringement arises solely by virtue of a design or implementation supplied to the Contractor by Owner.

ARTICLE 6 - PROTECTION OF PERSONS AND PROPERTY

A. Safety and Protection:

1. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall comply with all applicable laws, rules, regulations and ordinances relating to safety and shall provide all necessary protection to prevent damage, injury, or loss to:
 - a. Employees providing services in connection with the Work and other persons who may be affected thereby;
 - b. The Work and all materials or equipment to be incorporated therein, whether in storage on or off the site; and
 - c. Other property at the Site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
2. The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until Final Completion of the Work, unless otherwise agreed upon in writing. The Contractor shall designate a responsible member of his organization who shall be present at the Site during performance of the Work and whose duty shall be the prevention of accidents and the security of the Site. The Contractor shall provide a full-time safety and Health & Safety Officer during the performance of the Work. The designated Health & Safety Officer shall be present at the Pre-Construction Meeting and during Project start-up, and shall make regular visits to the Site no less frequently than once per month during performance of the Work. In addition to such regular, periodic visits, the designated Health & Safety Officer also shall visit the Site as follows: (a) whenever the nature of the Work or the stage of construction calls for the presence of the Health & Safety Officer in connection with the performance of high risk elements, as determined by the Contractor's Health & Safety plan; and (b) upon prior request by the Owner.
3. The Contractor shall give notices and shall comply with all applicable laws, ordinances, rules and regulations bearing on the safety of persons or property or their protection from damage, injury or loss.
4. The Contractor shall provide and maintain at all times during performance of the Work all necessary and proper safeguards in and around the Work in order to protect all persons working, entering, or visiting in or near the Project from injury or loss, and to protect from theft and vandalism all Work, existing structures and facilities, materials, equipment, tools and personal property located at the Site or stored for use in connection with the Work.
5. The Contractor shall have a Company Safety and Health Program Manual that meets all Federal, State and local safety and health requirements. The Contractor shall provide to all employees a site safety orientation and training course that identifies the site safety rules, regulations, policies, and procedures. In addition, all Federal, State and local safety training that is required, may be performed during the site safety orientation and training course.

6. The Contractor shall maintain Material Safety Data Sheets on the site for all materials supplied by the Contractors and all Subcontractors. The Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.
7. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from Owner or Project Representative, is obligated to act at his discretion and risk to prevent and/or minimize threatened damage, injury, or loss. The Contractor shall give Project Representative prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If the Project Representative determines that a change in the Contract Documents is required because of the action taken by the Contractor in response to such an emergency, the Project Representative will issue a written directive to document the consequences of such action. All costs associated with any such directive are solely the responsibility of the Contractor.

B. Protection:

1. Until final acceptance of the Work by Owner, the Contractor shall be under an absolute obligation to protect the finished and unfinished Work against any damage, loss, or injury. The Contractor shall take proper precautions to protect the finished and unfinished Work from loss or damage, pending completion and final acceptance of all Work included in the Contract. Such precautions shall not relieve the Contractor from any and all liability and responsibility for loss or damage to the Work occurring before final acceptance by Owner. Such loss or damage shall be at the risk of and shall be borne by the Contractor, whether arising from acts or omissions of the Contractor or others and whether or not covered by any of the Contractor's insurance. In the event of any such loss or damage, the Contractor promptly shall repair, replace, and make good the Work without extension of time therefore, except as may be otherwise specified. The Contractor shall take special precaution throughout all his operations to guard against fire and shall reduce the amount of flammable materials stored at the Site to the minimum amount consistent with the proper handling and storing of such materials.
2. The provisions of this section shall not be deemed to create any right of action in favor of third parties against the Contractor, Owner, or the Project Representative.
3. Nothing contained herein shall be construed to deny, restrict, or delay in any manner any access or observation on the part of Owner or the Project Representative to any portion of the Work.

ARTICLE 7 - WORK AUTHORIZATION AND STATUS REPORTS

A. WORK AUTHORIZATION

Work under the Contract shall be authorized consistent with the process described in ARTICLE 9 of the Agreement.

B. STATUS REPORTS

For Work Orders exceeding 90 days in duration, the Contractor shall advise the Owner of the progress of the Work on a monthly basis by submitting a contract Status Report as provided in Article 11. Any changes or modifications in the Work that will affect the Contract Price and/or Contract Times shall be brought to the attention of the Owner as soon as the Contractor recognizes the change in extent or scope and in the form of a Change Proposal to the Work Order. Additional work effort beyond the agreed upon Work or schedule shall be authorized by the Owner in writing, in advance via a Change Order or Work Change Directive.

ARTICLE 8 - CHANGES IN THE WORK; RECORDS

A. Minor Changes:

1. Only the Project Representative, in consultation with Owner and Engineer as necessary, may authorize minor changes in the Work that do not involve an adjustment in the Contract Price, Contract Times or function and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.
2. Construction conditions may require minor changes in the Work and equipment to be furnished and other Work to be performed hereunder. The Contractor, when ordered by Owner or Project Representative, shall make such adjustments and changes in the locations and Work as may be necessary without additional cost to Owner, provided such adjustments and changes do not materially alter the character and quantity of the Work as a whole, or the Contract Price, and provided further that Drawings and Specifications showing such adjustments and changes are given to the Contractor by Owner within a reasonable time before Work involving such adjustment and changes is begun. Owner will be the sole judge of what constitutes a minor change for which no additional compensation will be allowed.
3. The Contractor shall be entitled to an extension of time for such minor changes only for the number of days which Owner may determine to be necessary to complete such changes and only to the extent that such changes actually delay the completion of the Project, and then only if the Contractor shall have strictly complied with all the requirements of the Contract Documents, including without limitation Article 9.A, C, D, and Article 2.B hereof.

B. Extra Work:

1. Owner may, in its sole and absolute discretion, at any time by a Change Order or Work Change Directive, require the performance of such Extra Work as it deems necessary or desirable. The Contractor hereby covenants and agrees to perform such Extra Work on the terms and conditions set forth in the applicable Change Order or Work Change Directive, as the case may be, and hereby waives any claim, suit or cause of action of any nature based, in whole or in part, upon the allegation that any Extra Work ordered hereunder and/or any Work omitted pursuant to Article 8.C hereof, individually or in the

aggregate, constitute a cardinal change to, or other material deviation from, the Contract Documents and/or the Work contemplated thereby.

2. Work Change Directive covering Extra Work will be valid only if issued in writing and signed by Owner's Project Representative, and the Extra Work so ordered must be performed by the Contractor.

Any attempt by the Contractor to alter or modify a Change Order or to reserve a claim thereunder shall be void and of no legal effect. Each Change Order, when executed, shall constitute a statement of the full and final compensation for all matters directly or indirectly related to or arising from the changes to the Work ordered thereby (the "Changed Work"), including, but not limited to, all Overhead and all other direct and indirect costs associated with the Changed Work and any and all adjustments (of whatever nature) to the Contract Price or to the Contract Times attributable to the Changed Work.

3. The amount of compensation to be paid to the Contractor for any Extra Work so ordered will be determined as follows:
 - a. By such applicable unit prices, if any, as are set forth in the Contract; or
 - b. If no such unit prices are set forth, then by a lump sum or other prices mutually agreed upon by Owner and the Contractor; or
 - c. If no such unit prices are set forth in the Contract and if the parties cannot agree upon a lump sum or other unit prices, then by the actual and reasonable costs in accordance with the general requirements, as represented by the technical specifications of the Work, as estimated or otherwise determined by Project Representative.
4. Regardless of the manner in which the adjustment to the Contract Price on account of Extra Work is determined, such adjustment shall be deemed to include all amounts whether direct, indirect or consequential resulting from the performance of the Extra Work, including, but not limited to, all Overhead. The adjustment in the Contract Price, if any, shall constitute full and mutual accord and satisfaction for all costs related to this change.
5. Whenever Extra Work is authorized and is planned to be performed by the Contractor hereunder, the Contractor shall provide prior Notice to Owner and to the Engineer of the time and place for performance of all such Extra Work. Records of Extra Work performed hereunder, if any, must be submitted by the Contractor at the end of each day to Owner and to the Project Representative. Duplicate copies of accepted records shall be made and signed by both the Contractor or his representative and Owner and Project Representative, and one copy shall be retained by each. Failure of the Contractor to submit (and to obtain signed acknowledgments for) such Extra Work records, as specified, shall constitute a waiver and release of the Contractor's right to claim compensation for such extra Work
6. Payment requests for approved and duly authorized Extra Work shall be submitted by the Contractor upon a certified statement supported by receipted bills. Such statements shall

be submitted for payment by Owner in the month in which such Extra Work was performed and in accordance with Article 11 hereof.

7. The Contractor shall be entitled to an extension of time for Extra Work duly authorized by Owner only for the number of days required, in the opinion of the Project Representative, to complete such Extra Work, and then only if the Contractor has strictly complied with all the requirements of the Contract Documents, including without limitation Article 9.A, C, D, and Article 2.B hereof.

C. Omitted Work:

1. Owner may at any time by a written Work Change Directive or Change Order require the omission of such Work as it may find necessary or desirable in its sole and absolute discretion.
2. A Change Order covering the omitted work will be valid only if signed by Owner's representative and Contractor, and a Work Change Directive covering the omitted work will be valid only if signed by Owner's representative, and the Work so ordered must be omitted by the Contractor. The amount by which the Contract Price will be reduced, if any shall be determined in accordance with the methods set forth in Article 8.B.3 and addressed by Change Order.

- D. Audit: Owner and its Project Representatives will, until the expiration of three (3) years from the date of final payment under this Contract, have the right to examine and copy those books, records, documents, papers and other supporting data in the possession or control of the Contractor which involve transactions related to this Contract or which otherwise permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein (the "Records"), and the Contractor hereby covenants to maintain the Records for such time and to deliver the Records to Owner within seven (7) days after its receipt of written request. The Contractor agrees that no claim for compensation shall be valid if the Contractor should fail to produce any supporting documentation requested by Owner under this section.

ARTICLE 9 - TIME PROVISIONS

A. Time of Start and Completion:

1. The Contractor must commence Work within 14 days after the date stated as the date to proceed in the Notice to Proceed. Time being of the essence with respect to this Contract, the Contractor shall prosecute the Work diligently, using such means and methods of construction as will secure its full and final completion in accordance with the requirements of the Contract Documents, and will complete the Work within the Contract Times.
2. The actual date of Substantial Completion will be established after an inspection has been conducted in accordance with the Contract Documents.
 - a. When the Contractor considers the Work ready for its intended use, Contractor shall notify Owner and Project Representative in writing that the Work is complete for Substantial Completion.

- b. Within a reasonable time thereafter, Owner, Contractor, and Project Representative shall make an inspection of the Work to determine the status of completion. If the Project Representative does not consider the Work Substantially Complete, Project Representative will notify the Contractor in writing giving the reasons therefore. If the Project Representative considers the Work Substantially Complete, Project Representative will deliver to Owner and Contractor a certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the notice a tentative list of items to be completed or corrected before final completion and final payment, as prepared by the Project Representative.
- c. Owner will determine in its sole discretion whether the Work performed hereunder has been fully completed within the Contract Times.

B. Extension of Time:

- 1. Contractor shall rely only on direction or information provided by the Project Representative authorized to give such direction or information by this Contract. Subcontractors shall rely only on direction or information provided by the Contractor. Contractor shall not be entitled to an adjustment in the Contract Times or Contract Price for any delay caused by reliance on direction or information provided by unauthorized individuals.
- 2. Except for reliance on direction or information provided by unauthorized individuals, if Owner, Engineer, Project Representative or anyone for whom Owner is responsible shall delay, disrupt, or interfere with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price, except as otherwise provided in these General Conditions. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- 3. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- 4. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - a. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - b. abnormal weather conditions;

- c. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 31); and
 - d. acts of war or terrorism.
 - 5. Except for unclassified excavation, delays, disruption, and interference to the performance or progress of the Work result from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 24.
 - 6. Article 31. C governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
 - 7. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
 - 8. Contractor must notify the Owner through the Project Representative of its intent to submit a Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within seven (7) days of the commencement of the delaying, disrupting, or interfering event. The Contractor shall submit any Change Proposal seeking an adjustment in Contract Price or Contract Times within thirty (30) days of the commencement of the delaying, disrupting, or interfering event, unless additional time is granted by the Owner. Such Change Proposal must meet the requirements for submission outlined in the Contract Documents. Failure to meet this requirement shall preclude the Contractor from being granted such adjustment.
 - 9. Owner, Engineer, Project Representative and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project, regardless of the provision under which the Contractor has made its claim for any adjustment of Contract Times or Contract Price.
- C. Progress Schedule: The Contractor shall comply with the schedule requirements as outlined in the Contract Documents.

ARTICLE 10 - TERMINATION

A. Termination for Default

Each term and condition in the Contract Documents is material and any breach or default by the Contractor in the performance of any such term or condition shall be considered a material breach or default of the entire Contract for which the Owner shall have the right to terminate the Work Order and/or Contract immediately, without penalty or liability.

1. The Owner's Project Representative shall notify, in writing, the Contractor of deficiencies or default in the performance of its duties under the Contract and the Contractor shall have fifteen (15) Days to correct same. Failure of the Contractor to remedy said specified items of deficiency or default in the notice by the Owner's Contract Administrator within fifteen (15) Days of receipt of such notice of such decisions, may result in the termination of the Work Order or Contract, and if terminated, the Owner shall be relieved of any and all responsibilities and liabilities under the terms and provisions of the Contract.
2. In addition, any of the following shall constitute a default for which the Owner shall have the right to terminate the Contract immediately, without penalty or liability:
 - a. Contractor failure to make prompt payment to Subcontractor or Suppliers pursuant to the Contract requirements, including but not limited to any applicable provisions of the VPPA, Va. Code Ann. Section 2.2-4300 et seq.
 - b. The Contractor is dissolved, becomes insolvent, generally fails to pay or admits in writing its inability generally to pay its debts as they become due.
 - c. The Contractor makes a general assignment, arrangement or composition agreement with or for the benefit of its creditors or makes, or sends notice of any intended, bulk sale; the sale, assignment, transfer or delivery of all or substantially all of the assets of Contractor to a third party; or the cessation by Borrower as a going business concern;
 - d. The Contractor files a petition in bankruptcy or institutes any action under federal or state law for the relief of debtors or seeks or consents to the appointment of an administrator, receiver, custodian or similar official for the wind up of its business (or has such a petition or action filed against it and such petition action or appointment is not dismissed or stayed within 45 Days).
 - e. The reorganization, merger, consolidation, liquidation, suspension of business operations or dissolution of the Contractor (or the making of any agreement therefor).

B. Termination for Non-Appropriation of Funds

If the Owner Board of Directors does not appropriate funds for any succeeding fiscal year subsequent to the one in which a Contract or Work Order is entered into, then the Owner may terminate the Contract or Work Order upon thirty (30) Days prior written notice to the Contractor. The Owner shall be responsible only for payments due through the date of termination.

C. Termination for Convenience of the Owner

1. The Contractor and the Owner agree that the Owner has the sole right to terminate any Contract or Work Order, or any Work or delivery required thereunder, from time to time either in whole or in part, whenever the General Manager of the Owner shall determine that such termination is in the best interests of the Owner.
2. Termination, in whole or in part, shall be effected by delivery of a Notice of Termination signed by the Owner's General Manager or designee, mailed or delivered to the Contractor, and specifically setting forth the effective date and conditions of the termination.
3. Upon receipt of such notice, the Contractor shall:

- a. Cease any further deliveries or Work due under the Contract, on the date, and to the extent, which shall be specified in the notice; and
 - b. Place no further orders with any Subcontractor except as may be necessary to perform that portion of the Contract not subject to the Notice of Termination; and
 - c. Terminate all subcontracts except those made with respect to contract performance not subject to the notice; and
 - d. Settle all outstanding liabilities and claims which may arise out of such termination, with the ratification of the Owner; and
 - e. Use all reasonable efforts to mitigate any damages which may be sustained by it as a consequence of termination under this clause.
4. After complying with the foregoing provisions, the Contractor shall submit a termination claim within six (6) months after the effective date of its termination, unless an extension is granted by the Owner.
 5. The Owner shall pay all reasonable costs of termination, including a reasonable amount for profit on supplies or services delivered or completed. In no event shall this amount be greater than the original contract price, reduced by any payments made prior to Notice of Termination and further reduced by the price of the supplies not delivered, or the services not provided. The Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount.
 6. In the event that the parties cannot agree on the whole amount to be paid to the Contractor by reason of termination under this clause, the Owner shall pay to the Contractor the amounts determined as follows, without duplicating any amounts which may have already been paid under the preceding paragraph of this clause.

For all contract performance prior to the effective date of Notice of Termination, the total of:

- a. Cost of work performed or goods delivered and accepted by the Owner.
 - b. The cost of settling and paying any reasonable claims as provided in subparagraph 5 above.
 - c. A sum as profit on the cost of work performed or goods delivered determined by the Owner to be fair and reasonable.
 - d. The total sum to be paid shall not exceed the total contract price, as reduced by the amount of payments otherwise made, and as further reduced by the Contract price of work or supplies not provided.
7. In the event that the Contractor is not satisfied with any payments which the Owner shall determine to be due under this clause, the Contractor may submit a claim in accordance with ARTICLE 26 – CLAIM AND RESOLUTION OF DISPUTES.
 8. The Contractor shall include similar provisions in any subcontract, and shall specifically include a requirement that Subcontractor (s) make all reasonable efforts to mitigate damages which may be suffered. Failure to include such provisions shall bar the Contractor from any recovery from the Owner whatsoever of loss or damage sustained by a Subcontractor (s) as a consequence of termination for convenience.

D. Termination by Mutual Consent

During performance of the Contract, if the Owner and the Contractor mutually agree that it would be in the best interests of both parties to agree to terminate the Contract, then fair and reasonable considerations shall be negotiated and the Contract deemed completed.

ARTICLE 11 – PAYMENT

A. Payment to Contractor

1. The Owner agrees to pay the Contractor compensation for the Work provided for in each Work Order. Each Work Order shall list the items and units of Work provided as outlined in EXHIBIT E, SCHEDULE OF UNIT PRICES.
2. The Owner and Contractor acknowledge and agree that the Contract Price set forth in each respective Work Order limit the extent of, the Owner's obligation to reimburse the Contractor for Work under the Contract, but does not constitute a limitation upon the Contractor's obligation to incur costs in the performance of services hereunder.
3. If the Owner requests to incur expenses not contemplated, the Contractor shall notify the Owner in writing and obtain Owner's approval in writing prior to incurring such expenses.
4. Applications for Payment must contain sufficient information for the Owner to verify that the work was performed in accordance with this Contract. The Contractor shall submit documentation with each Application for Payment as detailed in EXHIBIT E, SCHEDULE OF UNIT PRICES. The Owner requires that the following information be included in the Application for Payment (or must be in the form of a report which must accompany the Application for Payment) and contain the following information:
 - a. Contract Title and Contract Number, Purchase Order Number;
 - b. Dates services were provided;
 - c. Summary of deliverables or work achieved during the specified billing period including, for unit price work, details of quantities and prices, for lump sum work, details of the work performed in accordance with the schedule of values; and,
 - d. Proper documentation to support payment of non-schedule work/items not included in the Contract to include payroll records, and Applications for Payment for all materials, supplies, and services, purchased or leased, in performance of the work.
 - e. Written proof of acceptance of the work and/or deliverable by the Owner in accordance with the deliverables included in each Work Order.
5. Prior to performing work under this Contract, Contractor shall submit for Owner's approval a sample invoice and contract Status Report. The Owner reserves the right to withhold Applications for Payment until sufficient documentation is provided.
6. All invoices will be paid within the time specified by the Contract unless any items thereon are questioned, in which event payment will be withheld for those items pending verification of the amount and the validity of the claim.
7. Invoices shall be forwarded to the Owner with copy to the Project Representative as follows:

By Mail
Prince William County Service Authority
Attn: Accounts Payable
P O. Box 2266

Woodbridge, Virginia 22195

or (Physical Delivery)

Prince William County Service Authority
Attn: Accounts Payable
4 County Complex Court
Woodbridge, Virginia 22192

Or (Electronically, via email)

accountspayable@pwcsa.org

8. Monthly Status Reporting for Work Orders Exceeding 90 Days Duration: In addition to and separate from the Invoice/Application for Payment documentation, the Contractor shall provide the Contract Administrator or his designee, with a written Monthly Report detailing the status of ALL ongoing work tasked to and performed by the Contractor and the Subcontractor's. At a minimum the Monthly Report shall include the following information:
 - a. Contract or Work Order number
 - b. Name and title of Project
 - c. A description of each Project/Work Order.
 - d. Budget of hours and dollars for hourly rate work (if applicable).
 - e. Budget of dollars for Lump Sum (if applicable).
 - f. Notice of any issues that could affect project completion schedule, quality or price (if applicable).
 - g. Cost and hours incurred to date for hourly rate work (if applicable).
 - h. Percent/deliverable completion to date for Lump Sum (if applicable).
 - i. Estimated cost and hours to complete for hourly work (if applicable).
 - j. Estimated percent/deliverables to complete for Lump Sum (if applicable).
 - k. Total of all previous Invoices
 - l. Budget and schedule analysis.
 - m. Projected completion date.
9. The Status Report may accompany the Invoice or Application for Payment, as supporting documentation.

B. Payments to Subcontractors:

1. Within seven (7) days after receipt of amounts paid by Owner to Contractor, Contractor shall take one (1) of the following two (2) actions with regard to Work performed by a Subcontractor:

- a. Pay Subcontractor for the proportionate share of the total payment received from Owner attributable to the Work performed by Subcontractor under the Contract; or
 - b. Notify Owner and Subcontractor, in writing, of Contractor's intention to withhold all or a part of Subcontractor's payment with the reason for nonpayment.
2. Individual Contractors and subcontractors shall provide their social security numbers and Contractors organized as proprietorships, partnerships or corporations shall provide their federal employer identification numbers to Owner prior to the start of Work under this Contract.
3. Contractor shall pay interest to Subcontractors on all amounts owed by Contractor that remain unpaid after seven (7) days following receipt by Contractor of payment from Owner for Work performed by such Subcontractor under this Contract, except for amounts withheld as allowed in the Contract Documents.
4. Unless otherwise provided under the terms of this Contract, interest on undisputed portion of unpaid invoices from Subcontractors shall accrue at the rate of one percent (1%) per month, which the Contractor shall be solely responsible for.
5. Contractor shall include in each of its subcontracts a provision requiring each Subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower tier Subcontractor as set forth in this Paragraph.

C. Reductions in Payment by Owner:

1. In addition to any reductions in payment (set-offs) recommended by Project Representative, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Article 32. Paragraph G, or has accepted defective Work pursuant to Article 32. Paragraph D;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - k. there are other items entitling Owner to a set off against the amount recommended, as identified in Supplementary Conditions and the Contract Documents;
 - l. disputed amounts.

ARTICLE 12 – INSURANCE

A. Insurance—General Provisions

1. Before the execution of the Contract, but no later than 30 days from the date that the Owner issues a letter of intent to award the Contract, and prior to any mobilization events, the Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions, if any.

2. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Work is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-:VII or better.
3. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
4. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
5. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
6. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
7. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 10.
8. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
9. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

10. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the Contract.

B. Contractor's Insurance

1. Workers' Compensation: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

- a. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
- b. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
- c. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
- d. Foreign voluntary worker compensation (if applicable).
- e. Limits of liability:

State:	Statutory
Applicable Federal	Statutory
Employer's Liability	\$1,000,000

2. Commercial General Liability:

Claims Covered: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

- a. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
- b. claims for damages insured by reasonably available personal injury liability coverage.
- c. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- d. Limits of liability:
 - i. Bodily Injury:

\$1,000,000	Each Occurrence
\$3,000,000	Annual Aggregate
 - ii. Property Damage:

\$1,000,000	Each Occurrence
\$3,000,000	Annual Aggregate
 - iii. Property Damage liability insurance will provide explosion, collapse and underground coverages where applicable
 - iv. Personal Injury, with employment exclusion deleted

\$3,000,000	Annual Aggregate
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Form and Content: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

- a. Products and completed operations coverage:
 - i. Such insurance shall be maintained for three years after final payment

- under the applicable Work Order.
 - ii. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 - b. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in ARTICLE 15.
 - c. Broad form property damage coverage.
 - d. Severability of interest.
 - e. Underground, explosion, and collapse coverage.
 - f. Personal injury coverage.
 - g. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 - h. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
3. Automobile liability: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the Ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
 - a. Limits of liability:
 - i. Bodily Injury:
 - \$2,000,000 Each Person
 - \$2,000,000 Each Accident
 - ii. Property Damage:
 - \$2,000,000 Each Occurrence
4. Umbrella or excess liability: Contractor shall purchase and maintain umbrella or excess liability insurance with an aggregate limit of \$10,000,000, written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
5. Contractor's pollution liability insurance: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs and regulatory fines/assessments as a result of pollution conditions, to include sanitary sewer overflows, arising from Contractor's operations and completed operations. This insurance shall have limits of liability of not less than \$1,000,000 per occurrence and shall be maintained for no less than three years after final completion under the applicable Work Order.
6. Additional insureds: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner, Project Representative and Engineer, and any individuals or entities identified in the Supplementary Conditions or elsewhere in the Contract); include coverage for the respective officers, directors, members, partners, employees, agents,

consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

7. Contractor's professional liability insurance: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance with a limit of liability not less than \$1,000,000 per occurrence. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
8. General provisions: The policies of insurance required by this Paragraph B shall:
 - a. include at least the specific coverages provided in this Article.
 - b. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - c. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 30 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Project Representative, Engineer, and each other insured under the policy.
 - d. remain in effect at least until final payment under the applicable Work Order (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - e. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
9. The policies of insurance required by this Paragraph B shall also include the following:
 - a. All deductibles and self-insured retention shall be noted in the policies and shall be subject to approval by Owner. At the option of the Owner, either the insurer shall reduce or eliminate such deductible or self-insured retention, or the

Contractor shall be required to procure a bond guaranteeing payment of losses and related claims expenses.

- b. Failure to comply with any reporting provisions of the policy(s) shall not affect the Contractor's liability to the Owner, its officers/officials, agents, employees and volunteers.
- c. All coverage required of the Contractor shall be as broad as the Insurance Services Office (ISO) forms filed for use with the Commonwealth of Virginia.
- d. Contractor shall maintain copies of insurance certificates from its Subcontractors and shall make copies of the Subcontractors' policies available to the Owner upon demand.
- e. Compliance by the Contractor with the foregoing requirements shall not relieve the Contractor of its liabilities and obligations under the Contract.
- f. Contractual and other liability insurance provided by the Contractor shall not contain a supervision, inspection or services exclusion that would preclude the Owner from supervising and/or inspecting the Project as to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it and of Subcontractors and any person employed by a Subcontractor.
- g. Nothing contained herein shall be construed as creating any contractual relationship between any Subcontractor and the Owner. The Contractor shall be as fully responsible to the Owner for the acts and omissions of its Subcontractors and of any persons employed by them as it is for the acts and omissions of persons directly employed by it.

- 10. The provisions of ARTICLE 12 shall survive termination, cancellation and expiration of this Contract.

ARTICLE 13 - CONTRACT SECURITY

- A. Performance bond may be required for certain projects depending on the complexity of work: The cost of obtaining bonds is to be reimbursed by the Owner.

Before the Owner issues a Notice of Proceed, but no later than 30 days from the date that the execution of a Work Order, the Contractor shall furnish a performance bond, each in an amount at least equal to the Contract Price, as security for the faithful performance of all of Contractor's obligations under the Contract. This bond shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Article 18, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

- 1. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as have an A.M. Best key

rating of A-VII or better and as are named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

2. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
3. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Project Representative and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
4. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 10.
5. Contractor shall provide a maintenance bond in an amount equal to ten percent (10%) of the final Contract Price or five thousand dollars (\$5,000.00), whichever is greater. The maintenance bond will be in a form acceptable to the Owner and indemnify the Owner against any loss or expense resulting from defects in materials or workmanship incorporated into the Work. The maintenance bond shall be effective as of the date when final payment becomes due and continue for a period of at least one year thereafter or for such longer period as may be required in the Supplementary Conditions, if any, of the Contract.

ARTICLE 14 - SUBCONTRACTS AND ASSIGNMENTS

A. Limitations and Consent:

1. The Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this Contract or of his right, title, or interest therein, in whole or in part, or any claim allegedly arising herefrom and shall not assign any monies due or to become due hereunder to any other person, firm or corporation without first obtaining the written consent of Owner. Owner's consent to a particular subcontract or assignment will not constitute a waiver of Owner's right to consent to any further or other subcontracts or assignments.
2. Before making any subcontract, the Contractor must submit a written statement to the Project Representative setting forth the name and address of the proposed Subcontractor and the portion of the Work and materials which the proposed Subcontractor shall perform or provide, as the case may be. The Contractor also must furnish with respect to each proposed Subcontractor an OSHA Form 300 [a list of citations for safety violations] and, for all subcontracts valued at \$100,000 or more, a completed “Subcontractor Qualification Form”, all intended to demonstrate to Owner that the proposed Subcontractor has the necessary facilities, skill, integrity, safety record, past experience

and financial resources to perform the Work in accordance with the terms and conditions of this Contract. A Subcontractor Qualification Form must be submitted for each subcontractor performing work valued greater than \$100,000 and the OSHA Form 300 shall be submitted at the time the Subcontractor Qualification Forms are submitted. As to each proposed Subcontractor, the Contractor has the burden of demonstrating that the Subcontractor is qualified in all respects to perform the designated portion of the Work. Unless additional or trade-specific subcontractor qualifications are required in the Contract Documents, the Contractor must, at a minimum, demonstrate to the satisfaction of Owner that the proposed Subcontractor has successfully performed similar work on a project which is similar in size, scope, and nature to the Project. The Project Representative shall advise Owner of its opinion and recommendation with regard to each proposed Subcontractor.

3. If Owner finds in its sole discretion that the proposed Subcontractor meets the minimum qualifications acceptable to Owner, the Contractor will be notified in writing within 20 days after Owner's receipt of all required information. Owner may retract its acceptance of any Subcontractor in the event such Subcontractor evidences an unwillingness or inability to perform his work in strict accordance with these Contract Documents. Notice of such retraction will be given in writing to the Contractor. Upon receipt of notification of such retraction, the Contractor shall, within 10 days, address all reasons stated in the retraction and furnish satisfactory evidence that immediate steps are being undertaken by the Subcontractor to correct any unwillingness or inability to perform which would have caused such retraction, or, submit a new Subcontractor for Owner's review at no additional cost.
 4. Where the Specifications require the use of a specific manufacturer, supplier or installer, either by name or by identifying characteristic (by use of such term as "manufacturer-certified" or the like), the Contractor shall perform the designated portion of the Work through the specified entity, and no claim may be made for an increase in the Contract Price, or for an extension of the Contract Times on the ground that the Contractor's bid included performance by another means or entity, or that the Contractor otherwise intended or applied to accomplish performance in another fashion. Nothing herein shall preclude Owner in its sole discretion from consenting to a substitute manufacturer, supplier or installer and, in such event, Owner's consent shall be in writing.
 5. Upon request, the Contractor shall promptly file with Owner a conformed copy of any subcontract. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind Subcontractors to the Contractor in accordance with the terms of these Contract Documents, insofar as applicable to the work of Subcontractors, and to give the Contractor the same power to terminate any subcontract that Owner may exercise over the Contractor under provisions of these Contract Documents.
- B. Responsibility: Owner's review or acceptance of Subcontractors as described herein shall not relieve the Contractor of any of his responsibilities, duties and liabilities hereunder. The Contractor shall be solely responsible to Owner for the acts, defaults, or omissions of his Subcontractors and of his Subcontractors' officers, authorized project representatives and employees. Nothing contained in the Contract Documents shall be construed to create any contractual relationship between any Subcontractor and Owner or the Project Representative.

ARTICLE 15 – INDEMNIFICATION AND HOLD HARMLESS

- A. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Project Representative, Engineer (if applicable), and their officers, directors, members, partners, employees, agents, consultants and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission or intentional misconduct of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.
- B. The provisions of this Article 15 shall survive termination, cancellation and expiration of this Contract.

ARTICLE 16 - POWERS OF OWNER'S REPRESENTATIVES

- A. The Project Representative:
 - 1. The Project Representative, in addition to those matters elsewhere herein expressly made subject to his determination, or approval, will have the power, subject to Owner's review.
 - a. To review all submittals and provide technical assistance to the Owner during construction.
 - b. To make visits to the Site at intervals appropriate to the various stages of construction to observe the progress and quality of the finished Work and to determine in general if the Work is proceeding in accordance with the Contract Documents.
 - c. To issue with reasonable promptness such written clarifications or interpretations of the Contract Documents (in the form of Drawings or otherwise) as the Project Representative may determine necessary; provided that such clarifications or interpretations will be consistent with or reasonably inferable from the overall intent of the Contract Documents.
 - d. To disapprove or reject such Work as he believes to be defective, and also to require special inspections or testing of the Work, whether or not the Work is fabricated, installed or completed.
 - e. To be an interpreter of the requirements of the Contract Documents and to judge the acceptability of the Work performed thereunder.
 - 2. The power of the Project Representative will not be limited to the foregoing enumerations. It is the intent of this Contract that all of the Work will be subject to the

Project Representative review and acceptance, except where the reviews or approval of someone other than the Project Representative is expressly called for herein.

3. Neither the Project Representative's authority to act hereunder nor any decision made by him in good faith to exercise or not to exercise such authority will give rise to any duty or responsibility of the Project Representative to the Contractor, or to any Subcontractor, any materialman, fabricator, supplier or any of their authorized representatives or employees or any other person or entity performing any of the Work.
4. The Project Representative will not be responsible for the acts or omissions of the Contractor, or any Subcontractors, or any of his or their representatives or employees or any other persons at the Site or otherwise performing the Work.
5. The Project Representative will not be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto. Furthermore, the Project Representative will not be responsible for the Contractor's failure to perform the Work in accordance with the Contract Documents.
6. Any requirement, direction, review, or judgment given by the Project Representative is intended solely to evaluate the Work in order to determine compliance with the Contract Documents. Nothing contained in the Contract Documents and no act or omission on the part of Owner, the Project Representative or their employees or agents will imply that the Project Representative has any authority or responsibility to supervise or direct the means and methods of the performance of the Work.

ARTICLE 17 - BOUNDARIES

- A. Boundaries: The Contractor shall confine his equipment, apparatus, storage of materials, supplies and the apparatus of his workmen, and of his Subcontractors, to the Project boundaries indicated by applicable laws, ordinances, and permits or by direction of Owner, unless otherwise agreed to in writing.

ARTICLE 18 – WARRANTIES AND CORRECTION PERIOD

- A. Contractor warrants and guarantees to Owner that all Work, to include labor, material, equipment and workmanship, will be in accordance with the Contract Documents and will not be defective. The Owner Engineer and Project Representative, their and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Project Representative;

2. recommendation by Project Representative or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Project Representative or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.
- D. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or period of time established by a permit issued by a governmental agency with jurisdiction over the Project, or by any specific provision of the Contract Documents), any Work materials or equipment provided by Contractor are found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. correct the defective repairs to the Site or such other adjacent areas;
 2. correct such defective Work;
 3. if the defective Work has been rejected by Owner, remove it from the Work and replace it with Work materials or equipment that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- E. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- F. In special circumstances where a particular item of equipment, with the approval of Owner, is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- G. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- H. Contractor's obligations under this Article are in addition to all other obligations and warranties. The provisions of this Article shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.
- I. Repetitive malfunction of an equipment or product item shall be cause for replacement (as opposed to repair) and an extension of the correction period to a date one year following acceptable replacement. A repetitive malfunction shall be defined as the third failure of an equipment or product item following original acceptance.

ARTICLE 19 - APPLICABLE LAW

- A. Compliance with Laws: The Contractor shall comply with all local, state and federal laws, rules, ordinances and regulations applicable to this Contract and to the Work to be performed hereunder, and shall obtain at his own expense all permits, licenses or other authorizations necessary for the prosecution of the Work (except for Virginia Department of Transportation permits, Prince William County permits, building permit(s) and easement agreements for the Project) and shall protect and indemnify Owner and the Project Representative and their employees, Members, officers and Project Representatives against any claim or liability arising from or based on the violation of any such laws, rules, ordinances and regulations, whether by himself, his employees, or his Subcontractors.
- B. Legal Provisions Deemed Included: Each and every provision of any law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein and if, through mistake or otherwise, any such provision is not inserted or is not correctly inserted, then upon application of either party the Contract shall forthwith be physically amended to make such insertion.
- C. Governing Law and Policy: This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia without reference to conflict of law principles.

ARTICLE 20 - NON-DISCRIMINATION

- A. Anti-Discrimination
 - 1. The Contractor certifies to the Owner that it will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians with Disabilities Act, the Americans with Disabilities Act and Virginia Code § 2.2-4311 (as further described herein).
 - 2. If the Contractor is a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the Contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds, provided however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (Virginia Code § 2.2-4343.1E).
 - 3. During the performance of the Contract, the Contractor agrees as follows:
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. 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. The Contractor in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
 - c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.
4. The Contractor will include the provisions of subsection 3 above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each Subcontractor or vendor.

