PROJECT MANUAL

SPECIFICATIONS AND CONTRACT DOCUMENTS

WATER SYSTEM IMPROVEMENTS

FOR THE

CITY OF BRISTOL, TENNESSEE

CONTRACT 21-01
BRISTOL WATER TREATMENT PLANT
WASHWATER TANK PAINTING AND RENOVATION

BID NUMBER 21-001

PROJECT NUMBER 4646

JANUARY 2021

WAUFORD
J. R. Wauford & Company, Consulting Engineers, Inc.
2835 Lebanon Pike
Nashville, Tennessee 37214
www.jrwauford.com
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ADVERTISEMENT FOR BIDS
WATER SYSTEM IMPROVEMENTS
BRISTOL, TENNESSEE
NO FEDERAL FUNDS INVOLVED

Separate sealed BIDS for the construction of Water System Improvements for the City of Bristol, Tennessee, will be received at the Purchasing Department, 801 Anderson Street, Room 204, Bristol, Tennessee 37620 until 10:00 a.m. Eastern Time, Tuesday, February 16, 2021 at which time and place they will be opened and read aloud virtually. Bids being mailed through the U.S. Postal Service should be mailed to the attention of Ms. April Norris, Purchasing Agent, City of Bristol, Tennessee, P. O. Box 1189, Bristol, Tennessee 37621-1189. Bids being sent through a courier service should be sent to the attention of Ms. April Norris, Purchasing Agent, City of Bristol, Tennessee, 801 Anderson Street, Room 204, Bristol, Tennessee 37620.

Bids sent electronically may be submitted at: https://vrapp.vendorregistry.com/Bids/View/BidsList?BuyerId=df5647d9-8880-4932-b762-e6d347f36db4

Due to protocols relating to the ongoing COVID-19 pandemic, bids will not be opened in-person. The virtual bid opening may be viewed at:

https://us02web.zoom.us/j/89635821998

Each bidder shall be responsible for the bid delivery by the above noted date and time.

The work is in one Contract and includes the following general items of work:

BID NUMBER 21-001
CONTRACT 21-01
BRISTOL WATER TREATMENT PLANT WASHWATER TANK PAINTING AND RENOVATION

- The work to be performed includes cleaning the tank interior and exterior using blast cleaning methods, making certain repairs, recoating the tank, and other miscellaneous work as described in these Detailed Specifications.

The allotted time for construction for this contract is 90 calendar days. Liquidated damages are five hundred dollars ($500.00) per calendar day.

The CONTRACT DOCUMENTS may be examined at the following locations:

Online at https://www.bristoltn.org/bids.aspx

J. R. Wauford & Company, 908 West Broadway, Maryville, TN 37801
Complete digital project bidding documents are available at www.questcdn.com and/or www.jrwauford.com. Bidders may download the digital plan documents for $30.00 by inputting Quest project # 7522493 on the QuestCDN project search page. Please contact QuestCDN at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with the digital project information. Inquiries should be directed to J. Gregory Davenport, P.E., Project Manager, email gregd@jrwauford.com.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Instructions for Bidders.

All bidders shall comply with all provisions of TCA 50-9-113 as it relates to Drug-Free Workplace requirements. The Contractor shall complete the Drug-Free Work Place Affidavit of the Prime Bidder form and submit it with his/her bid. The Contractor shall be responsible for any of its Subcontractor(s) compliance with said law.

All bidders shall comply with all provisions of Chapter 878 of TCA 12-4-1 as it relates to certification of compliance regarding illegal immigrants. The Contractor shall complete the Statement of Compliance Certificate Illegal Immigrants and submit it with his/her bid. The Contractor shall be responsible for any of its Subcontractor's compliance with said law.

All bidders shall comply with all provisions of Chapter 817 of TCA 12-12-106 as it relates to certification of compliance regarding the Iran Divestment Act. The Contractor shall complete the Statement of Compliance Certificate Iran Divestment Act and submit it with her/her bid. The Contractor shall be responsible for any of its Subcontractor's compliance with said law.

In compliance with TCA 12-4-126(a) and (b) the ENGINEER will not issue addenda less than forty-eight (48) hours before the bid opening date and time; further, any questions concerning the bid documents shall be received by the ENGINEER before ninety-six (96) hours prior to the bid opening date and time.

The successful bidder is required to furnish both an acceptable performance bond and payment bond each in the amount of one hundred percent (100%) of the contract price.

