

SECTION C-00520

AGREEMENT

**BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between City of Franklin, Tennessee (“Owner”) and
American Infrastructure Technologies Corporation (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

The rehabilitation of approximately 9,000 linear feet of 6”, 8”, 10” and 12” diameter sewer using cured-in-place pipe lining. The Work includes sewer cleaning and pre- and post- rehabilitation television inspection as set out more fully in the Specifications. Contractor shall provide all necessary materials, labor and equipment to complete the Work. Work may be conducted throughout the City of Franklin Water Management Department’s operating area (Site) with specific locations issued through Work Orders.

1.02 Work Orders will be issued to the Contractor by the Engineer and will contain the locations where the work is to be completed as well as the quantity of sewer mains to be rehabilitated. The first Work Order is anticipated to be issued within thirty (30) days of the Notice to Proceed. The last Work Order will be issued no later than thirty (30) days prior to Substantial Completion unless otherwise mutually agreed upon.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: sewer main rehabilitation using cured-in-place pipe lining and all related work.

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by the Franklin Water Management Department.

3.02 The Franklin Water Management Department (“Engineer”), a department of the Owner, is to assume all duties and responsibilities, and has the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES**4.01** *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

- A. The Work will be substantially completed within 335 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 365 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. Substantial Completion: Contractor shall pay Owner \$500.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500.00 for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Contract Renewal Option*

1. Upon mutual agreement of both parties the Agreement may be renewed a maximum of four (4) times for a one-year term each period at the prices stated in the Contractor's Bid.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES**6.01** *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment shall be based on full completion of work orders and will be processed by Engineer as provided in the General Conditions. Applications for Payment.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the last day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
- a. Ninety-five percent (95%) of Work completed (with the balance being retainage); and
- b. Ninety-five percent (95%) of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST - RESERVED**ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS**

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

- D. Contractor has carefully studied all: (1) reports of explorations, if any, and tests of subsurface conditions at or adjacent to the Site, if any, and all drawings of physical conditions relating to existing surface or subsurface structures at the Site, if any, that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and Site-related reports and drawings identified in the Contract Documents, if any, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
1. This Agreement (pages C-00520-1 to C-00520-8, inclusive).
 2. Performance bond (pages C-00610-1 to C-00610-3, inclusive).
 3. Payment bond (pages C-00615-1 to C-00615-3, inclusive).
 4. General Conditions (pages C-00700-1 to C-00700-66, inclusive).
 5. Supplementary Conditions (pages C-00800-1 to C-00800-40, inclusive).
 6. Specifications as listed in the table of contents of the Project Manual.

7. Addenda (numbers 1 to 2, inclusive).
 8. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages C-00410-1 to C-00410-6, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages 1 to 5, inclusive).
 - c. Notice of Award.
 - d. Contractor Safety Information (pages C-00452-5 to C-00452-8, inclusive).
 - e. Acknowledgement of Receipt of City of Franklin Contractor Safety Program (page C-00452-9).
 - f. Conflict of Interest Statement (page C-00453-1).
 - g. Drug-Free Workplace Affidavit (page C-00454-1).
 - h. Contractor's Attestation Regarding Illegal Immigrants or Aliens (page C-00455-1).
 - i. Iran Divestment Act Certification (page C-00456-1).
 9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an

assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

10.07 *Designated Representatives*

A. Owner

Name: Brian C. Goodwin, PE
Title: Asst. Dir. WMD
Phone No.: (615) 794-4554
E-Mail: brian.goodwin@franklintn.gov
Address: 124 Lumber Drive
Franklin, TN 37064

B. Contractor

Name: Jared Giddens
Title: Vice President
Phone No.: 256-739-4747
E-Mail: aitc@aitechcorp.com
Address: 8799 U.S. Hwy. 31
Hanceville, AL 35077

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

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:
CITY OF FRANKLIN, TENNESSEE

CONTRACTOR:
American Infrastructure Technologies Corporation

By: Eric Stuckey
Title: City Administrator

By:
Title:

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

Attest:
By:
Title:

Attest:
By:
Title:

Address for giving notices:
Franklin Water Management Department
124 Lumber Drive
Franklin, TN 37064

Address for giving notices:
American Infrastructure Technologies Corporation
8799 U.S. Hwy. 31
Hanceville, AL 35077

License No.: 55266

+ + END OF AGREEMENT + +

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

City of Franklin
109 Third Avenue South
Franklin, TN 37064

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description: Sewer Main Rehabilitation Term Contract – Franklin Water Management Department Operating Area

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

- 7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
14. Definitions
- 14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
- 14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
- 14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
- 14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

City of Franklin
109 Third Avenue South
Franklin, TN 37064

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description: Sewer Main Rehabilitation Term Contract – Franklin Water Management Department Operating Area

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)
Contractor's Name and Corporate Seal

(seal)
Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

- 11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
- 14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- 15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

- 16.1 **Claim:** A written statement by the Claimant including at a minimum:
 - 1. The name of the Claimant;
 - 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 - 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 4. A brief description of the labor, materials, or equipment furnished;
 - 5. The date on which the Claimant last performed labor or last furnished materials or

- equipment for use in the performance of the Construction Contract;
- 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
- 7. The total amount of previous payments received by the Claimant; and
- 8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic’s lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of “labor, materials, or equipment” that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor’s subcontractors, and all other items for which a mechanic’s lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

SECTION C-00700

**STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT**

Prepared by



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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and

submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the

result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 Copies of Documents

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 Before Starting Construction

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract

Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or

requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. abnormal weather conditions;
 - 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 - 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility

that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise;

(b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and

procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or

decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

- c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required

by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this

Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 Performance, Payment, and Other Bonds

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 Insurance—General Provisions

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or

authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 Contractor's Insurance

- A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.
- D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor’s pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor’s operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. *Additional insureds*: The Contractor’s commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor’s professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available

under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will

provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

- E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of

recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

- 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
- b. Contractor certifies that, if approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

- a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of

Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

- A. *Shop Drawing and Sample Submittal Requirements:*
 - 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.
1. *Shop Drawings:*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.
 2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by Engineer;
 - 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. use or occupancy of the Work or any part thereof by Owner;
 - 5. any review and approval of a Shop Drawing or Sample submittal;
 - 6. the issuance of a notice of acceptability by Engineer;
 - 7. any inspection, test, or approval by others; or
 - 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any

limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 Other Work

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner

may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 Coordination

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

8.03 Legal Relationships

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal

seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 Communications to Contractor

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 Shop Drawings, Change Orders and Payments

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 Determinations for Unit Price Work

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 Limitations on Engineer's Authority and Responsibilities

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.
 - 3. *Field Orders:* Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change

involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 Unauthorized Changes in the Work

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
 - 1. a mutually acceptable fixed fee; or
 - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and

11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 Change Proposals

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.
 - 1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 - 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole,

approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 Claims

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction,

the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.
- E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

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

14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

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

14.03 Defective Work

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.

- C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 Owner May Stop the Work

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for

Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

- c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction

imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor

may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 Partial Use or Occupancy

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 Final Inspection

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 Final Payment

- A. *Application for Payment:*
 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer

(less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with

respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs,

losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the

Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 Methods and Procedures

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 Giving Notice

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 Computation of Times

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of

them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 Limitation of Damages

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 No Waiver

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 Headings

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION C-00800

SUPPLEMENTARY CONDITIONS

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These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

SC-1.01 *Defined Terms*

SC-1.01.A.10 Delete Paragraph 1.01.A.10 in its entirety and insert the following new paragraph in its place:

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

SC-1.01.A.48 Amend the first sentence of Paragraph 1.01.A.48 to read as follows:

Work Change Directive—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner, ordering an addition, deletion, or revision in the Work.

SC-1.02 *Terminology*

SC-1.02.D.1.c Delete Paragraph 1.02.d.1.c in its entirety and insert the following new paragraph in its place:

- c. has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.02 *Copies of Documents*

SC-2.02.A. Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:

- A. Owner shall furnish to Contractor three copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully

executed counterpart of the Agreement) plus five conformed sets of Drawings, and one copy in electronic portable document format (PDF), if requested by Contractor. Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

SC-2.02.B. Delete Paragraph 2.02.B in its entirety and insert the following new paragraph in its place:

- B. Owner shall maintain and safeguard at least one conformed printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such conformed printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

SC-2.03 Before Starting Construction

SC-2.03.A Amend the first sentence of Paragraph 2.03.A by replacing the following word:

Change the words "Effective Date" to "Issue Date of the Notice to Proceed".

SC-2.03 Add the following new paragraph immediately after Paragraph 2.03.A.3:

- B. *Video Recording:* The Contractor shall videotape the proposed working area of the entire construction project route prior to any construction activity. Particular attention shall be paid to pre-existing damage and shall be noted, such as broken headwalls or cracked foundations, which have sustained damage prior to the construction activity.
1. Recording shall be performed in a professional manner, i.e. containing a narrative describing the location of the camera relative to street addresses, manhole stations, etc. and its direction as well as any findings concerning the surrounding area. Movement of the camera should be slow and steady especially when a zoom-mode is being used.
 2. The video files shall be indexed for easy review throughout the duration of the job. The video files shall be provided on a digital video disk (DVD). Video files shall be in a MS Windows compatible format, such as "avi" or "mpeg". The DVD shall be turned over to the Owner prior to starting construction and shall become property of the Owner. None of the videos shall be published without express permission of the Owner.

SC-2.04 Preconstruction Conference; Designation of Authorized Representatives

SC-2.04.A Amend the first sentence of Paragraph 2.04.A to read as follows:

Before any Work at the Site is started, a conference attended by Owner, including Engineer, Contractor and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

*SC-2.06 Electronic Transmittals***SC-2.06.A Amend the first sentence of Paragraph 2.06.A to read as follows:**

Except as otherwise stated elsewhere in the Contract, the Owner, including Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

SC-2.06.B Delete Paragraph 2.06.B in its entirety and insert the following new paragraph in its place:

- B. Any Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, that are forwarded in electronic or digital format shall be transmitted to the designated representative of the party that is to receive the information. Each party shall designate its representative who is to receive electronic or digital transmittals during the preconstruction conference. If required by the Contract, determined during the preconstruction conference or later requested by a designated representative, information that is electronically or digitally transmitted may also have to be submitted as a hard copy, with the number of hard copies as determined at the preconstruction conference.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE*SC-3.01 Intent***SC-3.01 Add the following new paragraphs immediately after Paragraph 3.01.E:**

- F. The Specifications and/or Drawings are intended to be explanatory to each other when made available. Should any discrepancy appear or any misunderstanding arise as to the importance of anything contained in either, the decision of the Engineer shall be final and binding on Contractor. Large scale details shall govern small scale Drawings. Figure dimensions on Drawings shall govern over scale dimensions and detailed Drawings shall govern over general Drawings. The Engineer may make any correction of errors or omissions in the Drawings or Specifications when such corrections are necessary for proper fulfillment of their intention as construed by the Engineer.
- G. All the work or materials shown on any Drawing and not mentioned in the Specifications or any work specified and not shown on the Drawings, shall be furnished, performed and completed by Contractor as if same were both mentioned in the Specifications and shown on the Drawings.
- H. Contractor shall not rely on any directions or instructions given to Contractor by any person, organization or entity, whether oral or written, regarding the work to be performed hereunder, other than that provided by the Engineer, court or administrative agency or tribunal of competent authority, and no such direction

or instructions shall be considered as an authorized change to the Scope of Work. The Owner shall not be required to make any payment or provide any other consideration to Contractor for any work performed, actions taken, supplies and/or materials used by Contractor in reliance upon any such unauthorized change in the Scope of Work.

SC-3.02 Reference Standards

SC-3.02.A.2 Delete Paragraph 3.02.A.2 in its entirety and insert the following new paragraph in its place:

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, including Engineer, or Contractor, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, including Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

SC-3.03 Reporting and Resolving Discrepancies

SC-3.03.A.3 Delete Paragraph 3.03.A.3 in its entirety and insert the following new paragraph in its place:

3. Contractor shall not be liable to Owner for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

SC-3.04 Requirements of the Contract Documents

SC-3.04.A Amend the first sentence of Paragraph 3.04.A to read as follows:

During the performance of the Work and until final payment, Contractor shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise.

SC-3.04.B Amend the second sentence of Paragraph 3.04.B to read as follows:

Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal.

SC-3.04.C Delete Paragraph 3.04.C in its entirety and insert the following new paragraph in its place:

- C. Not Used.

SC-3.05 Reuse of Documents

SC-3.05.A.1 Delete Paragraph 3.05.A.1 in its entirety and insert the following new paragraph in its place:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and specific written verification or adaptation by Engineer; or

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01 Commencement of Contract Times; Notice to Proceed

SC-4.01.A Delete Paragraph 4.01.A in its entirety and insert the following new paragraph in its place:

- A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier, unless a later commencement date is mutually agreed upon by Contractor and Owner.

SC-4.03 Reference Points

SC-4.03 Add the following new paragraphs immediately after Paragraph 4.03.A:

- B. All work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings or as directed by the Engineer. Elevation of existing ground and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake out survey shall be referred immediately to the Engineer for interpretation or correction. Engineer may check all or any portion of the work, including lines, elevations and reference marks set by Contractor, and Contractor shall afford all necessary assistance to the Engineer in carrying out such checks. Contractor shall correct any errors disclosed by such check. Such checking by the Engineer shall not be considered as approval of Contractor's work and shall not relieve Contractor of the responsibility for the accuracy and completeness of Contractor's Work. Contractor shall furnish personnel to assist Engineer in checking lines and grades.

- C. It shall be the Contractor's responsibility to verify all reference points shown on the Contract Documents prior to beginning Work on the site. All survey work for construction control purposes shall be made by the Contractor at his expense. This verification shall be conducted by professionally qualified personnel in a manner which will verify the accuracy of the information shown in the Contract Documents. On projects which involve the connections to or additions to existing structures, the elevations of these existing structures shall also be verified. Any findings which differ from those shown on the Contract Documents shall be submitted in writing to the Engineer for resolution.
- D. Contractor shall establish all baselines for the location of the principal component parts of the work together with a suitable number of bench marks and batter boards adjacent to the work. Contractor shall develop and make all detail surveys necessary for construction, including slope stakes, batter boards, stakes for all working points, lines and elevations.
- E. Contractor shall have the responsibility to carefully preserve the bench marks, reference points and stakes, and in the case of destruction thereof by the Contractor or resulting from his negligence, the Contractor shall be charged with the expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.
- F. The Contractor shall review the Contract Documents and the Site to determine the presence and location of any property or rights-of-way monuments or markers and to assess the possibility of disruption to these monuments or markers. It will be the Contractor's responsibility to flag, erect guard post or provide offset references for the protection or the re-monumentation of these property or rights-of-way monuments or markers.
- G. Existing or new control points, property markers and monuments that will be or are covered, disturbed or destroyed during the normal causes of construction shall be reestablished by the Contractor and all reference ties recorded therefore shall be furnished to the Engineer. The Contractor shall provide a Licensed Surveyor as Chief of Party, competently qualified men, all necessary instruments, stakes, and other material to perform the work. All computations necessary to establish the exact position of the work shall be made and preserved by the Contractor.
- H. Additional surveys necessary for the construction staking shall be performed by the Contractor, the cost of which shall be incorporated into the appropriate items of Work. On projects in which payment is classified by depth of cut, the construction staking shall be performed in a manner that will allow for the determination of cut classification.
- I. At completion of the work, the Contractor shall furnish Record Drawings indicating the final layout of all structures, roads, existing bench marks, etc. The Record Drawings shall indicate all critical elevations, such as elevations of piping, structures and finish grades.

*SC-4.04 Progress Schedule***SC-4.04 Add the following new paragraphs immediately after Paragraph 4.04.B:**

- C. If in the opinion of the Owner, the Contractor falls behind in meeting the schedule presented in the current monthly Project Schedule Update, the Contractor shall provide such information as may be necessary to show on a revised Project Schedule the steps that will bring it into compliance with the Contract Time requirements or other milestones as identified by the Owner without additional cost to the Owner. Such information shall be submitted to the satisfaction of the Owner prior to the next Project Schedule Update. Compliance with such Submittal requirements shall be a condition precedent to any obligation of the Owner to consider any Application for Payment.

*SC-4.05 Delays in Contractor's Progress***SC-4.05.A Amend the first sentence of Paragraph 4.05.A to read as follows:**

If Owner, including Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price.

ARTICLE 5 – AVAILABILITY OF LANDS: SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS*SC-5.01 Availability of Lands***SC-5.01.A Add the following new sentences immediately after the last sentence of Paragraph 5.01.A:**

The Owner shall obtain or cause to be obtained all permanent and temporary construction easements as shown on the Drawings. The Contractor shall verify that these agreements have been obtained and shall comply with the conditions set forth in each agreement.

SC-5.01.B Delete Paragraph 5.01.B in its entirety and insert the following new paragraph in its place:

- B. Not Used.

SC-5.01.C Delete Paragraph 5.01.C in its entirety and insert the following new paragraph in its place:

- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work unless otherwise indicated on the Drawings.

*SC-5.02 Use of Site and Other Areas***SC-5.02.A.2 Delete Paragraph 5.02.A.2 in its entirety and insert the following new paragraph in its place:**

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

SC-5.02.B Add the following paragraphs immediately following Paragraph 5.02.B:

1. Unused equipment and tools shall be stored at the Contractor's yard or base of operations for the Project.
2. The Contractor shall perform the cleanup work on a regular basis and as frequently as ordered by the Engineer. Basic site restoration in a particular area shall be accomplished immediately following the installation or completion of the required facilities in that area. Furthermore, such work shall also be accomplished, when ordered by the Engineer, if partially completed facilities must remain incomplete for some time period due to unforeseen circumstances.
3. Upon failure of the Contractor to perform periodic cleanup and basic restoration of the site to the Engineer's satisfaction, the Owner may, upon five (5) days prior written notice to the Contractor, without prejudice to any other rights or remedies of the Owner, cause such work for which the Contractor is responsible to be accomplished to the extent deemed necessary by the Engineer, and all costs resulting therefrom shall be charged to the Contractor by the Owner, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for the cost of cleanup and Site restoration work.

SC-5.02. Add the following paragraph immediately following Paragraph 5.02.D:

- E. *Temporary Access Reinstatement:* When the work involves installation of sewers, drains, water mains, manholes, underground structures, or other

disturbance of existing features in or across streets, rights-of-way, easements, or private property, the Contractor shall (as the work progresses) promptly backfill, compact, grade, and otherwise restore the disturbed area to the basic condition which will permit resumption of pedestrian or vehicular traffic and any other critical activity or functions consistent with the original use of the land. The requirements for temporary paving of streets, walks, and driveways are specified elsewhere. Unsightly mounds of earth, large stones, boulders, and debris shall be removed so that the site presents a neat appearance.

SC-5.03 Subsurface and Physical Conditions

SC-5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following new paragraphs in their place:

- A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.
- B. Not Used.

SC-5.04 Differing Subsurface or Physical Conditions

SC-5.04.A Amend the last paragraph of Paragraph 5.04.A to read as follows:

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

SC-5.04.B Delete Paragraph 5.04.B in its entirety and insert the following new paragraph in its place:

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; and determine the need for any change in the Drawings or Specifications.

SC-5.04.C Delete Paragraph 5.04.C in its entirety and insert the following new paragraph in its place:

- C. *Engineer's Statement to Contractor Regarding Site Condition:* Engineer shall issue a written statement to Contractor regarding the subsurface or physical condition in question, providing written findings, conclusions, and recommendations, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will

be made, and advising whether or not Engineer's written findings, conclusions, and recommendations will be adopted, in whole or in part.

SC-5.04.D.4 Delete Paragraph 5.04.D.4 in its entirety and insert the following new paragraph in its place:

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Engineer's issuance of Engineer's written statement to Contractor regarding the subsurface or physical condition in question.