ARTICLE 21 - CONTRACTOR'S EMPLOYEES AND DRUG-FREE WORKPLACE

A. Character and Competency:

1. The Contractor represents that it is a duly organized and licensed entity which employs qualified and experienced personnel who specialize in performing the type of construction services required hereunder. The Contractor agrees to provide a sufficient number of personnel who are suitably qualified and experienced and who are in all respects acceptable to Owner to perform the Work in an efficient and timely manner. The Contractor represents that it is capable in all respects (including the possession of sufficient financial resources to provide fully for the payment of employees) of performing the Work and agrees to provide construction services of high quality. The Contractor agrees to diligently and conscientiously devote its resources to the performance of the Work. Owner, upon Notice to the Contractor, and in Owner's sole discretion, will have the right to direct the Contractor to remove an employee permanently from the site for any reason.
2. All personnel will present a neat appearance and will conduct work in a professional manner with minimum disturbance to Owner's normal operations. If any of the Contractor's personnel are not satisfactory to Owner the Contractor shall replace same with satisfactory personnel.
3. Alcoholic beverages, firearms and illegal drugs are prohibited on the Site.

B. **Superintendence:** The Contractor shall have a competent, experienced, and reliable foreman or superintendent, acceptable to Owner, who shall serve as the Contractor's authorized project representative at the site and shall have authority to act on behalf of the Contractor (the "Superintendent"). The Superintendent shall have full authority to supply material and labor immediately. He shall keep on hand at all times copies of the Contract Documents. Notice or communication to the Superintendent shall be equivalent to notice or communication to the Contractor. The Superintendent shall follow without delay all instructions of Owner in the prosecution and completion of the Work.

C. Drug-Free Workplace Requirement:

The Contractor during the performance of this Contract, agrees to:

1. Provide a drug-free workplace for its employees.
2. 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 violations of such prohibition.

3. State in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace.
 4. Include the provisions of the foregoing clauses in every subcontract or purchase order over \$10,000.00, so that the provisions will be binding upon each Contractor or Subcontractor. For the purpose of this section, "drug-free workplace" means a site for the performance of
- D. During the performance of a Contract, the Contractor shall not knowingly employ an unauthorized alien as defined in the Immigration Reform and Control Act of 1986.

ARTICLE 22 – FREIGHT CLAIMS

Not Used.

ARTICLE 23 – TAX EXEMPTION

- A. Owner is exempt from, and will not pay any, federal, state or local taxes which may be applicable to the transactions contemplated by these Contract Documents, including without limitation any Federal Excise Tax, Transportation Tax or Virginia Sales and Use Tax. Nothing contained herein shall be deemed to confer upon the Contractor any rights to or benefits of tax exempt status under federal or state law. The Contractor shall not claim entitlement to the benefits of tax exempt status based solely upon its contractual relationship with the Owner. Any determination with regard to the Contractor's status as a taxable entity shall be based upon the criteria established by the relevant taxing authority. Upon request, Owner will provide for the Contractor's file a copy of its state tax exemption certificate.

ARTICLE 24 – DIFFERING SITE CONDITIONS AND HAZARDOUS MATERIALS

A. Differing Site Conditions

1. Contractor shall promptly after discovery, and before the conditions are disturbed, give a written notice to Owner of (a) subsurface or latent physical conditions at the Site which differ materially from those indicated in the Contract Documents or (b) unknown physical conditions at the Site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in Work of the character called for by the Contract Documents.
2. Owner will investigate the Site conditions promptly after receiving notice. If the conditions do materially differ and cause an increase or decrease in the Design/Builder's cost of, or the time required for, performing any part of the Work, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the Contract Price or Contract Times shall be modified in writing.
3. No request by Contractor for an equitable adjustment under paragraph 24.A.2 shall be allowed unless Contractor has given the written notice required by paragraph 24.A.1.
4. The provisions of this paragraph 24.A shall not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

B. Hazardous Environmental Conditions

1. For the purposes of this Contract, a “Hazardous Environmental Condition” shall be deemed to be the presence at the Site of asbestos, hazardous waste, PCBs, petroleum products or radioactive materials in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
2. Contractor shall be responsible for materials and any Hazardous Environmental Condition created by any materials brought to the Site by Contractor, Subcontractors, suppliers, or anyone else for whom Contractor is responsible.
3. If Contractor encounters or has reasonable cause to believe it has encountered a Hazardous Environmental Condition, Contractor shall immediately (a) secure or otherwise isolate such condition; (b) stop all Work in connection with such condition and in any area affected thereby (except in the case of emergency); and (c) notify Owner, promptly confirming such notice in writing. Owner shall promptly determine the necessity of retaining a qualified expert to evaluate such condition or take corrective action, if any.
4. Contractor shall not be required to resume Work in connection with such Hazardous Environmental Condition or in any such affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notices (a) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (b) specifying any special conditions under which such Work may be resumed safely.
5. To the fullest extent permitted by Laws or Regulations, Contractor shall indemnify and hold harmless Owner, Project Representative, and the Members, officers, employees and Project Representatives of each from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising out of or resulting from such Hazardous Environmental Condition created by Contractor or anyone for whom Contractor is responsible. Nothing in this paragraph 24.B.5 shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence.

ARTICLE 25 - TRAINING, OPERATION AND MAINTENANCE OF EQUIPMENT

- A. As a part of the Work, the Contractor in conjunction with his Subcontractors and Suppliers shall provide the Owner’s operations and maintenance personnel with adequate instruction and training in the proper operation and maintenance of any equipment, systems, and related controls provided or altered in the Work. The training requirements may be further defined in the specifications.
- B. The Contractor shall provide the Owner with a minimum of two (2) copies of operating, maintenance and parts manuals for all equipment and systems provided in the Work. Further specific requirements may be indicated in the specifications.

ARTICLE 26 – CLAIM AND RESOLUTION OF DISPUTES

- A. Claims

1. This provision shall be followed for consideration and handling of all Claims by the Contractor under this Agreement. Section 2.2-4365, VA Code Ann., is not applicable to this Agreement, and under no circumstances is this paragraph to be construed as an administrative appeals procedure governed by Section 2.2-4365, VA Code Ann.
2. Contractor shall submit notice of the intent to submit a Claim setting forth the basis for any Claim to the Owner through the Project Representative in writing within ten (10) days after the occurrence of the event (which may include the denial in whole or in part of a Change Proposal) giving rise to the Claim, or within ten (10) days of discovering the condition giving rise to the Claim, whichever is later. Failure to give such notice within such time period shall constitute a waiver of Contractor's right to submit a Claim based on such matter.
3. In no event shall any Claim arising out of this Contract be filed more than 60 days after the final payment by the Owner.
4. The responsibility to substantiate a Claim shall rest with the Contractor. Contractor shall submit the claim along with any substantiating documentation within twenty (20) days after submitting the notice of intent to submit a claim unless additional time is granted in writing by the Owner. Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
5. Claims by the Contractor with respect to this Contract shall be submitted in writing in the first instance for consideration by the Owner's Director of Operations and Maintenance. In the case of a Claim seeking an increase or decrease in the Contract Price of \$100,000.00 or less, the Director of Operations and Maintenance may render a decision regarding technical aspects of the Work or for Claims, of additive or deductive value, which are less than the authority delegated to the Director of Operations and Maintenance. Such decision shall be rendered in writing within forty five (45) days from the receipt of the Claim from the Contractor. The Contractor may appeal the denial (in whole or in part) of a claim by the Director of Operations and Maintenance to the General Manager as described in paragraph 6. below, but if no appeal is made, then the decision of the Director of Operations and Maintenance shall be final and binding.
6. In the case of Claims in matters affecting the performance, or quality of the Work or regarding a change in Contract Times, or Contract Price in excess of \$100,000.00, the Director of Operations and Maintenance shall, within five (5) days, forward such Claims to the General Manager. Additionally, any appeal by the Contractor of a decision of the Director of Operations and Maintenance under paragraph C.5. above, shall be submitted in writing by the Contractor to the General Manager within ten (10) days of the receipt of the decision of the Operations and Maintenance, and the Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of money requested accurately reflects the full amount to which Contractor is entitled.
7. The General Manager's decision on a Claim presented to the General Manager under ARTICLE 26 shall be rendered in writing to the Contractor within forty five (45) days of the General Manager's receipt of the Claim, and shall be final and binding unless

Contractor invokes the procedure set forth in ARTICLE 26.B for final resolution of disputes.

8. Should the Owner's Director of Operations and Maintenance or the General Manager fail to make a decision within the time period specified, then the Claim is deemed to have been denied. Pending a final determination of a Claim, the Contractor shall proceed diligently with the performance of the Work under the Contract.
9. Full compliance with this procedure set forth in this provision shall be a precondition to the filing of any lawsuit by the Contractor against the Owner arising out of or in any way related to this Contract.
10. Final and Binding Results: If Owner and Contractor reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then such results shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

B. Dispute Methods and Procedures

1. Disputes Subject to Final Resolution: The following disputed matters are subject to final resolution under the provisions of this Article:
 - a. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - b. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
2. Final Resolution of Disputes: For any dispute subject to resolution under this Article, Owner or Contractor may:
 - a. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions, if any.
 - b. Resolution of any outstanding claims, counterclaims, disputes and other matters in question arising out of or relating to the Contract Documents to the extent not resolved by the parties hereto, shall be resolved exclusively by litigation in either the Circuit Court of Prince William County, Virginia or the United States District Court for the Eastern District of Virginia, Alexandria Division. These two courts shall have exclusive and binding jurisdiction and venue over any and all disputes arising under this Agreement. The parties voluntarily waive any and all rights to a trial by jury. The fact finder shall be the court, sitting without a jury; provided, however, that nothing contained herein shall be construed to invalidate the finality of Prince William County Service Authority's decisions.

ARTICLE 27 - Not Used.

ARTICLE 28- Not Used.

ARTICLE 29 - STOP-WORK/SUSPENSION OF WORK

- A. The Owner may, at its sole option, decide to suspend or stop the Contractor's performance of the services required under the Contract. When, and if such action is considered, the Owner shall notify the Contractor of its decision in writing. The order shall be specifically identified as a stop-work order under this article. Upon receipt of the stop-work order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the Work covered by the stop-work order during the period of suspension.
- B. Upon receipt of any such notice, and unless the stop-work notice directs otherwise, the Contractor shall:
1. Immediately discontinue performing any services on the date and to the extent specified in the stop-work order;
 2. Place no further orders, contracts or subcontracts for material, services, or facilities with respect to suspended Work other than to the extent required in the stop-work notice;
 3. Promptly make every reasonable effort to obtain suspension upon terms satisfactory to the Owner, of all orders, subcontracts, and rental agreements to the extent they relate to performance of Work suspended; and
 4. Continue to protect and maintain the Work including those portions on which performance has been suspended.
- C. As full compensation for such suspension, the Contractor shall be reimbursed for the following documented costs, reasonably incurred, without duplication of any item, to the extent that such costs directly result from such suspension of performance:
1. All reasonable costs associated with the mobilization and demobilization of the Contractor's workforce and equipment; and
 2. An equitable amount to reimburse the Contractor for the cost of maintaining and protecting that portion of the Work that has been suspended.
- D. If, as a result of any such suspension, the cost to the Contractor of subsequently performing the service is increased or decreased, the Contractor may submit a request for an equitable adjustment.

ARTICLE 30 - CONTRACTOR MUST BE AUTHORIZED TO TRANSACT BUSINESS IN THE COMMONWEALTH

- A. In accordance with the Virginia Public Procurement Act (VPPA) § 2.2-4311.2 a Contractor organized as a stock or non-stock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Code of Virginia Title 13.1 or Title 50 or as otherwise required by law.
- B. The Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, or to be revoked or cancelled at any time during the term of the Contract.

- C. The Owner may void any contract with a business entity if the business entity fails to remain in compliance with the provisions of this section.

ARTICLE 31 - OTHER WORK AT THE SITE

A. Other Work

1. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site. The parties acknowledge, however, that the Site is an active work location for the Owner and shall remain such for the duration of this Project, and that the Contractor shall in no way interfere with or impede the Owner's regular business activities.
2. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
3. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Project Representative and the others whose work will be affected.
4. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 31, Contractor shall inspect such other work and promptly report to Project Representative in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

B. Coordination

1. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions, if any or provided to Contractor prior to the start of any such other work:
 - a. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - b. an itemization of the specific matters to be covered by such authority and responsibility; and
 - c. the extent of such authority and responsibilities.

2. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

C. Legal Relationships

1. Except for reliance on direction or information provided by unauthorized individuals, if, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractors' rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
3. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
4. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, Project Representative or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner, Project Representative and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to

such damage, delay, disruption, or interference.

ARTICLE 32 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

A. Access to Work

1. Owner, Engineer and Project Representative, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

B. Tests, Inspections, and Approvals

1. Contractor shall give Project Representative timely notice as specified in the Contract Documents of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
2. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of this Article 32. Paragraph E. Contractor shall coordinate with testing lab for inspections and tests at least 24 hours in advance.
3. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, with the exception of building code required special inspections, Contractor shall assume responsibility, as outlined in the Contract Documents, for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Project Representative the required certificates of inspection or approval.
4. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - a. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - b. to attain Owner's and Project Representative acceptance of materials or equipment to be incorporated in the Work;
 - c. by manufacturers of equipment furnished under the Contract Documents;
 - d. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - e. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.
 - f. Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

5. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, Project Representative or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
6. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Project Representative, Contractor shall, if requested by Project Representative, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Project Representative timely notice of Contractor's intention to cover the same and Project Representative had not acted with reasonable promptness in response to such notice.

C. Defective Work

1. Contractor's Obligation: It is Contractor's obligation to assure that the Work is not defective.
2. Project Representative, Engineer and Owner's Authority: Project Representative, Engineer and Owner have the authority to determine whether Work is defective, and to reject defective Work. If Contractor disputes Project Representative, Engineer or Owner's determination that Work is defective, it shall have the right to pursue a claim in accordance with Article 26. Paragraph A.
3. Notice of Defects: Prompt notice of all defective Work of which Owner, Project Representative or Engineer has actual knowledge of will be given to Contractor.
4. Correction, or Removal and Replacement: Within 7 days of discovering on its own or after receipt of written notice of defective Work, the Contractor shall submit to Project Representative and to Owner, for approval a corrective action plan describing how the Contractor intends to correct, or completed, or defective Work, and a work schedule specifying the expected completion of corrective work. Upon approval of the corrective action plan the Contractor shall proceed to execute it accordingly.
5. Preservation of Warranties: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
6. Costs and Damages: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 11.

D. Acceptance of Defective Work

1. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment,

the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then the Owner may impose a reasonable set-off against payments due under Article 11. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

E. Uncovering Work

1. Project Representative has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
2. If any Work is covered contrary to the written request of Project Representative, then Contractor shall, if requested by Project Representative, uncover such Work for Project Representative observation, and then replace the covering, all at Contractor's expense.
3. If Project Representative considers it necessary or advisable that covered Work be observed by Project Representative or inspected or tested by others, then Contractor, at Project Representative's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Project Representative may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - a. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 11.
 - b. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, to the extent that the critical path timing is impacted, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

F. Owner May Stop the Work

1. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them. If the Owner stops Work under this paragraph, then Contractor shall not be entitled to an extension of Contract Time or increase in Contract Price on the basis of such stoppage. The stoppage under this paragraph is not the same as the Owner's right to suspend or stop Work under Paragraph 29.

G. Owner May Correct Defective Work

1. If Contractor fails to submit a corrective action plan as per Article 32. Paragraph C. 4 or if Contractor fails to perform the Work in accordance with the approved corrective action

plan and the Contract Documents, or if Contractor fails to comply with any other provision in the Contract Documents, then Owner may, after seven (7) days written notice to Contractor, correct or remedy any such deficiency.

2. In exercising the rights and remedies under Article 32. Paragraph F, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
3. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Article 32. Paragraph F will be charged against Contractor as set-offs against payments due under Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
4. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Article 32. Paragraph F.

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Supplementary Conditions

1.1 Summary

- A. The intent of these Supplementary Conditions is to highlight the requirements of this Contract that establish Contract performance standards and expectations to mitigate the impact and disruptions of the Work on the quality of life of the public during the Work.
- B. There are “Inconvenience Fees” (defined below) associated with key actions or inactions of the Contractor that impact the public and/or the Owner. The Inconvenience Fees are found in Paragraph 1.12 of these Supplementary Conditions.
- C. These Supplementary Conditions include:
 - 1.2 Hours of Operation
 - 1.3 Community Relations
 - 1.4 Environmental Controls
 - 1.5 Roadways and Traffic
 - 1.6 Protection of Property
 - 1.7 Protection of Utilities
 - 1.8 Owner-Imposed Constraints
 - 1.9 Owner Safety Requirements
 - 1.10 Dispute Resolution
 - 1.11 Supplemental Insurance Requirements
 - 1.12 Inconvenience Fees

1.2 Hours of Operation

- A. Regular weekday work hours shall be limited to **7:00 am to 5:00 pm**
- B. All Work must comply with all permit requirements and regulations. Work, including the movement of equipment or other activity that generates noise, shall not be performed outside of normal working hours without Owner’s prior written approval. Extended weekday work hours must also comply with all permit requirements and Prince William County’s noise ordinance requirements for commercial activities. Contractor may only work extended weekday, or hours outside the regular hours listed above, with the prior written approval of the Owner. All requests by the Contractor to work extended outside the regular hours listed above shall be made in advance and allowing adequate time for the Owner and other governmental bodies, agencies or

authorities to consider the request. The Contractor shall compensate the Owner for staff overtime and consultant support arising from the extended hours, except if the extended work hours are directed by the Owner.

- C. Contractor shall plan and schedule their work and production, including daily clean up, within the constraints of the regular weekday work hours.
- D. Work on weekends, nights and Owner holidays will not be permitted except as approved in writing by the Owner. Owner holidays are as follows: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Day after Thanksgiving Day, Day before Christmas, Christmas Day.

The Contractor shall not be relieved of the responsibility to compensate the Owner for costs arising from work outside regular weekday work hours when the requirements for such work results from any action or inaction of the Contractor.

- E. The Owner has the option of declaring any needed Work to be an emergency. In the event of an emergency, as deemed by the Owner, the Contractor shall respond to the emergency within four (4) hours of verbal confirmation. The Contractor shall be available to complete emergency work seven (7) days per week, 24 hours per day.

1.3 Community Relations

- A. The Contractor shall notify owners of public utilities (as defined in Paragraph 1.7A. of this Section) in advance of this Work, in accordance with the Contract Documents.

1.4 Environmental Controls

- A. Noise

- 1. All Work shall occur in accordance with the Prince William County Noise Ordinance for commercial activities as follows:
 - a. Maximum Noise Levels measured at 100 yards from the noise source:

Zoning District Classification	Maximum dBA Daytime
Residential	60
Mixed Use District	60
Commercial	65
Office	65
Industrial	79

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b. Noise Prohibited Hours

All Work shall occur in accordance with the Prince William County Noise Ordinance unless dictated by the Contract Documents and requirements agreed to with Specific landowners as defined in Paragraph 1.2, Hours of Operation.

Day	Noise Prohibited Hours	
	Before	After
Monday through Friday	6:00 a.m.	10:00 p.m.
Saturday	10:00 a.m.	9:00 p.m.
Sunday (Holidays)	10:00 a.m.	9:00 p.m.

2. The Contractor shall be responsible for maintaining noise levels that comply with the standards of the Prince William County Noise Ordinance during the performance of the Work under this Contract. The Contractor shall limit noise production to legal levels by using mufflers, barriers, enclosures, equipment positioning, and other approved methods.
3. The Contractor may request the written approval of the Owner to apply for an exemption to the above.

B. Housekeeping

1. On a daily basis, the Contractor shall keep each Site clean and maintain a neat and orderly Site in accordance with the General Conditions and other Contract Documents to the satisfaction of the Owner or Project Representative. The Contractor shall remedy any situation deemed by the Owner or Project Representative to be an unacceptable presentation of their Site to the public.

C. Drainage Control

1. The Contractor shall provide for the drainage of storm water and any water applied or discharged on each Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, the Site, and adjacent property.
2. The Contractor shall provide for drainage and erosion control in accordance with the requirements of the Contract Documents. In installing devices and performing other procedures for drainage and erosion control, the Contractor shall comply fully with all applicable provisions of the Virginia Erosion and Sedimentation Control Handbook, latest edition and in accordance with all Prince William County ordinances or regulations.

D. Pollution Control

1. The Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes shall be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substances shall be permitted to enter sanitary sewers, and reasonable measures shall be taken to prevent such materials from entering any drain or watercourse.

E. Sanitary Facilities

1. The Contractor shall not be allowed to use any of the Owner's existing sanitary facilities or those included in the Work. The Contractor shall furnish and maintain adequate temporary sanitary facilities for the Contractor's personnel, as may be necessary, including all Subcontractor personnel, for the duration of the Contract in accordance with specification section 01500 Construction Facilities and Temporary Controls.

F. Nuisance

1. The Contractor shall prohibit and prevent nuisances on the Site of the Work or on adjoining property and shall permanently remove from the Site any employee who violates this requirement.

1.5 Roadways and Traffic

A. Maintenance of Traffic

1. Maintenance of traffic shall conform to the requirements of the Right-of-Way Land Use Permit issued by VDOT and the requirements of other regulatory agencies having jurisdiction.

2. The Contractor shall conduct the Work in such a manner as to minimize interference with public travel, both vehicular and pedestrian. When it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, the Contractor shall provide and maintain suitable and safe alternates for the accommodation of public and private travel, and shall give notice to owners of private drives as required by Paragraph 1.3 of these Supplementary Conditions. Such maintenance of traffic will not be required when the Contractor has obtained permission from the owner and tenant of private property, or from the owner having jurisdiction over the public property involved, to obstruct traffic at the designated point.
3. When required by the Owner, the Contractor shall furnish project message boards from a VDOT approved supplier and placed in accordance with VDOT requirements.

B. Maintenance of Roadways

1. As a minimum, twice on a daily basis, the Contractor shall sweep and wash all paved roads that are used as hauling roads, in accordance with the requirements of the Virginia Erosion and Sedimentation Control Handbook, latest edition, or as directed by the Owner or Project Representative.
2. Provide wheel wash facility at locations adjacent to paved roads, in accordance with the requirements of the Virginia Erosion and Sedimentation Control Handbook, latest edition, or as directed by the Owner or Project Representative. All vehicles leaving unpaved roads must use the wheel wash facility before using paved roads.

C. Temporary Pavement Patching

1. The Contractor shall install and maintain temporary pavement surfaces in accordance with the requirements of the Contract Documents and shall maintain the temporary surface on a daily basis.
2. The Contractor shall remedy any deficiencies in the temporary surface at the direction of the Owner or Project Representative or other agency having jurisdiction.
3. When, in the opinion of the Owner, the Work is detrimental to the comfort and safety of the citizens and the Contractor fails to provide an immediate correction, the Owner will order that the necessary repairs be made at the expense of the Contractor.

D. Public Service Vehicles

1. Contractor shall ensure that school buses, postal service vehicles, trash collection vehicles, emergency vehicles, police, and other public service vehicles can conduct their business, in

accordance with the requirements of VDOT or other right-of-way permitting agency having jurisdiction and in accordance with the requirements of specification section 01500 Construction Facilities and Temporary Controls.

E. Access to Property

1. The Contractor shall maintain Owner access to the project Site at all times.
2. The Contractor shall give advance notice in accordance with Paragraph 1.3 of these Supplementary Conditions to affected residents and businesses adjacent to the Work of the necessity to remove or obstruct the means of access to their property.
3. The Contractor shall utilize steel plates across driveways, in a safe manner for temporary means of access to property during pipe laying operations. The Contractor shall provide the steel plates, and the steel plates shall be on Site in the work zone during the progress of the Work for this purpose. Excavation of driveways shall match Contractor daily production.
4. All driveways shall be temporarily restored with compacted gravel immediately after completion of pipe laying operations.
5. Access to fire stations, hospitals, schools, and other essential emergency services facilities shall be maintained at all times.

F. Access

1. Access to the Site of the Work shall be restricted to existing public roads, roads owned by the Owner, and permanent and temporary easement property rights that have been secured by the Owner. Haul roads shall be as designated on the approved plans or as authorized by the Owner or Project Representative.
2. The Contractor shall use only these roads designated and shall be subject to fees for each use of an undesignated road.

G. Parking

The Contractor shall make suitable parking arrangements for the use of all construction workers and others performing Work or furnishing services in connection with the Contract, to avoid any need for parking personal vehicles where they may interfere with public traffic, residents' use of private property, or construction activities.

H. Milling And Paving

1. Contractor shall only mill road surfaces to the extent that permanent paving can be completed in accordance with the requirements of the Contract Documents.

1.6 Protection of Property

A. Preservation of Property

1. The Contractor shall preserve from damage all public or private property along the line of the Work in the vicinity of or in any way affected by the Work, unless removal or destruction is specifically identified and called for on the Contract Documents. The Contractor shall preserve from damage public utilities (as defined in Paragraph 1.7 A. of these Supplementary Conditions), trees, landscape areas, lawn areas, building monuments, fences, pipe and underground structures, and public streets.
2. Whenever the Contractor damages any property not specifically identified for removal or destruction on the Contract Documents, the Contractor shall immediately restore it to its original condition at the Contractor's own expense, as directed by the Owner, Project Representative, or other governing authority with jurisdiction.
3. In case of failure on the part of the Contractor to restore any wrongfully damaged property or make good such damage or injury, the Owner may, upon 24 hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any moneys due or which may become due the Contractor under this Contract.
4. The Contractor shall conduct operations in such a manner as to avoid damage to the property and to minimize interference with its ordinary use. The Contractor shall pay attention to all time constraints, work requirements, and restoration requirements that apply.
5. Where installations are to be placed on private property, rights-of-way or easements will be secured by the Owner without cost to the Contractor. Permanent and temporary easement locations are shown on the plans.
6. Where Work is required on private property in order to construct an installation within the right-of-way, the Contractor shall confine activities to the provided temporary easements. If the Contractor desires to make an alternate arrangement, the Contractor shall make an agreement with the property owner, and shall be responsible, without cost to the Owner, for securing permission to work on the private property.

7. If removal, repair, or replacement of public or private property is made necessary by alteration of grade or alignment authorized by the Owner or Project Representative and not contemplated by the Contract Documents, the Contractor shall be compensated in accordance with the Contract Documents, provided that such property has not been damaged through fault of the Contractor or the Contractor's employees.

B. Fences

1. Fences which interfere with construction operations shall be relocated, dismantled, or modified only in accordance with the agreement between the Owner and the property owner in accordance with mutual agreement of the Contractor and the property owner, as applicable. Such relocation, dismantling or modification shall only be for the period of time that has been agreed upon. If gates are installed for the Contractor's use per such agreement, the gates shall be kept closed and locked at all times when not in use. Existing fences affected by the Work shall be maintained by the Contractor until completion of the Work. Upon completion of the Work, the Contractor shall restore all fences to their original or better condition and to their original location, or in accordance with the agreement between the Owner and the property owner.

C. Trees, Landscape Areas, and Lawn Areas

1. All trees, shrubs, and landscape areas, except those ordered to be removed, shall be protected in accordance with the Contract Documents. No excavated material shall be placed so as to injure such trees or shrubs. Trees, shrubs, or landscape areas destroyed by accident or negligence of the Contractor or the Contractor's employees or Sub-contractors shall be replaced with new stock as directed by the Owner or Project Representative, in conformance with the Prince William County Design and Construction Standards Manual (DCSM) Section 804, at the proper season, and at the Contractor's expense.
2. Lawn areas shall be left in as good a condition as before the start of the Work. The areas where sod has been removed shall be restored by seeding or sodding in accordance with the Contract Documents.

D. Miscellaneous Structures

1. The Contractor shall be held entirely responsible for all injuries or damage to culverts, building foundations and walls, retaining walls, or other property at the Site or adjacent thereto, including but not limited to trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement during the prosecution of the Work, and shall be liable for damages to public or private property resulting therefrom. The Contractor shall adequately protect all pipes carrying liquid from freezing.

E. Restoration

1. The Contractor shall, upon completion of the Work through or on private property, restore the surface and all fences or other structures disturbed by the Contractor's operations as nearly as possible to the existing conditions or as required by the Contract Documents. No material shall be used or removed from private property without the written consent of the property owner or responsible party in charge of such property.
2. If restoration Work is not performed promptly, the Owner, after 48 hours written notice to the Contractor, may retain the services of another Contractor to perform the restoration Work. The cost for the performance of this restoration Work authorized by the Owner or Project Representative and performed by others shall be at the Contractor's expense.

F. Signed Release from Property Owners

As a prerequisite to obtaining the final payment for Work performed under any Project, the Contractor shall obtain a release, on the form provided in Attachment 1 to these Supplementary Conditions, from each owner of private property upon which any portion of the Work was performed within an existing or obtained Owner easement or agreement. In the event the owner of private property refuses to sign a release, the Owner or Project Representative shall be the sole judge as to whether private property has been restored to an acceptable condition.

G. Hold Harmless

1. The Contractor's indemnification in ARTICLE 15 of the General Conditions shall apply to claims or damages to private property arising from or in connection with the Contractor's performance of the Work in, on, through or near such private property, in addition to other claims or damages that it may apply to.

1.7 Protection of Utilities

A. Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, vaults, manholes, and other appurtenances and facilities, whether owned or controlled by public bodies or privately owned individuals, firms or corporations, used to serve the public with transportation, gas, electricity, telephone, storm and sanitary sewers, water, or other public or private utility services. Facilities appurtenant to public or private property which may be affected by the Work shall be deemed included hereunder.

B. Preservation of Service

1. The Contractor shall perform utility coordination in accordance with the Contract Documents, the General Notes on the Drawings, the Prince William County Service Authority

Utility Standards Manual (USM), and the Prince William County Design and Construction Standards Manual (DCSM).

2. The Contractor shall, at all times in performance of the Work, employ proven methods and exercise utmost care and skill to avoid unnecessary delay, injury, damage, or destruction to public utility installations and structures. The Contractor shall avoid unnecessary interference with or interruption of public utility services, and the Contractor shall cooperate fully with the owners of public utility installations and structures to that end. All work affecting existing utilities is subject to the requirements and approval of such utility.
3. Any water, gas, or other service connection damaged during the Work shall be repaired or replaced at the Contractor's expense, which shall be deemed included in the Contract Price. If a utility outage occurs, Contractor shall notify the owning utility and the Owner or Project Representative immediately.

C. Connections to Existing Utilities

1. Any connections to existing utilities to be made for the Contractor's use in executing the Work, such as electricity, gas, water or telephone, shall be made in a manner that shall minimize the risk of any damage to the existing utility. The Contractor shall notify the owning utility in advance of the planned time of connection.
2. If the utility is damaged during connection, replacement or repair shall be at the Contractor's expense, which shall be deemed included in the Contract Price. If a utility outage occurs, the Contractor shall notify the owning utility and the Owner or Project Representative immediately.

1.8 Owner-Imposed Constraints

- A. For certain Work Orders, the Owner may choose to impose additional constraints beyond what is required in the Contract Documents. Such additional constraints shall be specified in each Work Order.

1.9 Owner Safety Requirements

- A. Project safety is very important to the Owner and shall be followed per the Contract Documents. With respect to this Project, the following additional safety requirements apply:
 1. Fall protection and scaffolding safety is of particular concern to this project. The Contractor shall have all staff and subcontractors working on this project familiar with the Contractors health and safety plan and other plans required by the Contract. Health and Safety and other

required plans shall clearly address these hazards and provide procedures and proper protective equipment for worker safety and hygiene.

2. The designated safety representative shall have no other duties assigned for the duration of the Work.
3. The Contractor will provide contact information of the designated safety representative to the Owner, Project Representative, and Engineer if applicable to the Work Order at the Pre-Construction conference.

1.10 Dispute Resolution

The dispute resolution procedure is provided in Article 26 of the General Conditions shall apply, unless otherwise indicated here.

1.11 Supplemental Insurance Requirements

The insurance requirements set forth in the General Conditions shall apply, unless otherwise indicated here.

1.12 Inconvenience Fees

- A. The Owner and Contractor recognize that the Owner will suffer financial and other losses if the Contractor commits certain acts or breaches of the Contract Documents. The parties recognize that the delays, expense and difficulties involved in proving such an actual loss in a dispute resolution proceeding, and accordingly, instead of requiring such proof, agree that as liquidated damages for such public inconveniences (but not as a penalty) Contractor shall pay Owner according to the schedule below in the event that, during the course of performing the Work, the Contractor commits any of the following breaches of the contractual requirements for each such infraction:

Category of Inconvenience Caused by Contractor	Inconvenience Fee
Unauthorized operation of any valve by the Contractor.	\$ 2,500
Use of roadways not designated as haul roads, per the Contract Documents.	\$ 250
Working outside normal work hours, per the Contract Documents, or without written authorization from Owner.	\$250 plus the cost of overtime
Performing construction activities in prohibited areas or in areas with limited work hours, per the Contract Documents.	\$ 4,000

Failure to place and maintain traffic control in accordance with VDOT or other right of way permitting agency requirements.	\$ 500
Failure to provide written notification to affected residents/businesses per property per day.	\$ 50
Revocation of VDOT or other regulatory permit.	\$ 5,000
Failure to restore an unplanned water service interruption every hour after 4 hours.	\$ 500
Failure to restore water service within the planned service interruption time every hour after 4 hours.	\$ 500
Milling and paving activities and practices that are not in conformance with the Contract Documents, per day.	\$ 500
Construction activities and practices, that are not in conformance with the Contract Documents	\$ 250 plus overtime
Construction activities and practices, that are not in conformance with the Contract Documents, that lead to complaints to elected officials and the Owner, requiring resources to resolve. (e.g. Failure to keep roads and Site clean and free of debris)	\$ 4,000
Notice of violation issued by a regulatory agency with jurisdiction over the Project.	\$ 1,500 + any additional fines or penalties imposed by the regulatory agency.
Performing Construction activities out of sequence, per the Contract Documents.	\$ 5,000
Failure to have on site a Responsible Person who communicates in English (in speaking and writing).	\$250 per occurrence

- B. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as Inconvenience Fees representing an estimate of damages likely to be sustained by the Owner, estimated at or before the time of executing the agreement.
- C. When the Owner reasonably determines that Contractor has committed one of the breaches listed above, the Owner shall invoice Contractor for the corresponding amount listed above. In addition, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount adequate to recover the Inconvenience Fees imposed. Any Inconvenience Fees not so deducted from any unpaid amounts due the Contractor shall be immediately due and payable to the Owner upon demand.
- D. If and when the Contractor pays the Inconvenience Fee to the Owner, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as Inconvenience Fees.

- E. The parties agree that the per infraction measure of Inconvenience Fees are a reasonable measure of the damages Owner is likely to suffer in case of such breach of the contract requirements, and the Contractor agrees that it will not challenge the amounts of Inconvenience Fees imposed herein.
- F. Contractor hereby waives any defense as to the validity of any Inconvenience Fees stated herein on the grounds that such Inconvenience Fees are void as penalties not reasonably related to actual damages.
- G. The parties further agree that the Inconvenience Fees set forth herein shall be the Owner's sole remedy for damages as a result of the Contractor's committing a breach of any of the contract requirements listed above.
- H. The Inconvenience Fee Notification Form is shown on Attachment 2. The Contractor will be notified by the Owner via the Inconvenience Fee Notification Form when an Inconvenience Fee has been incurred. The Contractor may appeal the imposition of and Inconvenience Fee by submitting a Claim in accordance with Article 26 of the General Conditions.

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Attachment 1
Property Owner Release Form

Project: Sanitary Sewer Main Lining (CIPP)

Property Address: _____

Name of Property Owner: _____

I, _____ (printed name of owner), owner of the property at
_____ (property address) agree that the property has been
restored to pre-construction conditions and hereby release [name of Contractor] and Prince William
County Service Authority from any and all liabilities, losses, damages and claims relating to or arising from
[name of Contractor]'s work on the property listed.

Owner's Signature: _____

Date: _____

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Attachment 2

INCONVENIENCE FEE NOTIFICATION FORM

IFB SA-1815

Title: Sanitary Sewer Main Lining (CIPP)

The Contractor is notified that an Inconvenience Fee has been incurred, as documented below.

Inconvenience Number: _____

Inconvenience Incurred: _____

Date of Occurrence: _____

Location: _____

Fee due to the Owner: _____

Photograph or other documentation attached.

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Attachment 3

CHANGE OF CONTRACTOR PERSONNEL

IFB SA-1815

Title: SANITARY SEWER MAIN LINING (CIPP)

Contractor's proposed Project Personnel:

		Name	Years of Employment with Contractor	Years of Pipe Laying Experience
1	Crew Member			
2	Crew Member			
3	Crew Member			
4	Crew Member			
5	Crew Member			

Contractor's proposed Project Personnel to be removed:

		Name
1	Crew Member	
2	Crew Member	
3	Crew Member	
4	Crew Member	
5	Crew Member	

Owner's Signature of Authorization: _____

Date: _____

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Bid Submission Checklist

Bid shall include, at a minimum, the following:

- a. Duly completed Bid Form retyped on Bidder's letterhead, in accordance with the format given in Exhibit-D
- b. Schedule of Unit Prices-Exhibit E
- c. Exhibit F: (Not Used)
- d. Wavier of Responsibility For Subsurface Information Exhibit G
- e. Schedule of Proposed Subcontractors-Exhibit H
- f. Bidder Personnel-Exhibit I
- g. Bidder's References-Exhibit J
- h. Addenda Acknowledgement-Exhibit K
- i. Virginia Contractor's License-Exhibit L
- j. Proof of Insurability Exhibit M

SANITARY SEWER MAIN LINING (CIPP)

CONTRACT NO. IFB SA-1815

PROJECT MANUAL

PART II
GENERAL REQUIREMENTS

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TABLE OF CONTENTS

PART 2 - GENERAL REQUIREMENTS

Section 01001 – Project Summary

Section 01005 – Administrative Provisions

Section 01025 – Measurement and Payment

Section 01050 – Field Engineering

Section 01200 – Project Meetings

Section 01300 – Submittals

Section 01310 – Construction Schedule and Sequence

Section 01400 – Quality Control

Section 01500 – Construction Facilities and Temporary Controls

Section 01501 – Flow Control/Bypass Pumping

Section 01600 – Materials and Equipment

Section 01700 – Contract Close-out

Section 01720 – Record Documents

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SECTION 01001 - PROJECT SUMMARY

PROJECT SUMMARY PROJECT SA1815

1.01 SECTION SUMMARY

This section describes the major work elements involved in the project and presents the contract method, information peculiar to the Project and constraints on performance of the Work.

