The information contained herein revises, supplements and/or supersedes the specific parts of the documents referred to and shall be attached to and become part of these documents as if originally a part thereof. Except as herein modified, all other provisions of the documents shall remain in force unless otherwise described in this Addendum, and shall comply with the requirements originally specified for similar work.

BIDDERS MUST ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE BID FORM

The original “Contract Documents and Specifications” for the above referenced project prepared on September 2017 are modified as noted herein in this Addendum No. 1, as per the pre-bid meeting that took place at Brick Township Municipal Utilities Authority’s offices on October 3, 2017.

The addendum consists of the following:

A: SPECIFICATIONS

1. Bid Schedule

   Delete the “Bid Forms, Pages 1-24” and replace with the attached “Bid Form – Addendum 1, October 4, 2017, Pages 1 through 25”. The changes to the Bid Schedule are as follows:

   a. Bid Item #3 has been revised on the revised bid schedule to include only labor for grouting of service lateral and exclude grout material.

   b. Bid Item #3.A. “Grout material for grouting service connections” has been added to the revised bid schedule.

2. DIVISION 5 - Cured in Place Pipe Lining Repair and Lateral Lining;

   Delete the “DIVISION 5 - Cured in Place Pipe Lining Repair and Lateral Lining, Pages 1-16” and replace with the attached “DIVISION 5 - Cured in Place Pipe Lining Repair and Lateral Lining, Pages 1-17”. The changes are as follows:
a. Section 5.09.01 name has been revised from “Reinstatement of Laterals” to “Reinstatement of Laterals and Grouting”.

b. After Section 5.09.01 name, “Reinstatement of Laterals and Grouting”, a new heading “Reinstatement of Laterals” was added.

c. The “Quantity” and “Payment” sections of Section 5.09.01, “Reinstatement of Laterals and Grouting”, “Reinstatement of Laterals”, was revised to include only labor for grouting of service lateral and exclude grout material.

d. An additional heading, “Grout Material” was added to the Section 5.09.01, “Reinstatement of Laterals and Grouting”.

e. The “Quantity” and “Payment” sections were added under heading “Grout Material” in Section 5.09.01, “Reinstatement of Laterals and Grouting” and include only provisions for measurement and payment of grout material used for grouting service connections.

**B: PRE-BID MEETING:**

1. Pre-Bid Meeting Agenda dated 10-3-17;
2. Pre-Bid Meeting Sign-in Sheet;
3. Maps for Site Visit.

END OF ADDENDUM NO. 1
BID FORM

TO: The Brick Township Municipal Utilities Authority
1551 Highway 88 West
Brick, N.J. 08724

RE: Contract No.: 817001
Contract Name: Barrier Island – Sanitary Sewer Lateral Connection Repairs

This bid will not be accepted after 2:00 p.m. prevailing time, on the 17th day of October, 2017, at which time all bids will be publicly opened and read.

(Name of Firm Submitting Bid)

Pursuant to N.J.S.A. 40A:11-23.1a, the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local unit’s record of notice to bidders shall take precedence.

<table>
<thead>
<tr>
<th>ADDENDUM No.</th>
<th>DATE</th>
<th>BIDDERS INITIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Included with this bid shall be the following documents:

1. Bid Document Submission Checklist
2. Bid Security
3. Power of attorney (if bid security is in the form of a bond)
4. Contractor's Experience Statement
5. Agreement of Surety
6. Non-Collusion Affidavit
7. List of Stockholders
8. List of Subcontractors
9. Affidavit regarding State Treasurer's list of debarred, suspended and disqualified bidders
10. Affidavit of Non-Discrimination in Employment
11. State of New Jersey Equal Employment Opportunity Requirements (Exhibit B)
12. Disclosure of Investment Activities in Iran
13. Business Registration Certificate (BRC)

The undersigned hereby proposes and agrees to furnish all the necessary labor, materials, equipment, tools and services necessary for the work specified.
The undersigned has examined the location of the proposed work, the plans, specifications, and other contract documents and is familiar with the local conditions at the place where work is to be performed and understands that information relative to existing structures, apparent and latent conditions and natural phenomena as furnished in the contract documents or by the Owner, carries no guarantee, expressed or implied, as to its completeness or accuracy and has made all due allowances therefore.

The undersigned bidder declares that this bid is made without connection with any other person or persons making bids for the same work and is in all respects fair and without collusion or fraud.

The undersigned bidder has determined the quantity and quality of equipment and materials required; has investigated the location and determined the sources of supply of the materials required; has investigated labor conditions; and has arranged for the continuous prosecution of the work herein described.

The undersigned bidder agrees that the prices bid for all items shall apply to actual quantities required, approved and used during construction of the project, including addenda, change orders, and supplemental agreements.

The undersigned bidder hereby agrees to be bound by the award of the contract and, if awarded the contract on this bid, to execute within ten (10) days after receipt of notification that the contract documents are ready for signature the required Contract Agreement, Contract Bonds, and Insurance Certificates, of which Contract this bid, the plans for the work, and the specifications as above indicated shall be a part.

The undersigned understands that the Owner reserves the right to reject any or all bids or to waive any informality or technicality of any bid in the interest of the Owner.

Accompanying this bid is a Bid Bond or a Certified Check in the sum of ten percent (10%) of the amount of the bid (but not to exceed $20,000.00), payable to the Owner as a guarantee that the Agreement will be executed and a Performance Bond, Labor and Material Bond, and the specified Insurance Certificates will be furnished within ten (10) days after receipt of notification that the contract agreements are ready for signature.

If this bid shall be accepted by the Owner, and the undersigned shall fail to contract aforesaid, then the Owner shall be entitled to recover from the bidder the difference between the amount specified in the bid and the amount for which the Owner may contract with another party to perform the work covered by said bid, if the latter amount be in excess of the former.

If this bid shall be accepted by the Owner, the undersigned agrees to complete the entire work proposed under this contract within **150 consecutive calendar days** from the date specified in the "Notice to Proceed."
### BID SCHEDULE

The following bid schedule will be completed in ink or typewritten. The amount shall be written in both words and figures. In the case of a discrepancy, the amount written in words will govern. The successful bidder will be required to furnish an itemized breakdown for lump sum items as indicated in the Contract Specifications, Instruction to Bidders, Section 31 Bid Item Breakdown and in accordance with Contract Specifications, Supplementary Conditions, Section 1.04.07, Itemized Cost Breakdown for Lump Sum Bids.