SC-5.05 Underground Facilities

SC-5.05.A Amend the first sentence of Paragraph 5.05.A to read as follows:

Contractor's Responsibilities: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner by the owners of such Underground Facilities, including Owner, or by others.

SC-5.05.A.1 Delete Paragraph 5.05.A.1 in its entirety and insert the following new paragraph in its place:

1. Owner does not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

SC-5.05.B Amend the last line of Paragraph 5.05.B to read as follows:

...that owner and to Engineer.

SC-5.05.C Delete Paragraph 5.05.C in its entirety and insert the following new paragraph in its place:

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; and determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

SC-5.05.D Delete Paragraph 5.05.D in its entirety and insert the following new paragraph in its place:

- D. *Engineer's Statement to Contractor Regarding Underground Facility:* Engineer shall issue a written statement to Contractor regarding the Underground Facility in question, providing written findings, conclusions, and recommendations, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and advising whether or not Engineer's written findings, conclusions, and recommendations will be adopted, in whole or in part.

SC-5.05.E.3 Delete Paragraph 5.05.E.3 in its entirety and insert the following new paragraph in its place:

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Engineer's issuance of Engineer's written statement to Contractor regarding the Underground Facility in question.

SC-5.06 Hazardous Environmental Conditions

SC-5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following new paragraphs in their place:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

SC-5.06.E Delete Paragraph 5.06.E in its entirety and insert the following new paragraph in its place:

- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Engineer (and promptly thereafter confirm such notice in writing). Engineer will determine the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

SC-5.06.I Amend the first sentence of Paragraph 5.06.I to read as follows:

To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within

the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

SC-5.06.J Amend the first sentence of Paragraph 5.06.J to read as follows:

To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible.

ARTICLE 6 – BONDS AND INSURANCE

SC-6.01 *Performance, Payment, and Other Bonds*

SC-6.01.A Amend the first sentence of Paragraph 6.01.A to read as follows:

If the Contract Price is equal to or greater than one hundred thousand dollars (\$100,000), Contractor shall furnish a performance and a payment bond, each in an amount equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract.

SC-6.01.B Add the following language immediately after the last sentence of Paragraph 6.01.B:

Bonds may not be written for an amount in excess of the amount approved for sureties or insurance companies on the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (http://www.fms.treas.gov/c570/c570_a-z.html).

SC-6.01.D Delete Paragraph 6.01.D in its entirety and insert the following new paragraph in its place:

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

SC-6.01 Add the following new paragraph immediately after Paragraph 6.01.F:

G. Contractor must use most recent Engineers Joint Contract Documents Committee (EJCDC) or American Institute of Architects (AIA) Performance and

Payment Bond documents. If, at any time after the execution of the Agreement between the parties, the Owner shall deem the surety or sureties upon such bond(s) to be unsatisfactory, or if, for any reason, such bond ceases to be adequate to cover the performance of the work or the payment of Subcontractors and/or Subconsultants performing labor and/or work on the Project or furnishing materials in connection therewith, Contractor shall, at no additional expense to the Owner, within five days after receipt of notice from the Owner to do so, furnish an additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the Owner. In such event, no further payment to Contractor shall be deemed to be due under this Contract until such new or additional security for the faithful performance of the Work and/or payment of liens and claims has been furnished by Contractor to the Owner in manner and form satisfactory to the Owner.

SC-6.02 Insurance – General Provisions

SC-6.02.C Insert the following language immediately after the first sentence of Paragraph 6.02.C:

Certificates of insurance shall be provided on the standard ACORD form with endorsements and shall reference the Project or Contract to which they apply.

SC-6.03 Contractor's Liability Insurance

SC-6.03.G Delete Paragraph 6.03.G in its entirety and insert the following new paragraph in its place:

G. Additional insureds: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

SC-6.03.I.3 Delete Paragraph 6.03.I.3 in its entirety and insert the following new paragraph in its place:

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner and each other insured under the policy.

SC-6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and 6.03.A.2 of the General Conditions with coverage limits as required by the State of Tennessee. If Contractor is a sole proprietorship and as such is not required to carry Workers' Compensation coverage, Contractor must submit proof of same. If Contractor is otherwise not obligated to carry Workers' Compensation coverage, Contractor must submit documentation from the Tennessee Department of Labor. The policies shall include a waiver of subrogation in favor of the City of Franklin, where permitted by law.
2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

Combined Single Limit or Equivalent:

Each Occurrence (Bodily Injury and Property Damage)	\$ _	<u>1,000,000.00</u>
Aggregate	\$ _	<u>2,000,000.00</u>

The policy must be broad form Contractor's Protective Liability/Independent Liability and shall include a waiver of subrogation in favor of the City of Franklin.

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

Bodily Injury:

Each person	\$ _	<u>1,000,000.00</u>
Each accident	\$ _	<u>1,000,000.00</u>

Property Damage:

Each accident	\$ _	<u>1,000,000.00</u>
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or

Combined Single Limit of	\$ _	<u>1,000,000.00</u>
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Covered automobiles shall include owned, non-owned, hired or leased. If Contractor transports hazardous materials, its policy shall have an MSC-90 endorsement and endorsement CA9948, if the materials are pollutants. The policy shall include a waiver of subrogation in favor of the City of Franklin.

4. Excess or Umbrella Liability:

Per Occurrence	\$ _	<u>5,000,000.00</u>
General Aggregate	\$ _	<u>5,000,000.00</u>

5. Contractor's Pollution Liability:

Each Occurrence	\$	—	<u>5,000,000.00</u>
General Aggregate	\$	—	<u>5,000,000.00</u>

Coverage must be maintained without interruption from date of commencement of the Work and until five (5) years following the date of final payment.

If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

SC-6.05 Property Insurance

SC-6.05 Delete Paragraph 6.05 in its entirety and insert the following in its place:

6.05 Property Insurance – Reserved

SC-6.06 Waiver of Rights

SC-6.06 Delete Paragraph 6.06 in its entirety and insert the following in its place:

6.06 Waiver of Rights – Reserved

SC-6.07 Receipt and Application of Property Insurance Proceeds

SC-6.07 Delete Paragraph 6.07 in its entirety and insert the following in its place:

6.07 Receipt and Application of Insurance Proceeds – Reserved

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES*SC-7.01 Supervision and Superintendence*

SC-7.01.B Delete Paragraph 7.01.B in its entirety and insert the following new paragraph in its place:

- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner except under extraordinary circumstances.

SC-7.02 Labor; Working Hours

SC-7.02.A Add the following sentence immediately after the last sentence of Paragraph 7.02.A:

Should the Owner reasonably object to an individual deployed on the Project by Contractor, Contractor agrees to promptly replace the individual with someone reasonably acceptable to the Owner.

SC-7.02.B Delete the last two sentences of Paragraph 7.02.B in their entirety and insert the following new sentences in their place:

Contractor will not perform Work on a Saturday, Sunday, any legal holiday or Owner-observed holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, legal holidays or Owner-observed holidays only with Owner's written consent, which will not be unreasonably withheld.

SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. Regular working hours are 8:00am to 4:30pm.
2. Unless otherwise specifically permitted, the normal time of work under this Contract is limited to a 40-hour work week, less recognized holidays.
3. Owner-observed holidays are:

New Year's Day

Martin Luther King's Birthday

Presidents Day

Memorial Day

Independence Day

Labor Day

Veterans Day

Thanksgiving

Friday after Thanksgiving (Columbus Day Observed)

Christmas Eve

Christmas Day

When the stated holiday falls on Saturday, Owner will observe the preceding Friday; when the stated holiday falls on Sunday, Owner will observe the following Monday. When Christmas Eve and Christmas Day fall on Saturday and Sunday, Owner will observe the following Monday and Tuesday.

SC-7.02 Add the following new paragraphs immediately after Paragraph 7.02.B:

- C. Approval for Work outside regular scheduled working hours or on Saturdays, Sundays or legal holidays, shall be requested no less than 48 hours prior to the requested work period. Contractor shall request approval of changes in regular scheduled working hours no less than one week prior to the desired change.
- D. If it shall become imperative to perform work at night, the Owner and Engineer shall be informed a reasonable time in advance of the beginning of such work. Temporary lighting and all other necessary facilities for performing and inspecting the work shall be provided and maintained by the Contractor.

- E. Unless otherwise specifically permitted, all work that would be subject to damage shall be stopped during inclement, stormy or freezing weather. Only such work that will not suffer injury to workmanship or materials will be permitted. Contractor shall carefully protect Contractor's work against damage or injury from the weather, and when work is permitted during freezing weather, Contractor shall provide and maintain approved facilities for heating the materials and for protecting the finished work.
- F. Unless Owner had provided written consent to Work being performed outside regular working hours or on Saturdays, Sundays or legal holidays, Contractor shall be responsible for the cost of any overtime pay, additional engineering and field services or other expenses incurred by the Owner (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such additional costs.
1. For purposes of administering the foregoing requirement, additional costs are defined as the employees' hourly cost of actual hours spent beyond regular working hours, as defined in SC-7.02.B, as well as the actual cost of additional expenses associated with work outside unapproved regular working hours. Hourly rates will vary depending on classifications of employees involved.
- G. Contractor will not be responsible for extra costs associated with construction observation overtime for work in excess of 40 hours per week when such overtime work is explicitly required by the Contract Documents.

SC-7.05 Substitutes

SC-7.05.B Amend the first sentence of Paragraph 7.05.B to read as follows:

Engineer's Evaluation and Determination: Engineer will be allowed a reasonable time to evaluate each substitute request.

SC-7.06 Concerning Subcontractors, Suppliers and Others

SC-7.06.D Add the following sentence immediately after the first sentence of Paragraph 7.06.D:

- D. The aforementioned Subcontractor or Supplier identity shall at a minimum include name of the firm, name of primary contact, address and contact phone number.

SC-7.06.I Delete Paragraph 7.05.I in its entirety and insert the following new paragraph in its place:

- I. Contractor shall be fully responsible to Owner for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

SC-7.06.K Delete Paragraph 7.05.K in its entirety and insert the following new paragraph in its place:

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Owner, including Engineer, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

SC-7.06.M Delete Paragraph 7.05.M in its entirety and insert the following new paragraph in its place:

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner.

SC-7.06.O Delete Paragraph 7.05.O in its entirety and insert the following new paragraph in its place:

- O. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner and any such Subcontractor, Supplier, or other individual or entity; nor
 2. shall create any obligation on the part of Owner to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

SC-7.07 Patent Fees and Royalties

SC-7.07.A Amend the last sentence of Paragraph 7.07.A to read as follows:

If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

SC-7.07.B Delete Paragraph 7.07.B in its entirety and insert the following new paragraph in its place:

B. Not Used.

SC-7.07.C Delete Paragraph 7.07.C in its entirety and insert the following new paragraph in its place:

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights

incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

SC-7.08 Permits

SC-7.08 Add the following new paragraphs immediately after Paragraph 7.08.A:

- B. The Contractor shall obtain, keep current and pay all fees for any necessary construction permits, including utility, grading and building permits, from those authorities, agencies, or municipalities having jurisdiction over land areas, utilities, or structures which are located within the Contract limits and which will be occupied, encountered, used, or temporarily interrupted by the Contractor's operations unless otherwise stated. Record copies of all permits shall be furnished to the Engineer.
- C. When construction permits are accompanied by regulations or requirements issued by a particular authority, agency or municipality, it shall be the Contractor's responsibility to familiarize himself and comply with such regulations or requirements as they apply to his operations on this Project.

SC-7.09 Taxes

SC-7.09 Add the following new paragraph immediately after Paragraph 7.09.A:

- B. Pursuant to TCA Title 67, Chapter 6, special tax exemptions exist for contractors performing work relating to water pollution control, such as the Owner's wastewater and sewage system. Any contractor providing services or equipment relating to water pollution control shall not include sales and/or use taxes for exempted work on its requests for payment.

SC-7.10 Laws and Regulations

SC-7.10.A Amend the second sentence of Paragraph 7.10.A to read as follows:

Except where otherwise expressly required by applicable Laws and Regulations, Owner shall not be responsible for monitoring Contractor's compliance with any Laws or Regulations.

SC-7.10.B Amend the first sentence of Paragraph 7.10.B to read as follows:

If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action.

SC-7.10 Add the following new paragraphs immediately after Paragraph 7.10.C:

- D. In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements that the Federal Transit Administration (FTA), Federal Highway Administration (FHWA) and/or Department of Transportation (DOT) may issue. Contractor further agrees that this paragraph will be incorporated by Contractor in all contracts entered into with Suppliers of materials or services, Subcontractors and/or Subconsultants that may perform any labor or services in connection with this Contract.
- E. Certification of Eligibility under the Davis-Bacon Act
1. By the execution of this Agreement, the Contractor certifies that neither it nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 2. No part of the Agreement shall be subcontracted to any person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 3. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C.1001.
- F. *Illegal Aliens* – Franklin Ordinance 30-2006-07 provides as follows:
- If any person who contracts to supply goods or services to the city or other city entities, or who submits a bid to contract to supply goods or services to the city or other city entities, is discovered to have knowingly utilized the services of illegal aliens in the performance of such a contract to supply goods or services to the city or other city entities, the purchasing agents shall declare that person to be prohibited from contracting for or submitting a bid for any contract to supply goods or services to the city or other city entities for a period of one (1) year from the date of discovery of the usage of illegal alien services in the performance of a contract to supply goods or services to the city or other city entities.
- G. The Contractor and, if applicable, its subcontractor(s) shall have a license to do business with the City of Franklin in accordance with TCA §67-4-701, *et sequentia*.

SC-7.12 Safety and Protection**SC-7.12.C Insert the following after the second sentence of Paragraph 7.12.C:**

The following Owner safety programs are applicable to the Work:

1. Contractor Safety Program (Section C-00452).

SC-7.12.D Delete Paragraph 7.12.D in its entirety and insert the following new paragraph in its place:

- D. Contractor shall inform Owner of the specific requirements of Contractor's safety program with which Owner's employees and representatives must comply while at the Site.

SC-7.12.E Delete Paragraph 7.12.E in its entirety and insert the following new paragraph in its place:

- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

SC-7.12.F Delete Paragraph 7.12.F in its entirety and insert the following new paragraph in its place:

- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

SC-7.12 Add the following new paragraph immediately after Paragraph 7.12.G:

- H. Certain aspects of work performed under this Agreement may involve the entry into manholes, tanks, pits, etc. which are defined as confined spaces by the OSHA requirements and which are detailed in the Combined Federal Register 1910.146. The Contractor shall become familiar with all aspects and requirements of this OSHA policy in order for the Contractor to protect its employees and all others involved from the dangers, which may be associated with the limited access and hazardous atmospheres that may exist in these confined spaces. It is the Contractor's responsibility to become familiar with and institute the various permitting, sampling and other associated safety requirements for confined space entry.

SC-7.16 Shop Drawings, Samples, and Other Submittals

SC-7.16.A.2 Add the following sentence after the last sentence of Paragraph 7.16.A.2:

Submittals without the Contractor's stamp of approval will not be reviewed by the Engineer and will be returned to the Contractor.

SC-7.16.A.3 Add the following sentences after the last sentence of Paragraph 7.16.A.3:

Drawings indicate the extent and general arrangement of the Work. If any departures from the Drawings are deemed necessary by the Contractor to accommodate the materials and equipment he proposes to furnish, details of such departures and reasons therefore shall be submitted as soon as practicable to the Engineer for approval. No such departures shall be made without the prior written approval of the Engineer. Approved changes shall be made without additional cost to the Owner for this work. If the submittals contain any departures from the Contract Documents, and specific mention thereof is not made in the Contractor's letter of transmittal, the review of such submittals shall not constitute approval of the departure.

SC-7.16.A Add the following new paragraph immediately after Paragraph 7.16.A.3:

4. The specific equipment proposed for use by the Contractor on the project may require changes in structures, auxiliary equipment, piping, electrical, mechanical, controls or other work to provide a complete satisfactory operating installation. The Contractor shall submit to the Engineer, for approval, all necessary Drawings and details showing such changes to verify conformance with the overall project structural and architectural requirements and overall project operating performance. The Bid Price shall include all costs in connection with the preparation of new drawings and details and all changes to construction work to accommodate the proposed equipment.

SC-7.16.D.1 Add the following sentence after the last sentence of Paragraph 7.16.D.1:

Engineer's review will be confined to general arrangement and compliance with the Contract Drawings and Specifications only, and will not be for the purpose of checking dimensions, weights, clearances, fittings, tolerances, interferences, coordination of trades, etc.

SC-7.16.D Add the following new paragraphs immediately following Paragraph 7.16.D.8:

9. In the event that the Engineer is required to provide additional engineering services as a result of changes by the Contractor in dimension, weight, power requirements, etc., of the equipment and accessories furnished, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor for the convenience of the Contractor, then the cost of Engineer's effort and expenses in connection with such additional services shall be charged to the Contractor by the Owner, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for the cost of Engineer's effort and expenses.
10. In the event that the Engineer is required to provide additional engineering services as a result of Contractor's errors, omissions, or failure to conform to the requirements of the Contract Documents, then the cost of Engineer's effort and expenses in connection with such additional services shall be charged to the Contractor by the Owner, and Owner may impose a set-off

against payments due to Contractor to secure reimbursement for the cost of Engineer's effort and expenses.

SC-7.16.E.2 Amend the second sentence of Paragraph 7.16.E.2 to read as follows:

Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, a system or type of equipment submitted for a particular Specification Section or other item requiring approval, and Contractor shall be responsible for review charges, which shall include all costs and expenses associated with Engineer's review effort, including meetings with the Contractor or manufacturer.

SC-7.16.E.3 Delete Paragraph 7.16.E.3 in its entirety and insert the following new paragraph in its place:

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's effort, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for Engineer's effort, unless the need for such change is beyond the control of Contractor.

SC-7.17 Contractor's General Warranty and Guarantee

SC-7.17.C.2 Delete Paragraph 7.17.C.2 in its entirety and insert the following new paragraph in its place:

2. payment by Owner of any progress or final payment;

SC-7.18 Indemnification

SC-7.18.A Delete Paragraph 7.18.A in its entirety and insert the following new paragraph in its place:

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

SC-7.18.B Delete Paragraph 7.18.B in its entirety and insert the following new paragraph in its place:

- B. In any and all claims against Owner any of its officers, directors, members,

partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

SC-7.18.C Delete Paragraph 7.18.C in its entirety and insert the following new paragraph in its place:

C. Not Used.

SC-7.19 Delegation of Professional Design Services

SC-7.19.B Amend the first sentence of Paragraph 7.19.B to read as follows:

If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Engineer will specify all performance and design criteria that such services must satisfy.

SC-7.19.C Delete Paragraph 7.19.C in its entirety and insert the following new paragraph in its place:

C. Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Engineer has specified to Contractor all performance and design criteria that such services must satisfy.

SC-7.19.E Delete Paragraph 7.19.E in its entirety and insert the following new paragraph in its place:

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

SC-8.03 Legal Relationships

SC-8.03.D Delete Paragraph 8.03.D in its entirety and insert the following new paragraph in its place:

D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor or Owner, then Contractor shall (1) promptly attempt to settle the claim as to all parties

through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER’S RESPONSIBILITIES

SC-9.02 Replacement of Engineer

SC-9.02 Delete Paragraph 9.02 in its entirety and insert the following in its place:

9.02 Replacement of Engineer - Reserved

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

SC-10.02 Visits to Site

SC-10.02 Delete the last sentence of Paragraph 10.02 in its entirety.

SC-10.03 Project Representative

SC-10.03.A Delete Paragraph 10.03.A in its entirety and insert the following new paragraph in its place:

- A. If Engineer deems necessary, Engineer will furnish or designate a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, and the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08.

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B. The Resident Project Representative (RPR) will be Owner's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.
1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor.
 2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
 3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other

Project-related meetings, and prepare and circulate copies of minutes thereof.