1.02 SCOPE OF WORK

This project consists of an annual services contract to provide a means for rehabilitating sanitary sewer lines using the cured-in-place pipe (CIPP) reconstruction process. The sanitary sewer mains comprise piping that range from 8 to 30 inches in diameter. The Contractor shall be responsible for providing all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the terms of the contract.

Work shall be performed on a Work Order Basis. The amounts listed in the Schedule of Unit Prices in no way constitute a minimum or maximum amount of work required within a given contract period. The Service Authority may issue Work Orders based on any of the items in the Schedule of Unit Prices for the rehabilitating of sanitary sewer lines using CIPP reconstruction process.

The work includes the following:

- Coordinate with the Owner
- Coordinate work that may impact property owners
- Clean, televise, and assess the sewer mains prior to lining
- Conduct minor repairs to existing pipe to facilitate lining
- Flow Control
- CIPP liner installation
- Reinstate all service laterals
- Conduct post installation inspection and report
- Complete site restoration impacted by the project
- Traffic Control
- Inspections and intermediate/final reports (PACP standard format)
- Other miscellaneous items required to complete the work
- Cut protruding laterals prior to lining

1.03 CONTRACT METHOD

The Contractor shall perform the work under a unit price, itemized work element contract. Estimated quantities in the Schedule of Unit Prices accompanying the Bid are approximate only and are for comparing Bids. Payment will be made for the actual quantity of work done times the applicable unit price shown in the schedule.

Tasking for installing CIPP for this annual services contract shall be administered through a Work Order. The minimum Work Order for installed CIPP is anticipated to be 3000 linear feet.

The Owner may change significantly the quantity of work elements cited in the Schedule of Unit Prices. Changes in Contract Unit Prices for any item in the Schedule of Unit Prices affected by Owner's action will be considered only pursuant to the provisions of Article 26 of the General Conditions of the Contract.

1.04 CONSTRAINTS ON PERFORMANCE

Part of the work will be done in public road rights-of-way controlled by the Virginia Department of Transportation (VDOT). Adhere strictly to the conditions imposed by the Department's permits. Obey all instructions regarding backfilling, replacement of surfaces and management of traffic around the work sites that may be issued by VDOT personnel. VDOT requires the Contractor to use a crash-cushion truck to protect the workers when any lanes are closed within the right-of-way. Contractor shall be prepared to work late at night if such hours are dictated by VDOT personnel.

The Service Authority's on-site representative has the authority to close the job for the day should traffic control measures not be implemented according to the Virginia Work Area Protection Manual. The contractor shall have no recourse in this matter, nor shall he be eligible for extra time or expenses.

Section 01025 – Measurement and Payment includes a consideration for various traffic control conditions.

END OF SECTION

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SECTION 01005 - ADMINISTRATIVE PROVISIONS

PART 1 - GENERAL

1.01 DEFINITIONS

Not Used.

1.02 CORRELATION, INTERPRETATION AND INTENT OF DOCUMENTS

If there appears a conflict, error or discrepancy in the Contract Documents, call it to the Engineer's attention in writing before proceeding with the work affected thereby. In resolving conflicts between the various Contract Documents, the most restrictive provision will prevail. Conflicts, errors or discrepancies that cannot be resolved by applying the most restrictive rule will be resolved by giving the Contract Documents the following order of precedence: Change Order, Notice to Proceed, Work Order, Addenda or Amendments, Supplementary Conditions, General Conditions, Agreement, Specifications, Drawings, Proposal, thence Cost Proposal Summary. Work, materials or equipment described in words that, when so applied, have a well-known standard of practice or trade meaning shall be deemed to conform to such meanings.

1.03 PERMITS

Comply with the requirements of the Contract Documents whenever applicable.

Virginia Department of Transportation (VDOT)

The Virginia Department of Transportation (VDOT) Land Use Permit for constructing the Project within VDOT rights-of-way will be required. The Owner shall obtain and pay for the required permit(s). Maintain two copies of all such permits prior to any activity within VDOT rights of way, and keep one copy at the work site until all activity is completed. Comply with instructions received from VDOT inspectors concerning work in any right of way affected by each permit.

1.04 ESTIMATES AND REQUESTS FOR PAYMENT

Submit Estimates and Requests for Payment no more frequently than monthly. Submit Estimates and Requests for Payment, in original and two complete copies, for work completed since the last request. Include Monthly Payment Estimate, Monthly Estimate Summary and Request for Payment and an executed copy of the Contractor's Affidavit in Support of Request for Partial Payment in each package. Attach copies of invoices supporting amounts for materials for which payment is requested. Submit only one set of invoices.

1.05 CONFLICTING UTILITIES

There may be water, sewer, gas, electric, telephone or other facilities underground or

overhead within the construction limits of the Project not shown on the Drawings. In accepting a Work Order, the Contractor represents that it has considered all utility appurtenances that might interfere with prosecution of the Work in their present or relocated positions, whether or not specifically shown. No additional compensation will be allowed for delays, inconvenience, cost or damage sustained by him due to interference from the said utility appurtenances or any operation of moving them, other than a consideration of an extension of time.

Comply with all regulations, standards and practices promulgated by the various utility companies and agencies affected by the Work.

Two statutes enacted by the Commonwealth of Virginia affect the conduct of the Work as it relates to other utilities. Become familiar and comply fully with the following:

Underground Utility Damage Prevention Act
(Va. Code, 56-265.14 through 56-265.29)

Overhead High Voltage Line Safety Act
(Va. Code, 59.1-406 through 59.1-414)

1.06 CHARACTER OF WORKERS, METHODS AND EQUIPMENT

Per Article 21 of the General Conditions, employ sufficient labor and equipment for the prosecution of the several classes of Work to full completion in the manner and time required by the Contract Documents.

Employ only workers who have sufficient skill and experience to perform properly the Work assigned to them. Workers engaged in special or skilled Work must have sufficient experience in such Work and in the operation of the equipment required to perform it properly and satisfactorily.

Any person employed by the Contractor or by any subcontractor who, in the opinion of the Owner, is not satisfactory shall, at the written request of the Project Representative, be removed forthwith by the Contractor or subcontractor employing such person, who shall not be employed again on any portion of the Work without the Owner's approval.

Methods and types of equipment to be used by the Contractor in accomplishing the construction are not prescribed. Contractor is free to use any methods or equipment that will accomplish the Work in conformity with the requirements of the Contract Documents.

Use only equipment on the Work that is of sufficient size and in such mechanical condition as to meet the requirements of the Work and to produce a satisfactory quality of Work. Equipment shall be designed and operated in such a manner that no injury to any roadway, adjacent property or other facility will result from its use. The Project Representative shall have the authority to require the Contractor to replace any

unsatisfactory equipment.

1.07 PROGRESS OF WORK

Anytime that materials or equipment to be used appear to the Project Representative as insufficient or improper for securing the quality of Work required or for securing the rate of progress required, he may order the Contractor to increase his efficiency or to improve the character of his Work and the Contractor shall conform to such an order. However, failure of the Project Representative to demand an increase in efficiency or any improvement shall not release the Contractor from his obligation to secure the quality of Work or the rate of progress necessary to complete the Work within the limits imposed by the Contract.

1.08 WORK HOURS

Hours of operations shall conform to the requirements set forth in the Supplementary Conditions, Section 1.2 Hours of Operation.

If it is necessary or desirable to carry on work outside regular hours or on Saturdays, Sundays or holidays, submit application to the Owner in ample time to enable arrangements to be made by the Owner for inspecting the work in progress. At night, light the different parts of the work fully.

1.09 ADMINISTRATIVE FORMS

The following forms or reasonable digital format thereof shall be used in administration of the Contract:

- A. Contractor's Monthly Payment Request
- B. Contractor's Affidavit in Support of Request for Partial Payment
- C. Tabulation of Work Performed
- D. Record of Materials Purchased and Safely Stored
- E. Proposed Work Order
- F. Contract Change Order

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Prince William County Service Authority
Contractor's Monthly Payment Request

Project Title:			
Contract No.: SA-1815		Date: mm/dd/yr	
PWCSA Purchase Order No. XXXXXXXX		Project Code:	
Request No.: (Partial)(Final)		Contractor Name and Address: Name Address	
Period From: To:			
		Contractor Invoice No.	
Work Order Amount		As Amended by Change Order No(s).	
Amounts Requested		Payment Terms: 30 Days	
Description		Previous	This Month
		To Date	
Earnings for Work done			
Plus (Minus) Materials on Hand			
Less Disputed Amounts			
Gross Earnings			
Less 5% Retainage			
Net Earnings			
Less previous payments			
Plus payment of previous retainage (Final Estimate only)			
Net payment, this estimate			
Percent Time Elapsed:		Percent Work Complete:	
Work Order Completion Data:			
Notice to Proceed / Construction Start Dates: <u>[mm/dd/yr] / [mm/dd/yr]</u>			
Work Order Substantial / Final Completion Time: * <u>XXX / XXX days</u>			
Work Order Substantial / Final Completion Dates: * <u>[mm/dd/yr] / [mm/dd/yr]</u>			
* As amended by Change Order No.:			
CONTRACTOR		PWCSA / PROJECT CONTROLS SPECIALIST	
Submitted By:		Reviewed By:	
Title/Date:		Date:	
PROJECT REPRESENTATIVE		PWCSA/	
Reviewed By:		Reviewed By:	
Title/Date:		Date:	
ENGINEER (If applicable)		PWCSA/	
Reviewed By :		Approved By:	
Title / Date:		Date:	

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Prince William County Service Authority
Contractor's Monthly Payment Request
Contractor's Monthly Fees Statement

The items listed on this page are Fees associated with the Project. These Fees are required to be paid in the timeframes allotted by the invoice dates or per the Contract Documents and prior to final payment being released on the Contract.

The Owner may, but shall not be obligated to, deduct any Fees that become due from any unpaid amounts then or which thereafter become due to the Contractor.

Any Fees not so deducted from any unpaid amounts due the Contractor shall be immediately due and payable to the Owner upon demand.

Inconvenience Fees	Inconvenience Fee Number	Amount Assessed	Paid	Amount Due
Hydrant Meter Fees	Invoice No.	Amount Invoiced	Paid	Amount Due
PWCSA Fees	Invoice No.	Amount Invoiced	Paid	Amount Due
Net Amount Invoiced				
Previous Payments				
Amount Withheld, this Payment Request				
Net Amount Due				
CONTRACTOR		PWCSA / PROJECT CONTROLS SPECIALIST		
Submitted By:		Reviewed By:		
Title/Date:		Date:		
PROJECT REPRESENTATIVE		PWCSA /		
Reviewed By:		Reviewed By:		
Title/Date:		Date:		
ENGINEER (If applicable)		PWCSA /		
Reviewed By :		Approved By:		
Title / Date:		Date:		

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Prince William County Service Authority
Contractor's Affidavit in Support of
Request for Partial Payment under Contract No. SA-1815[add Contractor initials]

PO Number: IFB SA-1815 Date: _____

Project Title: _____

The undersigned, who is _____

of _____,

the Contractor, a party to the subject Contract, hereby deposes and affirms that:

1. The quantities and value of Work claimed in the Estimate and Request for Payment
2. All material, labor, and indebtedness of whatever nature arising out of the performance of the subject Work Order have been paid in full, or in the case of material suppliers and subcontractors, will be paid within seven (7) days from the date of payment by the Authority on account of the above cited Estimate and Request.

Signature: _____

Name Typed: _____

STATE OF: _____

COUNTY OF: _____

Sworn and subscribed before me this _____ day of _____, 20____.

_____(SEAL)

Notary Public

My Commission expires _____, 20_____.

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Proposed Work Order

Company Name

Week Schedule

Crew #

DATE	P.O. #	LOCATION	SIZE/MM	LENGTH	TAPS	COMMENTS
MON						
TUE						
WED						
THU						
FRI						

TOTALS

0

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Prince William County Service Authority
Contract Change Order under Contract No. SA1815 [add Contractor initials]

Project Title: _____ Change Order No.: _____

Project Code: _____ PO No.: _____ Contract Date.: _____

Pursuant to the General Conditions of the Contract, Article 8, make the following changes:

Justification:

CHANGE TO THE WORK ORDER PRICE

Original Amount	\$ _____
Current Price, as adjusted by previous Change Orders	\$ _____
Contract Price due to this Change Order will be increased/decreased by	\$ _____
The new Contract Price resulting from this Change Order will be	\$ _____

CHANGES TO THE CONTRACT TIME

The Contract Time will be increased/decreased by _____ days.
The date for Substantial Completion of all Work under the Work Order will be: _____
The agreed upon Change Order contained herein constitutes all costs associated with this change including all impact and delay costs.

SIGNATURES

For the Owner: PRINCE WILLIAM COUNTY SERVICE AUTHORITY

Authorized Signature: _____ Date: _____
Title: _____

For the Contractor: XXXXXXXXXXXXXXXXXXXX

Accepted By: _____ Date: _____
Title: _____

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SECTION 01025 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01. Basis for Measurement and Payment

Measurement and Payment will be made for only those items included in the Schedule of Unit Prices or Contract Change Order(s) for the Project.

- A. All measurement for payment will be for completed work performed according to Contract Specifications, Construction Details and the Schedule of Unit Prices. The Engineer shall measure all work according to the methods outlined below.
- B. Payment for any item is full compensation for furnishing all labor, materials and equipment required to provide a complete and operable item of the work. Any work and material paid for under one item will not be paid for under another item.
- C. Where units differ between the items listed below and the Schedule of Unit Prices, the Schedule of Unit Prices governs.

PART 2 - CONTRACT ITEMS

2.01 CCTV INSPECTION

- 1. *Measurement*: Shall be measured based upon the actual linear footage of pipe televised.
- 2. *Payment*: Payment shall be made at the contract unit price per linear foot for the diameter of pipeline inspected and reported in accordance with PACP. The unit price includes all labor, materials, and equipment necessary to perform the television inspection. This unit price shall be used for pre-CIPP lining CCTV inspection and measurement of materials required to assess a sanitary sewer main for lining. CCTV inspection performed to identify an obstruction and to verify the need for heavy cleaning and post-CIPP lining CCTV inspection is not included and shall be considered incidental work required for the lining of sanitary sewer main and shall be included in the unit price.
- 3. Note: All pre-CCTV and final CCTV inspections must follow flushing nozzle.

2.02 TRAFFIC CONTROL

- 1. Traffic Control Four Lane Road
 - A. *Measurement*: Traffic control for four lane road shall be measured on a daily rate and shall include all items required to complete the operation including but not limited to signs, cones, barrels, arrow boards, crash attenuators, flaggers, shadow vehicles and

other items required to complete the operation, which is not included in item 2.06. Refer to the latest version of the VDOT Virginia Work Area Protection Manual for traffic control requirements.

- B. *Payment*: Traffic Control four lane road shall be made at the contract unit price bid per day.

2.03 BYPASS PUMPING OF SANITARY SEWER MAIN (2 – 4 MGD)

1. *Measurement*: Bypass pumping shall be measured based on the daily rate established in the unit bid price. Bypass pumping shall be an incidental cost for CIPP lining with average daily flows less than 2 MGD and shall not be measured for payment. This item shall be reviewed as part of the bypass plan for each installation.
2. *Payment*: Payment shall be made at the contract unit price per day required for bypass pumping for flows from 2 to 4 MGD. The unit price includes all labor, incidentals, materials, equipment, and all *other* work not included under other items, necessary to complete the work as specified. Bypass pumping less than 2 MGD is considered incidental to the various work items.

2.04 HEAVY CLEANING

1. *Measurement*: Shall be measured based upon the actual linear footage of pipe cleaned using a mechanical type device other than hydrojetting head used for regular cleaning.
2. *Payment*: Shall be made at the contract unit price per linear foot of pipe heavy cleaned. The unit price includes all *labor*, traffic control, materials, equipment and debris removal and disposal. Pipeline regular cleaning shall be an incidental item for the lining of sanitary sewer main and shall be included in the unit price.

2.05 GROUT EXCESSIVE INFILTRATION PRIOR TO LINING

1. *Measurement*: Shall be measured based upon each gallon of grout used to limit infiltration.
2. *Payment*: Payment shall be made at the contract unit price bid per gallon of grout used. The unit price includes all labor, setup, breakdown, incidentals, materials, equipment, and all other work not included *under* other items, necessary to complete the work as specified.

2.06 CIPP FOR SANITARY SEWER MAIN

1. *Measurement*: Shall be measured based upon the actual linear footage and size of the CIPP installed measured from manhole to manhole.
2. *Payment*: Payment shall be made at the contract unit price bid per linear foot and size of CIPP. The unit price includes all labor, incidentals, materials, equipment, resident

notification/coordination, *necessary* permits, flow control/bypass pumping flows less than 2 MGD, line cleaning, CCTV inspection to identify an obstruction and to verify the need for heavy cleaning, obstruction removal, traffic control for a two lane road under 45 MPH, post CIPP lining, CCTV inspection, reports, mobilization/demobilization, QA/QC, and all other work not included under other items, necessary to complete the work as specified.

2.07 ROBOTIC REINSTATEMENT OF SERVICE

1. *Measurement*: Shall be measured based upon each lateral service connections reinstated and made suitable for lining by robotic means. The lateral shall be considered suitable when the opening is restored to 100 percent of the original opening size and to the approval of the on-site representative (cut & brushed).
2. *Payment*: *Payment* shall be made at the contract unit price per each service lateral reinstated and *made* suitable for lining.

PART 3 – EXECUTION (Not Used)

SECTION 01050 - FIELD ENGINEERING

PART 1 - GENERAL

1.01 Layout and Dimensioning for Construction

Contractor shall make all measurements and check all dimensions necessary for the proper construction of the Work called for by the Drawings and specifications. During the prosecution of the Work, make necessary measurements to prevent misfitting in said Work, be responsible therefore, and for the accurate construction of the entire Work.

Furnish to the Project Representative such assistance as may be necessary for making measurements and checks thereof, of all items concerning the Work. This may require the services of one or two persons from the Contractor's organization. Furnish such assistance promptly whenever needed, in order not to delay the Work.

PART 2 - PRODUCT (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

A. Preconstruction Meeting

Within twenty (20) days after the date of a construction type Work Order, but before Contractor starts the work, a conference will be held at the office of the Owner where the Project Representative will review contract and administrative requirements and procedures, such as review and acceptance of submittals required by Section 01300, to establish procedures for handling Shop Drawings and other submittals, and review the procedures for processing Applications for Payment. The Project Representative will establish a working understanding among the parties involved relative to administration and coordination of construction. The meeting will be presided over by the Project Representative who will have minutes prepared for all parties attending. Representatives from the Owner, Engineer, Project Representative, Contractor and other agencies shall attend.

B. Project Meetings for construction type Work Orders

Regular project meetings will be held at the site monthly (at a minimum) at a time mutually acceptable to the Engineer, Project Representative, Owner, and Contractor. Meetings will be conducted by the Project Representative and shall be attended by principals, or their designated representatives, of the Contractor and major subcontractor. Instructions delivered or commitments made at these meetings will be binding on all parties concerned. Minutes of meeting will be prepared by the Project Representative and copies thereof will be made available to all parties attending.

C. Closeout Inspection

Before submitting the final application for payment, the Engineer, Project Representative, the Contractor, Subcontractors, and other interested parties having jurisdiction over the Project (e.g., Erosion control, VDOT, etc.), will conduct an inspection of the completed Work. The purpose of the inspection will be to ascertain that the Work is complete and according to the Contract Documents that record Drawings, warranties, and the documents required for operation and maintenance personnel have been delivered, and that all regulatory requirements have been met fully.

The Project Representative will arrange the inspection upon notification by the Contractor that the Project is completed, and he will invite all parties for whom attendance is optional. Upon successful completion of the inspection, the application for payment, affidavits, waivers and any required post construction bonds may be delivered to the Project Representative for review and, if approved, transmitted to the Owner for payment.

D. Other related Project Meetings

Other project related meetings will be required as specified in the Contract Documents.

PART 2 - PRODUCT (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01300 – SUBMITTALS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures.
- B. Construction Progress Schedules.
- C. Schedule of Values.
- D. Shop Drawings.
- E. Product Data.
- F. Samples.
- G. Manufacturers' Certificates and equipment start-up.
- H. Record Documents

1.02 RELATED REQUIREMENTS

- A. Section 01005 - ADMINISTRATIVE PROVISIONS.
- B. Section 01400 - QUALITY CONTROL.
- C. Section 01700 - CONTRACT CLOSEOUT.

1.03 PROCEDURES

- A. Contractor shall prepare and group submittals that include all relevant specification requirements needed for the Project Representative's and Engineer's review and approval.
- B. Deliver submittals to Project Representative: The Contractor shall submit to the Project Representative a specific request in writing for each item of information or approval required of him by the Contract. These requests shall be submitted sufficiently in advance of the date upon which the information or approval is actually required by the Contractor to allow for the time the Project Representative will take to act upon such submissions or resubmissions. The Contractor shall not have any right to an extension of time due to delays caused by his failure to submit his requests for the required information or the required approval on time.

- C. Transmittal: The Contractor shall submit to the Project Representative, at the address given in the Agreement, the number of copies of each submittal that the Contractor wishes to be returned plus 3 copies (1 copy for Owner to be retained for record purposes, 1 copy for the Project Representative, and 1 copy to be retained by Engineer), unless otherwise noted. For submittals larger than 11 inches x 17 inches, submit one reproducible document in addition to the above which will be retained by the Engineer. Submittals shall be accompanied by a letter of transmittal containing the following information:
1. Submittal number: Number submittals sequentially
 2. Identification of the Contractor, subcontractor or supplier
 3. Project title, project number and division, and contract number
 4. Specification reference section number, Section submittal number and suffix
 5. Drawing sheet, and detail number as appropriate
 6. Contractor's stamp or certification the products have been reviewed and are in accordance with the requirements of the Work and the Contract Documents
 7. Identified applicable materials, sizes, models, procedures, Drawings, etc. proposed for construction.
 8. List of variations from Contract Documents and any limitations which may be detrimental to the Work
 9. Space for Contractor and Engineer review stamps.
- D. Review by Engineer: Drawings or descriptive data will be marked "Approved," "Approved as Noted," "Revise and Resubmit," or "Rejected," and the Contractor's copies together with a letter of transmittal will be returned to the Contractor.
- E. No Additional Copies Required: When the Drawings and data are returned marked "Approved", no additional copies need be furnished.
- F. Corrected Copies: When submittals are marked "Approved As Noted", 2 corrected copies with changes highlighted shall be submitted. If additional new changes are proposed, they shall be submitted in accordance with Paragraph 1.03 B.
- G. Resubmittals: When the Drawings and data are returned and marked "Rejected", the corrections shall be made as noted thereon and as instructed by the Engineer, and corrected copies shall be resubmitted in accordance with Paragraph 1.03 B. When corrected copies are resubmitted, the Contractor shall, in writing, direct specific attention to all revisions and shall list separately any revisions other than those called for by the Engineer on previous submittals. A marked copy of the original submittal shall also accompany the resubmittal.
1. Resubmittals shall be given an alphabetic suffix to the Section submittal number of the original submittal to indicate which resubmittal it is (i.e.; #a indicates first resubmittal, #b indicates second and so forth).
 2. Letter of Resubmittal: Contractor's letter of resubmittal shall list the date of his

original submittal letter, the date of the Engineer's letter returning the submittal, and the dates of submission and return of any previous resubmittals.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit progress schedule in conformance with the requirements of Section 01310.
- B. Submit horizontal bar chart with separate bar for each major trade or operation, identifying first workday of each week.
- C. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Show projected percentage of completion for each item of Work as of time of each progress Application for Payment.
- D. Show submittal dates required for Shop Drawings, product data, and samples, and product delivery dates, including those furnished by Owner and those under allowances.
- E. Submit initial progress schedules and schedules of values in duplicate within ten (10) days after date of Contract. After review by Project Representative, revise and resubmit as required. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.
- F. Comply with progress schedule for submittals related to Work progress. Coordinate submittals of related items.

1.05 SCHEDULE OF VALUES - LUMP SUM ITEMS

- A. Submit typed schedule on 8½ x 11-inch paper. Contractor's standard form or computer-driven printout will be considered on request.
- B. Identify each line item with number and title of the major Specification sections and Schedule of Unit Prices accompanying Bid and included in Agreement.
- C. Include in each line item a directly proportional amount of Contractor's overhead and profit.
- D. Revise schedule to reflect change orders at each application for payment.

1.06 SHOP DRAWINGS

- A. Submit the number of opaque reproductions which Contractor requires, plus two copies to be retained by Engineer.
- B. Shop Drawings: The Contractor shall promptly prepare and submit layout, detail, and

- working Drawings for such parts of the Work as specified. Drawings include, but are not limited to, Shop Drawings, catalog cut sheets, layout Drawings in plan and elevation, installation Drawings, elementary wiring diagrams, manufacturer's data, etc. They shall provide complete details of all equipment, fabrications, and materials that will become a permanent part of the Work under this Contract. The Contractor shall be responsible for securing all of the information, details, dimensions, Drawings, etc., necessary to prepare the Shop Drawings required and necessary under this Contract and to fulfill all other requirements of this Contract. Contractor shall secure such information, details, Drawings, etc., from all possible sources including the Drawings, Shop Drawings prepared by Subcontractors, Engineers, suppliers, etc.
- C. Schedule: A schedule of shop drawing submittals shall be submitted for the Project Representative's review within 21 calendar days after the Notice to Proceed.
- D. Project Information: Each shop drawing shall be dated and shall contain the name of the Project, Contract number of the Project, Contractor's stamp, names of equipment or materials, and the locations at which the equipment or materials are to be installed in the Work. The Project Representative or Engineer may decline to consider any shop drawing that does not contain complete data on the Work and full information on related matters.
- E. Requirements: Shop Drawings shall present, where applicable, engineering data and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external connections, anchorages, and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment.
1. Numbering and Additional Considerations: Shop Drawings shall be numbered consecutively and shall accurately and distinctly present the following:
- a. All working and erection dimensions.
 - b. Arrangement and sectional views.
 - c. Necessary details, including complete information for making connections between Work under this Contract and work under other contracts.
 - d. Types of materials and finishes.
 - e. A list and description of parts.
- F. Review by Contractor:
1. The Contractor shall check and approve all Shop Drawings before transmitting them to the Project Representative to determine that all Shop Drawings comply with the requirements of the Contract Documents. Drawings which are not complete or not in compliance with the Contract Documents shall not be submitted. All shop drawing submittals, regardless of origin, shall be stamped with the approval of the Contractor and identified with the Contractor's name and references to applicable specification paragraphs and Contract Drawings. Each

shop drawing submittal shall indicate the intended use of the item in the Work. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and date shall be indicated on all Shop Drawings and other descriptive data. The Contractor's stamp of approval shall constitute a representation to the Owner and the Engineer that the Contractor accepts full responsibility for determining and verifying all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data; that he has reviewed or coordinated each submittal with the requirements of the Work and the Contract Documents; and that the submittal fully meets the requirements of the Contract Documents or is specifically marked otherwise.

2. Deviations from Contract Requirements: If the Shop Drawings show deviations from the Contract requirements, the Contractor shall make specific mention thereof as previously specified in this Section. Review of such submittals shall not constitute approval of the deviation. Review of the Shop Drawings shall constitute review of the subject matter thereof only and not of any structure, arterial, equipment, or apparatus shown or indicated. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by the Contractor (including modifications to other facilities that may be a result of the deviation) and all required piping and wiring diagrams.
 3. Completeness of Shop Drawings: The Contractor shall accept full responsibility for the completeness of each submittal, and, in the case of a resubmittal, shall verify that all exceptions previously noted by the Engineer have been taken into account. In the event that more than one resubmittal is required because of the Contractor's failure to account for exceptions previously noted, the Contractor shall reimburse the Owner for the Engineer's charges for reviewing the additional resubmittals.
- G. Review of Shop Drawings by Engineer: The Engineer will review and provide a response within 21 days of the receipt of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. The review of Shop Drawings will be general and shall not relieve the Contractor of responsibility for the accuracy of such Drawings, for the proper fitting and construction of the Work, or for the furnishing of materials or Work required by the Contract and not indicated on the Shop Drawings. No Work called for by Shop Drawings shall be done until the said Shop Drawings have been reviewed and approved by the Engineer.

H. Resubmittals:

1. Resubmittals within 21 Days: Resubmittals shall be made within 21 days of the date of the letter returning the material to be modified or corrected, unless within 14 days the Contractor submits an acceptable request for an extension of the stipulated time period, listing the reasons the resubmittal cannot be complete within that time.

2. Additional resubmittals: Any need for more than two resubmittals or any other delay in obtaining the Engineer's review of submittals will not entitle the Contractor to an extension of time unless a delay of the Work is directly caused by an authorized change in the Work.

1.07 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work. Include manufacturers' installation instructions when required by the Specification section. Cross out extraneous information.

1.08 SAMPLES

- A. Submit full range of manufacturers' standard colors, textures, and patterns for Project Representative's selection. Submit samples for selection of finishes within thirty (30) days after date of Contract.
- B. Submit samples to illustrate functional characteristics of the product, with integral parts and attachments devices. Coordinate submittal of different categories for interfacing work.
- C. Include identification on each sample, giving full information.
- D. Submit the number specified in respective Specification section. Reviewed samples that may be used in the Work are indicated in the Specification section.
- E. Provide field finishes at Project as required by individual Specifications sections. Install sample complete and finished. Acceptable finishes in place may be retained in completed Work.

1.09 MANUFACTURERS' CERTIFICATES

- A. The Contractor shall submit all field test reports including, but not limited to, manufacturer's equipment and installation certifications and equipment start-up report.

1.10 RECORD DOCUMENTS

- A. The Contractor shall submit record documents in accordance with Section 01720 at no additional cost to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01310 - CONSTRUCTION SCHEDULE AND SEQUENCE

PART 1 – GENERAL

1.01 SUMMARY

This Specification shall cover all work on the project including work on or at existing facilities which must remain in operation.

- A. Intent: It shall be Contractor's responsibility to propose a construction schedule to complete all work in the contract completion time noted in the Work Order.
- B. Use of Facility: Owner's use of completed facilities as they become available, this shall not relieve Contractor of his responsibility to complete work on any such facility, as provided in the Contract Documents.
- C. Schedule: The Contractor is responsible for the sequencing, scheduling and coordinating of the Work, for monitoring the progress of the Work, and for taking appropriate action to keep the Work on schedule. The Contractor shall prepare and submit a preliminary schedule for accomplishing the Work based upon the completion time stated in the Contract. A "draft" copy of the preliminary schedule will be available at the Pre-Construction Conference. A fully complete progress schedule for accomplishing the work must be submitted in like manner no later than thirty (30) days after signing the Work Order. No progress payments will be made to the Contractor before he has submitted a preliminary schedule which is acceptable to the Owner. No subsequent payment shall be made to the Contractor until he has submitted a fully complete progress schedule that has been updated through the date of the payment request.

If provided in the Work Order, failure to provide a satisfactory preliminary or final schedule for accomplishing the Work within the time provided above shall be a breach of contract for which the Owner may terminate the Work Order in the manner provided in the General Conditions.

The schedule shall indicate the estimated starting and completion dates for each major element of the work. The actual progress of those elements of the work will be reported monthly at the time of submission of the request for payment. If any elements of the Work are behind schedule, regardless of whether they may prevent the Work from being completed on time, the Contractor must indicate in writing what measures he is taking and plans to take to bring each such element back on schedule and to insure that the time of completion is not exceeded

In the event the completion date indicated by the schedule exceeds the Work Order completion date, the assumptions and time estimates used to develop the schedule and plan will be reviewed, changes made, and a new schedule developed. This procedure shall be repeated, as necessary, to provide a Plan and Schedule which assures the Contract completion date.

- D. Project Control: The Contractor shall review progress no less than each month, but as often as necessary to properly manage the project and stay on schedule. The Contractor shall collect and preserve information on Change Orders, including extensions of time. The Contractor shall evaluate this information and update the schedule as necessary to finish within the contractually allowed time. The scheduled completion date shall be within the period of time allowed by the Contract for completion of construction, as amended by Change Order.
- E. Progress Graph: A progress graph showing the work completed to date in comparison with the work scheduled for completion and the overall project work schedule shall be provided with each monthly request for payment. The form of the graph shall be approved by the Engineer and the Owner; however, a bar graph/chart or a CPM schedule marked, colored or annotated to reflect the above will usually satisfy this requirement.
- F. Progress Delay: Should any of the following conditions exist, the Engineer or Owner may require the Contractor to prepare, at no extra cost to the Owner, a plan of action and a recovery schedule for completing the Work by the contractual completion date.
 - 1. Should the Contractor's monthly progress report indicate delays such that a recovery schedule is required;
 - 2. Should the schedule show the Contractor to be thirty (30) or more days behind schedule at any time during construction up to thirty (30) days prior to the scheduled substantial completion date;
 - 3. Should the Contractor request to make changes in the schedule which, in the opinion of the Engineer or the Owner, are of a major nature.

The plan of action and recovery schedule shall explain and display how the Contractor intends to regain compliance with the original schedule. The plan of action and recovery schedule, when required, shall be submitted and approved prior to submission of the next monthly request for payment.

- G. The Contractor shall prepare a schedule satisfactory to the Engineer and the Owner fixing the dates for the beginning and completion of the placing of orders for and the manufacture, the testing and the installation of materials, supplies and equipment, which schedule shall be subject to change from time to time in accordance with the progress of the work.

1.02 RELATED SECTIONS

- A. Intent: The provisions and intent of the Agreement, including the General Conditions, Supplemental Conditions, and other requirements of the Contract Documents apply to the Work as specified in this Section. Work related to this Section is described throughout the Specifications.

1.03 SUBMITTALS

- A. Project Schedule: Contractor will provide a tentative project schedule at the Pre-Construction Conference for discussion. Progress graphs and updated schedules shall be submitted as required.
- B. Project Cost Breakdown: Contractor shall submit for Engineer's and Owner's approval a tabulated cost breakdown of the project. The cost breakdown will be a format, using lump sum, units, unit pricing, etc. such that Engineer and Owner will be able to assess the percentage of completion of the project and determine a prorated payment for work in place and materials on hand for each pay period. Contractor shall submit a draft of the cost breakdown at the Pre-Construction Meeting for discussion.

1.04 SEQUENCING

- A. Schedule: Contractor shall schedule and perform his work in such a manner that the existing facilities are operational at all times unless otherwise noted. Contractor shall be responsible for all necessary pumping, temporary piping, equipment, and other facilities to maintain operation of existing facilities

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

Not Used

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SECTION 01400 - QUALITY CONTROL

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. General Quality Control
- B. Field Inspections
- C. Testing Laboratory Services

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Inspection and testing required by governing authorities.
- B. Section 02220 - EXCAVATION, BEDDING AND BACKFILL FOR PIPELINES: Tests required for earthwork.
- C. Section 03301 - CONCRETE: Tests required for concrete, when applicable.

1.03 QUALITY CONTROL, GENERAL

Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

A. Workmanship

Comply with industry standards unless more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.

Employ only persons fully qualified to produce workmanship of specified quality.

Secure products in place with positive anchorage devices designed and sized to withstand maximum stresses, vibration, and racking in normal service.

B. Manufacturer's Instructions

When required by individual Specifications sections, submit manufacturer's printed instructions, in the quantity required for product data, for delivery, storage, assembly, installation, start up, adjusting, and finishing, as appropriate.

Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Engineer before proceeding. Request shall be made through Project Representative.

C. Manufacturers' Certificates

When required by individual Specifications sections, submit manufacturers' certification, in duplicate, that products meet or exceed specified requirements.

D. Manufacturers' Field Services

When specified in respective Specification sections, require supplier to provide qualified personnel to observe field conditions of surfaces and installation, quality of workmanship, start-up of equipment, as applicable, and to make appropriate recommendations.

Manufacturer's or supplier's representative shall submit written report to Project Representative listing observations and recommendations.

1.04 FIELD INSPECTIONS

The Owner will provide sufficient competent personnel for general inspection of the Work. The Contractor shall coordinate with Prince William County (PWC) if Special Inspection is requested by PWC. The Contractor shall grant the Project Representative, Engineer, and Inspectors access to the Work when it is in preparation or progress, and provide proper facilities for such access and inspection. The Contractor shall furnish the Inspector with all required assistance to help thorough inspection or the culling over or removal of defective materials or for the thorough examination into any of the Work performed.

Inspectors may not accept for the Owner any material or workmanship that does not conform fully to the requirements of the Work Order and they shall give no orders or directions under any possible circumstances not according to the Specifications. An Inspector may stop the Work entirely if there is not a sufficient quantity of suitable and approved material or equipment on the Work site to carry it out properly, or for any good and sufficient cause.

If the specifications, the Engineer's instructions, laws, ordinances, or any public authority require any Work to be specially tested or approved, give the Project Representative timely notice of its readiness for inspection, and if the inspection is by an authority other than the Engineer or Project Representative, of the date and time fixed for such inspection. Project Representative or Engineer will make their inspections promptly, and where practicable at the source of supply. Any Work covered up without approval or consent of an Inspector, Project Representative or the Engineer must, if required by the Project Representative, Engineer, or the Inspector, be uncovered for examination and properly restored at the Contractor's expense.