All bidders must be licensed general contractors as required by the Contractor’s Licensing Act of 1976 of the General Assembly of the State of Tennessee and qualified for the type of construction being bid upon. EACH BIDDER SHALL WRITE ON THE OUTSIDE OF THE ENVELOPE CONTAINING THE BID THE CONTRACTOR’S LICENSE NUMBER, THE EXPIRATION DATE, AND THAT PART OF THE CLASSIFICATION APPLYING TO THIS BID. If this is not done, the bid will not be opened.

Each bidder shall be properly licensed and abide by the provisions of TCA 62-6-119 including part (b) which states in part:
“(b) The person or entity involved in the preparation of the invitation to bid or comparable bid documents, including any electronic bid documents, shall direct that the following information be written upon the bid envelope or provided within the electronic bid document: (1) The name, license number, expiration date thereof, and license classification of the contractor applying to bid for the prime contract; (2) The name, license number, expiration date thereof, and license classification of the contractor applying to bid for the masonry contract where the total cost of the materials and labor for the masonry portion of the construction project exceeds one hundred thousand dollars ($100,000); (3) The name, license number, expiration date thereof, and license classification of the contractor applying to bid for the electrical, plumbing, heating, ventilation, or air conditioning contracts except when such contractor’s portion of the construction project is less than twenty-five thousand dollars ($25,000); (4) For each vertical closed loop geothermal heating and cooling project, the company name, department of environment and conservation license number, classification (G, L or G,L) and the expiration date, except when the geothermal portion of the construction project is in an amount less than twenty-five thousand dollars ($25,000); (5) Prime contractor bidders who are to perform the masonry portion of the construction project which exceeds one hundred thousand dollars ($100,000), materials and labor, the electrical, plumbing, heating, ventilation or air conditioning or the geothermal heating and cooling must be so designated; and (6) Only one (1) contractor in each of the classifications listed above shall be written on the bid envelope or provided within the electronic bid document."

The Owner reserves the right to reject any and all bids, to waive informalities, and to negotiate with the apparent qualified best bidder or bidders to such extent as may be necessary.

No bidder may withdraw his bid for 90 days, while the Owner considers the bids. Mutually agreed upon time extensions may be made if necessary.

BRISTOL, TENNESSEE

/s/

Timothy H. Beavers
Director of Development Services

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STATE OF TENNESSEE

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INSTRUCTIONS TO BIDDERS
STATE OF TENNESSEE

1. **Preparation and Submission of BID FORM**

Bidders shall inform themselves fully of all conditions relating to the proposed work. Bids shall be submitted on the separate copy of the BID FORM supplied for that purpose. The BID FORM contained in the Specifications and Contract Documents is for the convenience of the Bidders and is not to be detached from the bound set of documents or filled out or executed unless a separate BID FORM is not furnished to the Bidder.

The BID FORM shall be enclosed in a sealed envelope which shall be clearly labeled with the name of the project, contract number, name, address, and contractor’s license number of the Bidder, the expiration date of the Contractor’s license, that part of the classification applying to this Bid, and the date and time of opening (so as to guard against premature opening of any Bid).

BID FORMS that contain any omission, conditions, or limitations, or that show any other irregularity of any kind, may be rejected as informal.

Should the Bidder in preparing his Bid find anything necessary for the construction of the project that is not mentioned in the Specifications or shown on the Plans, or any discrepancy, he shall notify the Engineer so that such items may be included or corrected. Should the Bidder fail to notify the Engineer of such items, it will be assumed that his Bid included everything necessary for the complete construction of an operating facility in the true spirit and intent of the designs shown.

The "Bidder" shall mean all those Contractors submitting BID FORMS. After the acceptance of the BID FORM of the successful Bidder, the said term "Bidder" shall be interchangeable with the term "Contractor" as defined in the General Conditions and all things required of Bidders shall likewise apply to the Contractor.

2. **Supplementary Conditions**

The Supplementary Conditions contain the special requirements of the Agency which is funding the subject project or clarifications to the General Conditions.