4. Liaison:
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
6. Shop Drawings and Samples:
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
8. Review of Work and Rejection of Defective Work:
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. Inspections, Tests, and System Start-ups:

- a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

10. Records:

- a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
- b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- c. Maintain records for use in preparing Project documentation.

11. Reports:

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.

12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have

these documents delivered to Engineer for review prior to payment for that part of the Work.

14. Completion:

- a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
- b. Participate in final visit to the Site to determine completion of the Work, in the company of Owner, including Engineer, and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

SC-10.09 Compliance with Safety Program

SC-10.09.A Delete Paragraph 10.09.A in its entirety and insert the following new paragraph in its place:

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK*SC-11.01 Amending and Supplementing Contract Documents***SC-11.01.A.1.b Amend the first sentence of Paragraph 11.01.A.1.b to read as follows:**

Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters.

*SC-11.02 Owner-Authorized Changes in the Work***SC-11.02.A Delete the second sentence of Paragraph 11.02.A in its entirety.***SC-11.05 Changes of Contract Times***SC-11.05 Add the following new paragraph immediately after Paragraph 11.05.B:**

- C. Delays due to abnormal weather conditions shall be determined as follows:
1. Contractor shall obtain weather history for the most recent five years (minimum) preceding the Bid date. Weather history shall be obtained from the National Oceanic & Atmospheric Administration (NOAA) or other source approved by the Engineer. Historical weather shall be based on data from the weather reporting station closest to the Site.
 2. For delays associated with an abnormal amount of rain, the Contractor shall use the weather history to calculate an average number of days that rainfall exceeded 0.1 inches for the period (month, quarter, year, etc.) in question. The average value calculated shall be rounded up to the next full day. The Contractor will be awarded a time extension equal to the number of days above the calculated average during which the period in question experienced rainfall in excess of 0.1 inches. A Contract Time extension will not be awarded for rain amounts of less than 0.1 inches.
 3. For daily rain amounts in excess of one inch, the Contractor may be awarded one day beyond the number of days calculated as described above. The added day shall be a recovery period for the Contractor to perform Site maintenance, to dewater the Site and to restore erosion control measures before resuming work. Written requests for recovery days shall include a description of work activities performed during the recovery day.
 4. For delays associated with other abnormal weather events, the weather history shall be used to calculate an average number of days for the type of weather considered to be the cause of a delay (calculation of the average number of days shall be as described above). The Contractor will be awarded a time extension equal to the number of days beyond the calculated average for the period in question. Where the Contractor can demonstrate that the abnormal weather event has impaired his ability to perform work beyond the day of the abnormal event, a recovery day, or days, to perform Site maintenance as necessary to restore the Site to a

workable condition may be awarded. The recovery days may be awarded if requested in writing by the Contractor and approved by the Owner. Written requests for recovery days shall include a description of work activities performed during the recovery days.

SC-11.06 Change Proposals

SC-11.06.A.1 Delete the last sentence of Paragraph 11.06.A.1 in its entirety.

SC-11.06.A.2 Amend the second and third sentence of Paragraph 11.06.A.2 to read as follows:

Such actions shall be in writing, with a copy provided to Contractor. If Engineer does not take action on the Change Proposal within 30 days, then Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

SC-11.06.A.3 Delete Paragraph 11.06.A.3 in its entirety and insert the following new paragraph in its place:

3. *Binding Decision:* Engineer's decision will be final and binding upon Contractor, unless Contractor appeals the decision by filing a Claim under Article 12.

SC-11.06.B Delete Paragraph 11.06.B in its entirety and insert the following in its place:

B. Resolution of Certain Change Proposals – Reserved

SC-11.07 Execution of Change Orders

SC-11.07.A.3 Delete Paragraph 11.07.A.3 in its entirety and insert the following new paragraph in its place:

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties; and

ARTICLE 12 – CLAIMS

SC-12.01 Claims

SC-12.01.A Delete Paragraph 12.01.A in its entirety and insert the following new paragraph in its place:

A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Contractor of Engineer's decisions regarding Change Proposals; and
2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents.

SC-12.01.C Amend the last sentence of Paragraph 12.01.C to read as follows:

All actions taken on a Claim shall be stated in writing and submitted to the other party.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK*SC-13.01 Cost of the Work***SC-13.01.B.3 Amend the second sentence of Paragraph 13.01.B.3 to read as follows:**

If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, which bids, if any, will be acceptable.

SC-13.01.B.5.c Amend the first sentence of Paragraph 13.01.B.5.c to read as follows:

Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof.

*SC-13.02 Allowances***SC-13.02.A Delete Paragraph 13.02.A in its entirety and insert the following new paragraph in its place:**

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner.

SC-13.02.D Delete Paragraph 13.02.D in its entirety and insert the following new paragraph in its place:

D. Prior to final payment, an appropriate Change Order will be issued to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

*SC-13.03 Unit Price Work***SC-13.03.D Amend the last sentence of Paragraph 13.03.D to read as follows:**

Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Contractor, subject to the provisions of the following paragraph.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK*SC-14.01 Access to Work***SC-14.01.A Amend the first sentence of Paragraph 14.01.A to read as follows:**

Owner, including Engineer, its consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing.

*SC-14.02 Test, Inspections, and Approvals***SC-14.02.D.2 Delete Paragraph 14.02.D.2 in its entirety and insert the following new paragraph in its place:**

2. to attain Engineer's acceptance of materials or equipment to be incorporated in the Work;

SC-14.02.E Delete Paragraph 14.02.E in its entirety and insert the following new paragraph in its place:

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, including Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

*SC-14.03 Defective Work***SC-14.03.C Delete Paragraph 14.03.C in its entirety and insert the following new paragraph in its place:**

C. *Notice of Defects:* Prompt notice of all defective Work of which Engineer has actual knowledge will be given to Contractor.

*SC-14.07 Owner May Correct Defective Work***SC-14.07.B Amend the last sentence of Paragraph 14.07.B to read as follows:**

Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Owner's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD*SC-15.01 Progress Payments***SC-15.01.B.1 Amend the first sentence of Paragraph 15.01.B.1 to read as follows:**

At least 30 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the

Application and accompanied by such supporting documentation as is required by the Contract Documents. Each Progress Payment shall reflect a completed work order, partial work orders completed during the pay period will not be accepted for payment. Full work order completion must be achieved for contractor to receive payment.

SC-15.01.B.1 Add the following language at the end of Paragraph 15.01.B.1:

The certificate of property insurance shall list the Owner as additional insured and must, at a minimum, include the following information:

- a. Location of property stored;
- b. Invoice number or itemized information including the description of stored items, such as tag number, manufacturer, etc.
- c. Cost or value of materials or equipment stored.

Off-site storage locations shall be secure and provide proper protection from unauthorized removal, pilferage and theft and shall protect material from negative effects of weather, water damage, insect and rodent infestation, deterioration because of dust, temperature, static electricity and humidity. If applicable, materials must be supported, piled or arranged in accordance with manufacturer's recommendations and warranty requirements. Materials shall be clearly labeled to identify the component. Owner reserves the right to periodically inspect off-site stored materials without notice and may, if applicable, require certification by manufacturer's representative. If detailed information received by Contractor of manufacturer's representative is not of sufficient detail or markings are not adequate to complete verification of stored materials proposed for payment, then Contractor's request will be denied. If Contractor's off-site location request is approved, Contractor shall allow a minimum 30-day review prior to inclusion on Contractor's application for payment due to required coordination. If review of the off-site storage location for materials or equipment, that have previously been included on Contractor's Application for Payment and paid by Owner, reveals that storage conditions have changed or materials or equipment show visible damage, Contractor shall deduct the cost of such materials or equipment on the next Application for Payment. Contractor shall notify Engineer if materials stored off-site are moved and stored on site. If material or equipment is not in acceptable condition when delivered to the project Site, Contractor shall not incorporate it into the Work and cost of material or equipment must be deducted from Contractor's next Application for Payment.

SC-15.01.C.1 Delete Paragraph 15.01.C.1 in its entirety and insert the following new paragraph in its place:

1. Engineer will, within ten days after receipt of each Application for Payment, including each resubmittal, either approve payment or return the Application to Contractor indicating in writing Engineer's reasons for refusing to approve payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

SC-15.01.C.2 Amend the first sentence of Paragraph 15.01.C.2 to read as follows:

Engineer's approval of any payment requested in an Application for Payment will constitute a representation by Engineer based on Engineer's observations of the executed Work as an experienced and qualified design professional or other approved representative, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

SC-15.01.C.3 Amend the first sentence of Paragraph 15.01.C.3 to read as follows:

By approving any such payment Engineer will not thereby be deemed to have represented that:

SC-15.01.C.4 Amend the first sentence of Paragraph 15.01.C.4 to read as follows:

Neither Engineer's review of Contractor's Work for the purposes of approving payments nor Engineer's approval of any payment, including final payment, will impose responsibility on Engineer:

SC-15.01.C.5 Delete Paragraph 15.01.C.5 in its entirety and insert the following new paragraph in its place:

5. Engineer may refuse to approve the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations stated in Paragraph 15.01.C.2.

SC-15.01.C.6 Amend the first sentence of Paragraph 15.01.C.6 to read as follows:

Engineer may reduce payment (set-off) necessary in Engineer's opinion to protect Owner from loss because:

SC-15.01.D.1 Amend the first sentence of Paragraph 15.01.D.1 to read as follows:

Thirty days after presentation of the Application for Payment to Owner with Engineer's approval, the amount approved (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

SC-15.01.E.1 Amend the first sentence of Paragraph 15.01.E.1 to read as follows:

In addition to any reductions in payment (set-offs) by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

SC-15.01.E.1 Insert the following paragraphs after Paragraph 15.01.E.1.k and renumber subsequent paragraphs accordingly:

- l. any fines levied against the Owner for failure of Contractor to adhere to permit requirements or to abide by laws and regulations;
- m. Owner has incurred extra charges or engineering costs related to Contractor's work outside regular working hours;
- n. Owner has incurred extra costs related to failure of Contractor to perform periodic cleanup and basic restoration of the Site satisfactory to the Engineer;

SC-15.01.E.2 Amend the first sentence of Paragraph 15.01.E.2 to read as follows:

If Owner imposes any set-off against payment, Owner will give Contractor immediate written notice stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld.

SC-15.03 Substantial Completion**SC-15.03.A Delete Paragraph 15.03.A in its entirety and insert the following new paragraph in its place:**

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Engineer an initial draft of punch list items to be completed or corrected before final payment.

SC-15.03.B Amend the first sentence of Paragraph 15.03.B to read as follows:

Promptly after Contractor's notification, Owner, including Engineer, and Contractor shall make an inspection of the Work to determine the status of completion.

SC-15.03.B Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

SC-15.03.C Delete Paragraph 15.03.C in its entirety and insert the following new paragraph in its place:

- C. If Engineer considers the Work substantially complete, Engineer will, within 14 days, execute and deliver to Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected).

SC-15.03.D Amend the first sentence of Paragraph 15.03.D to read as follows:

At the time of receipt of the Contractor's request for issuance of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner.

*SC-15.04 Partial Use or Occupancy***SC-15.04.A Amend the first sentence of Paragraph 15.04.A to read as follows:**

Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, including Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

SC-15.04.A.1 Amend the second sentence of Paragraph 15.04.A.1 to read as follows:

If and when Contractor agrees that such part of the Work is substantially complete, Contractor and Owner, including Engineer, will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

SC-15.04.A.2 Delete Paragraph 15.04.A.2 in its entirety and insert the following new paragraph in its place:

2. At any time Contractor may notify Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

SC-15.04.A.3 Amend the first and second sentence of Paragraph 15.04.A.3 to read as follows:

Within a reasonable time after either such request, Owner, including Engineer, and Contractor shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

*SC-15.05 Final Inspection***SC-15.05.A Amend the first sentence of Paragraph 15.05.A to read as follows:**

Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective.

SC-15.05 Add the following new paragraph immediately after Paragraph 15.05.A:

- B. Final cleaning and repairing shall be so arranged as to be finished upon completion of the construction work. The Contractor will make his final cleaning and repairing, and any portion of the work finally inspected and accepted by the Engineer shall be kept clean by the Contractor, until the final acceptance of the entire Work.

*SC-15.06 Final Payment***SC-15.06.B Delete Paragraph 15.06.B in its entirety and insert the following new paragraph in its place:**

- B. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's approval of final payment and present the Application for Payment to Owner for payment. Such approval shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to approve final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

SC-15.06.C Delete Paragraph 15.06.C in its entirety and insert the following new paragraph in its place:

- C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written approval of final payment.

SC-15.06.D Delete Paragraph 15.06.D in its entirety and insert the following new paragraph in its place:

- D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount approved by Engineer (less any further sum Owner is entitled to set off, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION*SC-16.01 Owner May Suspend Work***SC-16.01.A Amend the first sentence of Paragraph 16.01.A to read as follows:**

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor.

SC-16.01 Add the following new paragraph immediately after Paragraph 16.01.A:

- B. Should the Resident Project Representative (RPR) suspend Work due to unsafe Work conducted by the Contractor, Contractor shall not resume Work until re-inspected by Owner's safety personnel or by subsequent inspection by

Tennessee OSHA. The Contractor shall not be allowed any adjustment in Contract Price or extension of Contract Time attributed to this delay.

SC-16.02 Owner May Terminate for Cause

SC-16.02.A.4 Delete Paragraph 16.02.A.4 in its entirety and insert the following new paragraph in its place:

4. Contractor's repeated disregard of the authority of Owner, including Engineer.

SC-16.02.E Amend the fourth sentence of Paragraph 16.02.E to read as follows:

Such claims, costs, losses, and damages incurred by Owner will be incorporated in a Change Order.

SC-16.03 Owner May Terminate for Convenience

SC-16.03.A Amend the first sentence of Paragraph 16.03.A to read as follows:

Upon seven days written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract.

SC-16.04 Contractor May Stop Work or Terminate

SC-16.04.A Delete Paragraph 16.04.A in its entirety and insert the following new paragraph in its place:

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

SC-16.04.B Amend the first sentence of Paragraph 16.04.B to read as follows:

In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner, stop the Work until payment is made of all such amounts due Contractor.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES*SC-17.01 Methods and Procedures***SC-17.01.B.3 Delete Paragraph 17.01.B.3 in its entirety and insert the following new paragraph in its place:**

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to the exclusive jurisdiction and venue of the state courts located in Williamson County, Tennessee, and both parties specifically agree to be bound by the jurisdiction and venue thereof.

ARTICLE 18 – MISCELLANEOUS*SC-18.01 Giving Notice***SC-18.01.A.1 Delete Paragraphs 18.01.A.1 and 18.01.A.2 in their entirety and insert the following new paragraphs in their place:**

1. delivered in person, by a commercial courier service or otherwise, to the designated representative of the party for which it is intended; or
2. delivered at or sent by registered or certified mail, postage prepaid, to the party's designated representative at the last business address known to the sender of the notice.

*SC-18.04 Limitation of Damages***SC-18.04.A Delete Paragraph 18.04.A in its entirety and insert the following new paragraph in its place:**

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor any of its officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

*SC-18.09 Right to Inspect Records***SC-18.09 Add the following new paragraph immediately after Paragraph 18.08:***SC-18.09 Right to Inspect Records*

- A. Contractor shall establish a reasonable invoice accounting system, which enables ready identification of contractor costs of goods and use of funds relating to the Work performed under the Contract. The Owner or its representative may audit the Contractor's records any time during the Contract Time and for an additional period of four years after final payment or until all disputed claims have been settled, whichever is longer, to verify the Owner's payment obligation and the use of the Owner's funds. This right to audit shall include all supporting documentation of subcontractors' invoices for goods or

services that are subcontracted by the Contractor. Any disputed claims will be verified by an independent auditor at the cost of the Owner unless the Contractor is found to have overcharged the Owner in which case the Contractor will pay the cost of the audit as well as repay all overcharges.

- B. Contractor agrees to cooperate with and make reasonable accommodation to Owner for audit or financial examination purposes. Contractor further agrees that failure to cooperate or to carry out the requirements set forth in Paragraph SC-18.09 shall constitute a breach of contract and may result in termination of this Contract by the Owner.
- C. This Paragraph SC-18.09 shall not be construed to limit, revoke, or abridge any other rights, powers, or obligations relating to audit which the Owner may have by Federal, State, or Municipal law, whether those rights, powers, or obligations are express or implied.

+ + END OF SUPPLEMENTARY CONDITIONS + +

SECTION C-01000

PROJECT REQUIREMENTS

PART 1 - GENERAL

1.01 Scope of Work

- A. The work to be performed (Project) consists of the rehabilitation of approximately 12,000 linear feet of 6", 8", 10", and 12" diameter sewer using cured-in-place pipe lining. The Work includes sewer cleaning and pre- and post-rehabilitation television inspection evaluated and coded by NASSCO PACP methods as set out more fully in the Specifications.
- B. Work includes furnishing all labor, equipment, tools and materials and performing all operations required to complete the Work satisfactorily, in place.
- C. Work may be conducted throughout the City of Franklin Water Management Department operating area (Site) with specific locations issued through Work Orders. Work Orders will be issued to the Contractor by the Engineer and will contain the locations where the work is to be completed as well as the quantity of service laterals to be rehabilitated for trim out purposes.

1.02 Measurement and Payment

- A. No payment will be made for any items other than those listed on the Bid Form.
- B. Required items of work and incidentals necessary for the satisfactory completion of the Work which are not specifically addressed on the Bid Form shall be considered incidental to the Work. All costs thereof shall be included in the prices bid for the various Bid items.
- C. Payment for light cleaning shall include any and all light cleaning required to rehabilitate the line segments and will be made for each line segment only once. Any additional light cleaning deemed necessary by the Contractor after initial cleaning is performed will be at Contractor's sole expense.
- D. There is a separate pay item established for heavy cleaning; however, no additional payment for normal light cleaning will be considered. Compensation for heavy cleaning of a particular line will only be paid, if: 1) the heavy cleaning was authorized by the Engineer prior to Contractor performance of the work, and 2) Contractor proves that both significant time and effort were necessary to clean the line (i.e. the time required to clean and inspect the line must have been at least twice the average time required to clean and inspect other sewers of comparable length / diameter at the Site).
- E. Any third-party testing requested by the Owner shall be paid for out of the Allowance for Engineer-directed third-party testing. No payment shall be made for services which fail to verify required results. Contractor shall submit copies of invoices from independent third-party testing firm providing the services, materials and/or equipment with each Application for Payment along with a report verifying that results meet minimum requirements. The cost of all manufacturer testing to qualify products furnished to the Site shall not be the responsibility of the Owner and shall not be compensated out of the third-party testing allowance.

1.03 Milestone Dates

- A. The Contractor shall complete the activities listed below within the following number of days after the Notice to Proceed Commencement Date:

Days after NTP Commencement Date	Milestone	Liquidated Damages per Day
335	Substantial Completion of All Work	\$500.00
365	Completion and Readiness for Final Payment	\$500.00

- B. Substantial completion for the purposes of assessing liquidated damages, shall be defined as the time at which the work (or a specified part thereof) has progressed to the point where, in the opinion of the Engineer, the work is sufficiently complete, in accordance with the Contract Documents, so that the work (or a specified part thereof) can be utilized for the purposes for which it was intended, and to the satisfaction of the Engineer in accordance with the requirements of the Specifications. Specific items of work that must be completed prior to the Engineer's issuance of a certificate of Substantial Completion include, but are not limited to, the following:
1. All submittals must be approved by the Engineer, including but not limited to material test reports;
 2. Correction of defects discovered during the post-installation television inspection.

1.04 Project Location

- A. The location of the Project is the City of Franklin Water Management Department's operating area.