The Project Representative or Engineer may order reexamination of any Work. If so ordered, the Contractor must uncover the Work. If such Work is according to the Contract Documents, the Owner shall pay the cost of reexamination and replacement. If such Work is not according

to the Contract Documents, the Contractor shall bear such cost.

Promptly correct any Work rejected as defective or as failing to conform to the Contract Documents, whether observed before or after Substantial Completion, and whether or not fabricated, installed or completed. Correct any Work found defective or nonconforming within a period of one year from the Date of Substantial Completion of the Work Order or within such longer period as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents. The provisions of this Paragraph apply to Work done by Subcontractors and Work done by direct employees of the Contractor.

1.05 TESTING LABORATORY SERVICES

Conform to the testing requirements of each Section of the Specifications. Where no testing requirements are set forth, Owner will employ and pay for services of independent consultants to perform specialized inspections, tests, or other services deemed necessary.

Perform services according to requirements of governing authorities and with specified standards.

Submit reports to Project Representative in duplicate, giving observations and results of tests, indicating compliance or non-compliance with specified standards and with Contract Documents.

Cooperate with Testing Laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.

- A. Notify Project Representative and Testing Laboratory 24 hours prior to expected time for operations requiring testing services.
- B. Make arrangements with Testing Laboratory and pay for additional samples and tests done for Contractor's convenience.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Electricity
- B. Ventilation
- C. Telephone Service
- D. Water Use
- E. Sanitary Facilities
- F. Construction Aids
- G. Barriers
- H. Cleaning During Construction
- I. Project Identification
- J. Field Offices and Sheds
- K. Removal

1.02 RELATED REQUIREMENTS

- A. Section 01001 - PROJECT SUMMARY
- B. Section 01700 - CONTRACT CLOSEOUT

1.03 ELECTRICITY

Provide service required for construction operations.

1.04 VENTILATION

Provide ventilation of enclosed areas to cure materials, to disperse humidity, and to prevent accumulations of dust, fumes, vapors, or gases.

1.05 TELEPHONE SERVICE

Provide telephone service to field office, if supplied.

1.06 WATER USE

The Authority will provide a fire hydrant water meter to the contractor for use in the resultant projects. No water shall be drawn from a public fire hydrant except through a meter. The Contractor shall be responsible for paying for the quantity of water used during construction. The Contractor shall provide all piping, hoses, valves, or connections necessary to complete the work.

1.07 SANITARY FACILITIES

Provide and maintain in sanitary condition facilities and enclosures as may be required to comply with local, state and federal health regulations. Maintain facilities from date Work commences until relieved of this obligation by the Project Representative.

1.08 CONSTRUCTION AIDES

Provide and operate drainage and pumping equipment; maintain excavations and site free of standing water.

1.09 TRAFFIC CONTROL

When working in the Virginia Department of Transportation (VDOT) right-of-way, the Contractor shall fully comply with all VDOT traffic control in accordance with the 2011 Virginia Work Area Protection Manual (or latest edition). In addition, lane closures will require a crash cushion truck to protect workers.

1.10 BARRIERS

- A. Provide as required to prevent public entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades and covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings. When working in public roads, conform fully to VDOT traffic control regulations.
- C. Provide barriers around trees and plants designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuously running water.

1.11 CLEANING DURING CONSTRUCTION

Control accumulation of waste materials and rubbish; collect and periodically dispose of accumulations off-site.

1.12 PROJECT IDENTIFICATION (Contractor's Option)

- A. If desired, provide 8 x 4-foot Project identification sign of wood frame and exterior grade plywood construction, painted, with exhibit lettering by professional sign painter of design and colors approved by Project Representative. List title of Project, names of Owner, professional consultants, Contractor and major subcontractors.
- B. Erect on site at location approved by Project Representative.
- C. Allow no other signs to be displayed.

1.13 FIELD OFFICES AND SHEDS (Contractor's Option)

- A. Office: A field office may be required for some construction type Work Orders. When applicable, the Contractor shall furnish and install one (1) 10 feet x 36 feet rental mobile office, associated plumbing and electrical work for use as a temporary field office and restroom. Alternatively, the Contractor may lease adequate space.
- B. At the minimum, the field office shall include two (2) offices for the use by the Owner and Project Representatives, and a common room for meetings. The Contractor shall be responsible for all costs, permits, coordination, and requirements to establish the field office.
- C. The Contractor shall be responsible for all utility connections to the field office and to maintaining electric and secure wireless high speed internet service.
- D. The Contractor shall provide weekly custodial service to insure a clean work environment in the office, septic service if required, potable water;
- E. The Contractor shall maintain a copy of the Work Order for project, a current Progress Schedule, Contract Documents (plans and specifications), any record Drawings being maintained by the Contractor, all approved Shop Drawings and samples, and other pertinent documents in a neat and orderly fashion, accessible to the field personnel at all times.
- F. Storage Sheds for Tools, Materials, and Equipment: Weather-tight with heat and ventilation for products requiring controlled conditions, with adequate space for organized storage and access, and lighting for inspection of stored materials.
- G. Locate in area acceptable to Project Representative.
- H. Remove temporary materials, equipment, services, and construction offices and sheds prior to Substantial Completion inspection.
- I. Clean and repair damage caused by installation or use of temporary facilities. Remove underground installations to a depth of two (2) feet; grade site as shown. (Restore existing

facilities used during obstruction to specifications, or to original conditions.)

1.14 REMOVAL

- A. Remove temporary materials, equipment, services, and construction offices and sheds prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities. (Restore existing facilities used during obstruction to specifications, or to original conditions.)

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01501

FLOW CONTROL/BYPASS PUMPING

PART 1 – GENERAL

- 1.01 The Contractor shall be responsible for safely bypassing sewage flows around any sewer line, manhole, or sewage pumping station to be taken out of service for inspection, construction, lining or any other purpose and for completing the work without causing or contributing to any spills, discharges, leaks, or deposits of sewage in or to the environment, including the land, surface water, or groundwater, or backups in public or private buildings/property (collectively, “sewage spills”).

The Contractor shall furnish all labor, materials, equipment and supplies, and shall perform all work related to the control of sewage flow. Flow control and routing methods shall be subject to review by the Owner prior to work beginning at the sewer system components requiring flow control or bypass pumping.

1.02 DEFINITIONS

- A. Flow Control: Flow control shall consist of plugging, trucking, operation of pump stations, performing Work during non-peak flow hours, or other methods to control the flow in the gravity sanitary sewer system.
- B. Bypass Pumping: Bypass pumping shall consist of pumping arrangements used to bypass the gravity sanitary sewer flow in order to perform Work on the gravity sanitary sewer system.

1.03 SUBMITTALS

- A. Bypass pumping arrangement plans
- B. Sample notification

PART 2 – MATERIALS

- 2.01 Not used.

PART 3 – EXECUTION

3.01 NOTIFICATION

- A. Contractor shall provide a sample notification to the Project Representative for the Owner’s review and approval prior to usage.

- B. Contractor shall provide the Project Representative written, 48 hours, advanced notification of any planned service interruptions.
- C. Contractor shall assume all responsibility for notification to and coordination with all customers whose service laterals or private pump stations will be out of service during the Work. Notifications shall be in writing via door hanger, door flier, or U.S. mail.

Notification shall be given 48 hours in advance of loss of service (excluding weekends and holidays). Notice shall clearly state the purpose of the Work, shall advise all affected customers against water usage until the service is reinstated, and shall clearly state the potential consequences of use of residential wastewater generating facilities during the time when the sewer service will be out of service (i.e. sewer back-up). The notice shall include the Project name, project number, Owner's department name, Owner employee contact number, and Contractor's local 24-hour contact number for residents to call if they have questions regarding the Work. The notice shall be in both English and Spanish.

3.02 FLOW CONTROL

- A. Flows shall be plugged, trucked, pumped or otherwise handled by Xylem Dewatering USA (Godwin Pumps) to prevent flows from interfering with the Work to be performed on a given portion of the sanitary sewer system.
- B. Flow control shall include the operation of public and private pump stations to control flows in the system as well as performing work during nighttime conditions to control flow in the system.
- C. The Contractor shall contact the Owner and private pump station operators to coordinate with the operation of the pumping stations discharging to the gravity sewer as required to perform the Work. The Contractor shall not operate municipal or private pumping stations.

3.03 BYPASS PUMPING

- A. The Contractor shall provide a sewage bypassing arrangement plan to the Owner at least 21 calendar days prior to commencing Work on each portion of the system. The plan must be specific and complete, and shall include, but not be limited to, the following details:
 - 1. Provide justification that bypass plan is sufficient to accommodate existing flows.
 - 2. Capacities of pumping equipment.

3. Road crossing details, including paved or unpaved roads, driveways, entrances, or other travel ways.
 4. Protection against pipe breaks.
 5. Sewer plugging methods and bypass time duration for each sewer section.
 6. Size, length, material, and method of installation for suction and discharge piping.
 7. Method noise control for each pump and/or generator.
 8. Bypass pumping locations.
 9. The pumping, piping, equipment and all ancillary components shall be designed and installed to meet firm capacity with 100 percent redundancy.
 10. The design shall be signed, dated and sealed by a registered Professional Engineer in the Commonwealth of Virginia.
- B. Bypassed flows must be discharged to the sanitary sewer system, appropriate watertight vehicle or appropriate watertight container.
- C. The Contractor shall prepare/set up sewage pumping/bypass system prior to beginning Work on any sewer pipeline or manhole activities. The system shall be activated when necessary to bypass flows for blockages resulting from the Contractor's activities in the vicinity of the sewer system.
- D. The Contractor shall supply the necessary pumps, conduits, engines and other equipment to divert the dry and wet weather flow of sewage as appropriate to provide a pumping/by-pass system adequate in size to handle the sewage flows estimated in the Work Order, at a minimum.
- The Contractor shall provide 24-hour remote and/or onsite monitoring of pumping equipment and operations.
- E. In order to prevent the accidental spillage of flows, all discharge systems shall be temporarily constructed of pipe with positive, restrained joints. Under no circumstances will aluminum "irrigation" type piping or glued PVC pipe be allowed.
- F. The Contractor shall make all arrangements for by-pass pumping during the time when the sanitary sewer main is shut down for any reason.
- G. Ensure that all pumps and equipment employed by the Contractor are continuously monitored by an individual who is trained and qualified to start, stop, refuel and maintain this equipment during the Work being performed by the Contractor. The

Contractor shall select pumping/bypass equipment that will not have excessive noise levels from a maximum of sixty decibels (60 db) at a distance of fifty (50) feet.

- H. The design, installation, and operation of the temporary pumping system shall be the Contractor's responsibility. The by-pass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

3.04 PRECAUTIONS

- A. When flow in a sewer line is plugged, blocked, or bypassed by the Contractor, the Contractor shall take precautions to protect the public health and to protect the sanitary sewer lines from damage resulting from sewer surcharging. Further, the Contractor shall take precautions to ensure sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved and shall be responsible for any damage resulting from the flow control operations.
- B. When flow in a sewer line is plugged or blocked by the Contractor, the Contractor shall monitor the conditions upstream of the plug and shall be prepared to immediately start bypass pumping, if needed. Any liquid or solid matter that is bypass pumped from the sewer collection system shall be discharged to another sewer manhole or appropriate watertight vehicle or container only. No such liquid or solid matter shall be allowed to be discharged, stored, or deposited on the ground, swale, road, storm water drainage system, or open environment. The Contractor shall protect all pumps, conduit, and other equipment used for bypass from traffic.

3.05 CONTRACTOR'S RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. In the event of a Sewage Spill occurring in connection with the Work being performed by the Contractor, the Contractor shall promptly clean up all spilled solid material, disinfect the affected area, and repair any damage to property, and shall do so at the Contractor's expense and at no cost to the Authority.
- B. In the event of a Sewage Spill occurring in connection with the Work being performed by the Contractor, the Contractor shall promptly notify the Service Authority and comply with the currently adopted version of all Federal, State and Local regulations to include required notifications at the Contractor's expense and at no cost to the Authority. The Contractor shall provide an oral report to the Department of Environmental Quality (Department) within 24 hours from the time the Contractor becomes aware of the sewage spill and a written report to the Department within five (5) days of discovery at the following address and telephone number:

Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court

Woodbridge, VA 22193
(703) 583-3800 (voice) or,
(703) 583-3821 (fax)

For reports to the Department outside normal working hours, leave a message to fulfill the immediate notification requirement. If a sewage spill is considered to be an “emergency”, based on volume, spill location, public health concerns, etc, and the sewage spill takes place after normal business hours, weekend or Holiday a call shall be made to the Virginia Department of Emergency Services at its 24-hour telephone service at 1-800-468-8892.

The written report shall contain: a description of the nature and location of the discharge; if the discharge reached State waters, the name of the affected water body; the cause of the discharge; the date on which the discharge occurred; the length of time that the discharge continued; the volume of the discharge, if the discharge is continuing, how long it is expected to continue, what the expected total volume of the discharge will be, and any steps planned or taken to reduce, eliminate and prevent a reoccurrence of the present discharge or any future discharges. The Contractor shall provide confirmation of immediate oral notification and a copy of the written report to the Service Authority.

The Contractor shall be charged back for any fines, penalties or other costs or damages incurred by the Service Authority as a result of a Sewage Spill occurring in connection with the Work being performed by the Contractor.

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SECTION 01600 - MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Products

Transportation and Handling

Storage and Protection

Product Options

Substitutions

1.02 RELATED REQUIREMENTS

Section 01005 - ADMINISTRATIVE PROVISIONS

Section 01300 – SUBMITTALS

Section 01700 - CONTRACT CLOSEOUT

1.03 PRODUCTS

Products include material, equipment and systems.

Comply with Specifications and referenced standards as minimum requirements.

Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.

Do not use materials and equipment removed from existing installation except as specifically required, or allowed, by Contract Documents.

1.04 TRANSPORTATION AND HANDLING

Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.

Provide equipment and personnel to handle products by methods to prevent soiling or damage.

Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

1.05 STORAGE AND PROTECTION

Store products according to manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.

Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

After installation, provide coverings to protect products from damage from traffic and construction operations, remove when no longer needed.

1.06 PRODUCT OPTIONS

Within 30 days after date of a Work Order issued, submit complete list of major products proposed, with name of manufacturer, trade name, and model.

Options:

Product Specified by Reference Standards or by Description Only: Any product meeting those standards.

Product Specified by Naming One or More Manufacturers with an "or equal" or "acceptable substitute": Submit a request for substitution for any manufacturer not specifically named. The Owner, based on Engineer's recommendation, shall be the sole judge of whether a product is "equal" or an acceptable substitute.

Products Specified by Naming Several Manufacturers: Products of named manufacturers meeting specifications; no options, no substitutions allowed.

Product Specified by Naming Only One Manufacturer: No options, no substitutions allowed.

1.07 SUBSTITUTIONS

Requests for substitutions must be made at least thirty (30) days prior to commencement of related work for consideration of the substitution by the Project Representative, Owner and Engineer. The proposed substitution shall have no impact to the Progress Schedule for the performance of Work. Use Substitution Request

Form included with this section. Submit requests in number of copies required for Work, plus three copies (one for the Owner, one for the Project Representative and one for Engineer). All submissions are to be made to Project Representative.

Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.

Request is a representation that Contractor:

1. Has investigated proposed product and determined that it equals or exceeds, in all respects, specified product.
2. Will provide the same warranty for substitution as for specified product.
3. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.
4. Waives claims for additional costs that may subsequently become apparent.

Substitutions will not be considered when they are indicated or implied on Shop Drawings or product data submittals without separate written request, or when acceptance will require substantial revision of Contract Documents.

Engineer will determine acceptability of proposed substitution, and will notify the Project Representative and Contractor of acceptance or rejection in writing within a reasonable time.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
SUBSTITUTION REQUEST FORM**

PROJECT: _____

PO No.: _____

Specified Item:

Section	Page	Paragraph	Description
---------	------	-----------	-------------

The undersigned requests consideration of the following SUBSTITUTION:

Attached hereto in support of this request are product descriptions, specifications, Drawings, illustrations and performance and test data adequate for evaluation of the substitution. Applicable portions of the information supplied are clearly identified. Attachments also include changes to the Contract Documents that the proposed substitution will require for its proper installation.

The undersigned affirms that the following statements are correct:

1. The function, appearance and quality of the proposed substitution are all equal or superior to that of the specified item.
2. Except as specifically indicated on the attachments, the proposed substitution does not affect any dimensions shown on the Drawings.
3. The undersigned will pay for any changes to the Project, including design, detailing and construction costs, caused by the proposed substitution, if allowed.
4. The proposed substitution will have no adverse effect on other trades, the construction schedule, or any specified warranty requirements.
5. Maintenance and service parts will be available locally for the proposed substitution at the address shown in the attachments.

The undersigned certifies that the proposed substitute item will perform adequately the functions and achieve the performance and reliability results over time called for by the general design; is similar in substance to the item specified; is suited to the same use as the item specified; and has no impact to the quality of Work or time of performance.

Submitted By:
Signature: _____
Firm: _____
Address: _____
Telephone: _____
Date: _____
Attachments: _____

For the Designer:
() Accepted () Accepted as Noted
() Rejected () Other, see below
Remarks: _____

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PRINCE WILLIAM COUNTY SERVICE AUTHORITY
SECTION 01700 - CONTRACT CLOSE-OUT

PART 1 – GENERAL

1.01 Cleaning Up

In addition to the requirements of Section 01500 Paragraph 1.13.C&D, the Supplementary Conditions, and the requirements for special cleaning in the various trade sections of the Specifications, the Contractor shall perform final cleaning as applicable:

- A. Make certain all manhole lids are in place, set to proper grade and secure.
- B. Remove all excess dirt, pipe, fittings, building materials, etc.
- C. Remove all signs, trailers, sheds and temporary facilities.
- D. Rake and mow all seeded areas used for storage or restored under other sections.
- E. Broom clean all streets affected by operations and remove all spillage, debris, etc.
- F. Final cleaning shall be performed after the Work of all trades is completed and immediately before turning the Work over to the Owner.

1.02 Project Record Documents

- A. Submit Record Drawings prepared according to Section 01720 and acceptable to the Engineer, Project Representative, and Owner.
- B. Prepare operating and maintenance instructions, for each piece of operating equipment provided, in simple language and with sufficient diagrams and explanation to be understandable by average first and second echelon technicians. Point out possible hazards and caution against mistakes that might result in damage to equipment or danger to personnel. Operation and maintenance manuals shall be provided in a format approved by the Owner and containing all information as required by the Owner.
- C. Include in the manual published operating and maintenance instructions, manufacturer's detailed product Drawings, warranties and pertinent literature. Data collected will provide Owner with all information required to operate, service, maintain and make full and efficient use of the equipment installed or supplied.
- D. Bind all files and instructions in books, one for each piece of equipment and one for Project changes. Supply three copies to Project Representative for approval and transmission to Owner.

1.03 Closeout Inspection

Refer to Section 01200 Paragraph 1.03. At the time of the inspection, submit those documents not previously received by the Project Representative. The documents include, but are not necessarily limited to, the following:

- A. *Record Drawings and Record File*: The complete set of contract record documents as required in Paragraph 1.02 A.
- B. *Warranties and Guarantees*: As required by the various Sections of the Contract Documents.
- C. *Certificates of Compliance*: Records of tests required by the various Sections of the Contract Documents.

1.04 Closeout Procedures

After receipt and acceptance of any final, closeout change order, prepare final estimate and request for payment based upon last accepted change order. Obtain statement of surety and maintenance bond from surety; execute affidavit in support of final estimate and contractor's release.

Submit the estimate, affidavit, surety's statement and maintenance bond to Project Representative for approval and transmittal to Owner for final payment. When notified by Project Representative that check is drawn, either bring or send executed release to Owner, who will deliver check.

1.05 Required Closeout Documents

The following documents, properly executed in duplicate originals, must be submitted and accepted by the Owner before final payment will be made:

- A. Contractor's Affidavit in Support of Request for Final Payment
- B. Contractor's Release
- C. Statement of Surety
- D. Maintenance Bond, with Power of Attorney
- E. Statement of Work Completed

The amount of the Maintenance Bond shall be 10 percent of the final Work Order amount, but in no case less than \$5,000.

Forms are located at the end of this Section 01700.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
CONTRACTOR'S AFFIDAVIT
IN SUPPORT OF
REQUEST FOR FINAL PAYMENT**

PO Number: _____ Dated: _____, 20_____

For: _____

The Undersigned, who is _____

Of _____,

The Contractor, a party to the subject Contract, hereby deposes and affirms that:

1. The quantities and value of Work claimed in the Estimate and Request for Payment Number _____ - Final are correct.
2. All material, labor, and indebtedness of whatever nature arising out of the performance of the subject Work Order have been paid in full.

Signature: _____

Name Typed: _____

STATE OF: _____

COUNTY OF: _____

Sworn to the subscribed before me this _____ day of _____, 20_____.

Notary Public (SEAL)

My Commission expires _____, 20_____

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CONTRACTOR'S RELEASE

KNOW ALL MEN BY THESE PRESENTS THAT:

_____ of _____ County,

State of _____, hereinafter referred to as CONTRACTOR, does acknowledge receipt of and from the Prince William County Service Authority, hereinafter referred to as OWNER, the Work Order to Date Expenditures in the sum of _____ (\$ _____) and other valuable consideration in full satisfaction and payment of all sums of money owing, payable and belonging to Contractor by any means whatsoever, on account of a certain agreement, hereinafter referred to as the Work Order, between Owner and Contractor and dated , 20_____, for construction of: _____ under the **CONTRACT#, SA-1815, SANITARY SEWER MAIN LINING (CIPP).**

NOW THEREFORE, WITNESSETH:

Contractor, (for myself, my heirs, executors and administrators) (for itself, its successors and assigns) do by these presents remise, release, quit-claim and forever discharge Owner, its successors and assigns, of and from all claims and demands, and from any and all manner of action or actions, cause or causes of money, accounts, reckonings, bonds, bills, specialties, covenants, contracts, agreements, promises, variances, damages, judgments, extents and executions, whatsoever, in law or equity or otherwise, which against the Owner, its successors and assigns, (I, my heirs, executors or administrators) (it, its successors and assigns) ever had, now have or hereafter can, shall or may have for, upon or by reason of any matter, cause or thing whatsoever arising from or in connection with the said Work Order.

IN WITNESS WHEREOF CONTRACTOR has caused these presents to be duly executed this _____ day of _____, 20_____.

Signed, sealed and delivered
In the presence of:

_____ (SEAL)

Individual

_____ (SEAL)

Partnership

_____ By: _____ (SEAL)

Partner

_____ (SEAL)

Corporation

_____ By: _____

Title: _____ Title: _____

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STATEMENT OF SURETY

In accordance with the provisions of the CONTRACT dated _____, 20_____,
between THE PRINCE WILLIAM COUNTY SERVICE AUTHORITY, OWNER, and
_____ CONTRACTOR, for:

SURETY on CONTRACTOR'S Material and Labor Payment Bond, after a careful examination of the books and records of said CONTRACTOR, or after receipt of an affidavit from CONTRACTOR which satisfies SURETY that all claims for labor and materials have been satisfactorily settled, hereby approves of the final payment by OWNER to CONTRACTOR and by these presents witnesses that payment to the CONTRACTOR of the final estimate and request for payment shall not relieve SURETY of any of its obligations to OWNER as set forth in the said Bond.

IN WITNESS WHEREOF, SURETY has hereunto set its hand and seal

this _____ day of _____, 20_____.

Attest: _____(SEAL)

_____ By: _____

Title: _____ Title: _____

NOTE: This statement, if executed by any officer or agent of a corporate SURETY other than the President or Vice President, must be accompanied by a certificate of even date showing authority conferred upon the person so signing to execute such instruments on behalf of the company represented.

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STATEMENT OF WORK COMPLETED

Insert Date

Re: PO Number _____

WORK ORDER TITLE: _____

Dear _____,

This letter shall serve as the *Statement of Work Completed* for _____. The actual date for Final Completion of the project is Insert Date. All the work is complete and ready for final payment according to the General Conditions. We certify there are no outstanding invoices other than the final Pay Application.

It is noted that we have completed all punch list items as required and have submitted all required items outlined in *Specification Section 01700 - Contract Close-Out* of the Project Manual.

Sincerely,

Name

Title
Company

Attachment:

Cc:

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SECTION 01720 - RECORD DOCUMENTS

PART 1 - GENERAL

1.01 Record Documents

The Contractor shall maintain Record Documents according to Article 8, Paragraph D of the General Conditions. They shall be available to the Engineer, Project Representative and Owner. Record Documents shall be current through the date of the latest payment request before payment will be made.

1.02 Record Drawings

Record Drawings are a component of the Record Documents. Record Drawings shall be submitted before final payment will be made.

Record Drawings upon completion of the Project shall be as follows:

- A. Record in red pencil or ink in neat and legible manner on one set of Contract Drawings all deviations from the Drawings at the time such deviations are made. Show dimensions as necessary to locate accurately piping and other items concealed in the finished Work. Include locations and elevations of all existing utilities encountered during excavation. Show location of valves and other underground structures by field measurement of ties to at least two permanent visible objects (i.e., hydrants, curbs, buildings, etc.). Make all measurements to nearest 0.01 foot. Include sufficient reference and descriptions to determine exact field conditions and locations.
- B. Maintain complete file of accepted field sketches, diagrams and other changes authorized during construction.
- C. The Contractor shall provide professional land surveying services based on 1983 NAD Virginia State Grid for horizontal datum and the NAVD88 for vertical control for the following information:
 - Finished grade elevations
 - Manhole rim and invert horizontal and vertical coordinates/elevations for all new or rehabilitated manholes
 - Invert elevations for all pipes penetrating manholes and other structures (sewer mains)
 - Lateral cleanout horizontal and vertical coordinates/elevations
 - Lateral tie-in locations to the sewer main, slope of laterals (for gravity services), and location/length of risers (if provided) shall be provided based on Contractor measurements taken at the time of reinstatement of laterals.

Survey results and lateral information shall be provided to the Owner in AutoCAD format (version 2010, or later).

- D. Prepare operating and maintenance instructions, for each piece of operating equipment provided, in simple language and with sufficient diagrams and explanation to be understandable by average first and second echelon technicians. Point out possible hazards and caution against mistakes that might result in damage to equipment or danger to personnel.

Include in the manual published operating and maintenance instructions, manufacturer's detailed product Drawings, warranties and pertinent literature. Data collected will provide Owner with all information required to operate, service, maintain and make full and efficient use of the equipment installed or supplied. Bind all files and instructions in books, one for each piece of equipment and one for Project changes. Supply three copies to Project Representative for approval and transmission to Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SANITARY SEWER MAIN LINING (CIPP)

CONTRACT NO. IFB SA-1815

PROJECT MANUAL

PART III
TECHNICAL SPECIFICATIONS

SECTION 02735

PIPE REHABILITATION CURED-IN-PLACE PIPE (CIPP) METHOD

Part 1 - GENERAL

- 1.01 These specifications include requirements for all design, materials, transportation, equipment and labor necessary to rehabilitate deteriorated sections of the sanitary sewer as listed in the contract documents or provided in contract work orders. This specification is intended to identify the minimum requirements of the Owner.
- 1.02 The Contractor shall furnish all material, labor and special equipment required to accomplish the work in accordance with these specifications. The installation shall affect the complete interior relining of the existing sanitary sewer piping and shall result in a smooth, hard, strong and chemically inert interior finish, and closely following the contours of the existing piping. The Contractor shall provide a completed system with sanitary sewer main and all active lateral connections in operational condition.
- 1.03 Related Sections
- A. Section 01025, Measurement and Payment
 - B. Section 01501, Flow Control/Bypass Pumping
 - C. Section 02741, Sanitary Sewer Line Cleaning
 - D. Section, 02742, Television Inspection
- 1.04 Definitions
- A. CIPP Pipe Rehabilitation: The rehabilitation of the gravity sanitary sewer using a cured-in-place pipe (CIPP) method.
- 1.05 Information to be Provided by the Owner:
- A. The Owner will provide:
 - 1. Work Order identifying the scope of work.
 - 2. Recent written report summarizing CCTV inspection results and identifying sanitary sewer defects.
 - 3. Locating information such as a grid book used to identify the Service Authority sanitary sewer lines.

1.06 Submittals

A. Submit with the Bid:

1. A report outlining the process to be used in the in the lining of the sanitary sewer. The report shall also include information specific to the job, such as coordination issues, access, timing, manufacturer's installation instructions and flow control.
2. Certification for product in accordance with Section 02735.1.08.
3. Documentation of product and work experience in accordance with Section 02735.1.07.B. This shall include references for projects completed with the proposed CIPP liner. The documentation shall include at least ten (10) projects, preferably within the past 2 years. Information shall include the project description, location, cost, Owner, and point of contact including name, address, and phone number.
4. References for the project superintendent documenting experience as required by the specifications Section 02735.1.07.C.
5. Letter of certification from the CIPP Supplier for each worker who will perform pipe rehabilitation in accordance with Section 02735.1.07.D
6. Letter of certification for Contractor from product manufacturer in accordance with Section 02735.1.07.E.
7. Manufacturer and Contractor Warranty information.

B. Submit with Contract Work Orders:

1. Product data:
 - A. Manufacturer's storage and handling instructions for the liner tube and resins.
 - B. Certification cured liner meets or exceeds material properties contained herein. Samples of the liner material shall be provided for prior approval by the Owner.
 - C. Certification from resin manufacturer in accordance with Section 02735.
 - D. Chemical resistance testing data for resin and liner.
 - E. Design data and specifications data sheets listing all parameters used in the CIPP design and thickness calculations based on Appendix X1 of ASTM F-1216.

- F. Measurements made by the Contractor to verify length and diameter of pipe prior to ordering of material.
- G. Liner thickness design calculations sealed by a Professional Engineer certified in the Commonwealth of Virginia.
- H. Quality assurance and quality control measures required by the CIPP liner manufacturer for proper liner installation.
- I. The Contractor shall submit documentation on all chemical sealants used during the lining to ensure compatibility with the liner material and host structure. In addition, provide a description of the means and methods for using the sealant material during the project.
- J. The Contractor shall submit the manufacturer's documentation for the grout design mixes and grout testing reports and a description of the means and methods for using the grout mix during the project.
- K. Product data sheet for the liner lubricant, if required, used to assist the liner installation.
- L. Video inspection logs and recordings documenting line cleaning and CIPP pipe rehabilitation. Refer to Section 02742, Television Inspection.

2. Project Procedures:

- A. Provide the means and methods for avoiding liner stoppage during installation and plans for protecting downstream sewers that have previously been lined.
- B. Provide the means for notifying the Authority of suspected inactive service connections.
- C. Provide the means for notifying the Authority of any property damage.

1.07 Contractor Experience

- A. The prospective Contractor must be approved, in writing, by the Owner prior to the award of contract. The Contractor shall provide any information or documentation which the Owner may require as proof of the Contractor's competency to perform work of the type herein specified.
- B. The Contractor for the pipe rehabilitation of sewers must demonstrate a minimum of two (2) years experience using the proposed product and the installation of a

minimum of 20,000 linear feet of the proposed product and have five (5) years general contracting experience completing sanitary sewer construction and rehabilitation projects acceptable to the Owner. All workers performing work on the pipe rehabilitation of sewer must be certified by the pipe rehabilitation system supplier as qualified to perform work with the proposed product.

- C. The superintendent for the job must have supervised jobs in which at least 20,000 feet of pipe has been rehabilitated using the product proposed in the bid. The superintendent for the job shall be on-site during all phases of the work involving the insertion and processing of the liner pipe.
- D. Each worker shall demonstrate a minimum of two (2) years experience using the proposed product.
- E. The Contractor shall be either licensed or certified by the liner process manufacturer indicating the Contractor is approved by the product vendor for the performance of CIPP pipe rehabilitation with the manufacturer's product.

1.08 Product Experience

- A. The product proposed for the pipe rehabilitation of sewers must have been in use for at least two (2) years, and a minimum of 20,000 linear feet of the product must have been installed.

Part 2 - PRODUCTS

2.01 All materials and equipment used in the lining and in the insertion process shall be of their best respective kinds and shall be as approved by the Owner. Any materials not approved by the Owner prior to insertion into the piping shall be rejected and shall be removed and replaced with approved materials at the Contractor's expense.

2.02 Manhole Sealant

- A. The chemical sealant used to create a watertight seal between the liner and the host pipe at the manhole pipe penetration shall be an industry standard product for sanitary sewer rehabilitation and compatible with the liner material and host structure.

2.03 Grout

- A. The chemical grout used to fill voids, mitigate inflow and infiltration, and provide structural support prior to lining shall be an industry standard product for sanitary sewer rehabilitation and compatible with the liner material and host structure.

2.04 Liner

- A. Chemical Resistance:

1. The liner shall be fabricated from materials which when cured, will be chemically resistant to withstand internal exposure to sewage and sewage gases containing normal levels for domestic sewage of hydrogen sulfide, carbon monoxide, carbon dioxide, methane, traces of mercaptan, and external exposure to soil bacteria.
 - A. The manufacturer shall submit results of chemical resistance testing performed on specimens of the cured in place pipe. Tests shall be performed in accordance with ASTM F-1216.
2. The chemical corrosion resistance of the actual resin system (neat plus modifications) selected by the contractor shall be tested and submitted by the resin manufacturer in accordance with ASTM C-581. Exposure to the chemical solutions listed in the following table shall result in a loss of not more than twenty percent (20%) of the initial physical properties when tested in accordance with ASTM C-581, for a period of not less than one (1) year.

Chemical Solution	Concentration (%)
Tap Water (pH 6-9)	100
Nitric Acid	5
Phosphoric Acid	10
Sulfuric Acid	10
Gasoline	100
Vegetable Oil	100
Detergent	0.1
Soap	0.1

B. Samples, Inspection and Testing:

1. The Owner may direct the Contractor to obtain cured samples and test them in accordance with the listed ASTM Standards for determining and meeting properties.
2. At the time of resin impregnation each lot shall be inspected for defects. The resin shall not contain fillers, except those required for viscosity control, fire retardant, or to extend the pot life. Thixotropic agents that will not interfere with visual inspection may be added for viscosity control. Also, the opaqueness of the plastic coating shall not interfere with visual inspection. Resins may contain pigments, dyes, or colors that do not interfere with visual inspection of the cured-in-place liner pipe or its required properties. Additives may be incorporated that enhance physical and chemical resistant features. For testing purposes a lot shall consist of all the tube and resin on a full continuous length of impregnated liner.

C. Liner Design:

1. The contractor shall determine the recommended liner thickness for each manhole to manhole section. Liners shall be designed to withstand internal and/or external pressures in accordance with the applicable provision of ASTM F-1216. Unless otherwise indicated, liner thickness calculations shall be performed based on a fully deteriorated pipe condition. For the purpose of design, groundwater shall be assumed to be at the ground surface. The design life of the CIPP shall be 50 years. Thickness design calculations shall be prepared and sealed by a Virginia registered Professional Engineer.
2. The design thickness of the installed liner shall be accurately measured and certified by the Contractor. The actual thickness of the cured-in-place liner shall be within minus 5% and plus 10% of the design thickness. Thickness greater than design shall not be allowed if this results in reduction of hydraulic capacity of the sewer being rehabilitated.
3. The tube shall be designed to a size that, when cured, will fit tightly against the internal circumference of the original conduit, so there are no wrinkles and no annular spaces between the host pipe and cured-in-place pipe; this tight fit minimizes loss of original pipe size. Allowance for longitudinal and circumferential stretching of the tube during installation shall be made by the Contractor.
4. The Contractor shall design the length of the tube to effectively carry out installation and sealant at end points. All dimensions shall be field verified prior to fabrication and installation.

D. Liner Fabrication:

1. The liner shall consist of one or more layers of flexible needled felt, or an equivalent woven or non-woven material, capable of carrying resin, withstanding installation pressure and curing temperatures, and compatible with the resin system utilized. The liner shall be continuous and of sufficient length to extend from manhole to manhole, fit irregular pipe sections, and of a size to fit tightly against the existing pipe walls. Allowances for longitudinal and circumferential stretching of the liner during installation shall be made by the Contractor
2. The reinforcing material of the tubing shall be of required thickness. A suitable mechanical strengthener membrane or woven jacket may be used to control longitudinal stretching during installation as the inflation tube may be left on the internal surface of the liner after curing. The liner fabric content shall be determined by the Contractor to ensure that the cured liner is of the required strength and thickness.

E. Resins:

1. Resins used shall be compatible with the liner system employed. The resin shall not contain fillers except those required for viscosity control or fire retardation. The material supplied may be unsaturated polyester or epoxy thermoset resins able to cure to final properties per manufactures specifications. The resin shall contain the proper mix ratio and shall be sufficiently mixed.
2. The resin system to be used shall be manufactured by an approved company selected by the CIPP process manufacturer. Relevant information from the resin manufacturer shall include, but may not be limited to, the following: specifications, characteristics, and properties. ASTM C-581 test results, methods of application, and infrared spectrographic analysis of the resin used for each lot. This data shall be submitted to the Owner for approval prior to rehabilitation of the sanitary sewer. The Contractor shall also submit a written certification from the resin manufacturer, that the resin material to be used is compatible with the proposed application. Said certification shall also address curing temperature and curing schedule (i.e., duration of the. temperature at, all stages of curing). The Contractor is hereby notified that field installation practices shall be checked against the aforementioned certification. No variance shall be allowed without prior written approval of the owner.