The Supplementary Conditions shall also be considered an extension of the Instructions to Bidders. Executive Orders, Wage Determination, and any and all other items set out in the Supplementary Conditions shall be used in the preparation of the Bid.
3. **Discrepancy - Bid Price**

In some instances, there will be space in the BID FORM for the bid price to be written in both words and figures. In such cases, the price written in words shall include both dollars and cents and will be considered the correct price in case of a discrepancy between it and the price written in figures. In case of a discrepancy, the correct total bid price will be considered to be the sum total of amounts bid for all items in the BID FORM. The correct product of the quantity listed in the BID FORM for the said item multiplied by the unit price bid shall be used in the total bid.

4. **Qualifications of Bidders**

The Contractors bidding on the work shall give evidence of their experience in the class of work involved, including at least one job of comparable size and type performed by them as general contractors.

BID FORMS submitted by Contractors who have not, in the opinion of the Engineer and/or Owner, had sufficient experience in the size and type work involved may not be considered.

5. **Bid Guaranty**

The Bidder shall accompany his BID FORM with the BID BOND in the amount not less than five (5%) percent of the amount of his bid executed on the form furnished as a part of the Contract Documents or with a certified check in the amount not less than five (5%) percent of the amount of his bid. A Power of Attorney of the person signing the Bid Bond shall be included. All such documents are subject to approval by the Owner’s attorney and the Agency providing funding, if such funding is involved. It is assumed that the Surety Company executing the Bid Bond will also execute the Contract Bond if the Bid is accepted. If this is not to be the case, the approval of the Owner’s attorney will be prerequisite to award of the contract. If a certified check is used as Bid Guaranty, the Bidder shall submit the name of his proposed surety with his BID FORM or in writing within five (5) days after being requested to do so.

6. **Contract Surety; Performance and Payment Bonds**

The successful Bidder will be required to furnish both a Performance Bond and a Payment Bond executed by a Surety Company duly authorized to do business in the state in which the work is to be performed and acceptable to the Owner’s attorney and the Agency providing funds, if such funding is involved, and each in an amount not less than 100% of the Contract price as security for the faithful performance of this Contract and as security for the payment of all persons performing labor and furnishing materials in connection with this Contract.
THESE BONDS MUST BE EXECUTED IN THE FORM PROVIDED AS PART OF THE CONTRACT DOCUMENTS.

7. **Interpretation of Contract Documents**

The Project Manual contains the provisions required for the construction of the project. No information obtained from any officer, agent or employee of the Owner on any such matters shall in any way affect the risk or obligation assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.

If any Contractor contemplating the submission of a bid for the proposed contract is in doubt as to the true meaning of any part of the Plans, Specifications, or other proposed Contract Documents, he should submit a written request for an interpretation thereof to the office of the ENGINEER advertising the work for bid. The person making the request will be responsible for its prompt delivery. Any interpretation of the Contract Documents will be made only by written communication and in accordance with the time constraints of State Law. The Owner and/or the Engineer will not be responsible for explanation or interpretations of the proposed documents except as issued in accordance herewith.

8. **Modifications of Bids**

Bidders will not be allowed to modify their bids after submission. A bidder may withdraw a mailed bid prior to the bid opening by contacting the Owner; however, neither the Owner nor the Engineer will be responsible for processing this request.

9. **Second Hand and Salvaged Materials**

The use of second hand and/or salvaged materials will not be permitted unless specifically provided for in the Specifications.

10. **Award of Contract**

The Owner reserves the right to reject all bids and to waive informalities. In the event that the lowest Bidder’s price overruns the Owner’s budget, the Owner reserves the right to negotiate with some of or all Bidders. In the event that the low bid is within the Owner’s budget, the Contract will be awarded to the lowest responsive and responsible Bidder.

In determining the lowest responsive and responsible bidder, the following elements will be considered: (1) if the Bidder has a satisfactory performance record, (2) if the Bidder has a suitable financial status to meet obligations...
incidental to the work, (3) if the Bidder involved maintains a permanent place of business, (4) if the Bidder has adequate plant and equipment to perform the work properly within the time allotted, (5) number of and acceptability by the Owner of any and all proposed Subcontractors, (6) if a unit price bid is unbalanced, and (7) the completeness and regularity of the BID FORM. In addition, the Owner may consider in making his determination, (1) the selection of equipment (or materials), (2) alternate equipment (or materials), and (3) deductions or other modifications listed in the BID FORM.

11. **Execution of Contracts**

The construction Contract and Performance and Payment Bond(s) shall be executed by the successful Bidder within the time specified in BID FORM. The number of copies to be executed will be specified in the BID FORM.