1.05 Sequencing and Coordination

- A. Contractor shall be solely responsible for all construction sequencing.
- B. Work Order Schedule
1. Contractor shall submit to Owner a Work Order Schedule at a minimum seven (7) days prior to commencement of Work in specific work areas, which shall at a minimum include the following information:
 - i. List of all work order items grouped into areas in which Contractor is proposing to work; groups shall be arranged in anticipated order in which Work will be performed;
 - ii. Property addresses;
 - iii. Estimated time frames indicating when Work will be performed;

-
- iv. Name of the on-site superintendent for each group of Work.
 2. A maximum of two crews working simultaneously may be allowed by Owner unless otherwise approved by Owner.
 3. Contractor shall coordinate with Owner to assure Resident Project Representative may observe Work that is being performed by Contractor.
- C. Public Notifications
1. The Contractor shall notify all residents, property owners and businesses within the project area at least two (2) weeks prior to commencement of Work in the specific area. In addition, Contractor shall issue a second notification to residents within 72 hours, but not less than 24 hours, prior to commencing Work in that area.
 2. The Contractor shall coordinate and cooperate with the Owner on the most appropriate way to notify businesses in the area.
 3. Owner shall be notified at a minimum seven (7) days prior to Contractor's notification of the public.
 4. The method and text of the notices shall be approved by the Owner. An emergency telephone number for the City of Franklin Water Management Dept. shall be the point of contact in the notification.
 5. During the performance of the Work, the maximum amount of time allowed for a sewer lateral service outage shall be eight (8) hours for any property served by the sewer. The Contractor shall make personal contact with any home or business that cannot be reconnected within the time stated in the written notice.
- D. Contractor shall be responsible for coordinating road closures that are necessary for the completion of the Work with the City of Franklin Street Department.

1.06 Utilities

- A. In locations where public water supply is available, the Contractor may utilize the local public water supply at the City's expense to obtain water for construction purposes. The Contractor shall follow all procedures of Owner or other utility related to the use of such public water supply.
- B. The Contractor shall obtain prior approval from the Owner or other utility related to the use of such public water supply before using the local public water supply and shall comply with all Federal, State and local laws and regulations concerning water drawn from a public water supply. Waste of water by the Contractor shall be sufficient cause for withdrawing the privilege of unrestricted water use. Hydrants shall only be operated under the supervision of the Owner's personnel.
- C. All water drawn from a public water supply shall be metered using a water meter/backflow preventer supplied by the Owner or other utility. The final application for payment will not be processed until the meter is returned to the Owner or other utility.

1.07 Working Drawings

- A. Working Drawings include, but are not limited to, Shop Drawings, layout drawings in plan and elevation, installation drawings, elementary wiring diagrams, interconnecting

wiring diagrams, manufacturer's data, etc. Contractor shall be responsible for securing all of the information, details, dimensions, Drawings, etc., necessary to prepare the Working Drawings required and necessary under this Contract and to fulfill all other requirements of this Contract. Contractor shall secure such information, details, Drawings, etc., from all possible sources including the Drawings, Working Drawings prepared by subcontractors, Engineers, suppliers, etc.

- B. Working Drawings shall accurately and clearly present the following:
1. All working and installation dimensions;
 2. Arrangement and sectional views;
 3. Units of equipment in the proposed positions for installation, details of required attachments and connections, and dimensioned locations between units and in relation to the structures;
 4. Necessary details and information for making connections between the various trades including, but not limited to, power supplies and interconnecting wiring between units, accessories, appurtenances, etc.
- C. Shop Drawings
1. Contractor shall submit for review by the Engineer Shop Drawings for all fabricated work and for all manufactured items required to be furnished by the Contract Documents.
 2. Where manufacturer's publications in the form of catalogs, brochures, illustrations or other data sheets are submitted in lieu of prepared Shop Drawings, such submittals shall specifically indicate the item for which approval is requested. Identification of items shall be made in ink, and submittals showing only general information are not acceptable.

1.08 Submittals

- A. Unless otherwise specified, the Contractor shall provide three (3) printed sets and one (1) electronic set of submittals and/or shop drawings for Engineer review in accordance with the General Conditions.
- B. All submittals from subcontractors, manufacturers or suppliers shall be sent directly to the Contractor for checking. Contractor shall thoroughly check all Drawings for accuracy and conformance to the intent of the Contract Documents. Drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors, manufacturers, or suppliers by the Contractor for correction before submitting them to the Engineer.
- C. All submittals shall be bound, dated, properly labeled and consecutively numbered.
- D. In addition to submittal requirements listed in the General Conditions, submittals shall be clear and legible, and of sufficient size for legibility and clarity of the presented data.
- E. Working Drawings shall be submitted as a single complete package including all associated drawings relating to a complete assembly of the various parts necessary for a complete unit or system.
- F. Shop Drawings shall be submitted as a single complete package for any operating

system and shall include all items of equipment and any mechanical units involved or necessary for the functioning of such system. Where applicable, the submittal shall include elementary wiring diagrams showing circuit functioning and necessary interconnection wiring diagrams for construction.

- G. The submittal transmittal page shall include, at a minimum, the following information:
1. Contractor identification:
 - i. Contractor;
 - ii. Supplier;
 - iii. Manufacturer;
 - iv. Supplier or Manufacturer Representative.
 2. Date of submission;
 3. Project number;
 4. Project name;
 5. Description/identification of the product;
 6. Reference to Contract drawing(s), if applicable;
 7. Drawing number or specification section, page and paragraph(s), if applicable;
 8. Reference to applicable standards, such as ASTM or Federal Standards numbers;
 9. Note any deviations from Contract requirements;
 10. Contractor's approval and certification statement;
 11. Reference to previous submittal (for resubmittals).
- H. Submittals shall be routed as follows:
1. Supplier to Contractor;
 2. Contractor to Engineer;
 3. Engineer to Contractor;
 4. Contractor to Supplier.
- I. Upon Engineer review, submittals will be returned to the Contractor bearing a review stamp indicating submittal review status:
1. No Exceptions Taken (NET) – Work may proceed;
 2. NET with Comments (NETC) – Comments must be addressed, but no resubmittal is required;
 3. Make Corrections Noted (MCN) – Resubmittal is required;
 4. Amend & Resubmit (A&R) – Work may not proceed, resubmittal is required;
 5. Rejected (REJ) – Work may not proceed, new submittal is required;
 6. No Review (NR) – Submittal data filed for informational purposes.

- J. If a submittal is satisfactory to the Engineer in full or in part, the Engineer will annotate the submittal NET, NETC or MCN, retain two (2) printed copies and return one (1) printed copy and an electronic copy to the Contractor.
- K. If a full resubmittal is required, the Engineer will annotate the submittal A&R or REJ, and return an electronic copy to the Contractor for appropriate action.
- L. No materials or equipment shall be ordered, fabricated, shipped or any work performed until the Engineer returns to the Contractor the submittals, herein required, annotated NET, NETC or MCN. If a submittal is returned MCN, the portions of work covered by the submittal that require confirmation by the Engineer shall not be ordered, fabricated, shipped, or any work performed until those portions are approved in a subsequent submittal either NET or NETC.
- M. Acceptance of a Working Drawing by the Engineer will constitute acceptance of the subject matter for which the Drawing was submitted and not for any other structure, material, equipment or appurtenances indicated or shown.
- N. Where errors, deviations, and/or omissions are discovered at a later date in any of the submittals, the Engineer's prior review of the submittals does not relieve the Contractor of the responsibility for correcting all errors, deviations, and/or omissions.

1.09 Project Close-Out

- A. As construction of the project enters the final stages of completion, the Contractor shall, in concert with accomplishing the requirements set forth in the Contract Documents, attend to or have already completed the following items as they apply to this contract:
 - 1. Required testing of project components.
 - 2. Correcting or replacing defective work, including completion of items previously overlooked or work which remains incomplete, all as evidenced by the Engineer's "Punch" Lists.
 - 3. Attend to any other items listed herein or brought to the Contractor's attention by the Engineer.

PART 2 - NOT USED

PART 3 - EXECUTION

3.01 Documents at Site

- A. Contractor shall maintain any applicable permits on Site at all times. Said permits shall be available for inspection by Owner, including Engineer at all times.

3.02 Contractor Vehicle Identification

- A. Contractor shall visibly affix a magnetic sign to all vehicles used in the performance of the Work; the sign shall at minimum include the following information:
 - 1. Contractor's name

2. Contractor's phone number
3. Performing Work for Franklin Water Management Department

3.03 Final Clean-Up and Site Rehabilitation

- A. At the completion of the work, the Contractor shall remove all rubbish from and about the site of the work, and all temporary structures, construction signs, tools, scaffolding, materials, supplies and equipment which Contractor or any Subcontractors may have used in the performance of the work.
- B. Before finally leaving the site, the Contractor shall wash and clean all exposed surfaces which have become soiled or marked, and shall remove from the site of work all accumulated debris and surplus materials of any kind which result from his operation, including construction equipment, tools, sheds, sanitary enclosures, etc. The Contractor shall leave all equipment, fixtures, and work, which he has installed, in a clean condition. The completed Project shall be turned over to the Owner in a neat and orderly condition.
- C. The site of the work shall be rehabilitated or developed in accordance with other sections of the Specifications and the Drawings. In the absence of any portion of these requirements, the Contractor shall completely rehabilitate the Site to a condition and appearance equal or superior to that which existed just prior to construction, except for those items that were required to be permanently removed or relocated in accordance with the Contract Documents or as ordered by the Owner.

3.04 Miscellaneous

- A. Questions during performance of the Work may be directed to the City of Franklin Water Management Dept. phone number (615) 794-4554. Ext. 6863

+ + END OF PROJECT REQUIREMENTS + +

SECTION C-01091
CODES AND STANDARDS

PART 1 - GENERAL

1.01 Description

- A. Whenever reference is made to conforming to the standards of any technical society, organization, body, code or standard, it shall be construed to mean the latest standard, code, specification or tentative specification adopted and published at the time of advertisement for Bids. This shall include the furnishing of materials, testing of materials, fabrication and installation practices. In those cases where the Contractor's quality standards establish more stringent quality requirements, the more stringent requirement shall prevail. Such standards are made a part hereof to the extent which is indicated or intended.
- B. The inclusion of an organization under one category does not preclude that organization's standards from applying to another category.
- C. In addition, all work shall comply with the applicable requirements of local codes, utilities and other authorities having jurisdiction.
- D. All material and equipment, for which a UL Standard, an AGA or NSF approval or an ASME requirement is established, shall be so approved and labeled or stamped. The label or stamp shall be conspicuous and not covered, painted, or otherwise obscured from visual inspection.
- E. The standards which apply to this Project are not necessarily restricted to those organizations which are listed in Article 1.02.

1.02 Standard Organizations

A. Piping and Valves

ACPA	American Concrete Pipe Association
ANSI	American National Standards Institute
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
AWWA	American Water Works Association
CISPI	Cast Iron Soil Pipe Institute
DIPRA	Ductile Iron Pipe Research Association
FCI	Fluid Controls Institute
MSS	Manufacturers Standardization Society
NCPI	National Clay Pipe Institute
NSF	National Sanitation Foundation

	PPI	Plastic Pipe Institute
	Uni-Bell	PVC Pipe Association
B.	Materials	
	AASHTO	American Association of State Highway and Transportation Officials
	ANSI	American National Standards Institute
	ASTM	American Society for Testing and Materials
C.	Painting and Surface Preparation	
	NACE	National Association of Corrosion Engineers
	SSPC	Steel Structures Painting Council
D.	Electrical and Instrumentation	
	AEIC	Association of Edison Illuminating Companies
	AIEE	American Institute of Electrical Engineers
	EIA	Electronic Industries Association
	ICEA	Insulated Cable Engineers Association
	IEC	International Electrotechnical Commission
	IEEE	Institute of Electrical and Electronic Engineers
	IES	Illuminating Engineering Society
	IPC	Institute of Printed Circuits
	IPCEA	Insulated Power Cable Engineers Association
	ISA	ISA – The Instrumentation, Systems, and Automation Society
	NEC	National Electric Code
	NEMA	National Electrical Manufacturers Association
	NFPA	National Fire Protection Association
	REA	Rural Electrification Administration
	TIA	Telecommunications Industries Association
	UL	Underwriter's Laboratories
	VRCI	Variable Resistive Components Institute
E.	Aluminum	
	AA	Aluminum Association
	AAMA	American Architectural Manufacturers Association
F.	Steel and Concrete	
	ACI	American Concrete Institute

	AISC	American Institute of Steel Construction, Inc.
	AISI	American Iron and Steel Institute
	CRSI	Concrete Reinforcing Steel Institute
	NRMA	National Ready-Mix Association
	PCA	Portland Cement Association
	PCI	Prestressed Concrete Institute
G.	Welding	
	ASME	American Society of Mechanical Engineers
	AWS	American Welding Society
H.	Government and Technical Organizations	
	AIA	American Institute of Architects
	APHA	American Public Health Association
	APWA	American Public Works Association
	ASA	American Standards Association
	ASAE	American Society of Agricultural Engineers
	ASCE	American Society of Civil Engineers
	ASQC	American Society of Quality Control
	ASSE	American Society of Sanitary Engineers
	CFR	Code of Federal Regulations
	CSI	Construction Specifications Institute
	EDA	Economic Development Administration
	EPA	Environmental Protection Agency
	FCC	Federal Communications Commission
	FmHA	Farmers Home Administration
	FS	Federal Specifications
	IAI	International Association of Identification
	ISEA	Industrial Safety Equipment Association
	ISO	International Organization for Standardization
	ITE	Institute of Traffic Engineers
	NBFU	National Board of Fire Underwriters
	NFPA	National Fluid Power Association
	NBS	National Bureau of Standards

NISO	National Information Standards Organization
OSHA	Occupational Safety and Health Administration
SI	Salt Institute
SPI	The Society of the Plastics Industry, Inc.
TDEC	Tennessee Department of Environment and Conservation
TVA	Tennessee Valley Authority
USDC	United States Department of Commerce
WEF	Water Environment Federation

I. General Building Construction

AHA	American Hardboard Association
AHAM	Association of Home Appliance Manufacturers
AITC	American Institute of Timber Construction
APA	American Parquet Association, Inc.
APA	American Plywood Association
BHMA	Builders Hardware Manufacturers Association
BIFMA	Business and Institutional Furniture Manufacturers Association
DHI	Door and Hardware Institute
FM	Factory Mutual Fire Insurance Company
HPMA	Hardwood Plywood Manufacturers Association
HTI	Hand Tools Institute
IME	Institute of Makers of Explosives
ISANTA	International Staple, Nail and Tool Association
ISDSI	Insulated Steel Door Systems Institute
IWS	Insect Screening Weavers Association
MBMA	Metal Building Manufacturers Association
NAAMM	National Association of Architectural Metal Manufacturers
NAGDM	National Association of Garage Door Manufacturers
NCCLS	National Committee for Clinical Laboratory Standards
NFPA	National Fire Protection Association
NFSA	National Fertilizer Solutions Association
NKCA	National Kitchen Cabinet Association
NWMA	National Woodwork Manufacturers Association

	NWWDA	National Wood Window and Door Association
	RMA	Rubber Manufacturers Association
	SBC	SBCC Standard Building Code
	SDI	Steel Door Institute
	SIA	Scaffold Industry Association
	SMA	Screen Manufacturers Association
	SPRI	Single-Ply Roofing Institute
	TCA	Tile Council of America
	UBC	Uniform Building Code
J.	Roadways	
	AREA	American Railway Engineering Association
	CSD	City of Franklin Street Department MCHD Williamson County Highway Department
	TDOT	Tennessee Department of Transportation
K.	Plumbing	
	AGA	American Gas Association
	NSF	National Sanitation Foundation
	PDI	Plumbing Drainage Institute
	SPC	SBCC Standard Plumbing Code
L.	Refrigeration, Heating, and Air Conditioning	
	AMCA	Air Movement and Control Association
	ARI	American Refrigeration Institute
	ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
	ASME	American Society of Mechanical Engineers
	CGA	Compressed Gas Association
	CTI	Cooling Tower Institute
	HEI	Heat Exchange Institute
	IIAR	International Institute of Ammonia Refrigeration
	NB	National Board of Boilers and Pressure Vessel Inspectors
	PFMA	Power Fan Manufacturers Association
	SAE	Society of Automotive Engineers

	SMACNA	Sheet Metal and Air Conditioning Contractors National Association
	SMC	SBCC Standard Mechanical Code
	TEMA	Tubular Exchangers Manufacturers Association
M.	Equipment	
	AFBMA	Anti-Friction Bearing Manufacturers Association, Inc.
	AGMA	American Gear Manufacturers Association
	ALI	Automotive Lift Institute
	CEMA	Conveyor Equipment Manufacturers Association
	CMAA	Crane Manufacturers Association of America
	DEMA	Diesel Engine Manufacturers Association
	MMA	Monorail Manufacturers Association
	OPEI	Outdoor Power Equipment Institute, Inc.
	PTI	Power Tool Institute, Inc.
	RIA	Robotic Industries Association
	SAMA	Scientific Apparatus Makers Association

1.03 Symbols

- A. Symbols and material legends shall be as scheduled on the Drawings.

PART 2 - NOT USED

PART 3 – NOT USED

++ END OF CODES AND STANDARDS ++

SECTION C-02610
CURED-IN-PLACE PIPE (CIPP) LINER
FOR GRAVITY SEWER MAIN LINE REHABILITATION

PART 1 – GENERAL

1.01 Scope of Work

The work consists of the method and process for furnishing all labor, materials, tools, equipment and incidentals necessary to provide for the complete rehabilitation of deteriorated sanitary sewer pipes by forming a new tight-fitting liner within the existing pipe. The process in a typical and general form consists of a flexible felt tube impregnated with an approved resin that is inserted into an existing pipe. The curing may be accomplished by circulating heated water under hydrostatic pressure or steam pressure within the tube to affect the desired cure of the resin throughout the length of the tube, extending full-length from manhole to manhole. The resin should be cured into a hard, impermeable pipe of the desired thickness, providing a structurally sound, smooth interior and tight-fitting liner within the existing pipe. The lined pipe shall provide a hydraulic flow similar to, or greater than, the original new sewer capacity. The liner installation shall be completed in such a way as to prevent resin migration into service laterals.

1.02 Referenced Documents

- A. This specification references the American Society of Testing and Materials such as those indicated below, which are made a part hereof by such reference and shall be the latest edition and revision thereof:
1. ASTM F1216 (Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube);
 2. ASTM F1743 (Standard Practice for the Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe);
 3. ASTM D5813 (Standard Specification for Cured-In-Place Thermosetting Resin Sewer Piping Systems);
 4. ASTM D790 (Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials).
- B. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

1.03 Product and Contractor Qualification Requirements

- A. CIPP sewer products shall have a fifty-year design life and only proven products with substantially successful long-term track records are acceptable. Results of independent third-party test samples simulating installation methods and trauma of the product must support the short- and long-term performance as well as structural strength of the sewer rehabilitation product(s).

- B. The tube and resin manufacturers shall be third-party certified to ISO 9000 or other internationally recognized organization standards.
- C. CIPP liner materials must have passed independent approved third-party laboratory testing, not excluding long-term (10,000 hour) structural behavior testing, and must have been successfully installed to repair failing host pipes in the United States (U.S.) for at least five (5) years. In addition to the aforementioned, Engineer may require that Contractor and manufacturer demonstrate that proposed CIPP liner materials meet or exceed the specifications herein and submit evidence for Engineer approval prior to installation of the proposed CIPP liner material systems.
- D. The Contractor performing the CIPP lining work shall be fully qualified, experienced and equipped to complete this work expeditiously and in a satisfactory manner and shall be certified and/or licensed as an installer by the CIPP lining manufacturer. The Contractor shall have successfully installed a minimum of 250,000 feet of the proposed CIPP liner during the last three (3) years. The full-time, on-site superintendent/foreman that will supervise the CIPP lining installation under this Contract shall have successfully installed a minimum of 100,000 feet of the proposed CIPP liner during the last two (2) years.
- E. Pre-approved manufacturers of cured-in-place pipe (CIPP) are:
 - 1. Insituform® CIPP, Insituform Technologies, Inc., 17988 Edison Avenue, Chesterfield, MO, 63005, phone (800) 234-2992.
 - 2. InLiner™, Inliner Technologies, Inc., 1468 West Hospital Road, Paoli, IN, 47454, phone (812) 723-0704.
 - 3. SAK Liner™, SAK Construction, LLC., 864 Hoff Road, O'Fallon, MO, 63366, phone (636) 385-1000.