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SPEC. REF.</th>
<th>BRIEF DESCRIPTION OF ITEMS AND PRICES IN WORDS AND FIGURES</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.04.07.01</td>
<td>Mobilization (refer to part 1.04.07.01). Lump Sum Price @ $__________________ per L.S.</td>
<td>$________</td>
</tr>
<tr>
<td>2.</td>
<td>1.06.02</td>
<td>Traffic Control Devices for Road Closure. Furnish, install, maintain and remove traffic control Devices for road closure as required by the Local and State agencies having jurisdiction over the roadways and all else necessary thereto. Lump Sum Price @ $__________________ per L.S.</td>
<td>$________</td>
</tr>
<tr>
<td>3.</td>
<td>5.09.01</td>
<td>Internal reinstatement of service connections including mechanical cleaning, grinding down protruding connections, clearing iron deposits and tree roots, labor for grouting service connections (payment for grout material under bid item 3A), cutting/trimming existing liner at laterals, traffic maintenance and all else necessary thereto. 141 EA. @ $__________________ per EA.</td>
<td>$________</td>
</tr>
<tr>
<td>3.A.</td>
<td>5.09.01</td>
<td>Grout material for grouting service connections. 500 GAL. @ $__________________ per GAL.</td>
<td>$________</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>SPEC. REF.</td>
<td>BRIEF DESCRIPTION OF ITEMS AND PRICES IN WORDS AND FIGURES</td>
<td>EXTENSION</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
<td>-------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>4.</td>
<td>5.09.02</td>
<td>Furnish and install cured-in-place pipe (CIPP) full wrap main service connection liner (LCR), impregnated with resin, as manufactured by Trelleborg / EPROS, or equal, utilizing the cured-in-place trenchless technology method including all TV inspections, cleaning, bypass pumping, traffic maintenance and all else necessary thereto. 102 EA. @ $________________________per EA.</td>
<td>$________</td>
</tr>
<tr>
<td>5.</td>
<td>5.09.03</td>
<td>Furnish and install cured-in-place pipe (CIPP) main-to-cleanout liner (MtH), impregnated with resin, as manufactured by Trelleborg / EPROS, or equal, utilizing the cured-in-place trenchless technology method including all TV inspections, cleaning, bypass pumping, traffic maintenance and all else necessary thereto. 16 EA. @ $________________________per EA.</td>
<td>$________</td>
</tr>
<tr>
<td>6.</td>
<td>5.09.04</td>
<td>Furnish and install cured in place pipe (CIPP) full wrap main repair section liner (MR), if and where directed, impregnated with resin as manufactured by Trelleborg / EPROS, or equal, utilizing the cured-in-place trenchless technology method including all TV inspections, cleaning, bypass pumping, traffic maintenance and all else necessary thereto. 43 EA. @ $________________________per EA.</td>
<td>$________</td>
</tr>
<tr>
<td>7.</td>
<td>2.06.02</td>
<td>Furnish and install 10 L.F. PVC point repair section of existing sewer main, if and where directed, including excavating, dewatering, removing and assembling the replacement section, bypass pumping, cutting, backfilling, traffic maintenance, and all else necessary thereto. 5 EA. @ $________________________per EA.</td>
<td>$________</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>SPEC. REF.</td>
<td>BRIEF DESCRIPTION OF ITEMS AND PRICES IN WORDS AND FIGURES</td>
<td>EXTENSION</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>----------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>8.</td>
<td>2.06.03</td>
<td>Furnish and install 2 L.F. PVC point repair section of existing sewer lateral, if and where directed, including excavating, dewatering, removing and assembling the replacement section, bypass pumping, cutting, backfilling, traffic maintenance, and all else necessary thereto. 33 EA. @ $______________________ per EA.</td>
<td>$__________</td>
</tr>
<tr>
<td>9.</td>
<td>2.03.16</td>
<td>Furnish, place and compact suitable backfill, if and where directed. 100 C.Y. @ $______________________ per C.Y.</td>
<td>$__________</td>
</tr>
<tr>
<td>10.</td>
<td>2.03.17</td>
<td>Disposal of existing A.C.P. pipe material from sanitary sewer mainline, if and where directed, for each 10 L.F. point repair, including removing existing A.C.P. material sanitary sewer mainline from trench areas and properly disposing of at a licensed landfill. 5 EA. @ $______________________ per EA.</td>
<td>$__________</td>
</tr>
<tr>
<td>11.</td>
<td>2.03.18</td>
<td>Disposal of existing A.C.P. pipe material from sanitary sewer lateral, if and where directed, for each 2 L.F. point repair, including removing existing A.C.P. material sanitary sewer lateral from trench areas and properly disposing of at a licensed landfill. 33 EA. @ $______________________ per EA.</td>
<td>$__________</td>
</tr>
<tr>
<td>12.</td>
<td>2.08.04</td>
<td>Asphalt Price Adjustment (per N.J.S.A. 40A:11-16). Lump Sum Price @ $5,000.00 per L.S.</td>
<td>Five thousand dollars &amp; no cents $5,000.00</td>
</tr>
<tr>
<td>13.</td>
<td>2.08.05</td>
<td>Fuel Price Adjustment (per N.J.S.A. 40A:11-16). Lump Sum Price @ $1,000.00 per L.S.</td>
<td>One thousand dollars &amp; no cents $1,000.00</td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>SPEC. REF.</td>
<td>BRIEF DESCRIPTION OF ITEMS AND PRICES IN WORDS AND FIGURES</td>
<td>EXTENSION</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>----------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>14.</td>
<td>2.08.07</td>
<td>Furnish, place and compact 6 inch thick DGA or Soil Aggregate Designation I-5 gravel base course for trenches in Municipal roads, if and where directed. 46 S.Y. @ $______________________ per S.Y.</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Write Unit Price)</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>2.08.08</td>
<td>Furnish and install 5 inch thick HMA 19M64 bituminous stabilized base course for trenches in Municipal roads, if and where directed. 46 S.Y. @ $______________________ per S.Y.</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Write Unit Price)</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>2.08.09</td>
<td>Mill, furnish and install 2 inch thick HMA 12.5M64 surface course for trenches in Municipal roads, if and where directed. 46 S.Y. @ $______________________ per S.Y.</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Write Unit Price)</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>2.08.06</td>
<td>Furnish, place and compact 8 inch thick sub-base course Mix I-3 for trenches in State roads, if and where directed. 23 S.Y. @ $______________________ per S.Y.</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Write Unit Price)</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>2.08.07</td>
<td>Furnish, place and compact 6 inch thick DGA gravel base course for trenches in State roads, if and where directed. 23 S.Y. @ $______________________ per S.Y.</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Write Unit Price)</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>2.08.08</td>
<td>Furnish and install 6 inch thick HMA 19M64 bituminous stabilized base course for trenches in State roads, if and where directed. 23 S.Y. @ $______________________ per S.Y.</td>
<td>$_________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Write Unit Price)</td>
<td></td>
</tr>
<tr>
<td>ITEM NO.</td>
<td>SPEC. REF.</td>
<td>BRIEF DESCRIPTION OF ITEMS AND PRICES IN WORDS AND FIGURES</td>
<td>EXTENSION</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
<td>------------------------------------------------------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| 20.     | 2.08.09    | Mill, furnish and install 2 inch thick HMA 12.5M64 surface course for trenches in State roads, if and where directed.  
23 S.Y. @ $______________________ per S.Y. | $__________ |
|         |            | (Write Unit Price) |           |
| 21.     | 2.09.03    | Furnish and install concrete sidewalks, curb and driveway aprons to match existing, if and where directed, including sawcut, removal and proper disposal of the unsuitable material, and all else necessary thereto.  
130 S.F. @ $______________________ per S.F. | $__________ |
|         |            | (Write Unit Price) |           |
| 22.     | 2.13.04    | Restore landscape and hardscape areas to match existing, as disturbed for point repair trenches, if and where directed, including removal, storage, replacement, proper disposal of the unsuitable material, furnishing of additional material, and installation of the landscape and hardscape material and all else necessary thereto.  
8 S.Y. @ $______________________ per S.Y. | $__________ |
|         |            | (Write Unit Price) |           |
| 23.     | 2.14.04    | Restore driveway areas to match existing (gravel, decorative stone, pavers, asphalt and other materials), as disturbed for point repair trenches, if and where directed, including removal, storage, placement, proper disposal of the unsuitable material, furnishing and installation of the driveway material and all else necessary thereto.  
64 S.F. @ $______________________ per S.F. | $__________ |
|         |            | (Write Unit Price) |           |
| 24.     | 1.06.02    | Provide Uniform Law Enforcement Personnel to maintain all traffic controls as required by the N.J.D.O.T., the local municipality, or as directed.  
150 Hours @ $105.00 per hour  
Fifteen Thousand Seven Hundred Fifty dollars & no cents $15,750.00 |           |
|         |            | (Write Unit Price) |           |
IF A CORPORATION:

Name of Contractor_______________________________
Signature of Bidder______________________________
Printed Name and Title____________________________
Business Address____________________________________
Tax Identification No.____________________________
Incorporated under the laws of the State of _____________

Names of Officers:

President____________________________________
Secretary____________________________________
Treasurer____________________________________

Dated: ______________________

(Affix Corporate Seal Here)

IF A PARTNERSHIP, INDIVIDUAL, OR NON-INCORPORATED ORGANIZATION:

Name of Company_______________________________
Signature of Bidder______________________________
Printed Name and Title____________________________
Business Address____________________________________
Tax Identification Number__________________________

Names and Addresses of Company Members:

________________________________________
________________________________________
________________________________________
________________________________________
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

____________________________________________ as Principal, and

____________________________________________ as Surety, are hereby

held and firmly bound unto ______________________________________________________
as Owner, in the sum of __________________________________________________________

for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our
heirs, executors, administrators, successors and assigns. The condition of the above obligation is such
that whereas the Principal has submitted to the Owner a certain bid, attached hereto and made a part
hereof, to enter into a contract in writing for

NOW, THEREFORE,

(a) If said bid shall be rejected, or in the alternate,

(b) If said bid shall be accepted and the Principal shall execute and deliver a contract in the
form of Agreement attached hereto (properly completed in accordance with said bid) and
shall furnish a bond for the faithful performance of said Agreement and for the payment
of all persons performing labor or furnishing materials in connection therewith, and shall
in all other respects perform the agreement created by the acceptance of said bid,

then this obligation shall be void; otherwise, the same shall remain in force and effect, it being expressly
understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event
exceed the amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its
bond shall in no way be impaired or affected by any extension of the time within which the Owner may
accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such
of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be
signed by their proper officers, the day and year as set forth below.

Date: ______________________        _______________________________

(Principal)

(Surety)

By: __________________________

(Affix Seal Here)
CONTRACTOR'S EXPERIENCE STATEMENT

The bidder is requested to state below what work of a similar character to that included in the proposed contract he has done, and give references that will enable the Owner to judge his experience, skill and business standing.

Bidders and proposed subcontractors may be required to submit additional information regarding their respective financial condition prior to the award of the contract.