F. Material Properties:

1. The cured liner shall meet or exceed the following material properties:

Material	Test Method	Minimum Value
Initial Flexural Strength	ASTM D-790	4,500 PSI
Long-term Flexural Strength	ASTM D-790	50% of Initial
Initial Flexural Modulus of Elasticity	ASTM D-790	250,000 PSI
Long-term Flexural Modulus of Elasticity	ASTM D-790	50% of Initial
Tensile Strength	ASTM P-638	2,500 PSI
Tensile Modulus	ASTM D-638	320,000 PSI

G. Design Thicknesses: The Owner reserves the right to change specified liner thicknesses based on new information. The bid prices may be adjusted to increase or decrease unit prices as liners are thickened or thinned at the Owner's direction in accordance with the general and supplementary conditions of the contract.

H. Flow Capacity: Maintenance of flow capacity of existing pipes is essential. Rehabilitated pipe shall have minimum of no change in capacity. An increase in flow capacity following rehabilitation is preferred, and in no case shall the flow capacity of rehabilitated pipes be reduced.

I. Liner Sizing: The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the pipe to be lined. Allowance for longitudinal

and circumferential stretching of the liner during installation shall be made by the Contractor.

- J. Length: The length of the liner shall be that which is deemed necessary by the Contractor to effectively carry out the insertion and seal the liner at the inlet and outlet of the manhole. Individual inversion runs may be made over one or more manhole to manhole sections as determined.
- K. Manufacture Information: It shall be necessary for the Contractor to obtain the Owner's prior approval for all materials or processes and the Owner shall have the power at any time to order the Contractor to modify or discontinue any practice. All such orders shall be given in writing.
- L. Warranty: All installed CIPP liners shall have a five (5) year Contractor and Manufacturer guarantee from the date of acceptance (defined as final payment for the segment). During this period, all serious defects discovered in the CIPP liner or workmanship, as determined by the Owner, shall be repaired or removed and replaced in a satisfactory manner at no cost to the Owner.

Part 3 - EXECUTION

3.01 Inspections

- A. Prior to beginning insertion of the liner, the Contractor shall inspect the cleaned line by use of CCTV and shall confirm to his own satisfaction the lines are adequately cleaned and ready for CIPP pipe rehabilitation. Insertion of the liner by the Contractor shall serve as evidence of his acceptance of the condition of the piping and the suitability of the liner insertion within the host pipe. Failure of the liner system due to inadequately cleaned host pipes shall be repaired by the Contractor at no cost to the Owner. Refer to Section 02741, Sanitary Sewer Line Cleaning and Section 02742, Television Inspection.
- B. During the process of manufacture and impregnation, the Owner shall have the reasonable opportunity to examine all operations where the manufacture and impregnation (when applicable) of the liner is being carried out. The Contractor shall give appropriate prior notice in order for the City's inspector to be on hand to observe the various processes.
- C. Final Inspection: The Contractor shall notify the Owner the schedule of the final televised inspection so the Owner has the option of having representative present. The Contractor shall complete a final television inspection in accordance Section 02742, Television Inspection.

3.02 Preparatory Procedures

- A. Notification of Residents: Required 24 to 48 hours prior to starting Work, it is the responsibility of the Contractor to notify all residents affected by the lining process. This notification shall consist of written information and verbal

communication outlining the pipe rehabilitation process and timing of the project. Written notifications shall be in English and Spanish.

- B. The actual sizes, lengths and materials of the pipes to be relined shall be as indicated on the work order, but shall be verified by the Contractor prior to commencing with the work.
- C. It is the intent of the Owner to perform all point repairs and pipe replacements as necessary to prepare the sanitary sewer line for rehabilitation using the CIPP method.
- D. **Obstruction Removal:** The line shall be cleared of obstructions such as solids, dropped joints, intruding service connections or collapsed pipe that may prevent liner installation. If inspection reveals an obstruction that cannot be removed by conventional remote sewer equipment, The Contractor shall terminate work on the sanitary sewer line segment. Notify the Owner of the condition and the Owner will perform required point repairs.
- E. **Root Removal:** Roots shall be removed through heavy cleaning in the designated sections where root intrusion is a problem. Special attention should be used during the cleaning operation to assure almost complete removal of roots from the joints. Chemical root treatment, including inhibitors, may be used at the direction of the Owner. Chemical root treatment shall be reimbursed as additional work when approved in advance of the work.
- F. **Infill and Inflow:** The host pipe and manhole structures shall have leaks adequately contained so that liner is installed according to manufacturer specifications. Areas requiring grout to fill voids, provide structural support, and stop leaks, the Contractor shall notify the Owner of the means, methods and amount of material/grout required to complete the repair.

3.03 Sealing at Manholes after Lining

- A. Form a tight seal between the liner and the host pipe at the pipe penetration. Do not leave any annular gaps. Seal the annular space with a ½-inch-diameter activated Oakum band soaked in chemical sealant or other approved methods. Seal any annular spaces greater than ½-inch with manhole wall repair material.
- B. The final seal shall be finished off with a non-shrink grout or cementitious liner material placed around the pipe opening from inside the manhole in a band at least 4 inches wide. The liner shall be fully cured prior to completing the seal at the manhole.
- C. The Contractor shall be responsible for a water tight seal between the pipe and the manhole. If the manhole is not water tight in other areas the Contractor shall notify the owner and include a notation in the final inspection report.

3.04 Service Connection Reinstatement:

- A. The Contractor shall robotically reinstate each service lateral and make the connection suitable for lateral lining.
- B. The re-connection of active service connections shall be completed, unless otherwise specified, without excavation, from the interior of the pipeline by means of a television camera directed, cutting device. All re-cut service connections shall be neat and smooth and free of all burrs, frayed edges, or any restrictions preventing free flow. Service connections shall be trimmed and wire-brushed to 100 % of the original opening. No coupons, debris, or shavings shall be left inside the service connections or the lined pipe. During the pre-rehabilitation television inspection of the line, the Contractor will confirm if service connections are active or inactive. Upon identifying a suspected inactive connection, the Contractor will notify the Owner who will investigate and inform the Contractor if the connection is active and to be cut. It is the intent of these specifications not to re-connect inactive connections. There is a potential of connection misidentification of inadequate connection reopening resulting in sewage back-up in private homes. The Contractor shall be responsible for any and all damages to private properties due to defective work.
- C. The Contractor shall maintain a crew or a plumber capable of responding on short notice (one hour) to such emergencies that may occur as a result of the lining process. The Contractor shall provide a minimum of two, 24-hour telephone numbers to be contacted in case of an emergency.
- D. The Contractor shall be responsible for all costs incurred due to deficiencies related to the lining procedure. In the event a service connection is not properly reinstated, the Contractor shall rectify the defect without cost to the Owner.
- E. The Contractor shall stop all visible leaks, including those at service connections, to achieve an acceptable watertight seal.
- F. During televising, the camera shall slowly scan the entire edge of the service connections (360 degrees).

3.05 Defective Work: Any defects which, in the judgment of the Owner, will affect the integrity or strength of the lining, shall be repaired or the liner replaced at the Contractor's expense. Obtain approval of the Owner for method of repair, which may require field or workshop demonstration.

END OF SECTION

SECTION 02741

SANITARY SEWER LINE CLEANING

Part 1 - GENERAL

1.01 Sanitary Sewer Line Cleaning

The intent of sanitary sewer line cleaning is to remove debris from the pipes and manholes, to prepare the pipes for closed circuit television inspection (CCTV) when required or to prepare the host pipe for lining. The Contractor shall verify that all trash and debris are captured from the pipe and the bottom of the manholes during the cleaning process. The Contractor shall furnish all labor, equipment, material and supplies and perform all operations necessary to properly clean the sanitary sewer lines and manholes.

1.02 Definitions:

- A. Debris: Debris shall consist of dirt, rocks, bricks, gravel, sand, silt, grease, roots, and other materials that may accumulate in a sanitary sewer pipe.
- B. Regular Cleaning: Regular Cleaning shall consist of a minimum of two passes using high-velocity, hydrojetting, and vacuum cleaning equipment to prepare for CCTV inspection. One pass using root saw, for general sawing, with camera following back to bottom manhole for light root removal.
- C. Heavy Cleaning: Heavy Cleaning shall consist of several passes using mechanically powered equipment and vacuum cleaning equipment after regular cleaning to remove heavy grease and roots blocking the line and preventing CCTV inspection.

1.03 Related Sections

- A. Section 01025, Measurement and Payment
- B. Section 01501, Flow Control/Bypass Pumping
- C. Section 02735, Pipe Rehabilitation Cured-In-Place Pipe (CIPP) Method
- D. Section, 02742, Television Inspection

1.04 Project Information:

- A. The Owner will provide the Contractor:
 - 1. Work Order identifying the scope of work.
 - 2. Locating information such as a grid book used to identify the Service Authority sewer lines.

1.05 Submittals:

- A. Pay requests shall include a listing of all sanitary sewer pipe segments cleaned. The PACP standard format report shall be included to document the existing conditions and address any field issues identified during the cleaning that may impact the CIPP liner design and installation.

Part 2 - PRODUCTS

2.01 Equipment

A. General

- 1. The Contractor shall insure backup equipment is available and can be delivered to the site within 24 hours.

B. Cleaning Equipment

- 1. The Contractor shall provide all equipment necessary for the proper hydraulic cleaning, rodding, bucketing, brushing, root cutting, grease cutting, tap cutting and flushing of the sanitary sewer lines for the pipe sizes encountered. All cleaning equipment shall be subject to the review and approval of the Owner.
- 2. The Contractor shall protect the sanitary sewer lines from damage due to the improper use of cleaning equipment. Sanitary sewer lines or manholes damaged as a result of the Contractor's improper operations shall be promptly repaired by the Contractor at no cost to the Owner.
- 3. All equipment, devices and tools required for this work shall be owned (or leased) and operated by the Contractor.
- 4. High velocity, hydrojetting, sanitary sewer line cleaners shall have the following characteristics:
 - i. A minimum usable water capacity of 2000 gallons and a pump capable of delivering at least 60 gallons per minute (gpm) at 1500 pounds per square inch (psi).
 - ii. Two or more high velocity nozzles capable of producing a scouring action from 10 to 45 degrees, in all size lines to be cleaned. A relief valve adjustable from 1 to 1500 psi minimum shall regulate pressure to the nozzles.
 - iii. A minimum of 600 feet of high-pressure hose certified for the working pressure to be mounted on a hydraulically driven hose reel.

- iv. A high velocity gun for washing and scouring manhole walls and floor that will produce flows from a fine spray to a long distance solid stream.
5. Vacuum cleaning equipment shall have the ability to vacuum debris from the line/manhole at a minimum airflow of 3,600 cubic feet per minute (cfm) through an 8-inch tube, to depths of at least 25 feet.
6. Heavy-duty power rodding machine shall be capable of rodding distances of up to 1,000 feet in one setup. The machine shall have the ability to spin the rod either clockwise or counterclockwise, or push the rod straight out or pull back without rotating the machine. The machine shall also be capable of pulling pipe-size swabs or brushes back through the pipe.
7. Heavy-duty bucket machines for use on a dragline shall be capable of using buckets, brushes, scrapers and swabs.
8. Tap cutting (protruding laterals) devices shall have a cutter capable of cutting protruding laterals without damage to the utility. The cutter will be sharp to make a clean cut.

2.02 Materials

- A. Water required for cleaning operations is the responsibility of the Contractor. The Contractor may obtain and use Authority water of charge metered through a hydrant meter with a reduced pressure zone backflow device. The Contractor shall comply with the requirements of the Authority issuing the water meter. Contact the Business Office of the Prince William County Service Authority to answer questions pertaining to procedures for authorization of fire hydrant meter rentals.

Part 3 - Execution

3.01 General

- A. Sanitary sewer lines shall be cleaned in the downstream direction only, except from the pump station influent to the first manhole upstream of the pump station.
- B. The Contractor shall monitor the effluent from cleaning operations and abandon cleaning if excessive sand and gravel are encountered. Once the source has been located and potential drainage to the pipe mitigated, cleaning may resume.
- C. If an obstruction is encountered preventing the equipment from traversing the entire pipe section, cleaning operations shall be paused and the Contractor shall perform a television investigation in accordance with Section 02742.

1. If an obstruction is found which requires immediate repair (i.e. collapsed pipe) the Contractor shall notify the Owner and abandon any further action for the pipe section.
 2. If the obstruction does not require immediate action by the Owner (i.e. protruding lateral), the Contractor shall perform a television inspection.
 3. If the need to perform heavy cleaning is identified, the Contractor shall perform the heavy cleaning.
- D. Television Inspection shall be in accordance with Section 02742.
- E. Existing flows shall not be interrupted for periods longer than one hour. The Contractor shall take necessary precautions to prevent sewage backup and shall be responsible if damage results there from. Sewage diverted during cleaning operations shall be returned to the sanitary system and not discharged into streams or storm drain system.
- F. Cleaning in preparation of CIPP lining shall be in accordance with the CIPP liner manufacturer's recommendations.

3.02 Regular Cleaning

- A. Sanitary sewer lines accessible to cleaning equipment shall be cleaned using high-velocity, hydrojetting, and vacuum cleaning equipment. The equipment shall be capable of removing debris from the sewer lines and manholes. Debris from line being cleaned, must be prevented from passing downstream into next hole downstream. Once pass with root sawing equipment with camera following, saw to downstream hole to remove light roots and grease.
- B. The Contractor shall provide a minimum of two (2) and maximum of three (3) passes through the entire length of the sanitary sewer line. The Contractor shall monitor the discharge during cleaning operations and continue cleaning until the discharge exhibits little or no debris.

3.03 Heavy Cleaning

- A. Heavy cleaning may be performed after regular cleaning, to remove heavy grease and roots or other blockages in the line and preventing CCTV inspection.
- B. The Contractor shall perform and submit a pre-heavy cleaning television investigation video for each line section that is heavy cleaned.
- C. The pre-heavy cleaning television investigation shall clearly document the need for heavy cleaning, and does not have to be performed in accordance with PACP standards (as required by Section 02742). Heavy cleaning recommendations will be reviewed and approved by the Owner prior to payment based on the television investigation video.

- D. Sanitary sewer lines shall be heavy cleaned using high velocity, hydrojetting and mechanically powered equipment, and vacuum cleaning equipment. The equipment shall be capable of removing debris from the sewer lines and manholes. Heavy cleaning operations shall be performed until the line segment is free of debris.
- E. A television inspection shall be performed on pipe sections after heavy cleaning has been performed in accordance with Section 02742.

3.04 Cleaning Precautions

- A. During all cleaning and preparation operations, the Contractor shall protect the sanitary sewer lines and manholes from damage. During these operations, the Contractor shall also insure no damage is caused to public or private property adjacent to or served by the sanitary sewer or its branches. The Contractor is responsible for removing his equipment from sewers. The Contractor shall restore any damage caused to public and/or private property as a result of such cleaning and preparation operations to pre-existing conditions at no additional cost to the Owner. Pipe collapses resulting from cleaning operations shall be reported to the Owner immediately. The Contractor shall repair such damage at no cost to the Owner.
- B. When hydraulically propelled cleaning tools are used, retarding the flow in the sewer line, the Contractor shall insure the water pressure created does not damage or cause flooding of public or private property being served by the sewer.
- C. Access to fire hydrants for the purpose of fire protection shall be maintained at all times.
- D. The contractor shall monitor material exiting the pipe as it is cleaned and abandon all cleaning operations should evidence of descaling of corroded pipes be encountered. Sanitary sewer lines displaying excessive scaling or corrosion of metal pipe discovered through television inspections or television investigations shall not be mechanically cleaned unless the cleaning will be immediately followed by CIPP Lining.

3.05 Service Lateral Obstruction

- A. The Contractor shall not cut protruding lateral obstruction without the Owner's approval.
- B. Protruding laterals may be cut if required to complete CIPP Lining, see Section 02735.

3.06 Debris Removal and Disposal

- A. All debris and other solid or semisolid waste material resulting from the cleaning operation shall be removed at the downstream manhole of the section being

cleaned. When hydraulic cleaning equipment is used, a suitable dam or weir shall be placed in the downstream manhole to trap all such materials. Passing material from manhole section to manhole section, which could cause line stoppages, accumulations of sand in wet wells, or damage pumping equipment, shall not be permitted.

- B. Under no circumstances shall debris and other solid or semisolid waste removed during these operations be dumped or spilled into streets, ditches, storm drains or other sanitary sewers. All debris and other solids or semisolids resulting from the cleaning operations shall be removed from the site and disposed of in a lawful manner.
- C. The Contractor shall keep his haul route and work area(s) neat and clean and reasonably free of odor, and shall bear all responsibility for the cleanup of any spill which occurs during the transport of cleaning/surface preparation by-products and the cleanup of any such material which is authorized by or pursuant to this agreement and in accordance with applicable laws and regulations. The Contractor shall immediately clean up any such spill or debris release.
- D. The haul routes used by the Contractor for the conveyance of this material on a regular basis shall be subject to approval by the governing authority having jurisdiction over such routes.

3.07 Acceptance of Cleaning Operation

- A. The Contractor shall submit a post-cleaning television video in PACP format for all lines cleaned. The Owner shall review the television videos and inspect the work prior to release for payment.
- B. The Contractor shall submit a television investigation video and post-heavy cleaning television inspection for all lines cleaned as heavy cleaning for Owner's review prior to release for payment.
- C. Cleaned line segments shall be reasonably free of debris prior to acceptance by the Owner.
- D. Acceptance of sewer line cleaning where television inspection has occurred shall be made upon the successful completion of the television inspection and shall be to the satisfaction of the Owner. If the television inspection shows the cleaning to be unsatisfactory, the Contractor shall be required to reclean and reinspect the sewer line. Re-cleaning and re-inspection of the sanitary sewer line shall be at no additional cost to the Owner.

END OF SECTION

SECTION 02742

TELEVISION INSPECTION

Part 4 - GENERAL

- 4.01 The Contractor shall furnish all labor, equipment, material and supplies and perform all operations necessary to conduct the internal closed-circuit television inspection (CCTV) of sewer lines as designated or directed by the Owner.
- 4.02 The Contractor shall be responsible for removing his equipment from the sewers. The Contractor shall restore any damage caused to public and/or private property as a result of CCTV inspection at no additional costs to the Owner.
- 4.03 Related Sections
- A. Section 01025, Measurement and Payment
 - B. Section 01501, Flow Control/Bypass Pumping
 - C. Section 02735, Pipe Rehabilitation Cured-In-Place Pipe (CIPP) Method
 - D. Section, 02741, Sanitary Sewer Line Cleaning
- 4.04 Definitions:
- A. NASSCO – National Association of Sewer Service Companies.
 - B. PACP – Pipeline Assessment Certification Program.
 - C. Television Inspection - is a video inspection performed by the Contractor of sanitary sewer lines specified to confirm cleaning and/or to assess the condition of the line.
 - D. Television inspection and sanitary sewer line assessments shall be in accordance with NASSCO PACP standards and performed by a NASSCO certified operator.
 - E. Television investigation – is a video observation of the sanitary sewer line performed by the Contractor to identify an obstruction and/or to verify the need for heavy cleaning. Investigation is not required to be compliant with PACP standards.
 - F. Television Inspection Log. Information collected and recorded by each television operator for any Television Inspection effort submitted to the Owner. Television Inspection codes and Sewer Line Assessment Codes shall be in accordance with NASSCO PACP standards.
- 4.05 Information to be Provided by the Owner:

- A. The Owner will provide by the Contractor:
 - 1. Work Order identifying the scope of the project.
 - 2. Locating information such as a grid book used to identify the Service Authority sewer lines.

4.06 Submittals:

- A. Procedures for submittal submission are contained in Section 1300, Submittals.
- B. Digital Video Recordings in PACP standard format.
- C. Investigation reports compliant with PACP standards.
- D. Pre-heavy cleaning, television investigation videos for all pipe segments heavy cleaned.

Part 5 - PRODUCTS

5.01 Closed Circuit Television Equipment

- A. The Contractor shall select and use closed-circuit television equipment producing a color video recorded in digital format on both CD and USB.

5.02 Pipe Inspection Camera

- A. The Contractor shall produce video using a pan-and-tilt, radial viewing, pipe inspection camera that pans ± 275 degrees and rotates 360 degrees. The television camera used for the inspection shall be specifically designed and constructed for such inspection. The camera shall operate in 100% humidity and submerged conditions. The Contractor shall use a camera with an accurate footage counter, which displays on the monitor the exact distance of the camera from the centerline of the starting manhole. The Contractor shall use a camera with camera height adjustment so that the camera lens is always centered at one-half the inside diameter, or higher, in the pipe being televised. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. A reflector in front of the camera may be required to enhance lighting in dark or large diameter pipe. The television equipment shall be capable of showing on the video the Authority name, Service Area name, Contractor name, date, line size and material, line identification (Authority's manhole numbers at both ends) and ongoing footage counter. The camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Engineer; and if unsatisfactory, equipment shall be removed and replaced with adequate equipment. No payment will be made for an unsatisfactory inspection.

5.03 Digital Recordings

- A. Digital video shall be supplied for all television work. All recordings shall be submitted to the Engineer weekly, recorded on DVD or CD discs. DVD is the preferred method of video recording.
- B. The current version of the video reader software used for reading and viewing digital video recordings shall be provided to the Engineer on one disc.
- C. A label shall be placed on the face of the DVD or CD. Permanently label each disc with the following information:
 - 1. Authority Name
 - 2. Contractors Name
 - 3. Service Area
 - 4. Inspection Type (Inspection, Investigation)
 - 5. Disc Number
 - 6. Date Televised
 - 7. Date Submitted
- D. A DVD or CD jacket label shall be affixed to the reverse side of the jewel box. The jacket label shall include the following information:
 - 1. Label sanitary sewer pipelines by manhole number to manhole number.
 - 2. Pipe diameters.
 - 3. Pipe lengths.
 - 4. Streets.

Part 6 - EXECUTION

6.01 Television Inspection

- A. Procedure
 - 1. Perform television inspection. Sanitary sewer lines accessible to cleaning equipment shall be cleaned prior to television inspection.
 - 2. The camera shall be moved through the line at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. In no case will the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper

documentation of the sewer conditions shall be used to move the camera through the sewer line.

3. If, during the inspection operation, the television camera will not pass through the entire pipe section due to blockage or pipe defect, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole. Should the camera again fail to pass through the entire pipe section, the Contractor shall contact the Authority for resolution. Improper cleaning or intruding laterals will not be a reason for incomplete televising of a line section where heavy cleaning is able to be performed to remove blockage.
4. When manually operated winches are used to pull the television camera through the line, hand operated radios, telephones, or other suitable means of communication shall be set up between the two manholes of the section being inspected to insure good communication between members of the crew.
5. During the internal inspection, the television camera shall be temporarily stopped at each defect along the line. The nature and location of the defect shall be recorded by the Contractor in accordance with NASSCO, PACP standards. The camera shall also be stopped at all service connections and identified by station. If the flow continues at active service connections, the property involved shall be checked by the Contractor to determine whether or not the flow is sewage. Flows from service connections, which are determined to be infiltration sources, shall also be recorded.
6. All defects and lateral locations shall be labeled and imbedded on the video and audio tracks by the operator.
7. The camera operator shall slowly pan and tilt at beginning and ending manhole connections, each service connection, visible defects and at pipe material transitions.
8. Television inspection video shall be continuous for pipeline segments between manholes. Do not leave gaps in the video recording of a line segment between manholes and do not show a single line segment on more than one DVD or CD, unless specifically approved by the Engineer.

B. Flow Control

1. Perform flow control as specified in Section 01501, Flow Control/Bypass Pumping, of the agreement.
2. If during television inspection of a sewer line section, the wastewater flow depth exceeds 20 percent of the inside pipe diameter, the Contractor shall reduce the flow depth to an acceptable level by performing the television inspection during minimum flow hours, plugging, trucking, or by pulling the camera with swab, high-velocity jet nozzle, or other acceptable dewatering

device. Video inspection made while floating the camera is not acceptable unless approved by the Engineer.

3. The Contractor shall notify the Engineer if unable to reduce flow depth in the pipe to an acceptable level for television inspection.

C. Documentation of Television Inspection

1. The television inspection shall be documented using a digital data logger using PACP format.
2. Television Inspection Logs: Printed location records shall be provided by the Contractor and shall clearly show the location in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations of service connections, building sewers, unusual conditions, roots, grease, storm sewer cross connections, broken pipe, presence of scale and corrosion, cored connections, mineral deposits and other discernible features shall be recorded and a copy of such records shall be supplied to the Engineer.
3. Digital Video Recordings: The purpose of digital recording shall be to supply a visual and audio record of problem areas of the lines that may be replayed. Video recordings shall include an audio track recorded by the inspection technician during the actual inspection work. An audio and graphic label shall be imbedded in the recording describing the parameters of the line being inspected (i.e. location, depth, diameter, pipe material), as well as describing connections, defects and unusual conditions observed during the inspection. Video recording playback shall be at the same speed that it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. Once recorded, the DVD or CD discs shall be labeled and become the property of the Engineer. The Contractor shall have all DVD's or CD's, and necessary playback equipment readily accessible for review by the Owner during the project.

6.02 Television Investigation

- A. Perform television investigation during cleaning operations to determine the cause of a sanitary sewer line obstruction or document the need for heavy cleaning.
- B. The camera shall be inserted into the sanitary sewer line and moved through the line at an acceptable rate needed to record the length to the obstruction and view the obstruction or location of debris to be heavy cleaned. Television investigation for heavy cleaning shall clearly identify the need for heavy cleaning.
- C. If during the investigation the cause of obstruction cannot be readily determined, the Contractor shall set up the equipment on the opposite manhole and investigate in the opposite direction.

- D. The obstruction shall be graphically labeled and imbedded on the video by the operator.
- E. Perform Flow Control in accordance with Section 01501.
- F. The television investigation shall be recorded on DVD or CD and labeled by its location. A DVD recording is preferred.

6.03 Permits

- A. Contractor shall obtain all necessary permits at Contractor expense.

END OF SECTION

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ADDITIONAL INFORMATION

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PWCSA

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ATTACHMENTS

- ❖ Am-Liner East, Inc. Qualification Letter/Introduction
- 1. Report outlining the process for lining of the sanitary sewers:
 - a. Business Operations Plan – Meeting of Schedules; General Management Approach; Communication Plan
 - b. Manufacturer’s Installation Instructions and Quality Control
 - c. Flow Control
 - d. Wet Out Information and Quality Control
- 2. Certification for Premier Pipe USA
- 3. Product and Work Experience – 10 projects
- 4. References for the Project Superintendent, Jeff Geiger
- 5. Certification for each Am-Liner East, Inc. employee who will be installing Premier Pipe USA Liner
- 6. Certification for Am-Liner East, Inc. to install Premier-Pipe USA Liner
- 7. Am-Liner East, Inc. and Premier Pipe USA’s five (5) year warranty letter.



IFB #SA-1815
SANITARY SEWER MAIN LINING (CIPP)
PWCSA, WOODBRIDGE, VA
FEBRUARY 23, 2018

February 20, 2018

Prince William County Service Authority
4 County Complex Court
Woodbridge, VA 22192
ATTN: Purchasing Manager

RE: IFB #SA-1815 Sanitary Sewer Main Lining (CIPP)

Dear Madam/Sir:

Am-Liner East, Inc. has been in operation since Incorporation on June 24, 1994 in the Commonwealth of Virginia. Since its inception, AM-Liner East, Inc. has been performing various types of Trenchless Pipe Relining and Manhole Rehabilitation. To date, we have successfully installed and rehabilitated over 10,000,000 LF of sanitary sewer and storm drain piping (ranging from 4" – 72" in diameter) throughout the East Coast of the United States, and as far west as Illinois, using Premier-Pipe USA™.

Together, the Owner /President, Isidorio Giuliani, the Vice President, Mel M. Willett and the Operation Manager, Mark Miles, have over 69 years of experience in the Underground Utility Construction field. Each project is supervised and staffed with experienced Am-Liner East, Inc. employees who have been involved in the Trenchless Rehabilitation Industry for a minimum of five (5) years. All employees are fully trained and qualified to install the Premier-Pipe USA™ Cured-in-Place Lining System, as well as being trained in various OSHA required courses and Confined Space Entry Certified. Supervisory employees are OSHA Competent Person and First Aid/CPR trained as well. At present, the company employs approximately 130 people and the management of Am-Liner East, Inc. is committed to providing employees with a safe and healthful workplace.

Am-Liner East, Inc. will have the availability of a minimum of 2 crews with approximately five (5) men per crew to install liners. The Project Manager, Mel Willett, Project Liaison, Tommy Jones, the General Manager, Sean Merryman, and the Field Foremen/Supers will work to ensure the timeliness and quality of the installed liners. They will also overview the subcontractor trades, and be accountable to Mel Willett, Vice President, who will represent Am-Liner East, Inc. ownership on all matters. All personnel stated above can be reached via their cell phones on a 24/7 basis. Refer to the attached Key Personnel Telephone list.

601 JACK ENDERS BLVD.
BERRYVILLE, VA 22611
(540) 955-9671 PHONE
(540) 955-2872 FAX
CONTR LIC #2705-040998A

Keep your city moving.

Berryville, VA | Capitol Heights, MD | Baltimore, MD
Wallace, NC | Bear, DE

Am-Liner East, Inc.'s rapid growth in the Trenchless Rehabilitation Industry has been possible mainly due to our experience of the understanding how pipelines are constructed and how they operate along with choosing the proper rehabilitation method for the repairs. Over

the years, Am-Liner East, Inc. has developed and enjoyed long lasting relationships with various Federal, Municipal, County and State Government clients. As a direct result, many term contracts have been renewed for their maximum allowable extensions and years. Refer to our attached ten (10) similar projects, under 1.06A SUBMITTALS, Item 3.

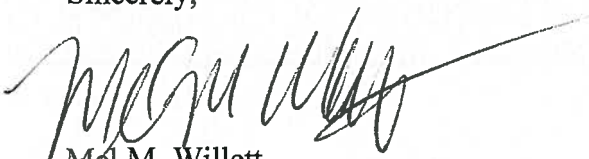
AM-Liner East, Inc.'s primary business is pipeline rehabilitation, but we also provide the following services:

- Cured-In-Place - (Water, Steam, and UV Light Curing)
- CCTV Inspection of Sewer Mains
- Bypass Pumping
- Cleaning of Sewer Mains
- Manhole Rehabilitation
- Lateral Interface Sealing
- Internal Sectional Liners
- Other Miscellaneous Forms of Utility Work

All subcontractors hired by Am-Liner East, Inc. will have a minimum three (3) year work history in their respective areas of expertise. They will be required to furnish all necessary documentation and must comply with policies as specified by PWCSA, completing their work in accordance with the contract terms.

Please refer to our detailed information, as requested under Part III TECHNICAL SPECIFICATIONS, Section 02735: 1.06 SUBMITTALS, part A Submit with Bid, which follows this letter.

Sincerely,



Mel M. Willett
Vice President



IFB #SA-1815
SANITARY SEWER MAIN LINING (CIPP)
PWCSA, WOODBRIDGE, VA
FEBRUARY 23, 2018

KEY PERSONNEL TELEPHONE LIST

<u>AM-LINER REP.</u>	<u>EXP.</u>	<u>POSITION</u>	<u>CELL PHONE</u>
Mel M. Willett	23 yrs.	Vice President	(703) 898-5189
Mark Miles	23 yrs.	Operations Manager	(703) 898-8284
Sean Merryman	8 yrs.	General Manager	(540) 336-3912
Mike "Stucky" Wadding	23 yrs.	Operations Prj Impl Mgr.	(540) 532-6034
Tommy Jones	13 yrs.	Project Liaison	(571) 220-2933
Robert Christian	13 yrs.	Foreman/Super #1	(571) 436-7263
Miguel Hernandez	20 yrs.	Foreman/Super #2	(703) 932-8487
Jan O'Neil	8 yrs.	Project Deliveries/Inv.	(540) 955-9671

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www.amlinereast.com

MEL M. WILLETT
3616 Donna Court
Monrovia, MD 21770

PROFESSIONAL SUMMARY

An industrial professional with significant management experience in piping operations, project administration, and client relationship management contributing to performance and service management. Proven strengths and accomplishments include business plan development and implementation, managing and developing project plans, business process redesign, applying technology for operations improvements, and managing client relationships.

EXPERIENCE:

- 1994 – Present AM-LINER EAST, INC. Vice President/General Manager Berryville, VA**
Responsible for the effective utilization of operations and projects for several relationships to achieve their business initiatives. Managing the backoffice to provide corporate direction, company support, budget management, and quality control and assurance for several large relationships. Accomplishments include Managing daily operations of established pipe lining contractor; Estimating and managing projects up to 8 million dollars each; Negotiating contracts with clients; Setting up financing for Capital Purchases; Purchasing materials and equipment; Performing all estimating and procurement of contracts from bid phase through completion; Setting up Bonding Program; Setting up Company Health Insurance and 401K Retirement Plans; Working closely with accountants for Monthly P&L, Balance Sheets, Year End Financials; Responsible for implementation of computer network system and job cost/accounting software package; Extensive knowledge of Federal Government Contracting and FAR / DFAR Regulations
- 1993 - 2003 MEI (Related Party) Corporate Secretary/Proj Mgr/Estimator Vienna, VA**
Responsible for the day to day operations of established utility contractor with an operating staff of 5 individuals. These duties included operations, budgets, customer service, quality control and regulatory compliance. Accomplishments include Managing daily operations of established utility construction contractor; Estimating and managing projects up to 7 million dollars each; Negotiating contracts with clients; Setting up financing for Capital Purchases; Purchasing materials and equipment
- 1988 - 1993 JOMEL BUILDERS Owner / Carpenter Freehold, NJ**
Responsible for the implementing a new business to offer carpentry to homeowners in an expanding and competitive market. Responsibilities included Managing daily operations of commercial/residential building contractor; Estimating and managing projects up to \$300,000.00 dollars; Negotiating contracts with clients; Purchasing materials and equipment; Managing all aspects of business
- 1986 - 1990 MEI Project Manager/Quality Control Mgr Atlantic Highlands, NJ**
Responsible for the implementation of several job sites. Overseeing the projects that add up to \$4 million dollars per job. Hired and developed a group of 4 professionals that provided value added quality control to each project. Instrumental in developing a project plan system to be viewed by the user and the clients. Conducted product and systems demonstrations to client sites. Provided direction to 4 Managers for subsidiary staffs and daily operations..

LICENSES / MEMBERSHIPS

- * VA Class A Contr License-H/H
- * FL, GA & TN Contr Lic – Underground Utility
- * OSHA 40-hr Hazard Materials Certified
- * NASSCO Member
- * NASTT Member
- * American Public Works Association Member
- * NC & SC Contr Lic-Public Water & Sewer
- * Corp of Eng Constr Quality Mgmt Certified
- * ASTM Member
- * Voting Member ASTM F17 & F17.67 Committee
- * Candidate Member ASHI
- * Member of Building Trades Association

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**SAMUEL MARK MILES
718 Medaris Street
Clinton, TN 87916****QUALIFICATIONS:**

Have had over 30 years of work experience in Supervisory positions for fast-paced environments. Proven skills in effectively meeting production goals and commitments; strong negotiator with Contract Mgmt experience; continuous attention to quality and safety; effectively meet production goals and commitments; strong negotiator with contract management experience; continuous attention to quality and safety; effective interpersonal and communication skills; strong analytical skills with problem solving ability; **TEAM PLAYER WITH HIGH WORK ETHIC AND PERSONAL GOALS.**

PROFESSIONAL SUMMARY:**1995 – NOW AM-LINER EAST, INC. OPERATIONS MANAGER BERRYVILLE, VA**

- Manage and direct the activities of all crews involved in the installation of liner throughout eastern states
- Interview, hire, train, supervise, counsel, motivate and monitor performance of production crew in the maintenance and repair of underground utilities
- Perform job cost estimating and make recommendations to management concerning all aspects of the projects, which would ensure meeting goals, budget and contract requirements
- Maintain strong technical knowledge or repair and maintenance of underground utilities utilizing robotics as well as traditional methods of problem identification and repair
- Responsible for supervision of subcontractors to maximize their output and quality of work

1979 – 1994 CROSS MOUNTAIN COAL CO GEN SUPT/FOREMAN/MINER

- Initially hired as miner with subsequent promotion to foreman then to general supt
- Managed and directed daily production operations of the mine
- Hired, supervised and scheduled crew; handled timesheets; monitored budgets
- Managed safety issues and concerns
- Established production goals and monitored production
- Negotiated and managed contracts and handled contracts for coals sales
- Maintained strong technical knowledge of all mine operations; read maps and blueprints
- Operated and maintained all equipment, ensured all crew members were properly trained in safe operation of equipment

1975-1977 U.S. ARMY

- Honorably discharged at rank of E3

EDUCATION:

- Graduate of Lake City High School, Lake City, TN 1975

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Sean Merryman

Position

- **General Manager** - AM-Liner East, Inc. - 2010 - Present

Professional Training

- Premier Pipe Certified Installer
- HAZCOM
- First Aid/CPR
- Confined Space Entry
- Defensive Driving

Experience

- Installation of various CIPP lines ranging from 8" to 72"
- Project Management in residential, site development and highway construction
- Project Estimating
- Project Engineering
- New Product Development

Responsibilities

- Direct project teams and all related field work for tri-state area
- Corporate Liason with government agencies
- Responsible for all phases of sewer rehabilitation projects in several states and jurisdictions
- Contract Development
- Provide submission of all liner design according to project specifications
- Develop schedule of work in conjunction with the Owner and governing locality
- Plan and layout work and assignments for subcontractors and field crew
- In charge of overseeing and supervision of several crews on various projects, simultaneously while managing the crew through the completion of numerous CIPP lining rehabilitation projects.
- Supervising subcontractors to maximize output and quality of work
- Compile daily, weekly reports of field progress and submit for compliance

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601 Jack Enders BLVD
Berryville, VA 22611
P: 540.955.9671
F: 540.955.2872
www.amlinereast.com

Tommy Jones

Position

- **General Superintendent** – Cured-In-Place (CIPP) Lining May 2004 – Present
- **Prior experience** – 4 years with other CIPP Lining firms

Professional Training

- Premier Pipe Certified Installer
- Flagger – VA
- HAZCOM
- First Aid/CPR
- Confined Space Entry
- Defensive Driving
- Responsible Land Disturber

Experience

- Installed various CIPP lines ranging from 8" to 72" – **See attached AM-LINER EAST, INC., Premier Pipe References – Tommy Jones** for project information.