1.04 Submittals

- A. Prior to installation, Contractor shall submit to Engineer a complete list of all materials proposed to be furnished and installed under this Contract. No sewer lining components shall be brought onto the job site until product submittals have been approved by the Engineer.

Submittals, which must be submitted to Engineer for approval, include:

- 1. Manufacturer certification that Contractor is certified and/or licensed as an installer by the CIPP manufacturer.
- 2. Full product submittal for all materials utilized in the CIPP installation to include, but not limited to, the resin and felt tube.
- 3. Third-party written certification of compliance with the applicable ASTM standards listed in Section 2.02 Structural Requirements.
- 4. Evidence that tube and resin manufacturers are third-party certified to ISO 9000 or other internationally recognized organization standards.
- 5. Independent third-party test results supporting the short- and long-term performance as well as structural strength of the proposed sewer rehabilitation product(s). Test samples shall be prepared to simulate installation methods and trauma of the product and must verify that the CIPP physical properties specified in Section 2.02 have been achieved in previous field applications.

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6. Calculations, prepared and sealed by a professional engineer registered in the state of Tennessee with a minimum of two (2) years CIPP design experience, showing the design for the liner thickness for the various sewer pipe sizes.
 7. Description of installation procedure and equipment proposed for use including the designated curing water or steam temperatures, curing pressures, liner installation methods and limitations, locations of monitors, etc.
 8. Cleaning equipment and methods.
 9. Name and contact information of proposed third-party testing company.
- B. Line Segment Inspection Documentation
1. Submit templates of all standard record keeping and inspection forms, which are to be utilized and prepared by the Contractor for issuance to the Engineer, for Engineer review and approval prior to incorporation into the documentation.
 2. After rehabilitation of line segments, Contractor shall:
 - i. submit inspection reports for each line segment. Documentation must at a minimum include the location and/or sewer main identification, upstream and downstream manhole identifications, condition of sewers, lateral connections and joints.
 - ii. furnish closed-circuit television (CCTV) pre- and post-rehabilitation inspection reports on DVD along with typewritten logs of the internal inspections.
- C. Public Notification Forms
1. Prior to scheduling of rehabilitation work, Contractor's method and text of public notifications shall be approved by the Engineer. Contractor shall submit sample public "Notification of Sewerage Service Disruption" forms to the Engineer for review and approval along with the proposed public notification method.
 2. Equipment signage, if applicable, vehicle identification and typical photo badge identification developed by the Contractor shall be submitted to the Engineer for review prior to any work being performed. Contractor's vehicle identification shall be in accordance with Section C-01000 Project Requirements.
- D. Bypass Procedures
- Prepare and submit proposed bypass pumping techniques, equipment, procedures and emergency response plan to Engineer for review prior to installation of proposed bypass pumping operation. Contractor shall include detailed plans for bypassing flow from sections of pipe and laterals to be replaced prior to commencement of work.

E. Primary Installation Equipment

Submit a list of all key equipment and rated relevant capacities that will be utilized for installation of the CIPP. This shall include, but is not limited to, the heat source, resin mixing device, impregnation device, tube feed control equipment, etc.

F. Traffic Control Plan

A Traffic control plan must be submitted for all work along public streets or right-of-ways that are designated for public use. Submittal must be received by the Engineer, and any otherwise appropriate review authority, a minimum of seven (7) days prior to planned work and must be approved prior to commencement of work in these areas. It shall be the Contractor's responsibility to coordinate submittal requirements with the different agencies involved. The Engineer will assist with the facilitation of such other agency requests as necessary.

PART 2 – PRODUCTS

2.01 General

The proposed materials shall be suitable for use in the environment and conditions of the Work.

A. Liner Felt Fiber Tube

1. The product shall not be made of a dark or non-reflective material that would inhibit proper CCTV inspection.
2. The felt fiber tube shall be fabricated to a size that when installed will neatly fit the internal circumference of the conduit to be rehabilitated as specified. Allowance for circumferential stretching during insertion shall not exceed manufacturer's standards, nor shall it result in allowing violation of the minimum thickness requirements.
3. The liner length shall be that deemed necessary by Contractor to effectively carry out the insertion from inlet to outlet points. The Contractor shall verify the lengths in the field. Individual installation runs can be made over one or more access points as determined in the field by the Contractor, authorized by the manufacturer and approved by the Engineer.
4. The material shall be manufactured in such a manner as to result in a tight-fitting, continuous liner after installation. There shall be no measurable annular space. The liner shall have a snug fit at service connections and manhole terminations as shall be evidenced by indentations and flares respectively.

B. Resin

1. The resin system shall be a corrosion resistant isophthalic polyester or vinyl ester system including all required catalysts, initiators that when cured within the tube create a composite that satisfies the requirements of ASTM F1216, ASTM D5813 and ASTM F1743, the physical properties herein, and those which are to be utilized in the submitted and approved design of the CIPP for this Work.

2. The resin for this Work shall be equal or superior to, at the discretion of the Engineer, Vipel® L704 series resin as manufactured by AOC of Collierville, Tennessee. Any resin used shall produce a CIPP that will comply with the structural and chemical resistance requirements of this specification.

2.02 Structural Requirements

A. General

1. The newly installed liner system shall be designed for a minimum fifty-year service life under continuous loading conditions.
2. The liner system shall be designed by a professional engineer registered in the state of Tennessee and shall have sufficient wall thickness to withstand the anticipated external pressures and loads that will be imposed after installation. The design of the liner shall include considerations for ring bending, deflection, combined loading, buckling, ovality and installation procedures. Signed and sealed calculations which determine wall thickness requirements of the liner shall be submitted to the Engineer for review and comments prior to installation. Designs shall be based on the use of standard flexible pipe equations, as detailed in ASTM F1216 and shall account for the effects of ovality.
3. Design of the liner system shall be based on the condition of the existing pipe that shall be classified as fully deteriorated unless another classification has been agreed to by the Engineer prior to installation of the liner. Fully deteriorated pipe is herein defined as being structurally unsound, suffering from severe cracks and missing sections or other defects. The design shall assume no bonding to the original pipe wall. The liner system shall be designed to withstand all imposed loads.
4. The tube manufacturer must have performed long-term testing for flexural creep of the CIPP material installed by his contractor. Such testing results are to be used to determine the long-term, time dependent flexural modulus to be utilized in the product design. This is a performance test of the materials (tube and resin) and general workmanship of the installation and curing. A percentage of the instantaneous flexural modulus value (as measured by ASTM D790 testing) will be used in design calculations for external buckling. The percentage, or the long-term creep retention value utilized, will be verified by this testing. Values in excess of fifty percent (50%) will not be applied unless substantiated by qualified third party test data. The materials utilized for this project shall be of a quality equal to or better than the materials used in the long-term test with respect to the initial flexural modulus used in design.
5. The liner thickness proposed by the Contractor will be reviewed by the Engineer utilizing the design process listed in ASTM F1216 and in particular Appendix XI. If the Contractor's calculation method differs from these equations, Contractor shall explain, clearly in detail, why different equations are utilized and provide satisfactory justification for each deviation.

6. The layers of the cured CIPP shall be uniformly bonded. It shall not be possible to separate any two (2) layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers. If separation of the layers occurs during testing of field samples, new samples will be cut from the work. Any reoccurrence may cause rejection of the work.

B. Specific Design Parameters and Requirements

1. A design safety factor of at least two (2) shall be utilized at all times.
2. The short-term modulus of elasticity will be reduced by fifty percent (50%) in the calculations. If Contractor submits third party certified test results proving a lesser reduction in the long-term modulus after a 10,000-hour test, Engineer will take this into consideration.
3. The Enhancement Factor "K" to be used in "partially deteriorated" design conditions shall be assigned a value of "7". Application of Enhancement Factors (K) in excess of "7" shall be substantiated through independent third-party test data.
4. Ovality shall be calculated from ASTM F1216 Appendix XI.I or as otherwise previously agreed to by the Engineer.
5. Physical properties for the cured pipe shall conform to the minimum structural standards as follows:

<u>Property</u>	<u>Standard Test Method</u>	<u>Cure Polyester Composite Minimum Values Standard</u>	<u>Enhanced Resin</u>
Tensile Strength	ASTM D638	3,000 psi	4,000 psi
Flexural Strength	ASTM D790	4,500 psi	4,500 psi
Modulus of Elasticity	ASTM D790	250,000 psi	400,000 psi

If so directed by the Engineer, the Contractor shall furnish, prior to use of the materials, satisfactory written certification of his compliance with the manufacturer's standards for all materials and conformance with methods of the manufacturer's process.

6. General corrosion requirements of the CIPP necessitate the system utilize thermosetting resins which will withstand the corrosive effect of the existing residential, commercial and industrial effluents, liquids and/or gases.
7. Hydraulic capacity requirements shall be addressed such that the hydraulic profile shall be maintained as large as possible. The liner shall have a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.

8. Contractor shall submit test results from field installations of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified in Section 2.02 have been achieved in previous field applications. Samples for this project shall be made and tested as described in Part 3 of this specification.

2.03 Liner Materials

The only liner products that are pre-approved for installation for this Work are referenced in Section 1.03.E of this specification. Any other processes to be considered equal to those pre-approved shall meet the requirements specified in this specification or as otherwise noted.

At the time of manufacture, each lot of liner shall be inspected for defects and tested in accordance with applicable ASTM standards. At the time of delivery, the liner shall be homogeneous throughout, uniform in color, free of cracks, holes, foreign materials, blisters or deleterious faults.

For testing purposes, a production lot shall consist of all liners having the same marking number. It shall include any and all items produced during any given work shift and must be so identified as opposed to previous or ensuing production.

The Engineer may at any time direct the manufacturer to obtain compound samples and prepare test specimens in accordance with applicable ASTM standards.

The CIPP fiber felt tubing, including the polyurethane, polyethylene or poly-vinyl chloride covered felt and the thermosetting resin shall meet all applicable ASTM and manufacturer's standards.

A. Tube

1. The CIPP tube shall consist of one or more layers of absorbent non-woven felt fabric and meet the requirements of ASTM F1216, ASTM F1743 or ASTM D5813. The tube shall be constructed to withstand installation pressures, have sufficient strength to bridge missing pipe and stretch to fit irregular pipe sections.
2. The wet out tube shall have a uniform thickness that when compressed at installation pressures will meet or exceed the design thickness.
3. The tube shall be manufactured to a size that when installed will tightly fit the internal circumference and length of the original pipe to be rehabilitated as specified. Allowance for circumferential stretching during installation shall not exceed manufacturer's published or otherwise directed standards nor shall it allow for noncompliance with the minimum design wall thickness. Overlapped layers of felt in longitudinal seams that cause objectionable lumps in the final product shall not be utilized.
4. The outside layer of the tube (before wet out) shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate monitoring of resin saturation during the resin impregnation (wet out) procedure.
5. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.

6. The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with CCTV inspection equipment may be made.
 7. Seams in the tube shall be stronger than the non-seamed felt.
 8. The exterior surface of the tube to be inserted shall be marked for distance at regular intervals along its entire length, not to exceed five feet (5'). Such markings shall include the manufacturer's name or identifying symbol. The tubes must be manufactured in the U.S.
- B. Resin
1. The resin system shall be a corrosion resistant isophthalic polyester, vinyl ester or epoxy and catalyst system that when properly cured within the tube composite meets the requirements of ASTM F1216, ASTM F1743 and ASTM D5813, the physical properties herein and those which are to be utilized in the design of the CIPP for this project.
 2. The resin shall produce CIPP that will comply with the structural and chemical resistance requirements of this specification and the intended application.
 3. Any resin utilized for this project must be specified in the design furnished by the Contractor's professional engineer. This resin shall meet with the approval of the Engineer prior to incorporation into the work.

PART 3 – EXECUTION

3.01 Cleaning

- A. Prior to installation of the liner, the Contractor shall clean the sewer to be lined. The Contractor shall be responsible for determining the extent of the cleaning during his jobsite examination. Cleaning operations shall result in virtually one hundred percent (100%) of the debris being removed. The Contractor shall clean the sewer with hydraulically propelled, high velocity jet or mechanically powered equipment. Selection of the equipment shall be based on the conditions of lines at the time work commences. The equipment and methods selected shall be satisfactory to Engineer and shall be capable of removing dirt, grease, rocks, sand and other material and obstructions from the sewer line.
- B. Heavy cleaning is herein defined as pipe sections that require debris removal of depths exceeding 25 percent of the pipe height and shall, as necessary, include the use of vacuum and other equipment.
- C. During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment to prevent damage to the existing pipe.
- D. Debris disposal is the responsibility of the Contractor.
- E. A debris disposal manifest shall be provided indicating time and location of disposal.
- F. The Contractor shall ensure no solids are passed downstream to the next pipe section during the cleaning operation.

3.02 Pre-Installation Television Inspection

After cleaning the sewer segment, the Contractor shall internally inspect, via television inspection, the sewer segment to be lined. Personnel conducting the television inspection shall be experienced in operating a sewer televising digital camera and analyzing pipe conditions from the video image. Pipe defects shall be according to NAASSCO PACP descriptors and methodology.

- A. The Contractor shall record these CCTV inspections on DVD and shall include a verbal narrative noting:
 - 1. Date, time of day, type of existing pipe material, diameter of pipe and depth of flow.
 - 2. Sewer segment number as well as the "from" manhole number and "to" manhole number as per the COF GIS Numbering system for manholes.
 - 3. Locations of service connections and branch sewers into the main line.
 - 4. Locations of obstructions, structural defects, joint deterioration, leakage or evidence thereof, and other abnormalities with respect to the sewer condition.
 - 5. The structural defects shall be described as per PACP requirements.
 - 6. The distance from the centerline of the upstream manhole for each item noted.
- B. The interior of the pipeline shall be carefully inspected to determine the location and extent of any detectable structural failures. The location of any conditions that may prevent proper installation of CIPP into the pipelines shall be noted so that these conditions can be corrected.
- C. The camera utilized for closed circuit televising shall meet NASSCO PACP certification and shall be equipped with digital zoom and remote control devices to adjust the light intensity. The camera shall be equipped with an articulating lens to provide clear views of laterals and other items of importance. The camera shall have a minimum of 1,000 feet of coaxial cable. The camera shall be able to transmit a continuous image to the television monitor as it is being pulled through the sewer segment.
- D. The Contractor shall present on DVD a continuous image of not less than ninety percent (90%) of the internal pipe circumference at all times. Maximum acceptable speed of camera through sewer shall be thirty feet per minute (30 fpm).
- E. If any obstruction in the sewer segment, such as a protruding building lateral, prohibits the passage of the television camera, the Contractor shall attempt to inspect the remainder of the sewer segment by making a reverse setup at the next downstream manhole. All obstructions which prevent the passage of the television camera shall be immediately reported to the Engineer by Contractor referencing the location and nature of the obstruction.
- F. Should pre-lining CCTV inspections reveal the mains to be in substantially different conditions than those stated in the design considerations, then Contractor shall report such condition to the Engineer immediately and shall not proceed without further direction from Engineer.
- G. The Contractor shall submit the pre-installation CCTV DVD to the Engineer.

3.03 Bypass Pumping

The Contractor, when required for proper installation of the liner, shall provide for the transfer of sewage flow around the section or sections of pipe designated for rehabilitation. The bypass shall be made by diversion of the flow at an existing upstream manhole and directing the flow

around the section to be taken from service. Bypass lines and pumps, if necessary, shall be of adequate capacity and size to handle the flow. The proposed bypassing system shall be set up to allow adequate traffic flow to local businesses and residents. The proposed bypassing system shall be submitted and approved in advance by the Engineer (COF) within two weeks of commencement of work.

3.04 Clearing Protruding Laterals and Obstructions

Based on the Contractor's and Resident Project Representative's review of the existing sewer pre-installation CCTV footage, it shall be determined if a protruding lateral or obstruction will need to be cleared. If the Contractor determines a protruding lateral or obstruction must be cleared prior to installation of the liner, it shall be the responsibility of the Contractor to clear the protruding lateral or obstruction utilizing robotic equipment, if possible.

If clearing a protruding lateral or obstruction is not possible by remote methods in the opinion of the Engineer, the Owner shall utilize its own forces to clear the protruding lateral utilizing a point repair by excavation.

3.05 Clearing Obstructions by Point Repair

If inspection reveals an obstruction cannot be removed by cleaning or remote methods, then the Owner shall utilize its own forces to make a point repair by excavation methods. The Owner shall be afforded up to seven (7) days to make such point repair. If after seven (7) days the Owner has not removed the obstruction, Contractor may skip that segment and move on to the next one.

3.06 Product Handling

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

In the event the liner material is damaged in the opinion of the Engineer or Resident Project Representative, the Contractor shall immediately make all repairs or replacements necessary to the approval of the Engineer, at no additional cost to the Owner.

3.07 CIPP Installation Procedure

Contractor shall submit to Engineer pre-CCTV video for review prior to lining any segments. After review of pre-CCTV video, Engineer will determine which line segments are approved for lining and will notify Contractor. Once lining schedule is determined, Contractor shall inform Engineer. No pipe shall be lined without prior notification to the Engineer or Resident Project Representative. Each liner shall be subject to inspection by the Engineer or Resident Project Representative immediately before it is installed and while being installed. Defective liners will be rejected and shall be removed from the site immediately. Contractor shall prevent obstructions to the flow and resin migration into service laterals during liner installation. If a flow obstruction is present in the finished liner and/or if resin migrates into service laterals, it shall be removed by the Contractor at no additional cost to the Owner.

The following are general steps required for installation of CIPP liner systems. Specific requirements for temperature, pressure and time shall be determined by the manufacturer.

A. Resin Impregnation and Tube Insertion

1. Contractor shall designate a location where the uncured resin in the original containers and the un-impregnated fiber felt tube will be impregnated prior to

installation. The Contractor shall allow the Engineer and/or Resident Project Representative to inspect the materials and "wet out" procedure as desired. A resin and catalyst system compatible with the requirement of this method shall be used. The quantities of the liquid thermosetting materials shall be per manufacturer's standards to provide the lining thickness specified.

2. The wet out fiber felt tube shall be inserted through an existing manhole or other approved access. The manufacturer's standards shall be closely followed during the elevated curing temperatures so as not to over stress the felt fiber and cause damage or failure prior to cure.
3. CIPP installation shall be in accordance with ASTM F1216, Section 7 or ASTM F1743, Section 6, or as otherwise appropriate for the method proposed with the following modifications:
 - i. The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the loss of resin through cracks and irregularities in the original pipe wall. A vacuum impregnation process is desirable. The method of resin impregnation utilized must meet with the Engineer's approval. To ensure thorough resin saturation throughout the length of the felt tube, the point of vacuum shall be no further than twenty-five feet (25') from the point of initial resin introduction. After vacuum in the tube is established, a vacuum point shall be no further than seventy-five feet (75') from the leading edge of the resin. The leading edge of the resin slug shall be as near to perpendicular as possible. A roller system shall be used to uniformly distribute the resin throughout the tube. If the Contractor uses an alternate method of resin impregnation, the method must produce the same or measurably better results. Any alternate resin impregnation method intended for use must first be proven to the satisfaction of the Engineer.
 - ii. Tube Insertion: The wet out tube shall be positioned in the pipeline using either inversion or a pull-in method as defined within relevant ASTM standards. If pulled into place, a power winch or its approved equivalent should be utilized and care should be exercised not to damage the tube as a result of pull-in friction. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.
 - iii. Temperature gauges shall be placed inside the tube at the invert level of each end to monitor the temperatures during the cure cycle.