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

Add supplementary page if necessary.
AGREEMENT OF SURETY

The ________________________________, a corporation created and existing under the laws of the State of ________________________ whose principal office is in ________________________________ and is duly authorized to transact business in the State of New Jersey (hereinafter called the Surety), hereby undertakes that if the accompanying bid of ______________________________________________________ (hereinafter called the Bidder) dated___________ for_____________________________

(hereninafter called the Bidder) dated___________ for_____________________________

be accepted as to any or all of the items of material and workmanship proposed to be furnished thereby, or as to any portion of the same, the said bidder shall, within ten (10) days after notice of the award of contract, enter into a contract with The Brick Township Municipal Utilities Authority (hereinafter called the Obligee), and give bond with good and sufficient surety for the faithful performance of such contract, or in the event of the failure of the bidder to enter into such contract and give such bond, the Surety will pay to the Obligee the difference between the amount specified in said bid and the amount for which the Obligee may contract with another party to perform the work covered by said bid, if the latter amount be in excess of the former.

Provided and subject to the condition precedent:

That any suits at law or proceedings in equity brought or to be brought against the Surety to recover any claim hereunder must be instituted and service had upon the Surety within ninety (90) days after the acceptance of said bid of the Principal by the Obligee.

IN WITNESS WHEREOF, the undersigned corporation has caused this agreement to be signed by its proper officers and its corporate seal to be affixed hereto this ___________ day of ________________________, 20 ____.  

Attest:

_________________________________ By: ________________________________

(Affix seal here)                         (Typed name and title)
NON-COLLUSION AFFIDAVIT

State of New Jersey ________________ §:

County of ______________________

I, _________________________ of the City of_______________________ in the
County of ____________________ and the State of ____________________ of full age,
being duly sworn to law on my oath depose and say that I am ______________________
of the firm of _____________________________________________, the bidder making
the bid for the above named project, and that I executed the said bid with full authority to do so and
that said bidder has not, directly or indirectly, entered into any agreement, participated in any
collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with
the above named project, and that all statements contained in said bid and in this affidavit are true
and correct and made with full knowledge that The Brick Township Municipal Utilities Authority
relies upon the truth of the statements contained in said bid and in the statements contained in this
affidavit in awarding the contract for said project.

I further warrant that no person or selling agency has been employed or retained to solicit or
secure such contract upon an agreement or understanding for a commission, percentage, brokerage or
contingent fee, except bona fide established commercial or selling agencies maintained by

__________________________________________ (N.J.S.A 52:3415).

(Name of Bidder)

By: ______________________________

_________________________________

(Typed Name and Title)

Subscribed and sworn to before me

this _______ day of ______________ 20 ___

__________________________________

(Notary Public of ______________)
LIST OF STOCKHOLDERS

As per the requirements of N.J.S.A. 52:25-24.2 the following stockholders must be listed if applicable.

<table>
<thead>
<tr>
<th>Name and Address</th>
<th>Percentage of Ownership (10% or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# LIST OF SUBCONTRACTORS

As per the requirements of N.J.S.A. 40A:11-16, the following subcontractors must be listed if applicable. Additionally, all subcontractors shall be qualified in accordance with P.L. 1971, c.198 (C40A:11-1 et seq.).

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Name and Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumbing Work</td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td></td>
</tr>
<tr>
<td>Structural Steel &amp; Ornamental Work</td>
<td></td>
</tr>
<tr>
<td>HVAC Work</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Initial Here If None

Add supplementary page if necessary.
STATE TREASURER'S LIST OF DEBARRED, SUSPENDED AND DISQUALIFIED BIDDERS

The Contractor shall submit with his bid a sworn statement, as set forth herein signed by an officer or partner of the Contractor, indicating whether or not the Contractor is at the time of the bid, included on the State Treasurer's List of Debarred, Suspended, or Disqualified Bidders. The Contractor will immediately notify the Owner whenever it appears that a Contractor is on the State Treasurer's List. The Contractor may be debarred, suspended or disqualified from contracting with the State of New Jersey and NJDEP if the Contractor commits any of the acts listed in N.J.A.C. 7:1D-2.2.

STATE OF NEW JERSEY

§:

COUNTY OF

I, ____________________________ of the City of ______________________________

in the County of ________________ and the State of ________________ of full age,

being duly sworn according to law on my oath depose and say that:

I am ________________________________________________, an officer of the firm of ________________, the bidder making the Proposal for the above named work, and that I executed the said Proposal with full authority to do so that said bidder at the time of making of this bid, is not included on the State of New Jersey, State Treasurer's List of Debarred, Suspended and Disqualified Bidder; and that all statements contained in said Proposal and in this affidavit are true and correct, and made with the full knowledge that the Owner as Local Unit relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract for said work.

The undersigned further warrants that should the name of the firm making this bid appear on the State Treasurer's List of Debarred, Suspended and Disqualified Bidders at anytime prior to, and during the life of this Contract, including the Guarantee Period, that The Brick Township Municipal Utilities Authority shall be immediately notified by the signatory of this Eligibility Affidavit.

The undersigned understands that the firm making the bid as a Contractor is subject to debarment, suspension and/or disqualification in contracting with the State of New Jersey and the Department of Environmental Protection if the Contractor, pursuant to N.J.A.C. 7:1D-2.2 commits any of the acts listed therein, and as determined according to applicable law and regulation.

______________________________  
(Insert Name and Address of Contractor)
(Insert Name and Title of Affiant)

Subscribed and sworn
before me this ____________ day
of __________________ 20 __

________________________________________
Notary Public of __________________________
My commission expires _____________, 20___
AFFIDAVIT OF NON-DISCRIMINATION IN EMPLOYMENT
(N.J.S.A. 10:2-1 through 10:2-4)
(This form is a part of the Proposal)

STATE OF ____________________

§:

COUNTY OF ____________________

…………………………………………, being first duly sworn, deposes and says he is the
……………… (sole owner, a partner, president, secretary) of………… the party making the foregoing Proposal or
Bid, (the "CONTRACTOR"); that in the hiring of persons for the performance of WORK under this Contract or
any Subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials,
equipment, supplies or services to be acquired under this Contract, neither the CONTRACTOR, nor any person
acting on behalf of such Contractor or Subcontractor, shall discriminate against any person because of age, race,
creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation
or sex who is qualified and available to perform the WORK to which the employment relates; that neither the
CONTRACTOR, nor any person acting on its behalf, shall, in any manner, discriminate against or intimidate any
employee engaged in the performance of WORK under this Contract, or any Subcontract hereunder, or engaged in
the procurement, manufacture, assembling or furnishing of any materials, equipment, supplies or services to be
acquired under this Contract, on account of age, race, creed, color, national origin, ancestry, marital status, gender
identity or expression, affectional or sexual orientation or sex; that there may be deducted from the amount payable
to the CONTRACTOR by the OWNER under this Contract, a penalty of $50.00 for each person for each calendar
day during which such person is discriminated against or intimidated in violation of the provisions of the Contract;
and that this Contract may be canceled or terminated by the OWNER and all moneys due or to become due
hereunder may be forfeited for any violation of these provisions.

________________________________
Sworn to me and subscribed before me Affiant
this ___ day of ________, 20___

______________________________ Notary Public
(SEAL)
ATTACHMENT 2

STATE OF NEW JERSEY EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

Exhibit B
MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.A.C. 17:27

CONSTRUCTION CONTRACTS

During the performance of this contract, the Contractor agrees as follows:

The Contractor or Subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the Contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to, the following: employment, up-grading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this non-discrimination clause.

The Contractor or Subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The Contractor or Subcontractor will send to each labor union with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The Contractor or Subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the Contractor or Subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Division may, in its discretion, exempt a Contractor or Subcontractor from compliance with the good faith procedures prescribed by the following provisions, A,B, and C, as long as the Division is satisfied that the Contractor or Subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The Contractor or Subcontractor agrees that a good faith effort shall include compliance with the following procedures:
(A) If the Contractor or Subcontractor has a referral agreement or arrangement with a union for a construction trade, the Contractor or Subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the Contractor or Subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time, and the American with Disabilities Act. If the Contractor or Subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the Contractor or Subcontractor agrees to afford equal employment opportunities to minority and women workers directly, consistent with this chapter. If the Contractor's or Subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the Contractor or Subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the Contractor or Subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal opportunity employment goals set forth in this chapter.

(B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the Contractor does not have a referral agreement or arrangement with a union for a construction trade, the Contractor or Subcontractor agrees to take the following actions:

1. To notify the public agency compliance officer, the Division, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

2. To notify any minority and women workers who have been listed with it as awaiting available vacancies;

3. Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the Contractor or Subcontractor has a referral agreement or arrangement with a union for the construction trade;

4. To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the Contractor or Subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service, and other approved referral sources in the area;

5. If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;

6. To adhere to the following procedure when minority and women workers apply or are referred to the Contractor or Subcontractor:

   i. The contractor or subcontractor shall interview the referred minority or women worker.
   ii. If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the Contractor or Subcontractor shall in good faith determine the qualifications of such individuals. The Contractor or Subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principals set forth in this chapter. However, a Contractor or Subcontractor shall determine that the
individual at least possesses the requisite skills and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Division. If necessary, the Contractor or Subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of these requirements, however, are limited by the provisions of (C) below.

(iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in paragraph (i) above, whenever vacancies occur. At the request of the Division, the Contractor or Subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

(iv) If, for any reason, said Contractor or Subcontractor determines that a minority individual or a women is not qualified or if the individual qualifies as an advanced trainee or apprentice, the Contractor or Subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the Public Agency Compliance Officer and to the Division.

(7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Division upon request.

(C) The Contractor or Subcontractor agrees that nothing contained in (B) above shall preclude the Contractor or Subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the Contractor or Subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the Contractor or Subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the Contractor or Subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the Contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA 201) electronically provided to the public agency by the Division for distribution to and completion by the contractor, in accordance with N.J.A.C 17:27-7. The Contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

The Contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

(D) The Contractor and its Subcontractors shall furnish such reports or other documents to the Division of Public Contracts Equal Employment Opportunity Compliance as may be requested by the Division from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Public Contracts Equal Employment Opportunity Compliance.
Compliance for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code N.J.A.C. 17:27.

Name of Company: __________________________________________________________

Signature: _______________________________ Title: ______________________________

Date: ______________________________
STATE OF NEW JERSEY – DIVISION OF PURCHASE AND PROPERTY
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

Quote Number: ___________________ Bidder/Offeror: ___________________

PART 1: CERTIFICATION
BIDDERS MUST COMPLETE PART 1 BY CHECKING EITHER BOX.
FAILURE TO CHECK ONE OF THE BOXES WILL RENDER THE PROPOSAL NON-RESPONSIVE.

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury’s Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division’s website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders must review this list prior to completing the below certification. Failure to complete the certification will render a bidder’s proposal non-responsive. If the Director finds a person or entity to be in violation of law, she shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

PLEASE CHECK THE APPROPRIATE BOX:

☐ I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder’s parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury’s list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 (“Chapter 25 List”). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification below.

OR

☐ I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department’s Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN
You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

EACH BOX WILL PROMPT YOU TO PROVIDE INFORMATION RELATIVE TO THE ABOVE QUESTIONS. PLEASE PROVIDE THOROUGH ANSWERS TO EACH QUESTION. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, CLICK THE "ADD AN ADDITIONAL ACTIVITIES ENTRY" BUTTON.

Name __________________________ Relationship to Bidder/Offeror: __________________________

Description of Activities __________________________

Duration of Engagement __________________________ Anticipated Cessation Date __________________________

Bidder/Offeror Contact Name __________________________ Contact Phone Number __________________________

ADD AN ADDITIONAL ACTIVITIES ENTRY

Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained therein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): __________________________ Signature: __________________________

Title: __________________________ Date: __________________________
BID DOCUMENT SUBMISSION CHECKLIST
BRICK TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
BARRIER ISLAND – SANITARY SEWER LATERAL CONNECTION REPAIRS
CONTRACT No. 817001

A. Failure to submit the following documents is a mandatory cause for the bid to be rejected (N.J.S.A. 40A:11-23.2). Checkmarks require submission with bid. Initial each item submitted with bid.

<table>
<thead>
<tr>
<th>Checkmarks</th>
<th>Bidders Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>A Bid Guarantee as required by N.J.S.A. 40A:11-21 (Bid Bond with Power of Attorney, Certified Check or Cashier’s Check)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>An Agreement of Surety, pursuant to N.J.S.A. 40A:11-22 &amp; Contract Specifications, Instruction to Bidders, Item Number 16.0 Agreement of Surety</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>A statement of corporate ownership, pursuant to N.J.S.A. 52:25-24.2 (Stockholders Statement)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>A listing of subcontractors as required by N.J.S.A. 40A:11-16 (Subcontractor’s Declaration)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>If applicable, bidder’s acknowledgment of receipt of any notice(s) or revisions(s) or addenda to an advertisement, specifications or bid document(s)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Bid Form(s)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Disclosure of Investment Activities in Iran certification, pursuant to public law 2012 c.5</td>
<td></td>
</tr>
</tbody>
</table>

B. Failure to submit the following documents may be a cause for the bid to be rejected (N.J.S.A. 40A:11-23.lb). Checkmarks require submission with bid. Initial each item submitted with bid.

<table>
<thead>
<tr>
<th>Checkmarks</th>
<th>Bidders Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Copy of Business Registration Certificate issued by the State of New Jersey Department of Treasury, Division of Revenue, including subcontractor’s required to be listed in the contractor’s submission (i.e., “LIST OF SUBCONTRACTORS”)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Submission of a Non-Collusion Affidavit (this form must be notarized)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Contractors statement of Qualifications</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Affidavit regarding State Treasurer’s list of debarred, suspended and disqualified bidders.</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Affidavit of Non-Discrimination in Employment</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Affirmative Action Evidence. State of New Jersey Equal Employment Opportunity Requirements (Exhibit B)</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>All unit prices submitted, the extensions properly computed and the total price stated in figures and in writing</td>
<td></td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All forms properly signed, certified and notarized as required</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>√</td>
<td>Properly addressed and sealed envelope</td>
</tr>
</tbody>
</table>

C. SIGNATURE: The undersigned authorized representative hereby acknowledges and has submitted the above listed requirements.

Name of Bidder:  

________________________________________

Print Name & Title:  

________________________________________

Signature:  

________________________________________ Date:  


DIVISION 5 - CURED IN PLACE PIPE LINING REPAIR AND LATERAL LINING

5.00 GENERAL

5.01 DESCRIPTION

Cured-in-place piping (CIPP) to rehabilitate the lateral-to-main connections, laterals from main to cleanout and damaged sections of previously expanded-in-place PVC lined ACP sewer mains by the installation of a resin-impregnated flexible tube or insert, which is tightly formed to the original conduit as manufactured by Trelleborg / EPROS, or approved equal.

The Contractor shall be responsible for properly installing the CIPP liner for sections of main in need or repair (MR) (if and where directed), laterals-to-cleanout (MtH) and lateral connection repairs (LCR) units internally in the sewer main or from the sewer main into the lateral pipe at the existing service connections as indicated on the Contract Drawings.

The Contractor is to furnish all labor, supervision, materials, tools and equipment required for the repair of sanitary sewer service lateral connections, sections of main (if and where directed) and laterals from main to cleanout via cured-in-place liner method, or a point repair/pipe replacement method (if and where directed). The Contractor is responsible to perform and complete the work as described and specified herein and on the contract drawings.

5.02 SCOPE OF WORK

The Contractor's work shall include, but not necessarily be limited to the following:

1. Internal Television inspection
2. Cleaning of the line (either heavy or light)
3. Preparation of existing services to permit proper installation and curing of the CIPP liner including:
   — root removal, if needed
   — iron deposits removal, if needed
   — elimination of excessively protruding laterals, offsets, drop joints, crushed pipe, etc., if needed
   — reinstatement and grouting of laterals, if needed
   — point repair/pipe replacement, if needed
4. Bypass pumping
5. Wet-out, insertion, inversion, curing
6. Final television inspection of completed work
7. Site cleanup and restoration as needed

The Contractor is to coordinate all work with the Owner, the Township of Brick, the N.J.D.O.T., and any utility companies whose facilities are within close proximity to and may be affected by the rehabilitation.
The sites where the work will be performed are within public rights-of-way. Traffic coordination and implementation, as required by the responsible municipal or State agencies, shall be the responsibility of the Contractor, as outlined by the contract documents and the agency having jurisdiction over the area of work.

The Scope of Work description generally defines work to be undertaken on the project and is supplemented by the remaining Contract Documents, site visitations, and internal TV inspection video recordings and logs.

The major items of work included for CIPP lateral liner are as follows:

1. Secure all necessary permits from Owner and provide for traffic control as necessary to perform the work as approved by the Owner and the Police Department within the municipality where the work is being performed.
2. Review BTMUA mini-cam internal closed circuit television camera videos and logs to confirm the condition of the sanitary sewer main to perform the CIPP lining.
3. Conduct a pre-lining internal closed circuit television camera inspection of the sanitary sewer mains, laterals and connections which are to be repaired via CIPP lining method. The inspection shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television.
4. Advise the Owner and Engineer of any changes in the condition of the sanitary sewer.
5. Provide bypass pumping or flow diversion, if necessary.
6. Clean the sanitary sewer service laterals and mains where connections are to be repaired prior to installation of CIPP liner.
7. Clear the line of internal debris, iron and other deposits and obstructions, such as light solids and roots that will prevent the insertion of the CIPP liner. If pre-installation inspection reveals an obstruction such as a heavy roots, hard deposits, protruding branch connection, dropped joint, or a collapse that will prevent the installation process, that was not evident on the pre-bid video or Contract Drawings and it cannot be removed by conventional sewer cleaning equipment, then the Contractor may be required to make a point repair excavation to uncover and remove or repair the obstruction at the direction of the Resident Engineer.
8. Re-cut any lateral connections slated for repair as necessary prior to insertion of the CIPP liner. If infiltration found after cutting, Contractor to control infiltration by grouting prior to installation of the CIPP liner.
9. Install CIPP liner per manufacturer’s specifications.
10. Perform a post lining television camera inspection to confirm no leaks are present at the repaired connections, to ensure no defects are visible in the installed CIPP liner and to verify that all sanitary sewer lateral connections have been reinstated.
11. Provide one (1) original video and suitable logs to the Owner indicating pre and post lining condition – CD/DVD format.
12. Clean and restore work site area to pre-construction conditions or better.
The major items of work included for point repair/pipe replacement, if required, are as follows:

1. The Owner shall secure all necessary permits for road openings, etc. from local or State agencies.
2. The Contractor will be responsible for requesting the proper markout from all utility companies within the area of the proposed excavation.
3. The Contractor will be responsible for arranging to provide traffic control in accordance with the requirements of the agency that has jurisdiction over the area where excavation is to be performed.
4. Provide bypass pumping or flow diversion, if necessary.
5. Remove and dispose of existing pavement in accordance with the applicable sections of the Contract Specification.
6. Excavate to the damaged section of sanitary sewer line/lateral utilizing sheeting/trench protection as necessary or as required by the agency having jurisdiction; dispose of excavated material not suitable for reuse.
7. Dewater the excavation area, if necessary.
8. Provide protection for existing utilities in accordance with the requisite of the respective utility company.
9. Remove sections of damaged sanitary sewer main/lateral connection.
10. Install new, replacement section of sanitary sewer laterals and/or main and connect to existing sanitary sewer utilizing approved couplings; reconnect all service connections.
11. Provide and install clean backfill material in accordance with the applicable sections of the Contract Specifications and the requirements of the agency that has jurisdiction over the area in which the excavation has taken place.
12. Provide and install temporary pavement if necessary and permanent pavement at the time and of the type required by the agency that has jurisdiction over the area and the applicable sections of the Contract Specifications in which the excavation has taken place.
13. Install traffic control stripes and/or pavement markings as required by the agency that has jurisdiction over the area in which the work was completed.
14. Clean and restore work site area to pre-construction conditions or better.

5.03 SHOP DRAWINGS AND CERTIFICATIONS

Detailed shop drawings, test reports, samples and data are to be provided in compliance with the Contract Specifications Supplementary Conditions, Section 1.04.04 - Samples and 1.04.05 - Shop Drawings. All calculations required for the performance of the work shall be submitted signed and sealed by a Professional Engineer, licensed in the State of New Jersey.

Show manufacturer’s name and catalog number for each item, furnish complete catalog cuts and technical data, and furnish the manufacturer’s recommendations as to the method of installation before any materials are delivered to the project site.

The Contractor shall furnish, prior to use of the lining materials, satisfactory written guarantee of his
compliance with the manufacturer’s standards for all materials and techniques being used in the inversion lining process. The Contractor shall provide certified test results from the manufacturer for approval by the Engineer that the material conforms to the applicable requirements and this specification. Material not complying with the requirements shall be rejected.

Contractor shall submit to the Engineer as part of the shop drawings the manufacturer’s design calculations for the minimum thickness of the pipe materials being supplied for liner for sections to be lined longer than two (2) feet. The design calculations shall be developed based on the following parameters:

A. Existing Pipe Characteristics:
   1. **Assume pipe fully deteriorated but lineable**
   2. Ovality equal to 2 percent

B. Soil and Ground Water Characteristics:
   1. Type of soil - clay or actual
   2. Soil density - 120 pcf or actual
   3. Soil modulus - 700 psi or actual
   4. Ground water 2 feet below existing grade or actual

C. Live Load Calculation
   1. AASHTO HS - 20 load at depths shown on plans.

D. Design calculations shall show that when utilizing the above noted parameters that:
   1. Buckling - Utilizing a safety factor of 2.0, the liner will not buckle
   2. Deflection - There will not be more than a 5 percent change in the vertical cross section of the pipe under the worst backload condition utilizing a deflection lag factor of 1.5 and a bedding factor of 0.11
   3. Ring Bending - The maximum ring-bending stress will not exceed 50 percent of the ring-bending strength of the liner

5.04 QUALITY ASSURANCE

1. Applicable Codes, Standards and Specifications

This specification references American Society for Testing and Materials (ASTM) standard specifications, which are made a part hereof by such reference and shall be the latest edition and revision thereof.

D790-92 Test methods for flexural properties of unreinforced and reinforced plastics and insulating materials.

D3681-89 Test method for chemical resistance of reinforced thermosetting resin pipe in a deflected condition.
D2990-17 Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics

F1216-93 Practice for rehabilitation of existing pipelines and conduits by the inversion and curing of a resin-impregnated tube.

Appendices
X1: Design Considerations
X2: Chemical Resistance Tests

2. NASSCO - The National Association for Sewer Service Companies, "Recommended Specifications for Sewer Collection System Rehabilitation."

The products used in the work of this section shall be produced by manufacturers regularly engaged in the manufacture of similar items and with a history of successful production acceptable to the Owner and the Engineer.

5.05 QUALIFICATIONS OF CONTRACTOR

The Contractor’s qualifications shall be in accordance with the requirements as contained in contract specification Special Conditions, Section 11 - Bidder Qualification. The Field Superintendent shall be at least two (2) years supervisory experience in trenchless pipeline reconstruction. The Field Superintendent shall be on the job full time during any and all steps of the pipe installation.

The Contractor installing the lining system shall be licensed by the lining system manufacturer and shall be thoroughly trained and experienced in the necessary crafts and completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.

5.06 PRODUCTS

5.06.01 Materials

1. Liner.

The CIPP lateral-to-main connection repairs or LCRs, as indicated on the Contract Documents, shall utilize LCR full wrap liner product “TD DrainLCR-S Liner” as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal. The main sectional repairs or MRs, as indicated on the Contract Documents, shall utilize "TD Drain FiberGlassMats" and installed via “DrainPacker” method as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal. The CIPP lateral repairs from main-to-cleanout or MtH, as indicated on the Contract Documents, shall be “DrainMtH” liner system as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal.

For the CIPP lateral-to-main connection repairs or LCRs, the following shall apply:

- The LCR full wrap liner assembly shall consist of one piece plastic coated felt full
wrap saddle attached to a continuous plastic coated felt tubular liner suitable for resin impregnation. The saddle dimensions shall be a 360 degree full wrap in the main with at least 5 inches on either side of the lateral. The one piece full wrap CIPP LCR shall extend into the lateral a maximum of two feet.

- The continuous tubular liner shall be made of felt with a plastic coating and may be formed together using a needle hoop stitching or butt welding technique with translucent seam tape. The plastic coating will be on the inside of the repair apparent when televised for final inspection. The felt will be against the pipeline structure. The materials used to construct the saddle and liner tube must withstand installation pressures, have sufficient strength to bridge missing pipe segments, and flexibility to fit irregular pipe sections. The one piece saddle and liner tube shall conform to the shape of the tee's, wye's, or break-in taps of varying sizes and angles and may include overcut lateral openings, pilot holes or defects in relined sewer pipe.

For the CIPP liner main sectional repairs or MRs, the following shall apply:

- “FiberGlassMats CRF(+)” as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal
- The material for main sectional repairs shall be made of woven fiberglass fabric and powder-bonded glass mat, sewn together into a flat sheet material wound into rolls
- Compatible with the ambient-cure silicate resins as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal
- Chemically resistant, non-corroding
- Repair lengths of 2 feet minimum
- Suitable with all common pipe materials
- Compatible for all types of wastewater and sewer pipes

For the CIPP lateral liner, main-to-cleanout repairs or MtHs, the following shall apply:

- “DrainMtH Liner – Stretch” as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal
- 100 % polyester fiber – flexible material
- One side PP coated
- 100 % steam resistant
- Negotiates bends up to 90°
- Allows for up to 2 changes in dimension
- Includes the transition to the main pipe
- Operates from the main sewer to the house / cleanout
- The liner tube will be fabricated together using a butt stitched seam sealing process with a heat welded sealing tape to ensure airtight seal
- The liner shall be one piece consisting of liner tube of specified length and full wrap main of specified size
2. Resin.

For the CIPP lateral-to-main connection repairs or LCRs, the following shall apply:

- The resin shall be a two-part silicate or epoxy (fast cure) resin system as manufactured by Trelleborg / EPROS, or approved equal. When cured, the resin system shall conform to ASTM F1216 physical properties and meet the ASTM F1216 chemical resistance requirements. The resin shall be formulated to have a gel (pot) life of up to 30 minutes with a set cure time of less than four (4) hours. The resin shall be applied to the liner by mechanical method or by hand as per manufacturer’s standards. The resin shall ambient cure to the host pipe by applying air pressure. The resin, when cured, shall be consistent with the felt liner and conform to the existing pipe with gaps, voids, and/or annular space. The silicate resins shall produce virtually no shrinkage. The resin shall contain no volatile organic compounds (VOCs) or chemicals such as styrene.