Responsibilities

- Directly responsible for the daily execution of the field work along with the collection of all field related data.
- Managing crew through the completion of numerous CIPP lining rehabilitation projects
- Responsible for supervision of flow diversion operations, such as bypass pumping
- Responsible for on-going training of crew members
- Supervising subcontractors to maximize output and quality of work
- Compile daily, weekly reports of field progress and submit for compliance

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BERRYVILLE, VA 22611
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**TOMMY JONES
PARTIAL REFERENCE LIST**

2/21/2019

CONTRACT #	CUSTOMER	CONTACT INFORMATION	ST	LOCATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	ACTUAL COMPL DATE	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
#15-29 RISHAB CIPP RIDER- RICHMOND CONTRACT CENTREVILLE, VA 20121-2036	USBA 14631 COMPTON ROAD CENTREVILLE, VA 20121-2036	C.O. COLIDIZEN 703-227-0262 RICK ESHBACK - BUYER 703-227-0229 (C) 703-559-9250 (P)	VA	CENTREVILLE	CIPP 6577LP 42'	CIPP - 677.4 42'	11/13/13 INV DATE	COMPLETED 06/22/15 - 11/13/15	\$ 471,088.44	\$ 471,088.44
#15-08 CONTR #140648XO DEAD RUN SWR BEHD JOB ORDER#231 201-08777109	BALTIMORE COUNTY 111 WEST CHESTNUT AVE, RM 300B TOWSON, MD 21284-4604	GLYN LESLIE 410-387-3781(O) gleslie@baltoconcounty.gov	MD	BALTIMORE COUNTY	CIPP 36909LP 10' 12'-882 15'-230	CIPP - 35,951 LP 8"-29,490 10"-5,346 12"-895 15"-230		ON-GOING 2/6/15	\$ 2,584,737.00	\$ 2,444,554.66
#14-47 AVON BUSINESS PARK STORM WATER PIPE REPAIRS	ESBA, INC. 2220 60TH STREET, NW WASHINGTON, DC 20007	BASIM KATTAN 202-342-1833 (C) 202-342-1833 (P) bskatt@esba.net	VA	CHANTILLY	CIPP 4 88SLP 15'-1455 18'-362 21'-153 24'-664 27'-89 30'-438 36'-470 42'-400 53'-359 60'-178 83'-317	CIPP 3 795 LP 15'-602 18'-101 21'-373 24'-632 27'-89 30'-438 36'-470 42'-400 42'-400 53'-394 60'-0 83'-317	05/31/17	COMPLETED 9/15/14 - 03/31/17	\$ 1,296,522.00	\$ 759,346.00
#14-43 GRAVITY SWR REHAB PH 1 OWASA PROJECT#6127-101664	PIPELINE UTILITIES 2204-F ASSOCIATE DR RALEIGH, NC 27603	TIM HOUGH/BREUCS CLARK 919-772-4310(O)/2621(P) tclark@pu-nc.com BCh@pu-nc.com	NC	CARRBORO	CIPP 1188SLP 6"-75 8"-7000 10"-1500 17"-2400 15"-250 18"-160	CIPP 27,459,2LP 6"-152.5 8"-19,474.4 10"-3,774 12"-3183.5 15"-0 18"-755.1		ON-GOING 8/19/14	\$ 447,975.00	\$ 1,071,338.63
#14-09 SCX08 IMPROV TO SAN SWR IN THE HERRING RUN BEMBERSHED	CITY OF BALTIMORE 1105 ABEL WOLMAN MUNICIPAL BUILDING BALTIMORE, MD 21202	ERIC M.C. BROWN, Proj Mgr 410-398-8160 eric.brown@baltoimodcity.gov	MD	BALTIMORE	CIPP 35,659 8"-33,044 10"-10,737/33' UV CURB#	CIPP - 35,450.8 8"-33,738 10"-11,111.1 12"-1,344.6 15'-217 27'-133'-0.1	01/16/16	COMPLETED 05/01/14 - 01/16/16	\$ 11,496,565.50	\$ 10,504,960.75
#14-08 S031 IMPROV TO SAN SWR IN HERRING RUN BEMBERSHED	CITY OF BALTIMORE 1105 ABEL WOLMAN MUNICIPAL BUILDING BALTIMORE, MD 21202	ERIC M.C. BROWN, Proj Mgr 410-398-8160 eric.brown@baltoimodcity.gov	MD	BALTIMORE	CIPP 40,380LP 8"-38,000 10"-900 17"-150 15"-1,000 18"-380 48"-250	CIPP - 37,466.53 LP 8"-35,319.85 10"-1,021.45 15"-1,000 48"-125.23	08/17/17 PRNL ACCEPT	COMPLETED 2/10/14 - 08/17/17	\$ 6,959,845.30	\$ 5,551,560.68
#13-37 ROCKY RUN & PLAT LICK INTERCEPTOR REHAB	UPPER OCCOCHAN SERVICES AUTHORITY 14031 COMPTON ROAD CENTREVILLE, VA 20121	ERIC M.C. BROWN, Proj Mgr 410-398-8160 eric.brown@baltoimodcity.gov	VA	CENTREVILLE	CIPP 1893 LP 27"-231 30"-525 36"-1117	CIPP 1893 LP 27"-231 30"-525 36"-1117		COMPLETED 6/5/13 - 11/30/13	\$ 498,799.45	\$ 498,799.45
#13-34 HOWARD RIDER JFB NO. 2012 25 OCBRC	CITY OF FREDERICK 111 AIRPORT DRIVE EAST FREDERICK, MD 21701	WANDI FULLERTON PURCHASING MANAGER kfullerton@cityoffredrick.com	MD	FREDERICK	CIPP 8", 12" and 21"	CIPP 11,570LP 8"-10,138 10"-240 12"-731 18"-32 21"-429	10/17/13	COMPLETED 5/23/13 - 10/17/13	\$ 596,161.25	\$ 529,679.05
#13-33 LITTLE PATUXENT INTERCEPTOR CAPITAL PROJ. JBS-5273 CONTRACT #20-1760	HOWARD CITY DEPT OF COUNTY ADMIN 6751 COLUMBIA GATEWAY DRIVE, STE 301 COLUMBIA, MD 21046	MRS DREKLER 410-313-8700/8888 PAUL DIMARCO 410-313-8120(M) pdimarco@howardcountymd.gov	MD	HOWARD CO.	CIPP 1700 LP 27"-464 30"-5,740.5 36"-10,692.5	CIPP 15,897 LP 27"-464 30"-5,740.5 36"-10,692.5	09/30/14	COMPLETED 5/23/13 - 9/30/2014	\$ 3,218,330.10	\$ 3,320,393.00
#13-30 BENICK CREEK & MONOCCY ESA	WESCO 14501 SWETZER LANE LAUREL, MD 20707	MARK BROWN 301-330-1140 mark.brown@wescowater.com	MD	PO & MONT. COUNTIES	CIPP 595 LP (T.O.2) 8"-211 10"-294 T.O.4: 12,145 LP 24"-2663 33"-9482	CIPP 4,617.2 LP 8"-102.4 17"-599.4 14"-15-162 20'-721'-132 24"-5391'-1 38'-0		ON-GOING 07/10/13	\$ 11,250,000.00	\$ 4,649,542.48
#13-29 IDC LOWER ANACOSTIA BEAVERDAM/HATTAWOMAN ESA	WESCO 14501 SWETZER LANE LAUREL, MD 20707	JASON FLORY 301-330-1140 jason.flory@wescowater.com	MD	PO & MONT. COUNTIES	CIPP IDIO - 8,304 (APPROX) T.O.2 = 4,740 LP 8"-1222 10"-1171 12"-1042 24"-1903	CIPP IDIO - 4,235.5 LP T.O.2 8"-963.5 10"-1199 12"-830 24"-1311		ON-GOING 05/06/13 -	\$ 11,250,000.00	\$ 2,858,893.40
#13-26 ANKLER ENVIRONMENTAL'S WSSC C3218A11 BILOU CREEK	ANKLER ENVIRONMENTAL 1634 ODONTON RD/587 TELEPHONE RD ODONTON, MD 21113/WARRENTON, VA 20187	WILL WEAVER 410.672.4326/703.393.4644 (P) 410.672.4328/703.393.2934 (P)	MD	PO & MONT. COUNTIES	CIPP - IDIO (APPROX: 63,401 LP) 6"-2 8"-24160 10"-3315 12"-1833 15"-4440 18"-6880 20"-1000 24"-155 27"-2 30"-7830 33"-1000 36"-425 42"-1605 48"-2	CIPP - 13,244.5 LP 6"-0 8"-3183.5 10"-961 14"-1112 18"-6880 20"-1000 24"-1220 42"-157		ON-GOING 4/26/13 -	\$ 760,876.70	\$ 1,668,411.46
#13-22 CONTRACT #4400003896 SAN SWR MAIN CIPP LINING PWC5A 5A-1213 RIDER P715 FOR500141012 P716 FOR500193869 FOR5000298171	COUNTY OF FAIRFAX/ROBERT McMATH FACILITY 12000 OVERT CTR PKWY, #427/6000 FREDDO OAKS RD FAIRFAX, VA 22035/BURKE, VA 22015	BOB WHITE 703-226-2493 RUS RUSSELL, SW EWS TECH SPEC. 703.239- TOM RUSSELL/DLH LINE MAINT 703-259-4450 JOYNTIHAM OUDFUR 703-503-8057	VA	FAIRFAX	INDERPRINTS CIPP 544,690LP (EST QTY) 8"-476,685 10"-31,803 12"-24,335 15"-17,168 18"-4708	CIPP 544,690LP (EST QTY) 8"-476,685 10"-31,803 12"-24,335 15"-17,168 18"-4708		ON-GOING 4/30/13 -	\$ 1,500,000.00	\$ 21,979,192.29
#13-20 FOUR WILE RUN RD DIAMETER 427 HOWARD CO BL FOR50022 11/15/13 JOB #130309127	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNO TRAN ERNEBERING TECH III 703-228-7350/6585 (W/P) httran@arlingtonva.us	VA	ARLINGTON	CIPP INDERPRINTS QTY	CIPP - 16,087 18"-597 24"-94 30"-1015 30"-584 33"-806 36"-938 42"-3249	02/01/17	COMPLETED 02/19/13 - 02/01/17	\$ 2,000,000.00	\$ 4,328,893.60
#13-15 LIBRARY AREA EAST #231-201-0077-7090	BALTIMORE COUNTY 111 WEST CHESTNUT AVE, RM 300B TOWSON, MD 21284-4604	ANN BROGDMAN 103867-5793 MAM CITY SWR DIV	MD	BALTIMORE	CIPP 21,102LP 8"-15985LP 10"-1117	CIPP 21,102LP 8"-15985LP 10"-1117		ON-GOING 2/28/13	\$ 1,361,160.80	\$ 1,030,318.72



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**TOMMY JONES
 PARTIAL REFERENCE LIST**

2/21/2019

CONTRACT #	CUSTOMER	CONTACT INFORMATION	ST	LOCATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	ACTUAL COMPLETION DATE	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
ALE #11-07 RECONSTRUCT 18"-60" "AS BUILT" BY 197-64/148-07 (FORM A211-30/11/3-20)	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htra@arlingtonva.us	VA	ARLINGTON	CIPP - MISC LP 27'-4328 30'-369 42'-3539	CIPP - 8.036 LP 27'-4328 30'-369 42'-3539	12/31/10	COMPLETED 12/08/07 - 12/31/10	INDEFINITE	\$ 2,332,813.38
ALE #11-06* #381-10/14432-07 RECONSTRUCT 8"-18" "AS BUILT" BY 197-71	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htra@arlingtonva.us	VA	ARLINGTON	CIPP - MISC LP 8" 10" 12" 15" 18"	CIPP - 123,526 LP 8"-109538 10"-5458 12"-3902 15"-4121 18"-507	04/30/13	COMPLETED 10/15/11 - 04/30/13	\$ 1,500,000.00	\$ 8,933,866.20
ALE #10-05 CH641H08 SWR REHAB MORNINGSIDE AREA BROAD CREEK BASIN	WBSC 14501 SWITZER LANE LAUREL, MD 20707	MIKE DOBBS 301-206-7316 (W) mdobbs@wbsc.com RUSSELL RUSSELL rrussell@wbsc.com	MD	PRINCE GEORGE CITY	CIPP - 5,450 LP 8" - 10"	CIPP - 7,833 LP 8"	10/02/12 LAST INV	COMPLETED 02/19/10 - 10/02/12	\$ 2,999,981.50	\$ 2,639,954.60
ALE #09-64 CIPP 25305-000-H02 PX10-00602	DOLLER TRANSIT PARTNERS, LLC 1595 SPRING HILL ROAD, STE 600 VIENNA, VA 22182	DONALD BRINOS 703-852-4751 DABRIEL NALARIAN 703-892-6053/4900(P) Dabriel.Nalarian@outlook.com	VA	DOLLER	CIPP - 3,616 LP 24" = 749 36" = 1597 42" = 885 48" = 385 LP	CIPP - 4,076 LP 24" = 540 36" = 1389 42" = 437 48" = 1510 LP	04/18/11	COMPLETED 12/15/09 - 04/18/11	\$ 969,096.00	\$ 1,294,128.00
ALE #09-61 PEAK CREEK SWR REHAB BKG PROJ #B09138B-01	TOIN OD PULASKI 40 FIRST STREET NW PULASKI, VA 24301	ORLAND QUINCY/JOHN HAWLEY 301-206-7316 (W) jhawley@pulsatoll.com	VA	PULASKI	CIPP - 9,200 LP 18" = 1200 24" = 2700 30" = 550	CIPP - 9,456 LP 18" = 661 24" = 3495 30" = 550	11/01/10	COMPLETED 11/15/09 - 11/01/10	\$ 1,299,819.00	\$ 1,330,741.50
ALE #09-36 PY-10 RESSERVE MAINT	USBA 14631 COLON ROAD CENTREVILLE, VA 20111-2656	JAKE HAMMERSLEY 703-880-2200(P) 703-880-9549(F) jham@usba.com	VA	CENTREVILLE	CIPP - 7,883 LP 15"-204 18"-244 21"-597 24"-160 30"-1000 36"-2200	CIPP - 7,883 LP 15"-204 18"-244 21"-597 24"-160 30"-1000 36"-2200	08/07/10	COMPLETED 06/09/09 - 08/07/10	\$ 1,932,848.80	\$ 1,932,848.80
ALE #09-31 BROAD CREEK BASIN WBSC #C8911658 PO #717861	WBSC 14501 SWITZER LANE LAUREL, MD 20707	MIKE DOBBS 301-206-7316(W) mdobbs@wbsc.com	MD	PRINCE GEORGE CITY	CIPP - 26,600 LP 8"-12" = 26,300 15"=300	CIPP - 26,600 LP 8"-12" = 26,300 15"=300	08/17/12	COMPLETED 04/21/09 - 08/17/12 (P2) (1-eaten compl)	\$ 6,738,200.00	\$ 6,645,772.00
ALE #08-49 RELINING SWRS WITH CIP	TRI-STATE GROUTING 1430 MONROE AVE/POB N NEWARK, DE 19702	MARK SCHNEIDER 302-286-0701 (W) 302-286-0704 (F) mschne@tsgrouting.com	PA	SPRINGSBURY TWP	CIPP LINING - 5,269 8"-255 21"-5003	CIPP LINING - 5,269 8"-255 21"-5003	11/11/09	COMPLETED 10/01/08 - 11/11/09	\$ 534,359.00	\$ 534,359.00
ALE #08-40 REHAB SEWERS GW022220915	OLD DOMINION UTIL SVCS 1430 MONROE AVE/POB N FT. BELTUS	JIM COTTON BRANDON JO OIICO 757-889-0465 (W)/0487(P) jcotton@olddomutil.com	VA	FT. BELTUS	CIPP LINING - 28,275 LP 6"-3892 8"-16637 10"-1872 12"-8333 15"-2025 18"-1295	CIPP LINING - 28,275 LP 6"-3892 8"-16637 10"-1872 12"-8333 15"-2025 18"-1295	10/16/09	COMPLETED 07/18/08 - 10/16/09	\$ 1,089,795.00	\$ 2,407,353.05
ALE #08-16 COMMONWEALTH INTERCEPT REHAB PH4	ABA CTY OF ALEXANDRIA 1500 EBENHURST AVE ALEXANDRIA, VA 22313	CHEERY, BT MAINT 703-292-0997 cheery@aba.com CALIE MOHAW 703-293-0100 gale.moohan@aba.com	VA	ALEXANDRIA	CIPP - 3,270 LP 30"-40 36"-3,230	CIPP - 5,384 LP 30"-40 36"-4,979 42"-565	09/18/09 SUBST	COMPLETED 03/26/08 - 09/18/09	\$ 1,400,100.00	\$ 2,270,901.58
ALE #07-50/#48-07 RECONSTRUCT 18"-60"	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htra@arlingtonva.us	VA	ARLINGTON	CIPP - INDEFINITE	CIPP - 6,962 21"-518 24"-4310 30"-350 36"-1784	03/16/10	COMPLETED 12/10/07 - 03/16/10	INDEFINITE	\$ 1,352,322.00
ALE #07-71 #432-07 & #418-08 RECONSTRUCT 8"-18"	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730 (W) 703-228-6585 (F) Htra@arlingtonva.us	VA	ARLINGTON	CIPP INDEFINITE QTY	CIPP - 145,418 LP (AS OP 2/14/11) 6" = 230 7" = 118 8" = 128236 10" = 8531 12" = 4554 15" = 697 18" = 1564 24" = 325 36" = 1163	10/3/07 -	COMPLETED 10/3/07 -	\$ 7,173,760.52	\$ 7,173,760.52
ALE#07-61 CONTR#4400006602/continuity #R08 SEWER REHAB - CIPP	COUNTY OF FAIRFAX/ROBERT MCMATH FACILITY 12000 GWYTT CTR PKWY, #427/6000 PRESS OAK RD FAIRFAX, VA 22033/BURKE, VA 22015	BOB WHITE 703-239-8422	VA	FAIRFAX	CIPP - 139,000 LP 8"-11,000 10"-12,000 12"-7,000 15"-4,000 18"-5,000	CIPP - 139,000 LP 8"-11,000 10"-12,000 12"-7,000 15"-4,000 18"-5,000 6"-33492 8"-107414 10"-158186 12"-99981 15"-38830 18"-38830 20"-57140 24"-38830 27"-5843 30"-17471 33"-3387 36"-14802 39"-1173 42"-4689 48"-3191 54"-73 60"-448	04/30/13	COMPLETED 10/15/07 - 04/30/13	\$ 4,476,200.00	\$ 16,603,446.65
ALE #06-48 SEWER MAIN REHAB	FBI/US WORKS COMMISSION 6550 WINDYBROOK RD PAYETTEVILLE, NC 28302-1089	KENNETH HORRE 910-489-0207 (F)	NC	PAYETTEVILLE	CIPP LINING - 58,283 LP 8"-93,216 10"-155 12"-8,906 15"-2129 18"-1869 24"-6,358	CIPP LINING - 58,283 LP 8"-93,216 10"-155 12"-8,906 15"-2129 18"-1869 24"-6,358	06/30/07	COMPLETED 11/06/06 - 06/30/07	\$ 2,347,756.65	\$ 2,347,756.65
ALE #06-05 #C0609001 STORM DRAIN PROJECT	FAIRFAX COUNTY - DPW 12000 QUANTUM PKWY, STE 463 FAIRFAX, VA 22033	VIROIL WALKER BOB WHITE 703-239-8493	VA	FAIRFAX	CIPP LINING - 19,540 LP (BID LP) 15"-5308 18"-3200 21"-1600 24"-1600 30"-1000 36"-1500 42"-1000 48"-666 54"-1000 60"-500	CIPP LINING - 19,540 LP (BID LP) 15"-5308 18"-3200 21"-1600 24"-1600 30"-1000 36"-1500 42"-1000 48"-666 54"-1000 60"-500	04/16/07-ORIG	COMPLETED 3/6/06 - 11/13/08	\$ 4,721,301.00	\$ 4,721,301.00
ALE #05-47 8-6329/OC9R	HOWARD COUNTY, DPW 9550 BENJIX ROAD COLUMBIA, MD 21045	DANIEL DAVIS PROJECT MANAGER 410-313-6142 (W) 410-313-6144 (F)	MD	HOWARD COUNTY	CIPP LINING - 14,569 6"-1500 8"-5,000 10"-1,000 12"-2000 15"-1,000 18"-1,000 21"-1500 24"-1,500	CIPP LINING - 14,569 6"-1500 8"-5,000 10"-1,000 12"-2000 15"-1,000 18"-1,000 21"-1500 24"-1,500	03/16/09	COMPLETED 03/16/06 - 03/16/09	\$ 2,435,888.50	\$ 2,435,888.50
ALE #04-35 TRENCHING SWR LINE	CITY OF SAVANNAH 230 ACONIC ROAD SAVANNAH, GA 31406	CLAY ROGERS/ADMINISTRATOR 912-331-3898 (W) 912-331-3898 (F) 912-331-3844/W/3653F	GA	SAVANNAH	CIPP LINING - 36,500 (BID LP) 8"-26,000 10"-4,000 12"-2,500 15"-2,500 24"-2,000 36"-1,500	CIPP LINING - 36,500 (BID LP) 8"-26,000 10"-4,000 12"-2,500 15"-2,500 24"-2,000 36"-1,500	8/10/2008	COMPLETED 11/30/04 - 08/10/08	\$3,850,310.16 BILLED \$1,502,293.84 ORIGINAL	\$3,850,310.16 BILLED \$1,502,293.84 ORIGINAL

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 1a

- ❖ BUSINESS OPERATION PLAN
- ❖ MEETING OF SCHEDULES
- ❖ GENERAL MANAGEMENT APPROACH
- ❖ COMMUNICATION PLAN

BUSINESS OPERATION PLAN

Am-Liner East Inc. (ALE) is a major provider of Cured In Place Pipe (CIPP) lining of sanitary sewer, storm sewer, and pressure pipe for potable water and sewer, centered on the trenchless installation of the Premier-Pipe USA™ cured-in-place pipe product, SAERTEX™ Fiberglass UV Cured Product, Sekisui Norditube™ Pressure pipe product, cleaning and CCTV inspection of sewer mains and laterals, lateral lining, including a specialty lateral interface sealing process named as Prokasro™. This plan will take company resources, namely its employees, equipment, lining products, suppliers and sub-contractors to integrate them through proper construction management and installation procedures to ensure compliance and timely execution of ALE's contractual obligations with Prince William County Service Authority (PWCSA). Emphasis will be placed on maintaining a high quality product and service for its clients in the trenchless rehabilitation of their infrastructure in addition to other comprehensive specialty trades incorporated within the project scope. Furthermore, the plan will focus on maintaining project budgets and timely collections of payments for completed work. Successful implementation of this plan to each individual Project or Task Order will ensure ALE's reputation, financial viability and future growth to meet all of our long range company goals.

ALE operates out of our Corporate Office at 601 Jack Enders Blvd, Berryville, VA 22611 with a satellite office at 9217 Hampton Overlook, Capitol Heights, MD 20743, another at 1220 E Joppa Road Suite 230, Towson, MD, an equipment yard in Chantilly, VA, also our Wet-Out Plant Facility located at 625 S Norwood Street, Wallace, NC. These multiple locations allow us to serve our Premier-Pipe USA CIPP Licensed Territory from South Florida to Maine.

ALE is Licensed as a General or Utility Contractor in all jurisdiction that we work. When performing our projects, whether long or short term, our employees are provided lodging local to the work site so that an immediate response to any problems that may arise are handles in a timely fashion. We utilize quality local subcontractors to perform work outside our areas of expertise, and have built long lasting relationships over the years through repeated use of these companies on our projects. This familiarity also helps with successful and timely completion of the work.

Our attached references will shed light on the overall quality and installation of our work that includes CIPP lining, lateral sealing, lateral lining, pipe excavation and replacement, asphalt and concrete pavement restoration, soil testing and compaction. Our liner products are manufactured under ISO Quality Standards and again inspected and tested in our Wet-Out Plant Facility in Wallace, NC prior to shipping to our various projects with the PWCSA and our other clients. All transportation is performed using our own Federal and Fleet Trained DOT CDL drivers and delivery vehicles. Refer to attached Equipment and Vehicle Partial List and photos.

The Project Manager and his Team that will be assigned will prepare a project schedule in Microsoft Project Software along with a defined monetary budget for the work based upon the



contract unit prices issued in each Task Order by the PWCSA. The budget and schedule will be updated on a daily basis to make certain that the associated costs and time management is followed and adhered to through the duration of the project. Any quality or contract issues that may arise will be immediately discussed with the PWCSA Construction Manager and remedied upon the agreed upon procedure(s).

MEETING OF SET SCHEDULES

Am-Liner East, Inc. has completed all projects in a timely manner for PWCSA and other clients by utilizing our strong management approach and highly skilled crews. As soon as the project has been awarded by PWCSA there will be an in-house meeting with ALE Upper Management, the Field Personnel, the Estimator and our Subcontractors for the purpose of developing a project schedule and budget. For this project, we will assign the Vice President, Mel Willett as the Project Manager, Tommy Jones as the Project Liaison, Jeff Geiger as the Superintendent, Robert Christian, as Foreman #1, and Miguel Hernandez, as Foreman #2. The Project Manager will work with the previously mentioned, as well as the Mark Miles, the Operations Manager, to ensure the timeliness and quality of the installed liners and other required comprehensive rehabilitation work. Mr. Willett will represent Am-Liner East, Inc. ownership on all matters. All personnel stated above can be reached via their cell phones on a 24/7 basis (see Listing included in bid).

Microsoft Project Software (or any other scheduling software required by PWCSA) will be utilized for timeline management of the project. Milestone dates and material deliveries will be incorporated into the schedule in order to manage any Critical Path items of work. No task will be undertaken until a preconstruction meeting has been completed. Upon the issuance of a Task Order by the PWCSA Construction Manager a second pre-work meeting will be held on site to review the locations and any potential obstacles that could conceivably be encountered during the progress of the assigned work. This will help minimize any disruption in service with regard to traffic, residents, businesses, emergency services and PWCSA Personnel and inspection. Am-Liner East, Inc. currently has 11 full time crews at our disposal to complete the work, in addition to multiple crews from our sub-contract team. We are thus well positioned to easily expand as needed in order to complete all work required.

In addition to the layout of the work items in the above mentioned scheduling software, a detailed weekly work schedule for all CIPP lining, excavation, paving, cleaning and CCTV, and restoration and incidental items of construction from ALE and our subcontractors will be submitted to the Construction Manager at least 7 days in advance of proceeding with the same. Multiple crews can be utilized to meet established goals and criteria as required by PWCSA. Through proper management and execution, Am-Liner East, Inc. will coordinate its resources and experience to complete this contract in a timely fashion, staying on budget, while complying with all conditions of the contract specifications and all regulations governing the PWCSA and construction industry.

GENERAL MANAGEMENT APPROACH

Ownership with Mel Willett, Vice President and Corporate Office Administration (considered upper management) will integrate this contract with its current projects setting scheduling and financial goals. The Home Office Administrator will assign a project number and the General Manager, Sean Merryman, Project Manager, Mel Willett, Project Liaison, Tommy Jones, and Superintendent, Jeff Geiger, will collectively implement a project tracking system to ensure compliance to all contractual agreements with its clients. Mark Miles, Operations Manager, will be notified in order to assure the proper implementation of manpower and equipment for this project. The General Manager will call to order an in-house pre-work meeting to organize each employee's individual role regarding the project.

OPERATIONS MANAGER (OM) (Mark Miles):

The OM's project responsibilities will be with working with the PM to set initial schedules and make crew assignments. As part of the OM's responsibilities he/she will make sure all selected crews are trained and properly equipped to meet all specifications of each project. Detailed responsibilities are as follows:

- The OM(Mark Miles) will assign the project to the identified Superintendent, Mel Willett, Project Liaison, Tommy Jones, Superintendent, Jeff Geiger, and Foreman/Supervisor, Robert Christian (Crew #1) and Miguel Hernandez (Crew #2). The Superintendent will be directly subordinate to the OM (Mark Miles), including input from the assigned PM.
- Fill and maintain all crew employee requirements to meet ALE's production schedule.
- Implement all requirements of OSHA/Federal/State/County/Local Safety Regulations and laws.
- Work with upper management to acquire and maintain all equipment required for each crew, including redundant equipment
- Coordinate with each lining superintendent the purchasing of all consumables and repair parts.
- Coordinate with each lining superintendent any field equipment repairs, maintenance and rentals of equipment
- Review all pre-video documentation of prospective lining for conditions that will impact the successful completion of each liner, working with PM and the client to resolve these issues.
- Review all liner impregnation wet-outs and weekly schedules set by lining superintendents and/or project managers.
- Review all crew daily reports for budget cost control and quality assurance prior to submission to the client.
- Review all video documentation of completed liners for quality control and quality assurance prior to submission to the client.

- Constantly monitor the personnel, equipment and completed work to ensure quality and budget compliance.
- Work with PM(s) on all costs affecting project budget on a regular basis and make any necessary changes to stay on schedule and budget.

PROJECT MANAGER (PM) (Mel Willett):

The PM's responsibility will begin from the execution of an agreement (the Contract) to the close out of the project upon completion of all contractual requirements and intimate interaction with the client. This will include all collection of final monies owed. Detailed responsibilities are as follows:

- Work with upper management to prepare a construction budget based on the estimate of cost during the bidding process.
- Attend pre-construction conference and all progress of work meetings.
- Make all required submittals including construction schedule.
- Set up all sub-contract agreements.
- Set up local accounts for support services and or supplies, including emergency remediation contracts and services.
- Obtain all permits and or licenses.
- Order all felt tubes for the project. This includes verification of all pipe sizes and lengths.
- Act as ALE's point of contact and handle all correspondence and contract compliance issues, including resident issues.
- Prepare, submit and follow up collection of all monthly and final requisitions for payment.
- Track costs of construction in comparison to the established budget. Work with Operations Manager to make corrections as necessary to stay on or under budget.
- Ensure all work is paid for as per the contract. Identify and obtain change orders for change of conditions to the contract.
- Act as final "eyes" for all quality control including meeting all testing requirements.
- Notify all agencies and property owners or tenants of all work affecting them.
- Monitor all job site construction activity including sub-contractors to ensure contract compliance.
- Approve all invoices submitted for the project by outside vendors and ensure that payments to lower tier subcontractors are made in a timely fashion.
- Ensure and track compliance with SLBE/MBE and PRISM Programs.

OVERALL LINING SUPERINTENDENT (Jeff Geiger):

Through training and experience the Lining Superintendent will be responsible for the successful installation of each assigned liner by following the Am-Liner East Inc. and

Premier Pipe USA installation procedures. These installation procedures have been developed with the licensor of the product to meet all ASTM specifications and comply with all industry standards. No deviation will be allowed without approval from upper management. Detailed responsibilities are as follows:

- Lining superintendent will be certified by the licensor of the lining product.
- Lining superintendent will be 40 hour trained OSHA compliant competent person and Confined Space trained.
- Review all conditions effecting the installation of the liner.
- Ensure compliance to the detailed installation procedure checklist.
- Be fully competent in procedures to handle unexpected job site problems.
- Manage the members of the crew on a daily basis. Schedule hours of work to meet budget and compliance with the contract work hours.
- Create daily reports. Note all aspects of the day's work and existing conditions.
- Create and maintain all required documentation for each liner including cook logs or boiler reports.
- Comply with company policies regarding personnel safety, equipment maintenance, and quality control.
- Maintain the site for a neat orderly appearance and protect the public from the work zone.
- Maintain good relationship with the Client and or its agents.
- Maintain good relationship with the public affected by our operations.
- Working with the project manager and the operations manager, react immediately to all problems, complaints and any other occurrence that arises during construction.