12. **Liquidated Damages for Failure to Enter into Contract**

The successful Bidder, upon his failure or refusal to execute and deliver the Contract and Bonds required within ten (10) days after said Bidder has been given written notice of the acceptance of his Bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his Bid.

13. **Insurance, Contractor’s Coverage and Cancellation Provision (Also see General Conditions Article 6)**

The Contractor will not be permitted to commence work until he has obtained all insurance required by the Contract Documents and such insurance has been approved by the Engineer and/or Owner, nor shall the Contractor allow any Subcontractor to commence work until all similar insurance required of the Subcontractor has been so obtained.

If a Subcontractor does not take out insurance in his own name and his principal Contractor wishes to provide insurance protection for such Subcontractor and such Subcontractor’s employees, an endorsement must be attached to the principal Contractor’s policy which endorsement must identify the persons thereby covered, or else the principal Contractor must take out appropriate policies in the name of the Subcontractor.

Each policy of insurance covering the Contractor’s or Subcontractor’s operations under the Contract shall provide, either in the body of the policy, or by appropriate endorsement to the policy, that such policy cannot be altered or canceled in less than thirty (30) days after the receipt of written notice of such alteration or cancellation to the assured (insured) and the Owner and Engineer.
Certificates of insurance coverages shall include a statement of the alteration or cancellation provision of the policy, sufficient to show definitely that such provisions comply with the requirements stated herein.

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR MAINTAINING THE INSURANCE HEREIN REQUIRED AND SHALL SAVE HARMLESS THE OWNER AND/OR ENGINEER IN THE EVENT HE NEGLECTS OR FAILS TO DO SO FOR ANY REASON. IN THE EVENT THAT THE APPROVED INSURER DOES NOT RENEW THE REQUIRED POLICY AT ANY TIME DURING THE TERM OF THIS CONTRACT, THE CONTRACTOR SHALL CEASE ALL WORK ON THE CONTRACT UNTIL NEW INSURANCE IS ACQUIRED AND APPROVED BY THE OWNER.

14. Insurance: Commercial General Liability, Automobile Liability and Excess Liability (Also see General Conditions Article 6)

The Contractor shall take out and maintain during the life of this contract Commercial General Liability, Automobile Liability, and Excess Liability insurance as shall protect himself and any subcontractor performing work covered under this Contract from claims for damages because of bodily injury, including accidental death, and from claims for property damages that may arise from operations under this Contract, whether such operations be by him or by any subcontractor, or by anyone directly or indirectly employed by either of them.

The Contractor’s Commercial or Comprehensive General Liability insurance coverage shall provide coverage on an “occurrence” basis and aggregate limits of insurance on a “per project” basis; and shall specifically include premises and operations; underground, explosion and collapse; products and completed operations maintained two years after completion of the contract; broad form contractual; independent contractors; broad form property damage; and personal injury coverage. If the Comprehensive General Liability Form is used, the policy must include the Broad Form Comprehensive General Liability Endorsement.

Automobile liability insurance must be provided by a Comprehensive Automobile Liability policy covering all owned, hired and non-owned vehicles.

Excess liability insurance must be provided by an Umbrella form on an “occurrence” basis.

The Contractor’s Commercial General Liability, Automobile Liability and Excess Liability insurance shall insure the Owner and the Engineer. The insurance coverage of the Owner and the Engineer shall be provided by endorsement that the Owner and the Engineer are additional insureds on the Contractor’s General Liability Policy, Automobile Liability Policy and Excess Liability Policy; or by a separate “Owners Protection Policy.” If the Owner and the Engineer are listed as
INSTRUCTIONS TO BIDDERS
October 2019

additional insureds on the General Liability Policy, this shall be accomplished using the CG 20-10-11-85 or its equivalent. The Owner and the Engineer shall be listed on the endorsement or separate policy using their respective full legal names.

Minimum limits of coverage shall be as follows:

**General Liability**

1. General Aggregate per Project ........................................ $2,000,000
2. Each Occurrence ................................................................. $1,000,000
3. Products/Completed Operations Aggregate .................. $2,000,000
4. Medical Expense (any one person) ................................. $10,000

**Automobile Liability**

Combined Single Limit Bodily Injury and Property Damage....... $1,000,000

**Umbrella**

Combined Single Limit Bodily Injury and Property Damage  .......... $2,000,000
(Each Occurrence)

The above does not include special insurance requirements of entities whose property or personnel or other interests are involved; these requirements where applicable will be set forth in the Detailed Specifications.