For CIPP liner main sectional repairs or MRs, the following shall apply:

- The resin shall be a two-part silicate resin system as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal compatible with the “FiberGlassMats CRF(+)” product as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal. When cured, the resin system shall conform to ASTM F1216 physical properties and meet the ASTM F1216 chemical resistance requirements. The resin shall be formulated to have a gel (pot) life of up to 30 minutes with a set cure time of less than four (4) hours. The resin shall be applied to the liner by mechanical method or by hand as per manufacturer’s standards. The resin shall ambient cure to the host pipe by applying air pressure. The resin, when cured, shall be consistent with the felt liner and conform to the existing pipe with gaps, voids, and/or annular space. The silicate resins shall produce virtually no shrinkage. The resin shall contain no volatile organic compounds (VOCs) or chemicals such as styrene.

For the CIPP lateral liner, main-to-cleanout repairs or MtHs, the following shall apply:

- The resin shall be a two-part epoxy resin system, “EPROPOX HC120/EPROPOX HC120+” as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal compatible with the “DrainMtH Liner – Stretch” as manufactured by Trelleborg / EPROS, Milford, NH, or approved equal. When cured, the resin system shall conform to ASTM F1216 physical properties and meet the ASTM F1216 chemical resistance requirements. The resin shall be formulated to have a gel (pot) life of up to 30 minutes with a set cure time of less than four (4) hours. The resin shall be applied to the liner by mechanical method or by hand as per manufacturer’s standards. The resin shall hot cure to the host pipe with steam or hot water. The resin, when cured, shall be consistent with the felt liner and conform to the existing pipe with gaps, voids, and/or annular space. The resin shall contain no volatile organic compounds (VOCs) or chemicals such as styrene.
3. Other Requirements for CIPP Liner, as applicable

The seam stitched / heat welded seam tape / felt liner tube and resin will upon installation meet and/or exceed minimum testing standards as required by ICC, ASTM, IAPMO and ANSI/NSF International. All materials must have 3rd party testing provided by independent laboratory. The materials must be ANSI/NSF Standard-14 approved, IAPMO Certified for small diameter pipe lining in Sewer Pipes and Vents, and must be certified by the International Code Council for the International Plumbing Code and the International Residential Code. The seam stitched/heat welded seam tape/felt liner tube and resin must have NSF Standard 14, and ICC-ES denoted on the tube.

<table>
<thead>
<tr>
<th>Required Cured-In-Place Lateral Lining Standards</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength (ASTM D-790)</td>
<td>4,500 PSI</td>
</tr>
<tr>
<td>Flexural Modulus (ASTM D-790)</td>
<td>250,000 PSI</td>
</tr>
<tr>
<td>Tensile Strength (ASTM D-638)</td>
<td>3,000 PSI</td>
</tr>
<tr>
<td>Compressive Strength (ASTM D-695)</td>
<td>4,000 PSI</td>
</tr>
<tr>
<td>Tensile Elongation (ASTM D638)</td>
<td>5 PSI</td>
</tr>
<tr>
<td>Chemical Resistance (ASTM D-543)</td>
<td>&lt;20% Loss</td>
</tr>
<tr>
<td>Leakage Test * (NSF Standard 14)</td>
<td>0/gal/in/day</td>
</tr>
</tbody>
</table>

* Leakage test performed by ANSI/NSF International

Manufacturer must have United States based manufacturing head quarters. The manufacturer must have at least 5 years of manufacturing/supplying C.I.P.P. Air Inversion Liner Tube and Materials. The manufacturing plant has a Quality Assurance/Quality Control program in place and overseen by NSF International and IAPMO R&T Laboratories.

The minimum thickness for the cured-in-place liner material for pipe sections longer than two (2) feet shall be as verified by design calculations prepared by a Professional Engineer licensed in the State of New Jersey.

5.06.02 Equipment

The Contractor shall utilize equipment compatible with the CIPP liner system. The carrying / launching device shall be remote operated with control unit, of adequate size to fit within the main as specified in the Contract Documents, equipped with wheels, air pressure packer system and optional alarm sound system to ensure complete deployment of the inversion bladder. The air/electricity/video hose / reel with rotary feed shall be provided with a plug connection compatible with the carrying / launching device. All other equipment necessary for proper installation of the CIPP liner system shall be provided by the Contractor.
5.07 INSTALLATION

The Contractor shall use all means necessary to protect pipe materials, before during and after installation and to protect the installed work and materials of all other trades.

The Contractor shall make all required connections to existing mains and carry out such work in accordance with the applicable section of the Contract Specifications, manufacturer specifications, local standards and requirements and as directed by the Engineer. Extreme care shall be used to prevent debris from entering the existing pipe prior to rehabilitation.

5.07.01 Cleaning

The Contractor shall be responsible for removal of all internal debris from the pipeline prior to installing the new CIPP. A low pressure type cleaning technique can be utilized for the cleaning process. The Contractor shall be responsible for locating the individual sanitary sewer lateral clean-outs for each of the laterals which is scheduled to be cleaned. The sewer caps/plugs on each of the clean-outs shall be removed by the Contractor prior to the cleaning process. Once the cleaning process has been completed, the Contractor shall immediately replace the sewer caps/plugs which were removed and will be responsible for making repairs to any damaged clean-out as a result of his work at no additional compensation. It is noted that copies of the Brick Township MUA’s preliminary completed television inspections on a CD/DVD and the appropriate inspection logs for the various sanitary sewer laterals which are to be lined are provided, only for informational purposes in the appendix.

5.07.02 Television Inspection

Inspection of lateral lines shall be performed by experienced personnel trained in locating breaks and obstacles by closed circuit television. The interior of the lateral line shall be carefully inspected to determine the location of any condition which may prevent proper installation of the new pipe. Defects shall be noted so that these conditions can be corrected (Ref. Section 5.07.06.02.). A video tape and suitable log shall be kept for later reference by the Owner.

The work performed herein shall be in accordance with all applicable sections of the Contract Specifications and as indicated within this section.

5.07.03 Bypass Pumping

The Contractor shall bypass the sewage around the section or sections of line that are to be rehabilitated. The bypass shall be made by plugging an existing upstream manhole, if necessary, and pumping the sewage into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. All bypassing of flow shall conform to the specifications.

Dumping of raw sewage onto private property, municipal streets or storm drains shall not be allowed.
5.07.04  **Lateral Reinstatements and Line Obstructions**

The Contractor shall reinstate all laterals prior to CIPP lining process. Lateral reinstatement shall be completed internally using methods not requiring excavation, and includes root removal; iron deposits cleaning/removal; re-cutting/trimming of the laterals in the existing previously lined main; and grouting laterals prior to installation of CIPP liners.

The Contractor shall clear the line obstructions, solids, dropped joints or collapsed pipe that will prevent the insertion of the CIPP. If inspection reveals an obstruction that cannot be removed by conventional mechanical cleaning and cutting equipment and hydraulic pipe cleaning equipment, then the Contractor shall hydraulically re-round the pipe or make a point repair excavation to uncover and remove or repair the obstruction. Such excavation shall be approved in writing by the Owner and the Engineer prior to commencement of the work.

5.07.05  **Safety**

The Contractor shall carry out its operation in strict accordance with all Federal, State, local OSHA, and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving entering confined spaces.

5.07.06  **Installation of cured-in-place liner**

Installation of the liner shall be through existing manholes. Excavation for liner insertion shall not be permitted. The Contractor shall locate the existing lateral cleanouts and manholes for liner installation.

The Contractor shall follow all recommended Standard Practices of Trelleborg / EPROS, Milford, NH, or approved equal for Rehabilitation of Existing Pipelines by the Inversion and Curing of a Resin-Impregnated Tube stated or otherwise.

The existing pipe rehabilitation will be accomplished using flexible liner tube measured to exact length and inside diameter utilizing a resin that meets required physical and chemical resistance properties of the selected liner system. The flexible liner will be impregnated with resin then loaded into an approved air pressured launching system. The liner will be aligned to the open end of the existing lateral pipe. Once the liner is aligned, the launching system will invert the resin-impregnated liner with air pressure. The inversion process is completed once the liner has fully inverted to the sewer lateral, stopping before the sewer lateral stack tee-connection. The liner will be open to allow the calibration tube/pressure apparatus bladder to invert beyond the liner end at the sewer main and sewer lateral stack tee-connection. A calibration tube is then inverted into the liner holding the liner in place during the curing process. At no time will the calibration tube lose air pressure and be re-pressurized during the inversion process. The calibration tube will be sealed at the sewer main and at the sewer lateral stack tee-connection, holding air pressure to secure the liner against the existing host pipe until the liner is fully cured. After the resin-impregnated liner is fully cured, the calibration tube/pressure apparatus is removed. The sewer lateral collection pipe will be immediately televised.
for the Owner’s Representative’s approval. A copy of the televised inspection must be recorded on CD/DVD format for future reference and to provide to the Owner for their records.