B. Curing

1. After installation of the wet out felt tube is completed, the Contractor shall supply a suitable heat source and recirculation equipment.
2. The equipment shall be capable of delivering the heat source to the far end of the pipe section per manufacturer's recommendations, to uniformly raise the

temperature in the line section equal to or above the temperature required to affect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

3. Curing shall be accomplished by utilizing a heat source of hot water, hot air or steam under positive pressure in accordance with the manufacturer's recommended cure schedule.
4. The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing heat exchangers. Thermocouples shall be placed between the impregnated tube and the invert at the far access point to determine the temperature and time of exotherm. Temperature in the pipeline during the cure period shall be as specifically designated by the manufacturer.
5. Initial cure shall be deemed to be completed when inspection of the exposed portions of CIPP appear to be hard and sound and the thermocouples indicate that an exotherm has occurred. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the CIPP process being used, during which time the recirculation of the heat source and cycling of the heat exchanger to maintain the temperature continues.

C. Cool Down

The Contractor shall cool the finished CIPP by the methods and to a temperature recommended by the resin manufacturer before relieving the normal pressure in the pipe. Care shall be taken in the release of the static head such that a vacuum will not be developed that could damage the newly installed cured-in-place piping.

D. Finish

The finished CIPP shall be continuous over the entire length of the insertion run and be as free as commercially practical from flow obstructions, resin migration into service laterals and significant defects, including those that will affect the integrity of strength of CIPP in the foreseeable future or warranty period. Any defects, flow obstructions and resin migration present in the finished liner shall be repaired at the Contractor's expense and in a manner mutually agreed upon by Engineer and Contractor. Final cured thickness of the liner shall meet the following minimum liner thickness requirements:

Pipe size	Minimum cured liner thickness
6"	4 mm
8" and 10"	6 mm
12"	7.5 mm

E. Sealing the Ends

If cured-in-place pipe fails to make a tight seal due to broken or misaligned pipe at the access points, the Contractor shall apply a seal at that point. The seal shall be of a resin mixture compatible with the CIPP and as acceptable to the resin manufacturer.

The water tightness of CIPP shall be gauged while curing and under positive pressure, or as otherwise directed by the Engineer.

3.08 Service Lateral Reinstatement

It shall be the Contractor's responsibility to determine and to assure that all active laterals are connected to the new liner. The Contractor shall coordinate all lateral robotic cutting with the Owner's Resident Project Representative such that adequate inspection can be made in a timely manner.

- A. Lateral reinstatement shall be completed from inside the pipe. Where holes are cut through the liner, they shall be neat and smooth in order to prevent blockage at the service connections. Failure of contractor to trim out lateral connections that require additional work by others shall not void the warranty of the CIPP Mainline Liner.
- B. Robotically cut-in service connections shall be opened to a minimum of ninety-five percent (95%) and a maximum of one hundred percent (100%) of the internal diameter of the existing lateral. The Contractor shall attempt to retain the coupons at each lateral reinstatement as practical for the method of reinstatement employed. Any coupons made as a result of the robotic cutting shall be retained, catalogued and submitted to the Resident Project Representative for inspection.
- C. Reconnecting the active laterals to the newly lined sewer main shall include all labor, materials, equipment and incidentals as required. In the event the Contractor makes a lateral reinstatement which is not at an active lateral, the Contractor shall apply an approved internal patch to repair the cut-in hole so infiltration does not enter the pipe at that location and the structural integrity of the liner is not compromised. The Contractor shall make such necessary repairs at no cost to the Owner.

3.09 Post-Installation Television Inspection

The Contractor shall televise the inside of the lined sewer segment by CCTV inspection after installation of the liner and reinstatement of all lateral connections are completed. The post-installation CCTV inspection shall comply with the provision in Paragraph 3.02.

All defects discovered during the post installation television inspection shall be corrected by the Contractor before the work under the Contract will be considered for substantial completion. After the defects are corrected to the satisfaction of the Engineer, the sewer shall be CCTV inspected again at no additional cost to the Owner.

The post-installation television inspection DVD shall be submitted to the Engineer in sufficient time to allow the Engineer to review the video tape prior to any substantial completion milestone(s).

3.10 Clean-Up

The Contractor shall flush and clean the lined sewer section, if necessary, to remove all accumulated construction debris, rocks, gravel, sand, silt and other foreign material from the sewer system at or near the closest downstream manhole. Debris shall not be allowed to pass downstream. If it does, the Contractor shall clean the next sewer segment at no additional cost to the Owner.

The Contractor shall restore or replace all removed or damaged paving, curbing, sidewalks, gutters, 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.

After the installation has been completed and accepted, the Contractor shall clean up the entire project area. All excess material and debris not incorporated into the permanent installation shall be disposed of by the Contractor.

Upon acceptance of the installation work and testing, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work.

3.11 Testing and Inspection

- A. Samples shall be prepared and tested in accordance with ASTM F1216, Section 8. This sampling shall be performed for every 1,000 linear feet of the proposed CIPP liner installed, or as otherwise directed by the Engineer.
- B. Pipe physical properties will be tested by a third-party Engineer-approved testing company in accordance with ASTM F1216 or ASTM F1743, or as otherwise appropriate for the method proposed. The flexural properties must meet or exceed the greater of values listed in Section 2.02 of this specification, Table 1 of ASTM F1216 or the values submitted to the Engineer by the project's CIPP wall designer. Each testing report must clearly:
 - 1. Indicate date and location of sample;
 - 2. Indicate date and type of test;
 - 3. State results;
 - 4. Certify compliance with Specifications.
- C. Wall thickness of samples shall be determined as described in ASTM F1216, or as otherwise approved by the Engineer. The minimum wall thickness at any point shall not be less than 87-1/2% of the submitted minimum design wall thickness as calculated in accordance with Section 2.02 of this specification.
- D. Visual inspection of the CIPP shall be in accordance with ASTM F1743, Section 8.6, or as otherwise necessary for the methods and products employed.

3.12 Warranty

The cured CIPP liner shall be watertight and continuous over the entire length of each run and shall be free from material defects in workmanship and materials. Any defects found, including non-watertightness, during the warranty period shall be repaired by the Contractor at no additional cost to the Owner.

+ + END OF CURED-IN-PLACE PIPE (CIPP) LINER
FOR GRAVITY SEWER MAIN LINE REHABILITATION + +

City of Franklin Addendum No. 1 to

Purchasing Office Solicitation No.: 2020-001

1. Solicitation identified: This Addendum No. 1 applies to the following procurement solicitation:

Sewer Main Rehabilitation Term Contract
Purchasing Office Solicitation No.: 2020-001

2. Notice to Bidders publication date: **May 30, 2019**
3. Date Project Manual posted on City's website: **May 31, 2019**
4. Deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of this procurement solicitation: **June 22, 2019, 2:00 p.m. Central Time**
5. Addendum No. 1 release date: **June 26, 2019**
6. Bids submittal deadline and scheduled opening:
~~**July 2, 2019, 2:00 p.m. Central Time**~~
July 9, 2019, 2:00 p.m. Central Time
7. Tentative date of release of City's tabulation of bids received and notice of intent to award:
~~**August 9, 2019**~~
August 23, 2019
8. Tentative date of award: Meeting of Board of Mayor and Aldermen at which is tentatively scheduled to be awarded the selection of the lowest and best responsive and responsible bid:
~~**August 27, 2019**~~
September 10, 2019
9. Addendum:

In reference to the City of Franklin's May 31, 2019 Purchasing Office Solicitation No. 2020-001 for Sewer Main Rehabilitation Term Contract, the City has been asked certain questions about the solicitation by one or more vendors who are potential bidders.

The purpose of this Addendum No. 1 is to announce the City's responses to the questions that have been asked to date.

Please note that, by this Addendum No. 1, the submittal deadline and scheduled opening of all bids received is hereby postponed to:

July 9, 2019, 2:00 p.m. Central Time

Below are the questions asked to date and the City's responses thereto:

City of Franklin Addendum No. 1 to

Purchasing Office Solicitation No.: 2020-001

Q1: Is there a set of plans?

A1: There are not engineered drawings; see the maps attached to this Addendum No. 1 as Appendix A (“Jobsite Area Map”) and Appendix B (“Jobsite-Specific Location Maps”).

Q2: Are there any pipe reports or video available to view?

A2: Yes, a total of 52 videos, identified by manhole numbers shown on the map exhibits provided as Appendices A and B (see A1 above), are viewable at the following hyperlink:

https://www.youtube.com/watch?v=k8RgSnmdGII&list=PLFTfSjOM5hUCnU6znWIUblkacW2_wm2s&index=2&t=0s.

Q3: To date, has the City approved for bidding purposes any products not manufactured by one of the pre-approved manufacturers specifically identified in the City’s project manual?

A3: Yes, to date, the City has approved for bidding purposes the following other products:

1. Applied Felts CIPP liner
2. FerraTex CIPP liner

Please note that the City reserves the right to conduct a more detailed review of any bid products not manufactured by one of the pre-approved manufacturers specifically identified in the City’s project manual to ensure the bid product meets or exceeds the City’s specifications as they may be amended by addendum.

Q4: Please revise Section C-02610 2.02.B.5 of the City’s Project Manual by deleting tensile strength testing requirements. Per ASTM F1216, tensile strength testing is not required for gravity sewer, and gravity sewer CIPP liners are not designed for this requirement.

A4: The liners thickness are for full deteriorated design which considers torsional forces that induces tension. This requirement will remain.

Q5: What is the expected annual release / budget?

A5: \$350,000 to \$500,000 dollars annually.

Q6: Does the contractor have the ability to increase unit prices each year?

A6: No.

Q7: Does the owner have previous bid tabulations that can be provided?

A7: No.

Q8: Will the owner be providing a water meter for the contractor to utilize free of charge for this project?

City of Franklin Addendum No. 1 to

Purchasing Office Solicitation No.: 2020-001

A8: The City will provide a hydrant meter and will not charge for the water usage. However, the contractor will have to place a \$1,000.00 deposit on the hydrant meter to the City of Franklin.

Q9: Will the City provide a drying bed to the contractor to dispose the solids once decanted from the vacuum truck? If so, what is the location?

A9: No.

Q10: If no drying bed will be provided by the owner, what is a nearby location that will accept the debris?

A10: The contractor will have to take all vac truck debris to Onsite Environmental in Nashville, TN for disposal at the contractor's expense.

Q11: How much does the Owner anticipate spending on this contract during its term?

A11: See A3 above.

Q12: Will the Owner award to multiple Contractors?

A12: No.

Q13: How will the owner anticipate issuing work orders? Will they be issued as singles or grouped together as packages?

A13: The City anticipates two to three work orders per year with each work order consisting of multiple segments of pipe.

Q14: How will the contractor be required to respond to single work orders? Will there be a minimum work order amount provided to help cover mobilization?

A14: See A11 above.

Q15: Has the owner utilized a similar contract previously? If so, who held the contract?

A15: No.

Q16: Will the Owner please provide any previous itemized bid tabs available for past projects of similar scope / contract type?

A16: No.

Q17: The current bid schedule has 9,000 LF of mainline sewer cleaning, Pre and Post-CIPP CCTV Inspections. This quantity does not match the quantity of 6-12" dia. (totaling 12,250 LF). Will line item 1 be paid \$/LF each time a CIPP segment is cleaned & TVed, both pre & post? Should the quantity for line item 1 be 24,500 LF to account for pre & post of the proposed 12,250' of CIPP in the bid schedule?

City of Franklin Addendum No. 1 to

Purchasing Office Solicitation No.: 2020-001

A17: The unit price should include pre and post in one unit price. The quantity should be 12,250 LF. See Appendix C (“Modified Bid Tab”) attached to this Addendum No. 1.

Q18: What is the difference in line item 1 and 2? How will each be paid?

A18: Item 1 is for the cleaning and pre and post CCTV work for segments that do get lined. Item 2 was created for those cases where it is discovered after pre-inspection and cleaning the pipe cannot be lined due to unforeseen conditions, e.g., a dropped joint.

Q19: Will the Contractor be allowed to negotiate annual pricing changes during renewal discussions, or will the Contractor be required to hold the same unit pricing for all renewals?

A19: No. If pricing becomes a concern for the contractor the contractor will have the option to not renew the contract at annual renewal date.

Q20: The current CIPP spec’s minimum thickness for 6” diameter contradicts the bid schedule (shown as 3 mm). Will the Owner please confirm minimum thickness for 6” dia. CIPP?

A20: 6” diameter pipe will be a cured finish of 3mm. See Appendix D (“Modified CIPP Finish Size Table”) attached to this Addendum No. 1.

10. Acknowledge addendum: Bidders shall acknowledge this addendum on their submitted Bid Form.

11. Questions: The deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of this procurement solicitation has now passed. To ask questions of a procedural nature, please contact:

City of Franklin Purchasing Office
Franklin City Hall, Suite 107
109 3rd Ave. South
Franklin, TN 37064
purchasing@franklintn.gov
Tel: 615/550-6692
Fax: 615/550-0079

12. Communication with City during procurement phase: Any questions about either the content of or the procurement process pertaining to this procurement solicitation should be addressed as described above. Until the procurement award has been made, vendors shall not communicate about either the content of or the procurement process pertaining to this procurement solicitation with any official, employee or other representative of the City except through the City’s Purchasing Office. The City reserves the right to disqualify any vendor that initiates unauthorized communication with the City during the procurement phase.