AM-Liner East, Inc. Vehicle Photos

Supervisor Truck, F150



Pickup, Ford F350



Flatbed, Ford F450



Boiler, Ford F650



Boiler, Kenworth T370



Boiler, Mack CV713



Box Truck, Ford F650



Jet Truck, Freightliner 108SD



Jet Truck, International 4300



Reefer, Freightliner FL70



Reefer, Mack CV713



TV Truck, Ford F550



VEHICLE - OWNED (PARTIAL LIST)				
AM UNIT	YEAR	MAKE	MODEL	BODY
010	1991	FORD	LT8500 (CM 7.8)	BOILER
10	2002	MAK	RD8888	BOILER
11	2002	MAK	CV713*	BOILER
12	1998	MAK	CH813	TRACTOR
13	2003	MAK	CV713	REEFER
14	2003	MAK	CV713	REEFER
15	1998	FORD	U8000 (CT) C11	JET TRUCK
16	2003	MAK	CV713*	BOILER
17	2003	MAK	CV713*	BOILER
18	1998	FORD	F850	JET TRUCK
20	2004	FORD	F850 (CT) 7.2	BOILER
26	2004	FORD	F850 (CM) 5.9	BOILER
30	2005	MAK	CV713	REEFER
31	2005	MAK	CV713	REEFER
33	2005	INTERNATIONAL	4300	BOILER
34	2000	INTERNATIONAL	4900	REEFER
35	2004	FORD	F850 (CM) 5.9	BOILER
37	1998	FORD	F450	TV TRUCK
38	2008	MAK	CKN813	TRACTOR
39	1998	FREIGHTLINER	FL70 (CM) 8.3	REEFER
47	1999	FORD	F450	FLATBED
55	2001	FORD	F450	SVC BODY
56	2002	FORD	F150	PICKUP
57	2002	FORD	E350	BOX TRUCK
58	2002	FORD	E350	BOX TRUCK
59	2002	FORD	F150	PICKUP
60	2002	FORD	F250	PICKUP
65	2003	FORD	F550 (NV)	BOX TRUCK
66	2003	FORD	F550 (NV)	TV TRUCK
67	2003	FORD	F550 (NV)	TV TRUCK
68	2003	FORD	F550 (NV)	TV TRUCK
69	2003	FORD	E350 (NV)	BOX TRUCK
70	2003	FORD	F350 (NV)	PICKUP
71	2003	FORD	F550 (NV)	TV TRUCK
72	2003	FORD	F550 (NV)	TV TRUCK
73	2003	FORD	F550 (NV)	TV TRUCK
75	2004	FORD	F350 (CT)	PICKUP
76	2004	FORD	F150	PICKUP
77	2004	FORD	F450 (CT)	FLATBED
78	2004	FORD	F850 (CT)	BOX TRUCK
82	2005	FORD	F750 (CT)	JET TRUCK
84	2005	FORD	F850 (CT)	BOX TRUCK
85	2005	FORD	F850 (CM)	TV TRUCK
86	2005	FORD	F850 (CT - CT)	BOX TRUCK
87	2005	FORD	F150	PICKUP
93	2008	MAK	CKN813	TRACTOR
94	2008	FORD	F350 (NV)	PICKUP
95	2008	FORD	F350 (NV)	PICKUP
98	2008	FORD	F780 (CM)	BOILER
99	2002	STERLING	LT8501	JET TRUCK
101	2007	FORD	F850	TV TRUCK
102	2007	FORD	F450	FLATBED
103	1998	MAK	CH813	BOILER
104	2008	FORD	F350	PICKUP
105	2008	STERLING	LT8513 (CT) C9	JET TRUCK
106	2008	INTERNATIONAL	7800 (CT) C11	JET TRUCK
110	2009	FORD	F550	TV TRUCK
111	2009	FORD	F350	TV TRUCK
115	2008	STERLING	L7501	JET TRUCK
116	2008	STERLING	L7501 (CM)	JET TRUCK
117	2010	FORD	F150	PICKUP
118	2011	FORD	F250	PICKUP
119	2010	FORD	F150	PICKUP
122	2010	FORD	F150	PICKUP
123	2011	FORD	F450	FLATBED
125	2010	FORD	F750	BOX TRUCK
127	2010	FORD	F150	PICKUP
129	2008	STERLING	L7500	JET TRUCK
130	2001	INTERNATIONAL	4800	REEFER
131	2007	FORD	F750	BOILER
132	2012	INTERNATIONAL	4400	PROKASRO
133	2011	FORD	F150	PICKUP
134	2012	FORD	F150	PICKUP
136	2011	FORD	F150	PICKUP
138	2012	FORD	F450	FLATBED
139	2012	FORD	F150	PICKUP
140	2012	FORD	F450	FLATBED
142	2007	FREIGHTLINER	M2	REEFER
143	2012	FORD	F450	FLATBED
144	2012	FORD	F150	PICKUP
145	2012	FORD	F150	PICKUP
146	2012	FORD	F150	PICKUP
147	2012	FORD	F150	PICKUP
148	2013	INTERNATIONAL	4400	PROKASRO
149	2012	FORD	F150	PICKUP
150	2013	FORD	F150	PICKUP
151	2008	INTERNATIONAL	4300	BOILER
153	2013	FORD	F150	PICKUP
154	2013	FORD	F150	PICKUP
155	2013	INTERNATIONAL	4300	BOX TRUCK
158	2014	INTERNATIONAL	4300	JET TRUCK
159	2014	INTERNATIONAL	4300	JET TRUCK
160	2013	FORD	F150	PICKUP
163	2008	STERLING	ACTERRA (CM)	REEFER
164	2008	STERLING	ACTERRA (CM)	REEFER
165	2013	FORD	F150	PICKUP
167	2014	INTERNATIONAL	4300	BOX TRUCK
168	2012	INTERNATIONAL	4400	CHASSIS
169	2014	FORD	F150	PICKUP
170	2007	FREIGHTLINER	M2	BOX TRUCK
171	2014	FORD	F350	FLATBED
172	2014	FORD	F350	FLATBED
176	2014	FORD	F150	PICKUP
177	2015	FORD	F150	PICKUP
178	2008	INTERNATIONAL	4400	REEFER
179	2009	INTERNATIONAL	4400	REEFER
180	2018	INTERNATIONAL	4300	JET TRUCK
181	2007	FREIGHTLINER	M2	TRUCK
182	2015	FORD	F150	PICKUP
183	2015	FORD	SUPER DUTY	BOILER
184	2015	FORD	F-850	TV TRUCK
185	2015	FORD	F-850	TV TRUCK
205	1988	TIMPTE	TRAILER	REEFER
206	1980	GREAT DANE	UTILITY	TRAILER
207	1991	LOAD RITE		TRAILER
208	1992	UTILITY	REFRIG	TRAILER
209	1992	GREAT DANE	TRAILER	28 FOOT
210	1992	UTILITY	TRAILER	53 FOOT
211	1994	POLAR	6200 GALLON	TRAILER
214	1995	MARK LINE	OFFICE	TRAILER
215	1995	BETTI	GOOSENECK	28 FOOT
219	1998	WABASH	FLATBED	TRAILER
221	2004	JET AWAY	EASEMENT &	FLATBED
222	2010	CARRY ON	TRAILER	FLATBED
223	2004	CENTREVILLE	INVERSION	TRAILER
225	2007	PEQUEA	FLATBED	TRAILER
226	2008	UTILITY	REEFER	REEFER
227	2003	PROTRAK	FLATBED	DOVETAIL
228	2008	UTILITY	REEFER	REEFER
229	2009	EQUIPMENTPRO	FLATBED	FLATBED



601 JACK ENDERS BLVD.
 BERRYVILLE, VA 22611
 (540) 955-9671 PHONE
 LICENSE #2705-040998A

MISC OWNED EQUIPMENT
 (PARTIAL LIST)

IFB #SA-1815
 SANITARY SEWR MAIN LINING (CIPP)
 PWCSA, WOODBRIDGE, VA
 FEBRUARY 23, 2018

AIR COMPRESSORS

<u>UNIT #</u>	<u>MAKE</u>	<u>MODEL</u>	<u>MOD. YR.</u>
401	Ingersol Rand	XP375BWIR	2006/B
402	Ingersol Rand	XP375AWIR	2004/A
5	Ingersol Rand	P185GWJD	2007/G
406	Ingersol Rand	P185EWJD	2003/E
408	Ingersol Rand	P250WJD	2008
413	Ingersol Rand	P185WJD	2010/G
416	Ingersol Rand	P185 WJD	2010
417	Ingersol Rand	P185 WJD	2010
418	Ingersol Rand	P250WJDU	2004
420	Ingersol Rand	XP375BWIR	2006/B
421	Ingersol Rand	P250WJDU	2004
422	Ingersol Rand	XP375WIR	2004
423	Ingersol Rand	P250WJDU	2008
424	Ingersol Rand	P250WJDUA-T1	2011
425	Ingersol Rand	P250WJDU	2004
432	Atlas Copco	XATS375JC6	2010
434	Atlas Copco	XAS375JD6	2010
440	Doosan	375	2014

GENERATORS

<u>UNIT #</u>	<u>MAKE</u>	<u>MODEL</u>	<u>MOD. YR.</u>
3	Power Technology	PTS-CD7000	2003
4	Power Technology	CD8000SI	
14	Onan Commercial	35DGBB	
16	Onan Commercial	8.0HDKAU-41934M	2012
17	Honda	EB3000C	2012
21	Honda	EB3000C	2012
22	Onan Commercial	10KW	2012
23	Honda	EB3000C	2012
24	Honda	EB3000C	2012
25	Honda	EB3000C	2012
72B	Onan Commercial	CMQD 7500	2003
26	Shindaiwa	DGK45C	
27	Onan Commercial		
30	Onan Commercial	7.5HDKAT41934F	
31	Onan Commercial	10HDKAG61731C	
36	Honda	EM6500SX	
37	Onan Commercial	10HDKAG61731G	
39	Onan Commercial	7.5HDKAL-1	
40	Atlas Copco	QAS30KD	2010
41	MultiQuip	DCA25SSIU	
42	Pramac	GSW70P	2013
43	PowRQUIP	GV75MG1300TP	

PUMPS

<u>UNIT</u>	<u>SIZE</u>	<u>MAKE</u>	<u>MODEL</u>
1	4"		3015DF005
5	4"		3015DF005
6	4"	Rain for Rent	97-DV-100
7	4"	Godwin	CDM 100 M
8	6"	Godwin	4039DF001
9	6"		4039DF001
10	6"	Godwin	CD 150
13	6"	BBA Pompen&Buizen BV	BA150E D285/FIG1/CA1C

SHOOTERS

<u>UNIT</u>	<u>YEAR</u>	<u>MAKE</u>	<u>MODEL</u>
	2007	Eaton	24"
		6 Small Shooters	
1			
2			
3			
4		Trk 69	
5	2012	Eaton	20"
6	2014	Emagineered	12"

COMMUNICATION AND CUSTOMER RELATIONS

Am-Liner East Inc. has made a great effort to interface with its clients and the public that they serve. We are proud of our reputation of being very responsive to its clients and their customers for any construction issues that naturally arise during a project. The Project Manager, Mel Willett, will be the point of contact with the PWCSA following the protocol set up at the pre-construction meeting. Am-Liner East, Inc. will provide support for any level of public relations/customer support program that the PWCSA desires. This will include but not be limited to attendance and presentations at Homeowner Association as well as-Community Meetings, written notifications to all residents in both English and Spanish via hand-delivery. The general public will receive door hanger notices approved by the PWCSA at least 48 hours, or as required, in advance to any work affecting their property.

All crews and crew leaders are trained to practice “good housekeeping” while at the site and to behave in appropriate fashion presenting a professional appearance while at the job site. The crews are directed to immediately respond to customer/resident inquiries and solve problems if they arise. Am-Liner East, Inc. on “as needed” occasions will provide for overnight stays in hotels, and meals if the work affecting a resident is out of the ordinary or if there has been any accidental mishap during our construction. The Project Manager, Mel Willett will make all arrangements with the affected resident. As a matter of practice, the Project Manager is immediately notified and will handle the situation until resolution is achieved. All Am-Liner East, Inc. equipment is plainly marked and has a (800) phone number on the vehicle for easy contact.

A Notice to Resident, in both English and Spanish languages will be provided to PWCSA for their review and approval. This notification(s) will be provided to each and every resident or business, which is affected by our work operations in the form of a door hanger or other approved PWCSA method. The notice(s) will be distributed in advance of our operations in compliance with PWCSA’s normal notification practices, and will contain 24-hour Emergency Point of Contacts that will immediately begin responding to any problems or issues that resulted as part of our work activities. In the event of bad weather or other uncontrollable situation, the work will be canceled by providing a separate notice indicating the same. The work will be rescheduled for the following week or when time permits in conjunction with the PWCSA Construction Managers requirements. See attached Notices in English and Spanish.



**IMPORTANT
NOTICE**

Dear Resident,

The purpose to this notice is to advise you that Prince William County Service Authority has contracted our company to rehabilitate the County’s sanitary sewer line that services your property utilizing the Cured In Place Pipe (CIPP) process. This process has none of the disruptions associated with excavation and replacement.

This work is scheduled to start at **8:00 a.m.** on _____ and should be completed by **8:00 p.m.** the same day. Access to your residence is not required, and it is not necessary for anyone to be home during the pipeline rehabilitation process.

During this time, you must discontinue all water usage in your home. DO NOT USE showers, toilets, sinks, washing machines, dishwasher, etc. during this time. Discharge (flushing or drainage) into the sewer system prior to the work’s completion may result in a sewer back up into your property and your water service may need to be temporarily shut off until the work is completed.

If you have a sump pump in your home that may be connected to the sanitary sewer, please contact an Am-Liner East Representative immediately.

Please store any water required for your personal usage and cooking needs prior to our 8:00 am start time. To ensure work is completed prior to resuming normal water usage, contact our onsite Foreman; also if all Am-Liner East personnel, equipment and traffic cones are gone from both ends of your street you may resume normal water usage.

The resin used in the CIPP contains styrene, a chemical with an unpleasant odor that is detectable at a very low concentration level. If odor is detected, please open doors and windows to ventilate and then call us so our on-site personnel may assist. This odor may enter your home through dry drain traps, therefore, to eliminate any possibility of this odor entering your home, **please pour some water into all drains, including basement floor and air conditioner condensation drains, tubs and sinks prior to the start of our work** to ensure that water is in the trap and a seal exists. You may also use this technique if sewer odors are present in any drain area.

Should you have any questions or concerns, please direct your inquiries to:

Am-Liner East Rep.

Mel Willett, Proj. Mgr. and Vice Pres.
Tommy Jones, Project Liaison
Jeff Geiger, Superintendent

MOBILE

703-898-5189
571-220-2933
904-484-4801

OFFICE

540-955-9671
540-955-9671
540-955-9671

If you wish to contact a PWCSA representative, please direct your inquiries to:

City Representative

TBD

OFFICE

TBD

E-mail

TBD

Thank you for your cooperation and we apologize for any inconvenience that this may cause to you and your family.

601 JACK ENDERS BLVD.
BERRYVILLE, VA 22611
(540) 955-9671 PHONE
(540) 955-2872 FAX
LICENSE #2705-040998A

Keep your city moving.

Berryville, VA | Capitol Heights, MD | Baltimore, MD
Wallace, NC | Bear, DE



AVISO IMPORTANTE

Estimado residente,

El propósito de este aviso es informarle que la Prince William Condado Servicio Autoridad contrató a nuestra compañía para renovar las líneas de alcantarillado del Condado que brindan servicio a su propiedad, utilizando el proceso de curado de cañerías en el lugar (*Cured In Place Pipe o CIPP*). Esta tecnología evita los trastornos asociados con la excavación y el reemplazo.

El trabajo está programado para comenzar a las **8:00 a.m.** del _____ y debe terminar a las **8:00 p.m.** del mismo día. No se necesita ingresar a su domicilio, y no es necesario que alguien permanezca en su casa durante el proceso de reparación de las cañerías.

Durante este período, no debe usar el agua en su hogar bajo ninguna circunstancia. Durante ese período NO USE duchas, baños, fregaderos, máquinas lavadoras, lavaplatos, etc. Las descargas (tirar agua por el inodoro o por el desagüe) al sistema de alcantarillado antes de completar el trabajo, pueden producir un reflujo hacia su propiedad y provocar que se suspenda temporalmente el servicio de agua hasta que se complete el trabajo.

Si tiene un pozo séptico de bombeo en su hogar que pueda estar conectado al alcantarillado sanitario, comuníquese inmediatamente con un representante de Am-Liner East.

Almacene toda el agua que necesite para su uso personal y para cocinar antes de la hora de comienzo: 8:00 am. Para asegurarse de que el trabajo esté completo antes de empezar a usar el agua normalmente, hable con nuestro capataz en el lugar. Asimismo, si todo el personal de Am-Liner East a ambos extremos de la calle se han ido llevándose los equipos y los conos de tráfico, puede volver a usar el agua normalmente.

La resina usada en el proceso CIPP contiene estireno, un producto químico con un olor desagradable que se detecta a niveles de concentración muy bajos. Si detecta ese olor, abra las puertas y las ventanas para ventilar el ambiente, y luego llámenos para que nuestro personal pueda asistirlo en el sitio. Este olor puede penetrar en su hogar a través del sifón seco del resumidero; por lo tanto, para evitar la posibilidad de que el olor penetre en su hogar, **antes de que comencemos nuestro trabajo eche agua en todos los resumideros, incluso los resumideros, tubos y fregaderos del sótano y los sumideros de condensación de los acondicionadores de aire** para asegurarse de que hay agua en el sifón y de que existe un cierre. También puede usar esta técnica si hay olor de alcantarilla en cualquier área de resumidero.

Si tiene alguna pregunta o inquietud, dirija su consulta a:

Representante de Am-Liner East

Mel Willett, Proj. Mgr y Vicepresidente
Tommy Jones, Proj. Enlace
Jeff Geiger, Superintendente

CELULAR

703-898-5189
571-220-2933
904-484-4801

OFICINA

540-955-9671
540-955-9671
540-955-9671

Si desea comunicarse con el representante del Condado de Prince William, dirija su consulta a:

Representante del Ciudad

estar determinado

OFICINA

estar determinado

Correo electrónico

estar determinado

Gracias por su cooperación, y le pedimos disculpas por cualquier inconveniente que esto pueda causarle a usted o a su familia.

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SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 1b

- ❖ **MANUFACTURER'S
INSTALLATION INSTRUCTIONS
AND QUALITY CONTROL**

**PREMIER-PIPE USA
TECHNICAL SPECIFICATION
CURED-IN-PLACE PIPE**

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PART 1 – GENERAL

1.01 THE REQUIREMENT

- A. This specification covers the work necessary to furnish and install complete, cured-in-place pipe (CIPP). The CONTRACTOR shall provide all materials, labor, equipment, and services necessary for bypass pumping and/or diversion of sewage flows, cleaning and television inspection of sewer to be lined, finer installation, reconnection of service connections, and final television inspection and testing of lined pipe system.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. The following references are part of this Specification, in case of conflict between the requirements of this Specification and those of the listed documents, the requirements of this Specification shall prevail. The latest edition of the following references shall be used:

ASTM D543 Standard Test Methods of Resistance of Plastics and Chemical Reagents

ASTM D790 Standard Test Methods of Unreinforced and Reinforced Insulating Materials Flexural Properties of Plastics and Electrical

ASTM F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion of Curing of Resin-impregnated Tube

1.03 CONTRACTOR SUBMITTALS

- A. The CONTRACTOR shall provide submittals on all lining materials and resins, and shall furnish manufacturer certification that the liner materials are in compliance with the specifications, codes, and standards referenced herein. The submittals shall include details of all component materials and construction details including complete manufacturers recommendations for storage procedures and temperature control, handling and inserting the liner, curing details, service connection methods, and trimming and finishing. The CONTRACTOR shall also provide manufacturers certification, field measurements, and pipe sizing calculations which demonstrate that the liner has been properly undersized to avoid the creation of wrinkles or folds.
- B. The CONTRACTOR shall submit bypass pumping and/or diversion plans for review by the ENGINEER at least 10 working days prior to the work. The CONTRACTOR shall notify the ENGINEER 24 hours prior to commencing with the bypass pumping operations. The CONTRACTOR'S plan for bypass pumping shall be satisfactory to the ENGINEER before the CONTRACTOR shall be allowed to commence bypass pumping.
- C. The CONTRACTOR shall submit shop drawings that identify the liner insertion and bypass pumping locations and methods with sufficient detail to assure that the work can be accomplished without sewage spill. The bypass pumping plan shall include an emergency response plan to be followed in the event of a failure of the bypass pumping system.
- D. The CONTRACTOR shall submit the resin manufacturer's heating requirements. Additionally, the CONTRACTOR shall conceptually discuss with the ENGINEER the general curing guidelines.
- E. The ENGINEER shall review all submittals and approve or reject.

1.04 QUALITY ASSURANCE

- A. The finished liner shall be continuous over the entire length of an insertion run between two manholes or access points and shall be free from visual defects such as foreign inclusions, dry spots, pinholes, and delamination.
- B. Wrinkles in the finished liner paper that cause a backwater of _____ inch or more or reduce the hydraulic capacity of the pipe are unacceptable and shall be removed and repaired by the CONTRACTOR at the CONTRACTOR'S expense. The CONTRACTOR shall remove a section of pipe, if so directed by the ENGINEER, to determine if a void between the wrinkle and pipe wall exists. If so proven that a void does exist, the CONTRACTOR shall repair and replace that section of pipe at the CONTRACTOR'S expense. If a void does not exist, the CONTRACTOR shall repair and replace that section of pipe at the OWNER'S expense. Methods of repair shall be proposed by the CONTRACTOR and submitted to the ENGINEER for review.

1.05 WARRANTY

- A. The CONTRACTOR shall provide a warranty to be in force and effect for a period of one year from the date of final acceptance. The warranty shall cause the CONTRACTOR to repair or replace the liner should failure result from faulty materials and installation.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Liner Tube

- 1. The liner tube shall consist of one or more layers of flexible needed felt or an equivalent woven and/or non-woven material capable of carrying resin, withstanding installation pressure and curing temperatures, and is compatible with the resin system used. The liner shall be fabricated to a size that, when installed, will fit the internal circumference of the existing pipe without any annular space between the liner and existing pipe wall.
- 2. The resin used shall be compatible with the rehabilitation process, shall be able to cure in the presence or absence of water and the initiation temperature for cure shall be as recommended by the resin manufacturer and reviewed by the ENGINEER.
- 3. The liner shall be fabricated from materials which when cured, will be chemically resistant to withstand internal exposure to sewage gases containing quantities of hydrogen sulfide, carbon monoxide, methane, petroleum hydrocarbons, saturation with moisture, diluted sulfuric acid, and other chemical reagents determined by the ENGINEER.
- 4. The minimum tube length shall be that deemed necessary by the CONTRACTOR to effectively span the distance from the inlet to the outlet of the respective manholes, or access points, unless otherwise specified. The CONTRACTOR shall verify the lengths in the field before impregnation of the tube with resin. Individual insertion runs may be made over one or more manhole sections as determined in the field by the CONTRACTOR and reviewed by the ENGINEER.

Prior to insertion, the liner shall be free of all visible tears, holes, cuts, foreign materials, and other defects.

Prior to insertion, the CONTRACTOR shall provide data on the maximum allowable stresses and elongation of the tube. The exterior of the manufactured tube shall be marked along its length at regular intervals not to exceed five feet. These marks shall be used as a gauge to measure elongation during insertion. Should the overall elongation of a reach exceed five percent, the liner tube shall be rejected and replaced.

B. Resin

1. Unless otherwise specified, provide a general purpose, unsaturated, thermosetting, polyester, vinyl ester, or epoxy resin able to cure in the presence or absence of water, and a catalyst system compatible with the insertion process.
2. Resin shall not be subjected to ultraviolet light and shall form no excessive bubbling or wrinkling during lining.
3. The resin shall be shipped directly from the resin manufacturer's facility to the CIPP wet-out facility. The resin shall not be sent to any intermediate mixing facility. Copies of the shipment documents from the resin manufacturer shall be submitted to the Engineer showing dates of shipment, the originating location and the receiving location; including with every shipment, the infrared spectrum analysis (IR Scan) from the manufacture source.
4. The resin shall be used to manufacture the CIPP as shipped. No filler or additives shall be added at the web-out facility except for the required catalyst as recommended by the resin manufacturer. The Contractor shall submit a Certificate of Authenticity from the resin manufacturer for each shipment to the wet-out facility (to include the date of manufacture and the head distortion temperature). This information shall be submitted prior to manufacturing any CIPP.
5. The Contractor shall identify the wet-out facility where all CIPP under this Contract will be manufactured. All CIPP shall be manufactured from this designated wet-out facility throughout the entire Contract unless specifically approved otherwise by the Engineer in writing. Multiple wet-out facilities shall not be allowed.
6. The cured liner shall have the following minimum structural properties:
 Flexural Strength of 4,500 psi per ASTM D790
 Flexural Modulus of 250,000 psi per ASTM D790
 Tensile Strength of 3,000 psi per ASTM D638

2.02 PHYSICAL PROPERTIES

A. The CIPP system shall conform to and comply with the minimum standards listed below.

Characteristic	Test Method	Polyester Resin Standard	Polyester Resin Enhanced	Vinyl Ester and Epoxy Resins
Flexural Strength	ASTM D790	4,000 psi	4,500 psi	5,000 psi
Flexural Modulus (short term)	ASTM D790	250,000 psi	400,000 psi	300,000 psi
Flexural Modulus (long term)		125,000 psi	200,000 psi	150,000 psi

B. The liner thicknesses are based on a pipe ovality of _____ percent and the resin's physical properties shown in Section 2.02.A. If the CONTRACTOR uses resins having different physical properties, the CONTRACTOR shall submit detailed calculations of the proposed liner thickness for review and approval by the ENGINEER.

Manhole Segment Upstream/ Downstream	Pipe Diameter (in.)	Pipe Depth (ft.)	Enhancement Factor K	Groundwater Resin Level (ft.)	Type	Minimum Required Thickness (mm)

(Project specific – to be completed by the ENGINEER)

PART 3 – EXECUTION

3.01 PREPARATION

A. Bypass Pumping

1. The CONTRACTOR shall provide bypass pumping and/or diversion when required for acceptable completion of the liner installation. Bypass pumping shall consist of furnishing, installing, and maintaining all power, primary and standby pumps, appurtenances and bypass piping required to maintain existing flows and services.
2. Bypass pumping shall be done in such a manner as not to damage private or public property, or create a nuisance or public menace. The pumped sewage shall be in an enclosed hose or pipe that is adequately protected from traffic, and shall be redirected into the sanitary sewer system. Dumping or free flow of sewage on private property, gutters, streets, sidewalks, or into storm sewers is prohibited.
3. The CONTRACTOR shall take all necessary precautions including constant monitoring of bypass pumping to insure that no private residences or properties are subjected to a sewage backup or spill. The CONTRACTOR shall be liable for all cleanup, damages, and resultant fines in the event of a spill. After the work is completed, flow shall be restored to normal.

B. Cleaning and Inspection of Existing Sewer

1. The CONTRACTOR shall be responsible for cleaning, inspection, confirming the inside diameter and determining the condition of each manhole-to-manhole segment to be lined. The cleaning process shall include the removal of all roots. A television inspection shall be performed by the CONTRACTOR after the sewer cleaning operation, point repairs, and grouting is completed. The television inspection shall be completed in the same direction each time and shall be done with a CCTV color camera recorded in DIGITAL format. A pivot head camera shall be used for all pipelines that are 6 inches in diameter or greater to allow detailed lateral inspection. A copy of the television inspection disks from all televising operations shall be provided to the ENGINEER for review prior to the liner installation.

C. Point Repairs

1. It shall be the responsibility of the CONTRACTOR to clear the line of obstructions such as solids, offset joints, protruding service connections or collapsed pipe that will prevent liner insertion. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment or by remotely performed repair methods acceptable to the ENGINEER, then the CONTRACTOR shall make a point repair excavation to uncover and remove or repair the obstruction. Before any point repair excavation is pursued, the CONTRACTOR shall give the ENGINEER 3 working days notice. Point repair excavation shall proceed only with the ENGINEER'S written authorization. Protruding lateral shall be removed either internally with a hydro jet cutter or by external point repair. The type and location of the repairs are included with the project documents.

D. Grouting of Severe Defects

1. It shall be the responsibility of the CONTRACTOR to grout severe open joints and cracks in the pipeline. The CONTRACTOR shall be required to grout all open joints and cracks that in the CONTRACTOR'S opinion will impede the specified performance of the liner except that all open joints greater than 1 inch shall be grouted irrespective of the CONTRACTOR'S assessment. An estimate of the number of locations to be grouted is provided in the bid schedule. The locations shall be determined by the CONTRACTOR based on video tapes provided with the project document.

E. Manholes

1. The CONTRACTOR shall protect the manholes to withstand forces generated by equipment, water or air pressure used while inserting the tube.

3.02 INSTALLATION

A. Resin Impregnation

1. The uncured resin in the original containers and the unimpregnated fiber-felt tube shall be impregnated by vacuum or other means prior to installation. The materials and wet-out procedure shall be subject to inspection by the ENGINEER. A resin and catalyst system that is compatible with the requirements of the method shall be used.
2. The impregnated liner bag shall be transported to and stored at the site in such a manner that it will not be damaged, exposed to direct sunlight, or result in any public safety hazard. The impregnated liner bag shall be kept cool during shipment and storage. All materials shall be subject to inspection and review prior to installation.

B. Liner Installation

1. The impregnated tube shall be inserted through an existing manhole or other access approved by the ENGINEER by means of the installation process. The application of hydrostatic head, compressed air, or other means shall fully extend the liner to the next designated manhole or termination point and inflate and firmly adhere the liner to the pipe wall.

C. Curing

1. After placement is completed, a suitable heat source and distribution equipment shall be provided. The equipment shall be capable of circulating hot water, air, and/or steam throughout the section by means of pre-strung hose which has been perforated in accordance with the manufacturers' recommendations or other methods acceptable by the ENGINEER to raise the temperature uniformly above the temperature required to effect a resin cure. This temperature shall be determined by the manufacturer based on the resin/catalyst system employed.
2. The heat source piping shall be fitted with continuous monitoring thermocouples to gauge the temperature of the incoming and outgoing water, steam and/or air supply. Water, steam, or air temperature during the cure period shall meet the requirements of the resin manufacturer as measured at the heat source inflow and outflow return lines. At the direction of the ENGINEER, the CONTRACTOR shall provide standby equipment to maintain the heat source supply. An additional continuous monitoring thermocouple shall be placed between the impregnated felt tube and the pipe invert at the remote manhole and a point midway between the upstream and downstream manholes to determine the temperature during the cure. The temperature during the cure shall not be less than 130 degrees Fahrenheit at the boundary between the pipe wall and the liner unless otherwise directed by the ENGINEER because of the resin system used.
3. The initial cure shall be deemed to be completed when inspection of the exposed portions of the liner appear hard and sound and the remote temperature sensors indicate that an exotherm has occurred. The cure period shall be a duration recommended by the resin manufacturer during which time the recirculation of water, steam, and/or air and cycling of the heat exchanger continuously maintain the required temperature.
4. Temperature shall be maintained during the curing period as recommended by the resin manufacturer and shall follow the healing schedule supplied by the manufacturer and reviewed by the ENGINEER.

D. Cool Down

1. The hardened liner shall be cooled to a temperature below 100 degrees Fahrenheit before relieving the static head or pressure in the lined pipe and returning normal flow back into the system. The cool down may be accomplished by introducing cool water or air into the lined pipe. Care shall be taken in the release of the static head pressure so that a vacuum will not develop which could damage the newly installed liner.
2. If the liner fails to make a tight seal at the manhole walls, a seal consisting of a resin mixture compatible with the liner/resin system shall be applied in accordance with manufacturer specifications and approved by the ENGINEER.

3.03 SERVICE LINE RECONNECTION

- A. The CONTRACTOR shall be responsible for reconnecting service connections to the lined pipe. Reconnections of service connections shown on the plans shall be completed by one of the following methods:
1. Internally reconnected by using a pivot-head CCTV camera and a remote cutting tool to locate the service connections from inside the lined pipe, cutting a hole matching the service connection diameter, and grouting the area where the service connection enters the lined pipe to produce a water tight seal approved by the ENGINEER. CONTRACTOR shall provide nearly full-diameter hole, free from burrs or projections and with a smooth and crack-free edge. The hole shall be 95% minimum and 100% maximum of the original service connection diameter. The invert of the service connection shall match the bottom of the reinstated service opening.
 2. By excavating by hand and/or mechanical equipment to the location of the service connections tie-in, cutting the existing pipe and liner material, and installing a saddle acceptable to the ENGINEER. The excavation process shall be completed by mechanical means as defined in the project documents or by hand digging is required.
 3. Other remote methods as approved by the ENGINEER.
- B. An estimate of the number of service connections to be reconnected by the CONTRACTOR is provided in the bid schedule.

3.04 TESTING

A. Material Testing

1. All material testing shall be performed by a registered independent, third-party laboratory.
2. The CONTRACTOR shall provide certified test results of the short term properties of the cured lining material from the actual installed liner at a minimum of one location per each liner insertion setup.
3. The cured liner shall be sampled and tested for flexural strength and flexural modulus (short term.) Flexural strength and modulus shall be tested in accordance with the requirements of ASTM D790. The liner shall be in compliance with the physical properties stated under Section 2.02 of this specifications. A certificate of compliance shall be provided for long term flexural modulus.
4. Corrosion resistance requirements shall be as stated in ASTM F1216, Section X2, Chemical Resistance Tests.

5. Delamination testing shall be in accordance with ASTM F1216, Section 8.4, if required by the ENGINEER.

B. Field Testing (Optional)

1. Test line for exfiltration in accordance with ASTM F1216, Section 8.2 prior to service line reconnections. Testing shall exclude maximum pressure limits (4.3 psi) at lowest end. Leakage testing shall be performed after all dry and non-bondable hoses and tubes are completely removed from the pipe.
2. After completion of all liner insertions, service reconnections, and finish work at the manholes, the sewer shall be televised with a color CCTV tilt-head camera recorded in digital format. The original disk shall be provided to the ENGINEER.

PART 4 – PAYMENT

4.01 CURED-IN-PLACE PIPE

- A. Payment will be made for the actual length of cured-in-place pipe installed. The length shall be measured from centerline of manhole to centerline of manhole. The unit price per linear foot installed shall include all materials, labor, equipment and supplies necessary for the complete liner installation, CCTV inspections and re-inspections, video tapes/disks, trimming of intruding laterals, flow diversion, sealing at manholes, testing, and cleaning and restorations.

4.02 GROUTING OF SEVER DEFECTS

- A. Payment will be made for the actual number of grout repairs completed. The unit price per grout repair shall include all materials, labor, equipment, and supplies necessary to complete the work as necessary.

4.03 SERVICE LINE RECONNECTIONS

- A. Internal cutting or other methods: Payment will be made for the actual number of needed service lines reconnected by internal cutting or other remote methods. The unit price per service line connected shall include all materials, labor, equipment, and supplies necessary to complete the work as specified.
- B. Point excavation: Payment will be made for the actual number of needed service lines reconnected by point excavation. The unit price per service connected shall include all materials, labor, equipment, and supplies necessary to complete the work as specified.

Installation Manual For Premier Pipe Structural Cured-in-Place Pipe (CIPP) Process

APPENDIX 14

QUALITY CONTROL

Samples from a PREMIER-PIPE lining may be required, following cure, to confirm the properties of the material.

It is not recommended to cut samples from where the lining has passed through intermediate manholes as these will not be representative of the lining within the pipe. This is because the lining will have cured in an unsupported state allowing it to over expand and the resin to "drain down" the sides of the lining. There is also the possibility of flow from side connections etc. coming into contact with' and contaminating the resin.

Samples taken from the pipe wall are often difficult to obtain and defeat the object of lining the pipe in the first place - holes cut into the lining can be difficult to repair.

In view of these points, a system has been devised to give a sample of PREMIER-PIPE lining that is representative of the lining in the pipe for test purposes.

Lining Test Samples

A flat plate sample should be made up from the actual materials employed in each specific lining and cured at the same time and in the same manner as the specific lining. The sample can then be used for testing purposes.

Method for the Production of Clamp Mould Samples

The mold should consist of a flat steel base and cover plate with threaded locating pegs at each corner as shown in Figure A 14. 1.

Installation Manual For Premier Pipe Structural Cured-in-Place Pipe (CIPP) Process

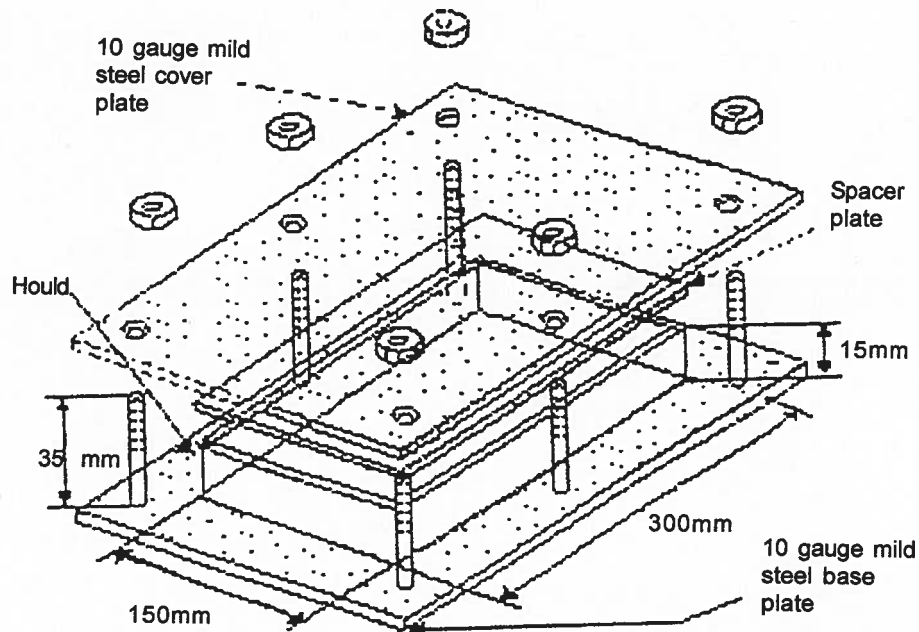


Figure A 14.1

Sample Preparation

A Melinex or other type of non-stick sheet is laid on the base plate of the mold and a small sample of dry felt from the end of the lining should be cut to fit into the mold, this is placed on top of the Melinex sheet with the impermeable membrane uppermost. Resin from the same batch as used for the lining is used to impregnate the sample and the second sheet of Melinex is then laid over the top of the impregnated sample and a vacuum applied. On removal of the vacuum, spacer plates should be located in the mold to produce the required sample thickness when the mold is bolted down. The mold should be marked to identify it with the lining and transported to suite under the same conditions as the lining.

Once the lining is inverted, but before heating commences, the mold is suspended in the curing water and remains in position until curing is complete.

The sample has now been cured under the same conditions as the lining and can be used for testing purposes.

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 1c

❖ FLOW CONTROL

SEWER FLOW CONTROL NARRATIVE

1. Sewer flow control shall be utilized by Am-Liner East, Inc. during the various phases of the contract for Sanitary Sewer Repairs. Sewer flow control shall be accomplished by plugging or blocking of the flows or by bypass pumping of the flow as dictated by conditions existing at the time of repair.
2. A sewer line plug shall be inserted into the sewer line at a manhole upstream from the sewer section being repaired. The plug shall be so designated that portions of the flow can be released without removal of the plug. After completion of the repair, flows shall be returned to normal. Plugging or blocking will be permitted only when cleaning lines or performing repairs to sewer lines. All plugs shall be removed prior to weekends and holidays, and will not be permitted during non-working hours.
3. When pumping/bypassing is required, Am-Liner East, Inc. shall supply the necessary pumps, conduits, and other equipment adequately sized as each individual flow requires on a case by case basis, to divert the flow of sewage around the manhole section in which work is to be performed. The bypass system shall be of sufficient capacity to handle existing flows plus additional flow that may occur during the periods of a rain storm. If the existing flows have not been provided for in the plans or specifications, they will therefore be determined in the field. Pump bypass facilities shall be continuously monitored and maintained by Am-Liner East, Inc. They shall assign personnel to monitor and maintain the pump and bypass facilities during on-working hours, weekend, and holidays as necessary.
4. Whenever flows in a sewer line are bypassed, sufficient precautions shall be taken to protect the sewer lines from damage that might be inflicted by excessive sewer surcharging, equipment malfunction or other potential disruptions, by placing an operator at the location of the plugged sewer or pumping operation to monitor flow conditions. If flow backs up to more than ½ depth of the manhole or to where flooding of lower service connections would occur if left unchecked, the plugs shall be removed and flow released. Am-Liner East, Inc. shall ensure that sewer flow control operations do not cause flooding or damage to Federal, State, County, Private Individual or Commercial property being served by the sewers involved. Bypass piping shall have tight joints and be free from leaks of any kind. Sewage shall not be discharged across the ground or street surfaces, either during operation or bypass pumping or while installing and dismantling of the piping.

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 1d

❖ **WET OUT INFORMATION AND
QUALITY CONTROL**

WET-OUT FACILITY KEY PERSONNEL

The Wet-Out facility, located at 625 S. Norwood Street, Wallace, NC 28466, was established in 1999, specifically for a job located in Wallace, NC. Once the job was completed, the facility was purchased for permanent residence of the wet-out process for AM-LINER EAST, Inc.

Robert Samuels	Plant Manager 1999- present
Bryan McAllister	Wet-out Foreman 2005- Present
Josiah Tennyson	Wet-out Foreman assistant 2003- Present
Vernon Lee	Wet-out Technician/Maintenance 2000-Present
Marcus Murphy	Wet-out Technician 2003- Present

Wet-out technician perform the general and basic day to day operations; individual liner count outs & preparation, setting up liners for wet-out, patching vacuum holes, icing down Refrigerated trucks prior to loading, loading, stacking, & securing liners on refrigerated trucks for transport, general housekeeping.

WET-OUT PROCEDURES AND QUALITY CONTROL MEASURES

This document will show wet-out procedures, from receiving of order sheet(s) up to shipping, and quality control measures taken to ensure a proper and accurate wet-out.