5.07.06.01 Resin Impregnation (Wet-Out)

The Contractor shall check that the tube and resin storage areas and the wet-out area are protected from sunlight and moisture.
The Contractor shall test the operation of mixing and wet-out equipment prior to resin mixing to ensure that all components are in working order.

Follow manufacturer’s standards for measuring and mixing the two part resin system.

**Impregnating the liner material:**

**Linoleum Roller** – Make sure the liner material seam is on the bottom. This will make it easier to wet out the seam. At the open end (the end not attached to the inversion head) open the liner material and insert a funnel. Pour all of the resin into the liner material. DO NOT get resin on the outside of the liner. Remove the funnel then duct tape the end of the liner closed.

Place the roller on the liner material and begin pushing forward and down at the same time. Roll the resin slug up to the inversion head fairly quickly, you are not trying to totally wet out the liner in one pass. Allow the excess air (not the resin) to escape through the inversion head. Continue rolling the slug up and back at this pace. The liner material will turn a milky clear/white or blue (depending on type of resin used) color when it is wet out. Make sure to wet out the entire liner and main wrap.

If there is excess resin left in the liner remove it by rolling it out the open end of the liner into a bucket.

**Wet Out Table** – Make sure the liner material seam is on the bottom. With the vacuum hose attached to the Inversion Head cup. All the vacuum hose to remain attached while the resin is poured into the liner material. After all of the resin is poured in, duct tape the end of the liner closed. Introduce this end into the wet-out roller and begin to work the liner back and forth continually while keeping the resin slug elevated to assure proper impregnation. After the liner is saturated, remove the vacuum portion. Work the remaining resin with the roller onto the main wrap. Be sure to wet out the entire liner and main wrap.

Other application methods may be acceptable as recommended by the manufacturer for the type of CIPP liner system.

5.07.06.02 Inversion Installation (ASTM F1216)

The Contractor shall check the traffic control procedures to ensure that all local, County, State Department of Transportation, and/or the American Traffic Safety Services Association codes are followed.
Standard Practice for Rehabilitation of Existing Pipelines by the Inversion and Curing of a Resin-Impregnated Tube which the Contractor shall follow:

a. The residential/ commercial owner shall be notified 24 hours in advance of project start time. No building utilities, such as toilets, sinks, dishwasher, laundry washer, bath tubs or sump pumps will be used during the installation and curing process.

b. Bypass for the sanitary sewer main to be repaired will be set up prior to the installation of the liner.

c. Sewer collection pipe, main and laterals to be repaired must be cleaned thoroughly prior to installation of liner. All sand, rocks, gravel, grease, mud, sludge, and other debris must be removed from the invert to permit proper installation. Roots will need to be removed to the extent necessary to effectively line the pipe. Break-in connection and/or lateral pipe protruding into the mains shall be ground back to no more than 1/8-inch protrusion into the mainline.

d. In previously lined mains, the lateral must be opened 95 percent or more and edges finished without "teeth". The Contractor shall reinstate all the laterals and grout service connections as needed to eliminate any noted ground water infiltration prior to installation. Existing sewer laterals shall be grouted internally from the main line back to the maximum length possible. Chemical grout shall be mixed and applied per manufacturer's recommendations. Equipment used for grouting shall be inspected prior to use to confirm that it is in 100 percent working order. Contractor shall confirm diameter of lateral prior to equipment set up and chemical grout mixing.

e. The existing sewer collection pipe will be inspected using a mini-televising color camera system capable of viewing the interior condition of the host pipe. The TV inspection must be performed within 5 hours prior to installation of liner tube.

f. If upon the TV pre-inspection of main and/or lateral is found not to be able to be lined, the section of the main and/or lateral in question will be removed from the lining contractual work to be completed. No payment will be made for any laterals not lined under the CIPP liner pay items. Point repair may be substituted in the location in question if main and/or lateral in question is found not to be suitable for lining at the direction of the Owner and/or Owner’s Representative.

g. The upstream side of the cleanout shall be plugged during insertion and curing of the liner assembly ensuring no flows enter the pipe and no air or odors will enter the building.

h. Changes in the pipe size shall be accommodated; the lateral tube shall be sized according to the pipe diameter and condition.

i. The applicator apparatus shall be air tested above grade prior to the insertion. Any
deficiencies / air leaks observed in the device during the air test shall be corrected by the Contractor at no additional cost to the Owner prior to installation.

j. The Contractor shall allow the Engineer to inspect the materials and "wet out" procedure. The lining material shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to the inside of the lined connection.

k. The resin-impregnated liner tube will be kept clean and loaded directly into the air pressured launching system. The launching system will be aligned to the existing host pipe for proper installation.

l. The resin will not be contaminated and/or diluted prior to installation.

m. The liner tube will be inverted using air pressure, inverting the liner tube inside-out until the liner tube reaches the portion of the sewer main collection pipeline or connection to be repaired. The liner tube will be open and not sealed off. The liner tube will be designed to fit tightly against the host pipe annular space and gaps. A calibration tube will be inverted inside the liner tube to ensure the liner is tight against the host pipe until fully cured. The resin-impregnated liner tube will cure within four (4) hours with or without external heat sources as applicable to the resin system used.

n. Once the curing process is finished, the calibration tube/pressure apparatus is removed and the lateral sewer collection pipe is immediately inspected for final acceptance. The new lined pipe will be free of any foreign objects providing a smooth, seamless and continuous lined pipe from entry point to main sewer connection pipe.

o. There shall be no liner tube protruding from the lateral sewer collection pipe into the sewer lateral cleanout stack tee-connection. All lateral lining must stop before the tee-connection at a stack to cleanout configuration.

p. A final TV Inspection of the lined lateral collection sewer pipe will be recorded on CD/DVD and provided to the Owner for final approval.

5.07.07 Finish

The finished liner shall be smooth with minimal wrinkling and shall be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, lifts, and delaminated portions. The finished liner shall be continuous over the entire length of the service lateral connection at the mainline. The liner shall provide a smooth transition at each connection to the host pipe for accommodating video equipment and maintaining proper flow. The finished product shall provide an airtight/watertight verifiable non-leaking connection between the main sewer and the sewer service lateral or the repaired section of the main.

Any defects which will affect in the foreseeable future of the warranty period, the integrity or strength of the liner shall be repaired at the Contractor's expense. Any ribs resulting in the cross
sectional area of the pipe shall be removed. The decision of the Engineer in the acceptance of the finish shall be final. No visible leakage through the liner will be allowed.

5.07.08 Clean-Up

The Contractor shall restore or replace the removed or damaged paving, curbing, sidewalks, gutter, shrubbery, fences, sod or other disturbed surfaces or structures in a condition equal to that before the work began, to the satisfaction of the Engineer, and shall furnish all labor and material incidental thereto.

Surplus products, tools and temporary structures shall be removed by the Contractor. All dirt, rubbish and pipe from the operation shall be properly disposed of by Contractor.

5.07.09 Point Repairs [IF REQUIRED]

In the event that a point replacement is required, all construction work performed by the Contractor for this type of work shall be in accordance with the procedures outlined N.J.A.C. 7:14 – Subchapter 2 “Construction of Wastewater Treatment Facilities.” The provisions of this referenced State code are hereby made part of the Contract Documents. For all work associated with Point Repairs, refer to Division 2, Site Work, of these Contract Specifications. The major items of work for point repairs/pipe replacement are as follows:

- Secure all necessary permits for road openings, etc. from local, county and state agencies.
- Notify all utility companies within the area of the proposed excavation. Request the completion of the markout of all utilities.
- Provide traffic control in accordance with the requirements of the agency that has jurisdiction over the area where the excavation is to be performed.
- Remove and dispose of existing pavement in accordance with the applicable sections of the Contract Specifications.
- Excavate to the damaged section of sanitary sewer line utilizing sheeting/trench protection as necessary or as required by the agency having jurisdiction; dispose of excavated material not suitable for reuse.
- Dewater the excavation area, as required.
- Provide protection for existing utilities in accordance with the requisite of the respective utility company.
- Provide bypass pumping or flow diversion, if necessary.
- Remove sections of damaged sanitary sewer main/lateral connection.
• Install new, replacement section of sanitary sewer laterals and main and connect to existing sanitary sewer utilizing approved couplings; reconnect all service connections.

• Provide and install clean backfill material in accordance with the applicable sections of the Contract Specifications and the requirements of the agency that has jurisdiction over the area in the excavation has taken place.

• Provide and install temporary pavement if necessary and permanent pavement at the time and of the type required by the agency that has jurisdiction over the area and the applicable sections of the Contract Specifications in which the excavation has taken place.

• Install traffic control stripes and/or pavement marking as required by the agency that has jurisdiction over the area in which the work was completed.

5.07.10 FINAL ACCEPTANCE

The Contractor shall perform a CCTV inspection in accordance with ASTM F2019, section 7.3 after installation of the CIPP Liner. The quality of the post-installation CCTV inspection shall be held to the same standards as the pre-installation CCTV inspection.