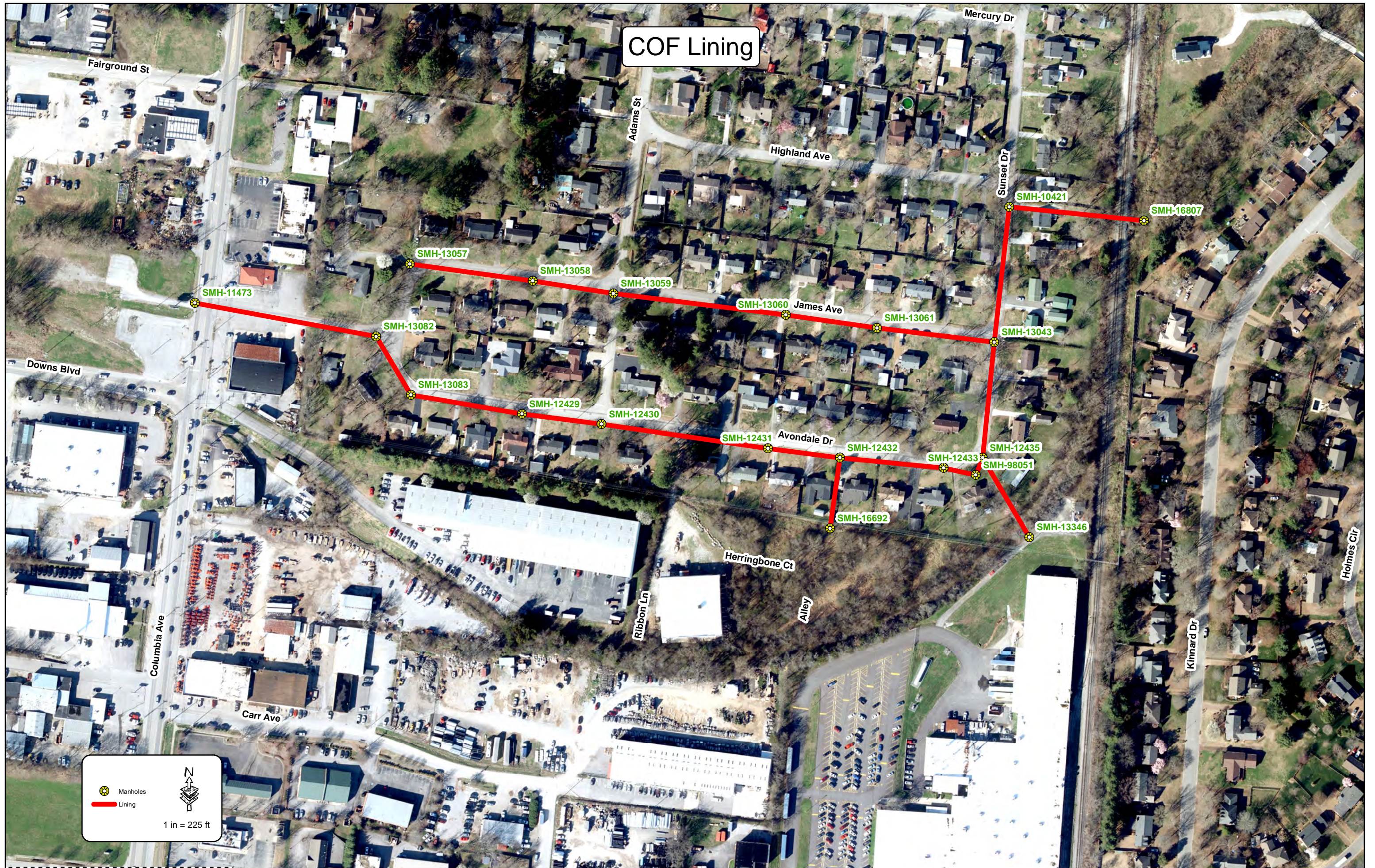
COF Lining



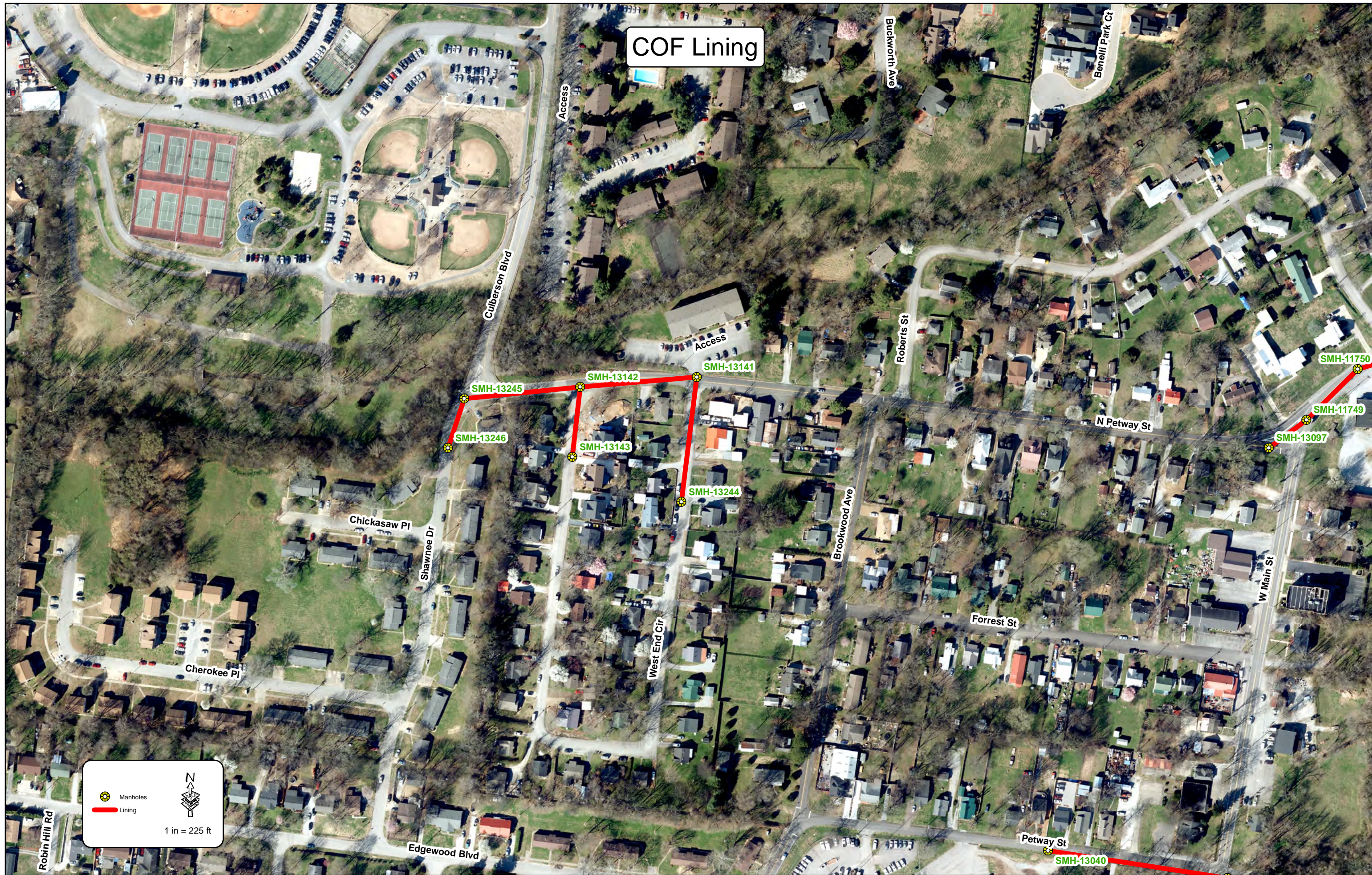
● Manholes
— Lining

1 in = 600 ft

COF Lining



COF Lining






COF Lining



COF Lining






 Manholes
 Lining


1 in = 225 ft

COF Lining






 Manholes
 Lining


1 in = 225 ft

COF Lining



 Manholes
 Lining


1 in = 225 ft

COF Lining



COF Lining



Manholes
Lining

1 in = 225 ft

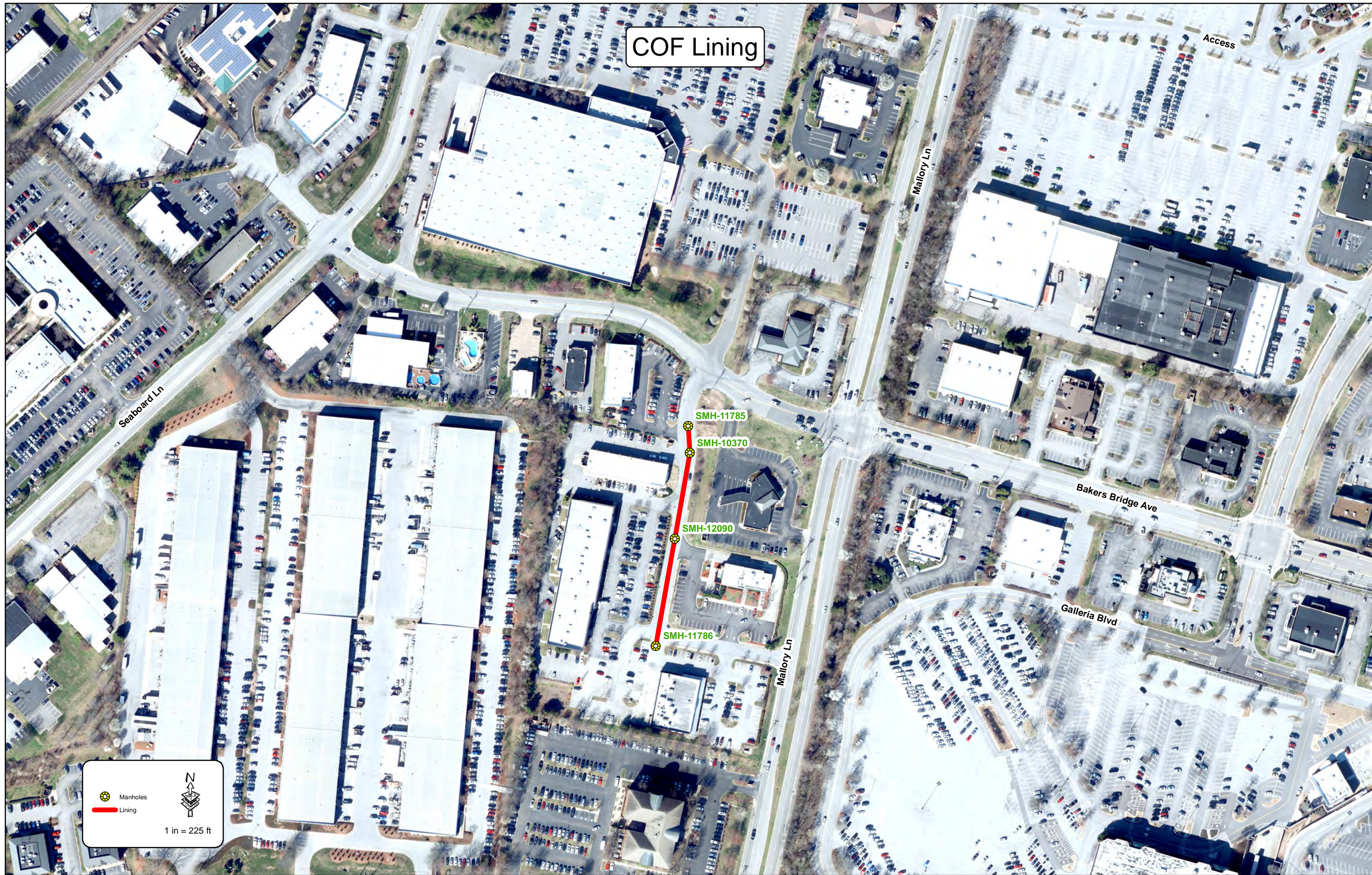
COF Lining



Manholes
Lining

1 in = 225 ft

COF Lining



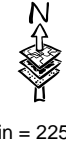
Manholes
Lining

1 in = 225 ft

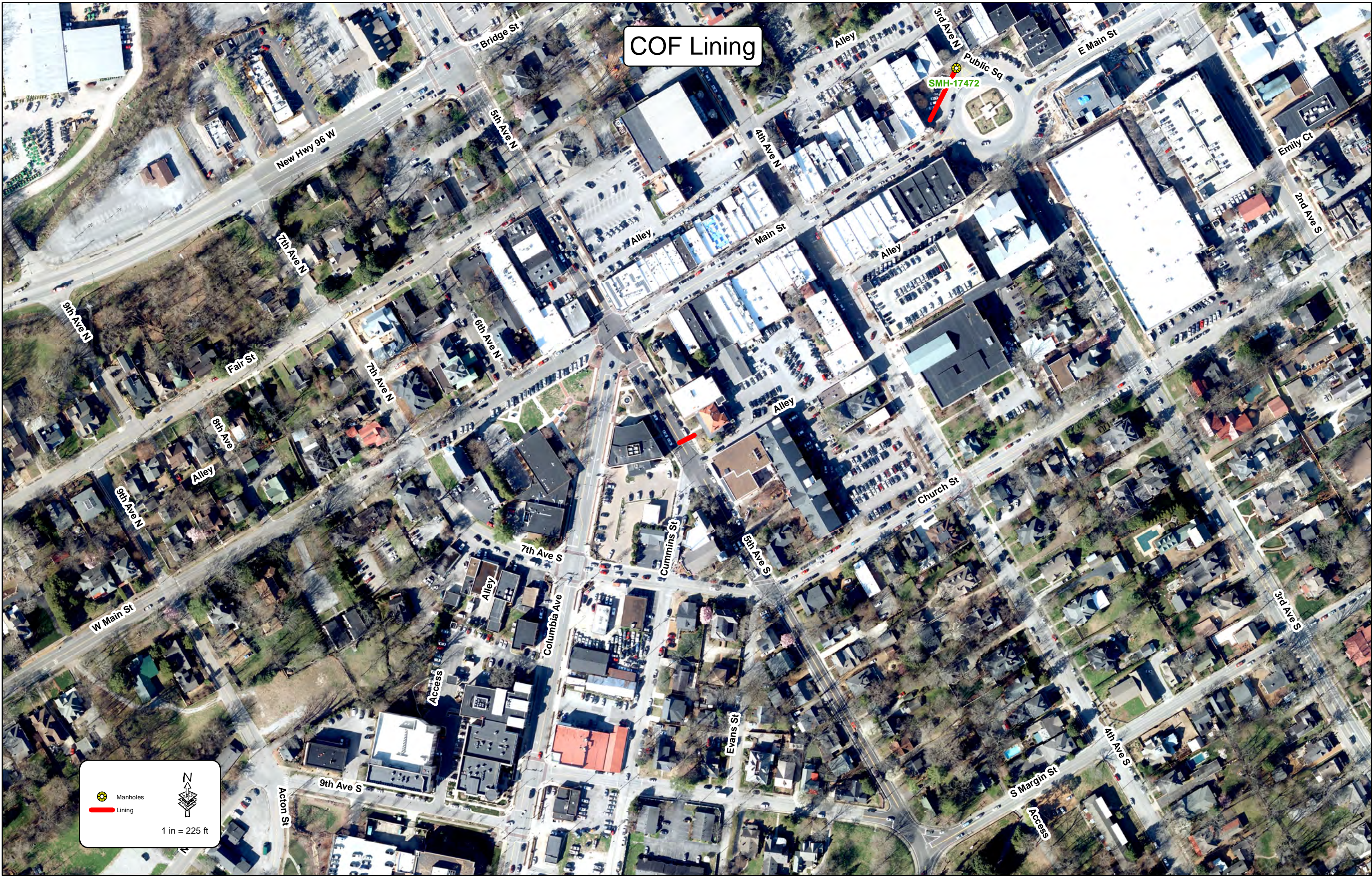
COF Lining

SMH-17472

Manholes
Lining






1 in = 225 ft



COF Lining






 Manholes
 Lining


1 in = 225 ft

COF Lining






 Manholes
 Lining


1 in = 225 ft

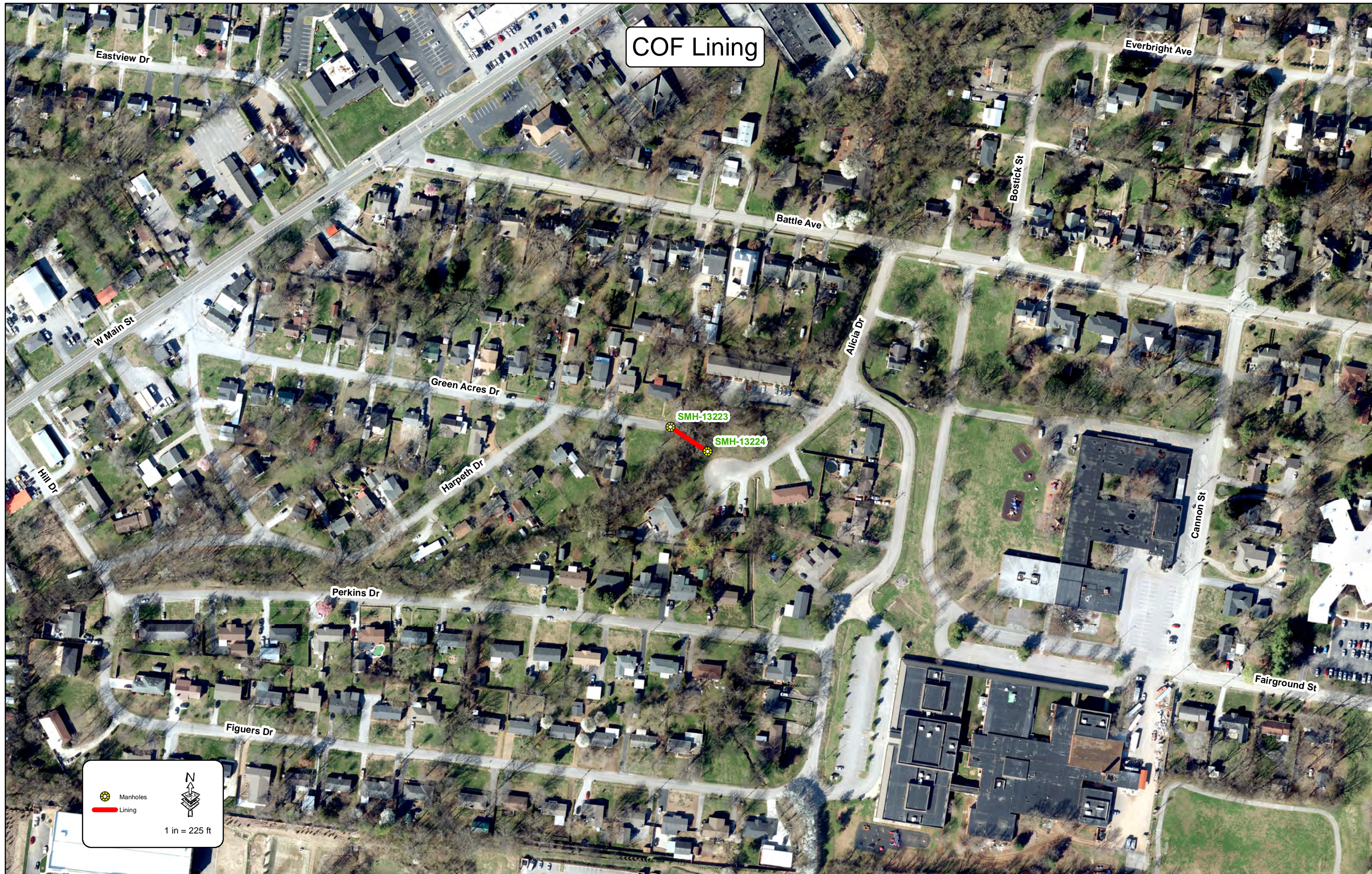
COF Lining






 Manholes
 Lining


1 in = 225 ft

COF Lining



 Manholes
 Lining


1 in = 225 ft

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mainline Sewer Cleaning, Pre- and Post-CIPP CCTV Inspections	LF	12,250	\$	\$
2	CCTV Pre-Inspection and Cleaning Only	LF	500	\$	\$
3	Mainline Heavy Cleaning Services	HRS	30	\$	\$
4	6" Diameter x 3.0 mm (minimum) cured thickness CIPP Mainline	LF	1,000	\$	\$
5	8" Diameter x 6.0 mm (minimum) cured thickness CIPP Mainline	LF	10,000	\$	\$
6	10" Diameter x 6.0 mm (minimum) cured thickness CIPP Mainline	LF	750	\$	\$
7	12" Diameter x 7.5 mm (minimum) cured thickness CIPP Mainline	LF	500	\$	\$
Contractor to select the CIPP mainline lining proposed by circling the product name:					
Inliner™ by Inliner Technologies, Inc.					
Insituform® CIPP by Insituform Technologies, Inc.					
SAK Liner™ by SAK Construction Company, Inc.					
8	Additional Setup Fee for Mainline < 200 LF	EA	10	\$	\$
9	Mainline Sewer Bypass Pumping Flow > 400 GPM	HRS	10	\$	\$
10	Allowance for Third Party Testing as Directed by Engineer				\$ 10,000.00

temperature in the line section equal to or above the temperature required to affect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

3. Curing shall be accomplished by utilizing a heat source of hot water, hot air or steam under positive pressure in accordance with the manufacturer's recommended cure schedule.
4. The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing heat exchangers. Thermocouples shall be placed between the impregnated tube and the invert at the far access point to determine the temperature and time of exotherm. Temperature in the pipeline during the cure period shall be as specifically designated by the manufacturer.
5. Initial cure shall be deemed to be completed when inspection of the exposed portions of CIPP appear to be hard and sound and the thermocouples indicate that an exotherm has occurred. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the CIPP process being used, during which time the recirculation of the heat source and cycling of the heat exchanger to maintain the temperature continues.

C. Cool Down

The Contractor shall cool the finished CIPP by the methods and to a temperature recommended by the resin manufacturer before relieving the normal pressure in the pipe. Care shall be taken in the release of the static head such that a vacuum will not be developed that could damage the newly installed cured-in-place piping.

D. Finish

The finished CIPP shall be continuous over the entire length of the insertion run and be as free as commercially practical from flow obstructions, resin migration into service laterals and significant defects, including those that will affect the integrity of strength of CIPP in the foreseeable future or warranty period. Any defects, flow obstructions and resin migration present in the finished liner shall be repaired at the Contractor's expense and in a manner mutually agreed upon by Engineer and Contractor. Final cured thickness of the liner shall meet the following minimum liner thickness requirements:

Pipe size	Minimum cured liner thickness
6"	3 mm
8" and 10"	6 mm
12"	7.5 mm

E. Sealing the Ends

If cured-in-place pipe fails to make a tight seal due to broken or misaligned pipe at the access points, the Contractor shall apply a seal at that point. The seal shall be of a resin mixture compatible with the CIPP and as acceptable to the resin manufacturer.

The water tightness of CIPP shall be gauged while curing and under positive pressure, or as otherwise directed by the Engineer.

City of Franklin Addendum No. 2 to

Purchasing Office Solicitation No.: 2020-001

1. Solicitation identified: This Addendum No. 2 applies to the following procurement solicitation:

Sewer Main Rehabilitation Term Contract
Purchasing Office Solicitation No.: 2020-001

2. Notice to Bidders publication date: **May 30, 2019**
3. Date Project Manual posted on City's website: **May 31, 2019**
4. Deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of this procurement solicitation: **June 22, 2019, 2:00 p.m. Central Time**
5. Addendum No. 1 release date: **June 26, 2019**
6. Addendum No. 2 release date: **July 1, 2019**
7. Bids submittal deadline and scheduled opening: **July 9, 2019, 2:00 p.m. Central Time**
8. Tentative date of release of City's tabulation of bids received and notice of intent to award: **August 23, 2019**
9. Tentative date of award: Meeting of Board of Mayor and Aldermen at which is tentatively scheduled to be awarded the selection of the lowest and best responsive and responsible bid: **September 10, 2019**

10. Addendum:

In reference to the City of Franklin's May 31, 2019 Purchasing Office Solicitation No. 2020-001 for Sewer Main Rehabilitation Term Contract, the City has been asked certain questions about the solicitation by one or more vendors who are potential bidders.

The purpose of this Addendum No. 2 is to revise the City's answer A3 to question Q3 as included in Addendum No. 1.

Please note that, by Addendum No. 1, the submittal deadline and scheduled opening of all bids received was postponed to:

July 9, 2019, 2:00 p.m. Central Time

Below is the revised answer A3 to question Q3 from Addendum No. 1:

City of Franklin Addendum No. 2 to

Purchasing Office Solicitation No.: 2020-001

Q3: To date, has the City approved for bidding purposes any products not manufactured by one of the pre-approved manufacturers specifically identified in the City's project manual?

A3: Yes, to date, the City has approved for bidding purposes the following other products:

1. Applied Felts CIPP liner
2. FerraTex CIPP liner
3. Inland Pipe Rehabilitation Invert-A-Pipe CIPP lining system

Please note that the City reserves the right to conduct a more detailed review of any bid products not manufactured by one of the pre-approved manufacturers specifically identified in the City's project manual to ensure the bid product meets or exceeds the City's specifications as they may be amended by addendum.

11. Acknowledge addendum: Bidders shall acknowledge this addendum on their submitted Bid Form.

12. Questions: The deadline for optional submittal in writing of questions seeking to revise or clarify any aspect of this procurement solicitation has now passed. To ask questions of a procedural nature, please contact:

City of Franklin Purchasing Office
Franklin City Hall, Suite 107
109 3rd Ave. South
Franklin, TN 37064
purchasing@franklintn.gov
Tel: 615/550-6692
Fax: 615/550-0079

13. Communication with City during procurement phase: Any questions about either the content of or the procurement process pertaining to this procurement solicitation should be addressed as described above. Until the procurement award has been made, vendors shall not communicate about either the content of or the procurement process pertaining to this procurement solicitation with any official, employee or other representative of the City except through the City's Purchasing Office. The City reserves the right to disqualify any vendor that initiates unauthorized communication with the City during the procurement phase.