The wet-out process begins once we receive an order sheet. The order sheet is received from the field via email or fax to the wet-out office. This form contains the information needed to assign the line; line length, extra, down tube length, diameter and mill thickness. The line is then assigned by diameter, mill, & length by the wet-out plant manager or wet-out secretary. The plant foreman reviews the order sheet prior to sending it out to the plant for count-out. All liners are counted out. Liners fifteen-inch diameter and below are counted on a conveyor line which is marked every ten feet, while liners eighteen inch and above are counted on the wet-out conveyor and marked every sixty feet. Our liners are pre marked, from Applied Felts, every five feet and we record our pre and post cut numbers. The combination of physically counting out the liner and use of the pre and post cut numbers ensure a precise liner length.

When a liner is counted and ready for impregnation, it is moved from the count out area and pulled on to the wet-out conveyor. The plant manager and the team leader, the person wetting out the line, review the order sheet for proper count-out, resin and catalyst quantity, and mill setting. Vacuum lines are attached to the liner to remove the air from the inside of the liner and a pipe is placed in the mouth of the liner for the resin pumping and both ends of the liner are sealed with tape. While the air is being sucked out, we are able to check for any pin holes or imperfections in the liner. If we are unable to maintain a vacuum on the line, we know that there is a leak in the liner and search for the cause. When we maintain a vacuum on the line we begin to prepare the catalyst mixture and get ready to impregnate the liner.

The catalyst mixture generally contains a primary and a secondary catalyst and styrene is used to blend it all into a liquid. The mixture is prepared at a ratio of 1:0.3, basically 1-pound primary and 0.3-pound secondary. The resin is fed to a static mixer at a controlled temperature of approximately 70F from our bulk storage tanks.

A static mixer is a machine that mixes the resin and the catalyst together thru tubes that contain non moving fins. The machine allows us to change the rate of resin flow, measured in pounds per minute, and we are also able to change our catalyst percentage rate with this machine and monitor the resin temperature.

We base our catalyst rate on many factors; length, mill, diameter, ambient temperature, truck travel time from wet-out to job site, and length of time liner will be on the truck. The catalyst rate ranges from 1% primary/ 0.3% secondary to 0.7 & primary/ 0.21% secondary.

Once all the air is extracted from the liner, we will begin to pump the catalyzed resin into the liner. The resin is pumped at a rate of 100# per minute for smaller diameter pipe and up to

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Wallace, NC | Bear, DE

175# per minute for large diameter pipe. We do an initial pump of approximately 50# to 250#, depending on liner size, and take what we call a pre sample via an inline sampling valve. This sample is placed in a water bath of 180F and we wait until it gels before continuing. Once the sample gels, we record its gel time and resume pumping. Samples are then taken every 500# to 1000# and documented. We only pump the required amount of resin in a liner. We achieve this amount with a calculation that considers length, mill, diameter, and weight of resin in pounds per gallon. If the required amount of resin will not fit in one pump, we will be required to do what is called a cut-in after we run the liner and need to add more resin. Once the resin runs out, we will cut into center of the liner and the pump the remainder of the resin into the liner. When completed we then seal the liner. All liners are first sewn together, for additional support, using industrial string and then sealed with the patches. Polyurethane coated liners are sealed by using three pu (polyurethane) patches, each patch getting larger, thf (tetrahydrofuran), and paste, a mixture of thf and pu clippings, to adhere the patches. Once the paste dries we resume running the liner. Thermopolyolefin (TPO) and polypropylene (PP) coated liners are sealed using tape and TPO patches that are heat welded on.

When the required amount is pumped into the liner, the resin pipe is pulled out and the liner is sealed to keep any air from re-entering the liner. The pinch rollers are then set to the proper thickness, ranging from the thickness times 2 plus 3 (i.e. 6 mill liner is $6 \times 2 + 3 = 15$ mill) up to the thickness times 2 plus 10 depending on liner diameter and thickness, with gauge blocks. The conveyor is then started and the liner will go through the pinch roller at no more than 7 feet per minute. Larger liners require slower speeds to allow proper impregnation. As the liner moves the resin is pushed through the liner and the vacuum lines are moved back as needed. The small incisions from the vacuums are patched with pu patches and thf. The liner is stacked onto a refrigerated truck accordion style with bagged ice placed in every fold. Once the resin runs out at the proper mark, and no cut in is required, the liner is put all the way onto the refer truck and iced over more. The truck is now ready for transit and the liner is ready to be installed.

601 JACK ENDERS BLVD.
BERRYVILLE, VA 22611
(540) 955-9671 PHONE
(540) 955-2872 FAX
LICENSE #2705-040998A

Keep your city moving.

Berryville, VA | Capitol Heights, MD | Baltimore, MD
Wallace, NC | Bear, DE

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 2

❖ **CERTIFICATION FOR
PREMIER PIPE USA**



Hello,

My name is Jim Mortell. I am the owner and president of Premier-Pipe USA. Our Premier-Pipe USA Cured in Place relining system has proven to be one of the most respected and established cured in place relining systems in the world. We use nothing but the finest materials offered in our industry today; and many materials we developed ourselves with our partnership of suppliers.

Our experienced group of proven installers, staff professional engineers, ISO certified suppliers, well-trained crews and the best CIPP operation/project managers in the industry, have worked hard to make this the best lining process in the world. There is never a short cut on quality and value. We are a veteran group of individuals that knows what it takes to be the best at what we do. We are continuously looking for ideas and methods to make our product better. We also investigate and test out new materials that keep us on the cutting edge of the trenchless industry. We pride ourselves on these values.

Premier-Pipe USA and Canada has been:

- Installed over 12,000,000 million feet of CIPP
- Installed liner in 44 states from Washington, DC to Honolulu, HI including Canada
- Installed liner in over 1,000 different cities
- Approved and used in most of the major cities in the USA

Premier-Pipe Limited (Europe) has installed over 8 million feet bringing our product total to over 20,000,000 feet installed worldwide.

Premier-Pipe will take on some of the toughest types of projects; square pipes, odd shapes, mountainsides and under rivers. No job is too difficult for us. Often our group works in unity to find the best solution for these challenging projects. Our team of experienced installers and engineers collaborate to insure that all projects are given the detailed attention they deserve along with performing in the safest manner possible.

Please visit our website, www.premierpipeusa.com or If you have any questions, please feel free to call me at 612-385-4101.

Thanks,
Jim Mortell



PREMIER-PIPE USA

The Worldwide Choice
Manhole to manhole, cured-in-place relining process



- Premier-Pipe USA is designed in accordance with the latest ASTM Standards.
- Premier-Pipe USA is supported by some of the most experienced technicians in the world and has been installed in six countries.
- Premier-Pipe USA utilizing Applied Felts tube which is manufactured under ISO 9002, has over 17 million feet installed in the U.S.
- Premier-Pipe USA is installed by trained and certified lining technicians.
- Premier-Pipe USA is a safe, time-tested and proven method.

Property	Minimum Values	Test Method
Tensile Strength	3,000 psi	ASTM D-638
Flexural Strength	4,500 psi	ASTM D-790 Mod
Modulus of Elasticity	250,000 psi	ASTM D-790 Mod
Chemical Resistance	Meets Chemical Resistance	ASTM D-543
Standard CIPP	Meets Specification for CIPP	ASTM D-5813
Installation	Meets Practice for Rehabilitation	ASTM F-1743

J.W.M. Environmental, Inc. is the exclusive North American rights holder to Premier-Pipe USA. For more information on Premier-Pipe USA, please contact us at: www.premierpipeusa.com.



THE COMPLETE NO-DIG PIPELINE REHABILITATION SOLUTION



CLEAN ENGINEERING.

PREMIER PIPE U.S.A.

Premier Pipe is a people-driven company that prides itself on “old school” standards. With extensive training and planning, our hard working and dedicated crews carefully implement cutting edge technology. We use only the highest quality resin and our exclusively designed premium tubes for the best possible results.

Successfully completing complex projects makes us the leader in the trenchless technology industry.

We stake our reputation on using only the highest quality technology, material and crews.



MANHOLE TO MANHOLE

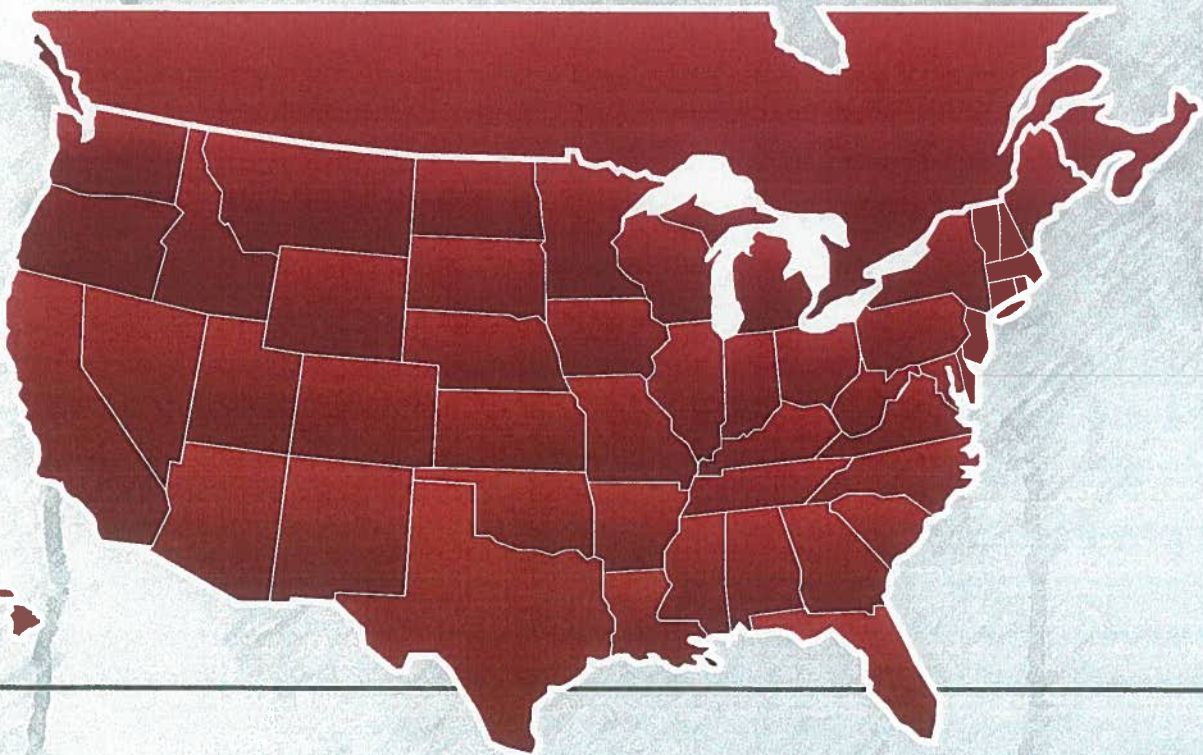
Our manhole to manhole system is world renown with over 10 million feet installed over the past 15 years. The process was developed by some of the most experienced engineers in the Cured-In-Place-Pipe field. Today, Premier Pipe continues to set the standard in the rehabilitation industry.

CLEAR BENEFITS

- Environmentally friendly
- Quickly installed without excavation
- Bridges and seals gaps, holes and cracks
- Resistant to chemical attack
- Resistant to corrosion
- Forms to any shape of pipe
- Improves flow characteristics
- Substantial cost savings
- Fits pipe diameters of 4" to 120"
- Industrial effluent protection
- Forms a structural and durable new pipe inside the old pipe

QUALITY INSTALLERS ACROSS THE U.S. AND CANADA

Premier Pipe USA works with the best installers, hands down. We guarantee it. Whether you work with us in California or Massachusetts, rest assured you're getting the best installers in the country.



AM-LINER EAST, INC.



Am-Liner East, Inc., a “Family owned” business, has been in operation since it’s incorporation in 1994. A majority of Am-liner’s officers, managers and employees were shifted over from another “family owned” company which had specialized in all phases of underground utility



Pictured left to right: Phillip Giuliani, Mel Willett and David Giuliani

The Owner/President is Mr. Isidorio Giuliani, the Vice President is Mr. Mel M. Willett and the Operations Manager is Mr. Mark Miles. Together their experience in the underground utility field amounts to over 95 years.

construction, pipe line rehabilitation and environmental clean-up projects prior to ALE’s inception.

AM-Liner East, Inc. is a company based in Northern Virginia which provides quality full service sanitary sewer and manhole rehabilitation to the trenchless industry. To date we have installed over 5,000,000 L.F. of the AM-Liner and Premier-Pipe USA Products along the east coast of the United States including Puerto Rico.

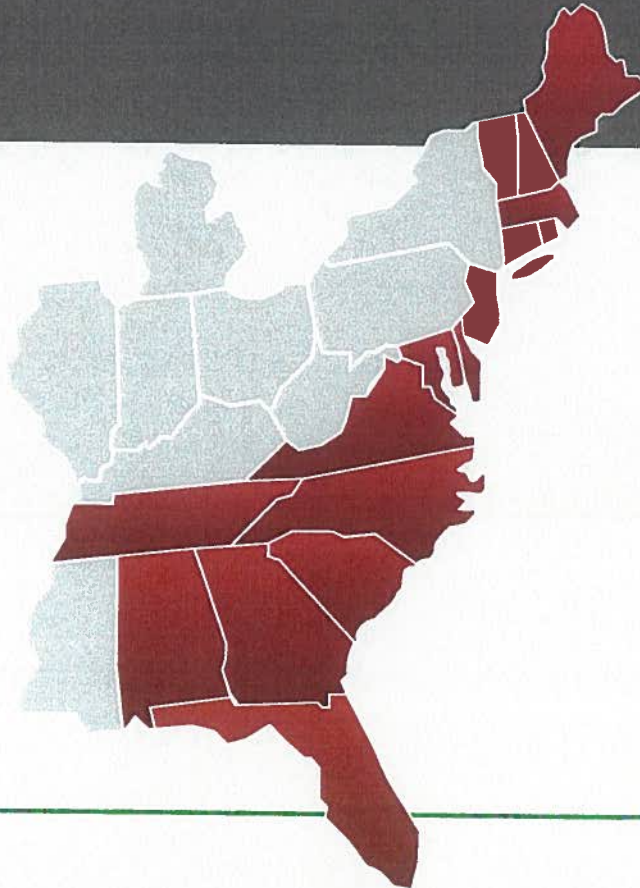


SERVICES

- PVC Fold & Form Pipe Liner
- Cured-In-Place Pipe
- CCTV Inspection
- Pipe Cleaning
- Premier Pipe CIPP Pressure Liner
- Manhole Rehabilitation
- CIPP Point Repairs
- Lateral Lining with Cured-In-Place-Pipe
- Robotic Lateral Stealing using Epoxy

SERVICE AREA

Am-Liner East serves the Northeastern U.S. and the entire Atlantic Coast. From the Florida Keys to the tip of Maine, Am-Liner has it covered.



AM-LINER EAST, INC.

INSIGHT PIPE CONTRACTING, L.P.

Insight Pipe Contracting, L.P. is a full-service sewer maintenance contractor. Founded by Mike and Jill Marburger in 1989, Insight began and continues to be family-owned and operated. Our humble beginning consisted of a two-man crew and one portable CCTV



Pictured: Mike and Jill Marburger

Our trusted staff of experienced managers, with a combined 98 years experience in the sewer installation and rehabilitation business, has been time tested to be second to none.

system. Since that time, we have grown to over forty employees with a state-of-the-art facility in Harmony, PA.

Throughout our 20 years in the sewer rehabilitation business, we have carefully expanded our operations to meet our customer's needs, providing CCTV internal inspection services and a variety of other inflow/infiltration services, including sewer line cleaning, manhole rehabilitation, trenchless point repairs and cured-in-place Premier Pipe USA™ end-to-end lining. We have continually improved and added to our long list of established services in order to be a complete rehabilitation contractor.

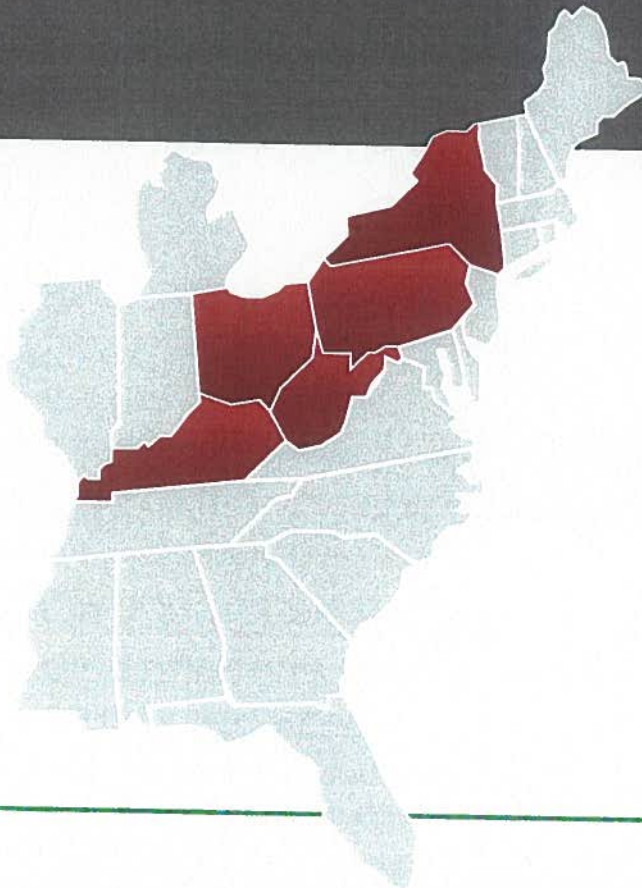


SERVICES

- Cured-in-Place Pipe Lining
- Cured-in-Place Point Repairs
- Fold and Form Pipe Lining
- Manhole Rehabilitation
- Manhole Inspection
- Internal Video Inspection
- Combination Vacuum / Jet Cleaning
- Smoke and Dye Testing
- Mechanical Bucket Machines

SERVICE AREA

Insight Pipe Contracting proudly serves customers in the Eastern United States, including Kentucky, Ohio, Virginia, Pennsylvania and New York.



INSIGHT PIPE CONTRACTING

MICHELS CORPORATION

The world is a very different place today than it was in 1959 when Dale Michels founded his construction company. Michels has kept pace with these changes by anticipating industry trends and augmenting service capabilities through countless divisional



Pictured: Kelly Odell, Vice President

Michels is proud to be a family-owned company whose highly-skilled force of professionals is comprised of the very best from every industry and discipline.

We are Michels Corporation...and We Build America.

expansions and strategic acquisitions. What began as a pipeline construction company has flourished into an international engineering and construction contractor that has steadfastly earned the respect and confidence of renowned private sector companies and governmental bodies the world over.

In fact, the Engineering New-Record has rated Michels as one of the Top 100 Contractors and one of the Top 10 Utility Contractors in the United States.

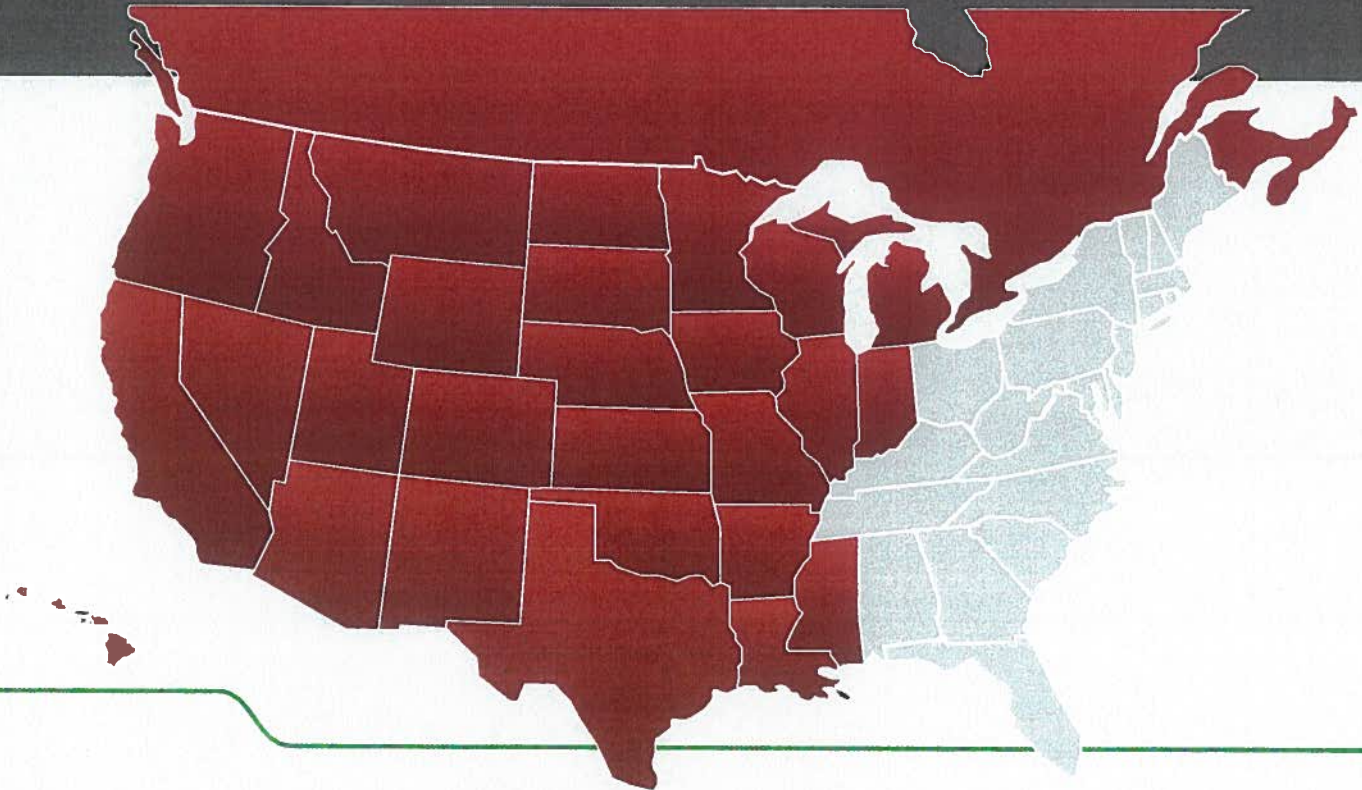


SERVICES

- Pipeline Construction
- Cured-In-Place-Pipe
- Electrical
- Engineering & Design
- Horizontal Directional Drilling
- Pipe Restoration
- Road Building
- Sewer, Water and Tunnel
- Telecommunications
- Vertical Drilling
- Wind Farm Construction

SERVICE AREA

Michels proudly serves the Midwest, South Central and Western United States including Hawaii. With office locations in Oregon, Washington, California, Arizona, Canada, Minnesota, Iowa, Kansas, Illinois and Pennsylvania.



MICHEL'S CORPORATION



TECHNOLOGICALLY DRIVEN

Our system - Premier Pipe Pressure Liner - is specifically designed for forcemains and pressure pipes. This process has been developed and tested over several years using the same innovative R&D standards and attention to detail that makes Premier Pipe successful.





ENVIRONMENTALLY AWARE

Premier Pipe USA and its certified installers believe our environment is very important, not only today, but for the future of our children and generations to come. The focus for our research and development into the future of trenchless technology is to not only minimize the impact we have on any project site, but also to provide new and innovative techniques. Urban or rural, the footprint we leave affects us all.

Our Premier Pipe Green products offer environmental quality and is even “greener” than the standard CIPP process.

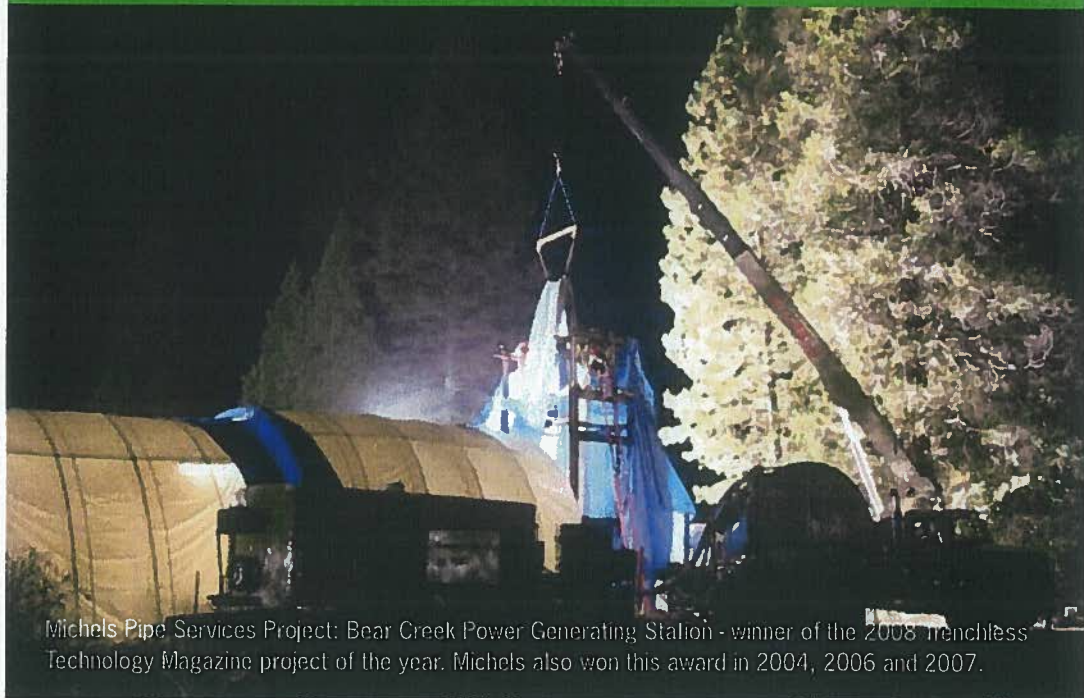


“Take care of the Earth and she will take care of you.” - Author Unknown



OUR STRENGTH IS IN OUR INSTALLERS:

What makes our CIPP process stand out from others is our quality installers, who are carefully selected and trained. Through constant communication, our installers continue to learn and help one another with every project—ensuring the best possible result each and every time.



Michels Pipe Services Project: Bear Creek Power Generating Station - winner of the 2008 trenchless Technology Magazine project of the year. Michels also won this award in 2004, 2006 and 2007.



10403 Brown Farm Circle / Eden Prairie MN 55347
P: 612-385-4101 / F: 952-914-9417
www.premierpipeusa.com / jmortell@premierpipeusa.com

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 3

- ❖ **AM-LINER EAST, INC. PRODUCT
AND WORK EXPERIENCE –
10 JOB REFERENCES**



601 JACK ENDERS BLVD.
BERRYVILLE, VA 22611
(540) 985-9071 PHO
(540) 985-2872 FAX

INSTALLATION REFERENCES (PARTIAL LIST)

IPF 884-1816
SANITARY SEWER MAIN LINING (CIPP)
FERRIS, VA

CONTRACT #	CUSTOMER	CONTACT INFORMATION	DESCRIPTION (ORIGINAL)	DESCRIPTION (ACTUAL)	AWARD DATE	RTF DATE	CONTR. COMPLET.	ACTUAL COMPLET. DATE	STATUS	CONTRACT VALUE (ORIGINAL)	CONTRACT VALUE (ACTUAL)
#17-13 SANITARY SEWER MAIN LINING	CITY OF MANASSAS PARK MANASSAS PARK, VA 20111	ALAN ROWLEY 703-335-8840 (P) a.rowley@manassasparks.gov	CIPP - TBD	CIPP - 4,773 LF 8"-1351, 10"-422	04/07/17	04/04/18	04/04/18	04/07/17	ON-GOING	TBD	164,813.
#16-43 WICOMICO STORES PO# 006100	ST. MARKS CO METROPOLITAN COMMISSION 23121 CHAMBER WAY CALIFORNIA, MD 20619	ED HOOKER, SUPT. WW COLL. DIV. 301-727-7400 (O) 301-904-3069 (M) EHOOKER@METCOM.ORG	CIPP - 4560 LF 8"	CIPP - 4,773.3 LF 8"	10/21/16	11/01/16	NONE SPECIFIED	05/11/17 LAST DAY PER DB DAILY RPT	COMPLETED	176,500.00	103,318.
#15-63 INFLOW & INFLUXTION - CIPP 370300 - HOWARD CO RIDER 111 AIRPORT DRIVE EAST FREDERICK, MD 21701	CITY OF FREDERICK 111 AIRPORT DRIVE EAST FREDERICK, MD 21701	CHIP STEELY 301-400-1176 (O) 410-409-1814 (M) csteely@frederick.com	CIPP - 18224 7LF 6"-624.6 8"-4088.2 10"-3225.7 12"-3301.5 15"-1222.8 18"-1082.4 21"-863.5 24"-712.5	CIPP - 15,114 LF 8"-6080 10"-2080 12"-1876 15"-451 18"-1207 36"-1720	01/07/16	02/03/2016	05/31/16	05/11/17 LAST DAY PER DB DAILY RPT	ON-GOING	1,404,946.35	1,287,180.
#15-35 SEWER LINES & MH REPAIR COLONIAL AVE. IP# 200001542 CONTRACT#400005118	COUNTY OF FAIRFAX 19000 0000 CTR PKWY #427 FAIRFAX, VA 22035	RUSSELL RUSSELL 703-339-8493 Russell.Russell@fairfaxcounty.gov	CIPP 4 189 LF 36"	CIPP - 5,761 LF 36"-4,189 42"-1,572	07/01/15	12/29/16	07/31/16	07/31/16	ON-GOING	2,859,000.00	3,140,777.
#13-71 PWCSA RIDER - SA 1313 CONTRACT # 1122-13-CIPP PO# 149822-00 PO# 15049-50/PO#10821-00	CITY OF FALLS CHURCH 300 PARK AVENUE FALLS CHURCH, VA 22046-3532	ROBERT CORP. SUPT OF OPERATIONS 301-206-7315 rco@fallchurch.gov	CIPP P.O. CONTRACT	CIPP 62,111 8"-46,654 10"-2,103 12"-1,295 15"-99	03/13/14 (P)	NONE	04/04/17 (actual) 04/04/15 (contract) 04/04/15 (contract) 04/04/15 (contract)	11/27/15	ON-GOING	1,374,257.50	1,871,452.
#13-48 IDIO PWS327A-11 PSYCHWAY BASIN (BSA)	WSSC 14501 SWEETZER LANE LAUREL, MD 20707	DAN HAMILTON, DEPOT MGR dhamilton@wsscwater.com	CIPP - 17,222 LF 18SD ON T25 (ISSUE) 8"-9 10"-100 12"-100 14"-117 16"-117 18"-104	CIPP - 18,315.6 LF 8"-7,603.4 10"-553 12"-5,207 14"-1,591.5 16"-181 18"-1987 20"-212483.7	07/19/13	08/07/13	08/03/18 (1095 LINES)	08/03/18 (1095 LINES)	ON-GOING	17,500,000.00	9,127,091.1
#13-47 AGREEMENT #735-13 8"-18" SWR MAINS PWCSA RIDER IP# SA 1213	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730/6585 (M/F) hungt@arlingtonva.us	CIPP 8"-18" (NO VALUES GIVEN AT CONTRACT)	CIPP - 303,600 LF 8"-303,310 10"-13,260 12"-13,864 15"-4,001 18"-1,075	07/19/13	07/19/13	04/04/18 (RHWL 4 of 4) 04/05/14 ORIG	04/04/18 (RHWL 4 of 4) 04/05/14 ORIG	ON-GOING	1,850,000.00	10,707,862.1
#13-20 CONTRACT #400003896 SAN SWR MAIN CIPP LINING PWCSA RIDER IP# SA 1213 PT15 PWS500141012 PT16 PWS500149889	COUNTY OF FAIRFAX/ROBERT MAMATH FACILITY 13000 ONE CTR PKWY #427/8000 PRESS CANK RD FAIRFAX, VA 22033/5036, VA 22019	RUSSELL RUSSELL 703-339-8493 Russell.Russell@fairfaxcounty.gov	CIPP - 139,030 LF (EST QTY PER PH 1 THRU 5) 8"-130,300 10"-1,181 12"-4,118 14"-370 16"-370	CIPP - 544,699 LF (EST QTY) 8"-476,685 10"-31,863 12"-24,335 15"-7,168 18"-4708	04/30/13 (AGRMNT LETTER)	07/01/13	04/04/18 (AMENDM) 4TH OF 4 CIPFS 04/04/14-ORIG	04/30/13	ON-GOING	12,007,480.19	21,978,192.1
#13-20 FOUR INLE RING DIAMETER HOWARD CO RIDER #11-13 PO# 149822-00 PO# 15049-50/PO#10821-00	ARLINGTON COUNTY 2100 CLARENDON BLVD #500 ARLINGTON, VA 22201	HUNG TRAN ENGINEERING TECH III 703-228-7730/6585 (M/F) hungt@arlingtonva.us	CIPP INDEFINITE QTY	CIPP - 16,087 18"-397 21"-598 24"-1,015 30"-524 33"-806 36"-9998 42"-3249	06/14/12 (ORIG AGRMNT- ALB#11-07)	02/19/13 (P)	06/30/13	02/01/17	COMPLETED	2,000,000.00	4,528,893.1
#13-12 SAN SWR MAIN LINING 8"-1313	PRINCE WILLIAM CO. SERVICES AUTHORITY 4 COUNTY COMPLEX CT / PO BOX 2266 PRINCE WILLIAM, VA 22195	JIM MCCARROLL 703-609-7093 (M) jlmccarr@princewilliam.gov	CIPP 62,304 LF 8"-10000 10"-20000 12"-2000 15"-2000 18"-2000 21"-3000 24"-1500 30"-1000 36"-100 10"-250 12"-250 15"-250 18"-250 21"-250 24"-1000 30"-500	CIPP 18,513 LF 8"-20,513 10"-2,377 12"-208 15"-0 18"-0 21"-0 24"-0 30"-0 36"-0 10"-450 12"-450 15"-148 18"-1300 21"-0 24"-0 30"-0	03/18/13	02/20/08	04/04/2018 (OP# 4 OF 4) 04/05/14 ORIG	04/04/2018 (OP# 4 OF 4) 04/05/14 ORIG	ON-GOING	1,374,257.50	6,152,233.1

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 4

- ❖ **REFERENCES FOR PROJECT
SUPERINTENDENT,
JEFF GEIGER**

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 5

- ❖ **CERTIFICATION FOR EACH AM-LINER EAST, INC. EMPLOYEE WHO WILL BE INSTALLING THE PREMIER PIPE USA PRODUCT**

Certified Installer



THIS ACKNOWLEDGES THAT

Mel M. Willett

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Tommy Jones

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA[®] cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Jeff Gieger

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Robert Christian

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Miguel Hernandez

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA[®] cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Jose Aranda

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Curtis Murray

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Yohalmo Penate

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Nelson Rivera

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

David Shea

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Luis Vasquez

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

Certified Installer



THIS ACKNOWLEDGES THAT

Ricky Von Fossin

Has successfully completed the required training and is currently certified in air/steam and water curing in accordance with the Premier Pipe USA® cured-in-place process

James W. Mortell

James W. Mortell, President Premier Pipe USA

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 6

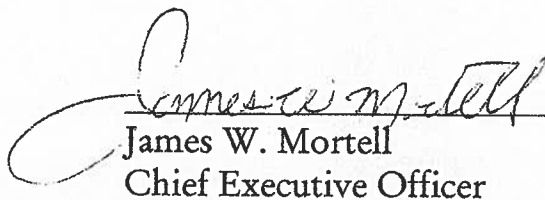
- ❖ **CERTIFICATION FOR AM-LINER EAST, INC. TO INSTALL PREMIER PIPE USA PRODUCT**



CERTIFICATE OF LICENSED INSTALLER

This certifies that Am-Liner East is a trained and certified licensed installer of Premier-Pipe U.S.A.

This certifies that Am-Liner East has met all requirements to be a licensed installer and is entitled to all the rights and privileges associated with this certification as granted by the licensor, J.W.M. Environmental, Inc.


James W. Mortell
Chief Executive Officer

1/19/98
Date

SECTION III TECHNICAL SPECS

1.06A SUBMITTALS

ITEM 7

- ❖ **FIVE (5) YEAR WARRANTY:**
 - **AM-LINER EAST, INC.**
 - **PREMIER PIPE USA**

February 20, 2018

Prince William County Service Authority
4 County Complex Court
Woodbridge, VA 22192
ATTN: Purchasing Manager

RE: IFB #SA-1815 Sanitary Sewer Main Lining (CIPP)

Dear Madam/Sir:

From the date of acceptance by PWCSA, Am-Liner East, Inc. hereby warrants all Premier-Pipe USA™ Cured-In-Place Pipeliner for a period of five (5) years.

Sincerely,



Mel M. Willett
Vice President

February 14, 2018

Prince William Cty Service Authority
4 County Complex Court
Woodbridge, VA 22192
ATTN: Purchasing Manager

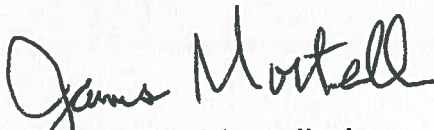
Re: IFB #SA-1815 Sanitary Sewer Main Lining (CIPP)

To Whom It May Concern:

As the Licensor and manufacturer for the Premier-Pipe USA™ Cured-In-Place pipe process, I, James Mortell, President & CEO of JWM Environmental, Inc. hereby state and certify that I have been in business in North America for a minimum of two (2) years and have a minimum of 20,000 linear feet of successful installations of the Premier-Pipe Cured-In-Place product. In addition, I extend a five (5) year warranty for the Premier-Pipe CIPP Product installed under the above stated project.

If you have any questions concerning our company, please do not hesitate to contact me.

Sincerely,


James W. Mortell, Jr.
President & CEO