The Contractor shall submit to the Engineer, for acceptance and approval, two (2) copies of unedited post-installation CD/DVDs and associated curing reports for each sanitary sewer lateral within 10 working days of the Liner installation.

5.08 WARRANTY

The Contractor shall warrant all work to be free from defects in workmanship and materials for a period of two years from the date of final completion of all construction.

The Contractor shall warrant and save harmless the Owner and his Engineer against claims for patent infringement and any loss thereof.

5.09 QUANTITY AND PAYMENT

5.09.01 Reinstatement of Laterals and Grouting

Reinstatement of Laterals

Quantity: The quantity for which payment will be made shall be per each individual service connection that requires the internal reinstatement including root removal; iron deposits cleaning/removal; re-cutting/trimming of the laterals in the existing previously lined main; and labor for grouting (payment of grout material under separate bid item) prior to installation of LCRs or main-to cleanout CIPP liner.
Payment: Payment will be made for the quantity as determined, measured per each individual service connection internally reinstated and grouted (labor only, payment of grout material under separate bid item) prior to installation of LCRs or main-to-cleanout CIPP liner, which price shall include all materials, labor, equipment, and all else necessary therefore and all other work in connection therewith or incidental thereto.

Grout Material

Quantity: The quantity for which payment will be made shall be per gallon of grout material to be used for grouting service connections prior to installation of LCRs or main-to-cleanout CIPP liner.

Payment: Payment will be made for the quantity as determined, measured per gallon of grout material to be used for grouting service connections prior to installation of LCRs or main-to-cleanout CIPP liner. Proof of amount of grout being used either via counter on grout truck, tank being marked or other method acceptable to the Resident Engineer shall be submitted with payment request.

5.09.02 Cured-In-Place Pipe LCR Full Wrap Liner

Quantity: The quantity for which payment will be made shall be per each individual main-to-service connection that requires the installation of the cured in place pipe (CIPP) full wrap liner of the sizes specified.

Payment: Payment will be made for the quantity as determined, measured per each cured in place pipe (CIPP) full wrap main-to-service connection liner installed of the sizes specified, which price shall include cleaning, bypass pumping, traffic maintenance, initial and final TV inspections, all materials, labor, equipment, and all else necessary therefore and all other work in connection therewith and incidental thereto.

5.09.03 Cured-In-Place Main-to-Cleanout (MtH) Liner

Quantity: The quantity for which payment will be made shall be per each individual main-to-cleanout service connection that requires the installation of the cured in place pipe (CIPP) main-to-cleanout liner of the sizes specified.

Payment: Payment will be made for the quantity as determined, measured per each cured in place pipe (CIPP) main-to-cleanout liner installed of the sizes specified, which price shall include cleaning, bypass pumping, traffic maintenance, initial and final TV inspections, all materials, labor, equipment, and all else necessary therefore and all other work in connection therewith and incidental thereto.

5.09.04 Cured-In-Place Pipe Main Repair (MR) Liner [IF REQUIRED]

Quantity: The quantity for which payment will be made shall be per each individual main repair up to five (5) feet in length that requires the installation of the cured in place pipe (CIPP) full wrap liner only if and where directed by the Engineer.
Payment: Payment will be made for the quantity as determined, measured, per each and as directed by the Engineer, cured in place pipe (CIPP) full wrap main repair liner installed internally in the main, which price shall include cleaning, bypass pumping, traffic maintenance, initial and final TV inspections, all materials, labor, equipment, and all else necessary therefore and all other work in connection therewith and incidental thereto.

-- END OF DIVISION 5 CURED IN PLACE PIPE LINING REPAIR AND LATERAL LINING --
THE BRICK MUNICIPAL UTILITIES AUTHORITY
BARRIER ISLAND – SANITARY SEWER LATERAL CONNECTION REPAIRS

PRE-BID MEETING
October 3, 2017
10:00 A.M.

AGENDA

1. Introduction of Attendees

2. Project Description – The rehabilitation by the cured-in-place pipe lining method of 16 four (4) inch laterals from main to cleanout (MtH); internal reinstatement of 141 laterals; and 102 service lateral connection repairs (LCRs) with the existing eight (8”) inch diameter A.C.P. sanitary sewer main previously lined by PVC expanded-in-place method.

3. Streets Affected by the Project - The work is located within the street right-of-way of various streets in Barrier Island area of Brick Township including Broad Avenue, Arrow Court, Seventh Avenue, Lake Court, Normandy Drive, Ellison Drive, Deauville Drive, Highway #35 Southbound, Highway #35 Northbound, Kupper Drive West, Bay Boulevard, North Bay Drive, Dutchman’s Point Road, Tide Pond Road, Periagua Lane, Werry Lane, Brigantine Lane, Ketch Road, Helm Road, Dune Avenue, and Curtis Point Drive.

4. General

   A. **Bid Opening Date** – October 17, 2017 @ 2:00 p.m. EDT
   B. Contract Award
   C. Milestone Completion Dates (Bid Forms, page 2 of 24)
      i. Project Completion 150 days from Notice to Proceed

5. Contract Requirements

   A. Bid Submission Checklist (Bid Forms, page 1 through 24) on blue pages & submitted in sealed envelope
   B. Mistakes with Bid Checklist
   C. Bid Schedule – Unit Prices for 24 items (Bid Forms, pages 3 through 7 of 24)
   D. Insurance Requirements – indicated in Supplementary Conditions (Division 1 Supplementary Conditions, pages 7 through 9 of 26)
   E. Addendum – (None at this time); if required, will be issued no later than October 5, 2017

6. Construction Requirements

   A. Submittals – Contractor shall submit shop drawings of all prefabricated work and of all manufactured items required to be utilized in performance of the contract work will be required
   B. Job Schedule – Completion 150 days from Notice To Proceed, schedule
must be submitted prior to any work starting

C. Supervision – Contractor must have a competent superintendent/foreman on site in charge of project every day

D. Safety – Contractor shall follow all OSHA safety and construction standards, unsafe project will be stopped, must have proper traffic control at all times. Contractor will have to provide a portable toilet on the job site.

E. Work Hours – M-F, 7-5, following all Brick Utilities holiday schedules

F. Site Access – All work is within public right-of-ways

G. Staging Areas

H. Permits – Traffic control plans and road closures outside of 9 am to 4 pm shall be coordinated with the Traffic Bureau of the Township of Brick Police Department for all local roads and NJDOT for any portion of road closures on Route 35. Due to the type of work to be completed, no permits have been obtained at this time. For excavations, if required, the contractor must notify Brick Utilities and allow sufficient time for Brick Utilities to obtain the appropriate Township of Brick and NJDOT road opening permits prior to start of excavation.

7. Contractor’s Comments

8. Site Visit, if required
## SIGN-IN SHEET

**PRE-BID MEETING FOR**

**BARRIER ISLAND – SANITARY SEWER LATERAL CONNECTION REPAIRS**

**BRICK UTILITIES’ CONTRACT NO. 817001**

**OCTOBER 3, 2017**

**10:00 A.M.**

<table>
<thead>
<tr>
<th>NAME</th>
<th>AFFILIATION</th>
<th>TITLE</th>
<th>TELEPHONE #</th>
<th>E-MAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Alemann</td>
<td>National Water</td>
<td>Legal Superintendent</td>
<td>973-418-0877</td>
<td><a href="mailto:ChrisAlemann@njmvda.com">ChrisAlemann@njmvda.com</a></td>
</tr>
<tr>
<td>Joe Perone</td>
<td>National Utility</td>
<td>Vice Pres.</td>
<td>973-418-3872</td>
<td><a href="mailto:JoePerone@njmvda.com">JoePerone@njmvda.com</a></td>
</tr>
<tr>
<td>Sudeep Srivat</td>
<td>Brick Utilities</td>
<td>Dir ENG/OPS</td>
<td>732-458-7000 EX 4255</td>
<td><a href="mailto:SudeepSrivat@njmvda.com">SudeepSrivat@njmvda.com</a></td>
</tr>
<tr>
<td>Andrew Villa</td>
<td>Brick Utilities</td>
<td>Inspector</td>
<td>732-458-7000 EX 4288</td>
<td><a href="mailto:avilla@njmvda.com">avilla@njmvda.com</a></td>
</tr>
<tr>
<td>James Allen</td>
<td>Brick Utilities</td>
<td>Eng Supervisor</td>
<td>732-458-7000 EX 4288</td>
<td><a href="mailto:JamesAllen@njmvda.com">JamesAllen@njmvda.com</a></td>
</tr>
<tr>
<td>Alina Ferreira</td>
<td>Brick Utilities</td>
<td>Proj Mgr</td>
<td>732-458-7000 X 4289</td>
<td><a href="mailto:aferreira@njmvda.com">aferreira@njmvda.com</a></td>
</tr>
</tbody>
</table>