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

City of Franklin Purchasing Office
109 Third Avenue South
Franklin, TN 37064

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges the following Addenda:

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations, if any, and tests of subsurface conditions at or adjacent to the Site, if any, and all drawings of physical conditions relating to existing surface or subsurface structures at the Site, if any, that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental

-
- Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and Site-related reports and drawings identified in the Bidding Documents, if any, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
 - F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
 - G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
 - H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
 - I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
 - J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mainline Sewer Cleaning, Pre- and Post-CIPP CCTV Inspections	LF	9,000	\$ 3.50	\$ 31,500.00
2	CCTV Pre-Inspection and Cleaning Only	LF	500	\$ 2.00	\$ 1,000.00
3	Mainline Heavy Cleaning Services	HRS	30	\$ 350.00	\$ 10,500.00
4	6" Diameter x 3.0 mm (minimum) cured thickness CIPP Mainline	LF	1,000	\$ 25.00	\$ 25,000.00
5	8" Diameter x 6.0 mm (minimum) cured thickness CIPP Mainline	LF	10,000	\$ 25.00	\$ 250,000.00
6	10" Diameter x 6.0 mm (minimum) cured thickness CIPP Mainline	LF	750	\$ 29.00	\$ 21,750.00
7	12" Diameter x 7.5 mm (minimum) cured thickness CIPP Mainline	LF	500	\$ 32.00	\$ 16,000.00
<p>Contractor to select the CIPP mainline lining proposed by circling the product name:</p> <p>Inliner™ by Inliner Technologies, Inc.</p> <p>Insituform® CIPP by Insituform Technologies, Inc.</p> <p>SAK Liner™ by SAK Construction Company, Inc.</p>					
8	Additional Setup Fee for Mainline < 200 LF	EA	10	\$ 435.00	\$ 4,350.00
9	Mainline Sewer Bypass Pumping Flow > 400 GPM	HRS	10	\$ 300.00	\$ 3,000.00
10	Allowance for Third Party Testing as Directed by Engineer				\$ 10,000.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

TOTAL BID PRICE, EQUAL TO THE SUM OF ITEMS 1 THROUGH 10, IS IN THE AMOUNT OF

\$ 373,100.00

Three Hundred Seventy Three Thousand One Hundred

(words)

_____ DOLLARS

(words)

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. Section C-00300 State Contractor License Information Form;
 - D. Section C-00451 Statement of Bidder's Qualifications with supporting data, if required;
 - E. Section C-00452 Contractor Safety Information and Acknowledgement of Receipt of Contractor Safety Program;
 - F. Section C-00453 Conflict of Interest Statement;
 - G. Section C-00454 Drug-Free Workplace Affidavit;
 - H. Section C-00455 Contractor's Attestation Regarding Illegal Immigrants or Aliens;

- I. Section C-00456 Iran Divestment Act Certification;
- J. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids.

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

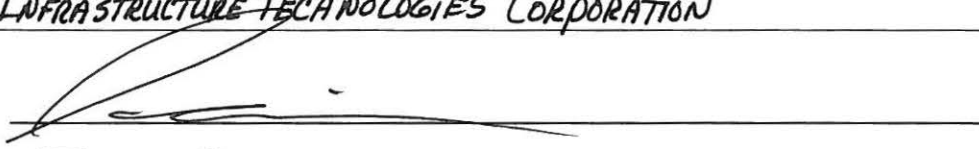
ARTICLE 9 – BID SUBMITTAL

BIDDER: [Indicate correct name of bidding entity]

AMERICAN INFRASTRUCTURE TECHNOLOGIES CORPORATION

By:

[Signature]



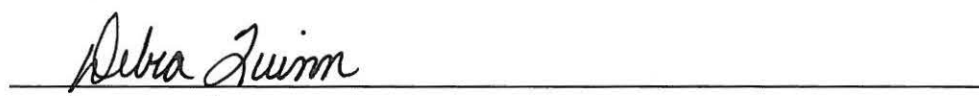
[Printed Name]

JARED GIDDENS

(If Bidder is a corporation, a limited liability company, a partnership or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]



[Printed Name]

DEBRA QUINN

Title:

SECRETARY

Submittal Date:

Address for Giving Notices:

8799 U.S. Hwy. 31

HANCEVILLE, AL 35077

Telephone Number:

256-739-4747

Fax Number:

256-737-1871

Contact Name and E-Mail Address:

JARED GIDDENS

AITC @ AITECHCORP.COM

Bidder's License No.:

55266

++ END OF BID FORM ++

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

City of Franklin Purchasing Office
109 Third Avenue South
Franklin, TN 37064

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges the following Addenda:

<u>Addendum No.</u>	<u>Addendum Date</u>
<u>ONE</u>	<u>6/26/19</u>
<u>TWO</u>	<u>7/01/19</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations, if any, and tests of subsurface conditions at or adjacent to the Site, if any, and all drawings of physical conditions relating to existing surface or subsurface structures at the Site, if any, that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
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3	Mainline Heavy Cleaning Services	HRS	30	\$ 350.00	\$ 10,500.00
4	6" Diameter x 3.0 mm (minimum) cured thickness CIPP Mainline	LF	1,000	\$ 25.00	\$ 25,000.00
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<p>Contractor to select the CIPP mainline lining proposed by circling the product name:</p> <p>Inliner™ by Inliner Technologies, Inc.</p> <p>Insituform® CIPP by Insituform Technologies, Inc.</p> <p>SAK Liner™ by SAK Construction Company, Inc.</p>					
8	Additional Setup Fee for Mainline < 200 LF	EA	10	\$ 435.00	\$ 4,350.00
9	Mainline Sewer Bypass Pumping Flow > 400 GPM	HRS	10	\$ 300.00	\$ 3,000.00
10	Allowance for Third Party Testing as Directed by Engineer				\$ 10,000.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

TOTAL BID PRICE, EQUAL TO THE SUM OF ITEMS 1 THROUGH 10, IS IN THE AMOUNT OF

\$ 384,475.00

Three Hundred Eighty Four Thousand Four Hundred

(words)

Seventy Five

DOLLARS

(words)

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. Section C-00300 State Contractor License Information Form;
 - D. Section C-00451 Statement of Bidder's Qualifications with supporting data, if required;
 - E. Section C-00452 Contractor Safety Information and Acknowledgement of Receipt of Contractor Safety Program;
 - F. Section C-00453 Conflict of Interest Statement;
 - G. Section C-00454 Drug-Free Workplace Affidavit;
 - H. Section C-00455 Contractor's Attestation Regarding Illegal Immigrants or Aliens;

ARTICLE 9 – BID SUBMITTAL

BIDDER: [Indicate correct name of bidding entity]

AMERICAN INFRASTRUCTURE TECHNOLOGIES CORPORATION

By:

[Signature]

[Handwritten Signature]

[Printed Name]

JARED GIDDENS

(If Bidder is a corporation, a limited liability company, a partnership or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]

[Handwritten Signature]

[Printed Name]

DEBRA QUINN

Title:

SECRETARY

Submittal Date:

7/2/19

Address for Giving Notices:

8799 U.S. HWY. 31

HANCEVILLE, AL 35077

Telephone Number:

256-739-4747

Fax Number:

256-737-1871

Contact Name and E-Mail Address:

JARED GIDDENS

AITC @ AITECHCORP.COM

Bidder's License No.:

55266

++ END OF BID FORM ++

SECTION C-00454

DRUG-FREE WORKPLACE AFFIDAVIT

Contractor/Firm/Business Name: AMERICAN INFRASTRUCTURE TECHNOLOGIES CORP.

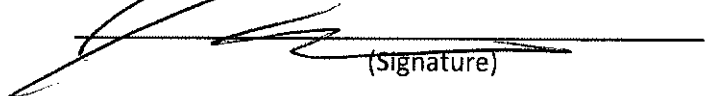
Contractor/Firm/Business' Authorized Agent: JARED GIDDENS
(Printed Name)

(Check applicable box)

I hereby state that, as an employer, I have adopted a Drug-Free Workplace policy, which meets the criteria set forth by the Tennessee Department of Labor and Workforce Development and at a minimum the requirements of the City of Franklin's Drug-Free Workplace program, which includes pre-employment drug testing, reasonable suspicion drug testing and, when applicable, compliance with the U.S. Department of Transportation Procedures for Transportation Workplace Drug Testing Programs as specified in Title 49 of the Code of Federal Regulations (CFR) Part 40 and Title 49 CFR Part 199.

Said Drug-Free Workplace program is in compliance with the Tennessee Drug-Free Workplace Act, Tennessee Code Annotated §50-9-101 *et sequentia*.

I hereby state that I employ less than five (5) employees, and I am not required to submit the Drug-Free Workplace Affidavit.

Contractor/Firm/Business' Authorized Agent: 
(Signature)

Date: 6/28/19

CONTRACTOR SAFETY INFORMATION

PURPOSE: The purpose of this questionnaire is to provide the City of Franklin with necessary information about your company's safety program and performance. All items must be completed.

Company Name: AMERICAN INFRASTRUCTURE TECHNOLOGIES CORPORATION

Address: 8799 U.S. HWY. 31, HANCEVILLE, AL 35077

Safety Director: JARED GIDDENS
(Person responsible for safety)

Phone #: 256-739-4747

Email: AITE@AITECHCORP.COM

1) Accident/Injury Experience

Using last year's OSHA 300 Log or Worker's Compensation Documentation, fill in the following:

- i) Number of recordable injuries/illnesses 0
- ii) Number of restricted work days 0
- iii) Number of lost work days 0
- iv) Number of fatalities 0
- v) Employee hours worked last year 37,096
- vi) Number of injuries/illnesses requiring hospitalization 0

2) Safety Program

- i) Does your company have a written safety program?
Yes No
- ii) Is the program revised/updated annually?
Yes No
- iii) Does your written program contain a statement that your company abides by all federal (OSHA), state and local rules and regulations relating to safe work practices?
Yes No
- iv) Do you have a new hire orientation program pertaining to safety training?
Yes No

v) Does it include any training on the following? (If your company has a handbook, please submit a copy).

Yes No

- Head Protection
- Eye Protection
- Hearing Protection
- Respiratory Protection
- Fall Protection
- Scaffolding
- Housekeeping
- Fire Protection
- Confined Space Entry

- Emergency Procedures
- Hazardous Substances
- Trench & Evacuation
- Barricades
- Electrical Safety
- Rigging & Crane Safety
- Hand & Power Tool Safety
- Hand Protection
- Others

vi) Do you have a foreman safety training program?

Yes No If yes, please include an outline.

vii) Do you conduct regular safety meetings? Yes No

viii) How often? MONTHLY Are records kept? Yes No

ix) Do you generate accident investigation reports? Yes No

x) Do you perform project safety inspections?

Yes No

Who conducts them? Name JARED GIDDENS

Job Title VICE PRESIDENT

How often? QUARTERLY

3) Lockout/Tagout

Does the work that you are submitting a bid for, involve any "Lockout/Tagout" situations?

Yes No

If yes, please submit a copy of your written Lockout/Tagout procedures.

4) Hazard Communication

Does the work that you are submitting a bid for, involve the use of any "Hazardous Substances"?

Yes No

If yes, please submit a copy of your written hazard communication program and material safety data sheets for any hazardous substance that you will be using in your work.

5) Confined Spaces

Does the work you are bidding involve working in a "Confined Space"?

Yes No

If yes, include your work plan, copies of training certification of the pertinent employees, entry permit and who will be in the confined space permit-required.

6) Elevated Work and Fall Protection

Does the work that you are submitting a bid for, involve any "Elevated Work"?

Yes No

If yes, please submit a copy of your fall protection and elevated work rules policy.

7) Powered Industrial Vehicles

Does the work that you are submitting a bid for, involve the use of any powered industrial vehicles? (i.e., fork trucks, highlifts, etc.)

Yes No

Have designated people been trained on such?

Yes No

8) Respiratory Compliance

Does your company have a written respiratory program or policy?

Yes No

Have employees been fit tested quantitatively or qualitatively?

Yes No

Do you have established medical surveillance procedures?

Yes No

What type of respiratory training has your employee had?

What type of respiratory equipment are they permitted to wear?

9) Key Personnel

List the key onsite people you would use for this project.

Name: CHRIS MINER

Title: SUPERVISOR

Name: LOUIS ROWE

Title: SUPERVISOR

For City Use Only

Recommendations:		
Comments:		
Authorization		
Approved:	*YES	NO

*Further detailed on attachment: YES ___ NO ___

I certify that I have conducted a review of the information contained in this questionnaire and approved the contractor for the above described work.

Name:			
Title:			
Signature:			
Date:		Time:	

**CONTRACTOR / CONSULTANT / SERVICE PROVIDER ACKNOWLEDGEMENT OF RECEIPT OF
CITY OF FRANKLIN CONTRACTOR SAFETY PROGRAM**

Contractor/Firm/Business Name: AMERICAN INFRASTRUCTURE TECHNOLOGIES CORPORATION

Contractor's Authorized Safety Representative: JARED GIDDENS

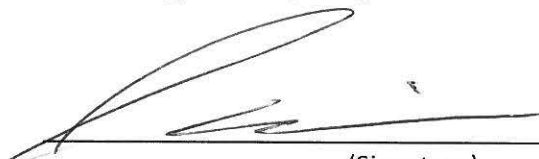
Contractor/Firm/Business' Authorized Agent: JARED GIDDENS
(Printed Name)

I acknowledge receipt of and agree to comply with the City of Franklin's Contractor Safety Program. I will also make employees and subcontractors aware of City's safety expectations and requirements.

I understand that any accidents, injuries or property damage will be reported to the City Health and Safety Manager within three (3) days.

I also understand that any questions regarding the program can be directed to the contracting department head and/or the City Health & Safety Manager.

I certify that all personnel conducting work have been trained in accordance with Occupational Safety and Health Administration regulation: 29 Code of Federal Regulations §1910/1926.

Contractor/Firm/Business' Authorized Agent: 
(Signature)

Date: 6/28/19

SECTION C-00453

CONFLICT OF INTEREST STATEMENT

Contractor/Firm/Business Name:

AMERICAN INFRASTRUCTURE TECHNOLOGIES CORP.

Contractor/Firm/Business' Authorized Agent:

JARED GIDDENS

(Printed Name)

I hereby certify that this bid/proposal is submitted in conformance with the City of Franklin's conflict of interest restrictions. No employee of the City of Franklin, officer, agent, any member of an employee's family or his or her partner has any financial interest or a tangible personal benefit in the profit of any contract, service or other work performed as a result of my submission of this bid/proposal. A conflict of interest would also arise when the parties indicated herein are employed or about to be employed by the person or company submitting this bid/proposal. Additionally, no party indicated herein has an indirect interest in the contract, which is the subject of this bid/proposal*.

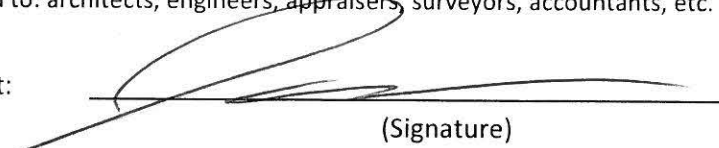
In the event I am providing a service** to the City of Franklin, I certify that I have no conflict of interest relating to the service to be provided pursuant to this Request for Proposals (RFP) or Request for Qualifications (RFQ). A conflict of interest would arise when the party to be contracted with has any interest, financial or otherwise, in the performance of the work. Should the City be made aware of a conflict of interest prior to or during the performance of the work/project, the City reserves the right to terminate the contract with the service vendor.

Therefore, the undersigned (corporation, partnership, limited liability company, or other business organization or individual) has no conflict of interest, or potential conflict of interest in connection with this proposal or in connection with any contract executed or to be executed, concerning or with response to this RFP/RFQ for this project/work.

* **"Indirect Interest"** means any contract in which an employee has no direct interest however a spouse or relative has an interest in the contract. *A conflict of interest exists if a spouse or relative commingle their assets.* Examples of commingling assets include sharing a joint-checking account or jointly owned property together with a company or person doing business with the City of Franklin.

** **"Service Vendors"** include but are not limited to: architects, engineers, appraisers, surveyors, accountants, etc.

Contractor/Firm/Business' Authorized Agent:



(Signature)

Date: 6/28/19

SECTION C-00454

DRUG-FREE WORKPLACE AFFIDAVIT

Contractor/Firm/Business Name:

AMERICAN INFRASTRUCTURE TECHNOLOGIES CORP.

Contractor/Firm/Business' Authorized Agent:

JARED GIDDENS

(Printed Name)

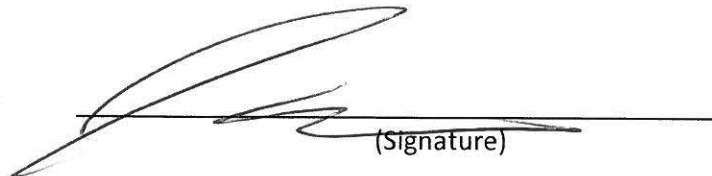
(Check applicable box)

- I hereby state that, as an employer, I have adopted a Drug-Free Workplace policy, which meets the criteria set forth by the Tennessee Department of Labor and Workforce Development and at a minimum the requirements of the City of Franklin's Drug-Free Workplace program, which includes pre-employment drug testing, reasonable suspicion drug testing and, when applicable, compliance with the U.S. Department of Transportation Procedures for Transportation Workplace Drug Testing Programs as specified in Title 49 of the Code of Federal Regulations (CFR) Part 40 and Title 49 CFR Part 199.

Said Drug-Free Workplace program is in compliance with the Tennessee Drug-Free Workplace Act, Tennessee Code Annotated §50-9-101 *et sequentia*.

- I hereby state that I employ less than five (5) employees, and I am not required to submit the Drug-Free Workplace Affidavit.

Contractor/Firm/Business' Authorized Agent:


(Signature)

Date: 6/28/19

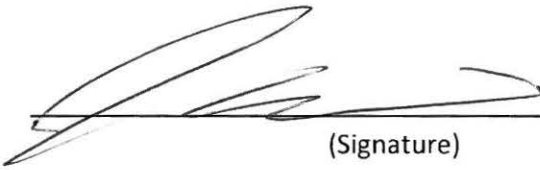
SECTION C-00455

CONTRACTOR'S ATTESTATION REGARDING ILLEGAL IMMIGRANTS or ALIENS

Contractor/Firm/Business Name: AMERICAN INFRASTRUCTURE TECHNOLOGIES CORP.

Contractor/Firm/Business' Authorized Agent: JARED GIDDENS
(Printed Name)

Pursuant to Tennessee Code Annotated §12-3-309, and Section 6-105 of the Official Code of the City of Franklin, I (we), the Contractor identified above, hereby attest, certify, warrant and assure that I (we) will not knowingly utilize the services of any illegal immigrant or alien in the performance of this Contract, and will not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant or alien in the performance of this Contract.

Contractor/Firm/Business' Authorized Agent: 
(Signature)

Date: 6/28/19

SECTION C-00456

IRAN DIVESTMENT ACT CERTIFICATION

Contractor/Firm/Business Name:

AMERICAN INFRASTRUCTURE TECHNOLOGIES CORP.

Contractor/Firm/Business' Authorized Agent:

JARED GIDDENS

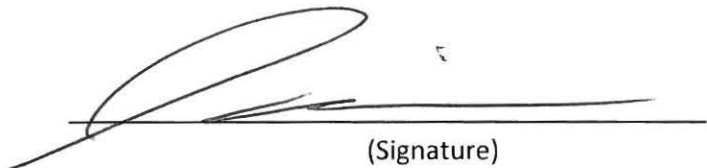
(Printed Name)

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to Tennessee Code Annotated §12-12-106 in reference to the Iran Divestment Act.

This act prohibits a person identified on the list from contracting with a local government and makes any contract entered into void. The State of Tennessee list can be found at: <http://tennessee.gov/generalservices/article/Public-Information-library>.

The undersigned hereby certifies that he or she is authorized by the bidder to certify that his/her company is not on the list.

Contractor/Firm/Business' Authorized Agent:


(Signature)

Date:

6/28/19