15. **Insurance: Workmen’s Compensation and Employer’s Liability (Also see General Conditions Article 6)**

The Contractor shall take out and maintain, during the life of this contract, Workmen’s Compensation and Employer’s Liability Insurance, including occupational disease provisions, for all of his employees employed at the site of the project, and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen’s Compensation Insurance and Employer’s Liability Insurance, including occupational disease provisions, for all the latter’s employees unless such employees are covered by the protection afforded by the Contractor.

In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Tennessee Workmen’s Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate coverage for the protection of his employees not otherwise protected.
The Workmen’s Compensation and Employer’s Liability policy shall include the statutory coverage required by the State of Tennessee, United States Longshoreman and Harborworkers Act Endorsement and Voluntary Compensation Endorsement.

Minimum limits of coverage shall be as follows:

Worker’s Compensation

Statutory limits required by the State of Tennessee

Employer’s Liability

Each Accident.......................................................... $ 100,000
Disease (policy limit) .................................................. $ 500,000
Disease (each employee) ............................................. $ 100,000

16. Insurance: Builders Risk (Also see General Conditions Article 6)

The Contractor shall provide Builders Risk Insurance (fire and extended coverage) for 100 percent of the insurable portion of all work in place and/or materials stored at the site. Such insurance shall provide coverage at all times for the full cash value of all completed construction and/or materials stored and shall remain in effect until the covered facilities are accepted by the Owner. Unless otherwise noted, all portions of the construction shall be covered on a 100 percent complete value basis. The Builders Risk Insurance provided by the Contractor shall cover damage to materials and equipment occurring during offloading and/or installation, regardless of the entity performing the offloading and/or installation.

The Contractor will be responsible for any losses covered by the Builder’s Risk insurance policy up to the per occurrence deductible amount.

17. Certificate of Insurance (Also see General Conditions Article 6)

As a minimum, the Certificate of Insurance shall contain the following information: (1) name of insurance company, (2) policy number and liability limits on all policies, (3) date of expiration of all policies, (4) statement that ten days’ notice of cancellation will be given to the Owner and the Engineer, and (5) statement that coverage that will hold the Owner and Engineer harmless for acts of the Contractor is included.
INSTRUCTIONS TO BIDDERS
October 2019

18. **Sanitary Facilities**

The Contractor shall furnish, install and maintain ample sanitary facilities for the workmen. As the needs arise, enclosed temporary toilets in sufficient number shall be placed as directed by the Engineer. Permanent toilets installed under this Contract shall not be used during construction. Drinking water shall be provided from a proved safe source, so piped or transported as to be kept clean and fresh and served from single service containers of satisfactory types. The inclusion of this article in no way obligates the Owner or the Engineer to make verification of or to inspect the sanitary facilities and the Contractor shall save the Owner and/or Engineer harmless from any claims arising therefrom.

19. **Lands and Rights-of-Way**

It is anticipated that all easements and land required for the construction of this project will be acquired before the issuance of a Work Order or within the period stipulated in the Advertisement for Bids during which Contractors are not allowed to withdraw their bids. Unless the land(s) and/or easements are obtained or the Contractor agrees to either an extension or a work order stipulating the limitations of work or he may withdraw his bid at the end of such period stipulated in the Advertisement for Bids.

20. **Commencement and Completion of Work**

See General Conditions Article 4.

21. **Funds for Partial Payment Estimates**

See General Conditions Article 15.

22. **Construction Records and Reports**

The Contractor shall, upon request, furnish the Owner with proof that all payrolls for services rendered and invoices for materials supplied have been duly paid as herein required and such other pertinent data as the Owner may require.

The Owner or his authorized representatives and agents shall be permitted to inspect all payrolls, records of personnel, invoices of materials, and other relevant data and records.

On projects involving Federal or State Funds, the Federal or State Agency or Agencies participating in the project shall be considered representatives of the Owner.
23. **Payment of Employees**

The Contractor and each of his Subcontractors shall pay each of his employees engaged in work on the project in full (less deductions made mandatory by law), in cash (or check), and not less often than once each week.

24. **Laws and Regulations**

The Bidder’s attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

25. **Subcontracts**

See General Conditions Article 7.

26. **Ownership of Contractor’s License**

In addition to the requirements of the laws of the State in which the project is located, no Bid will be accepted from any Contractor who does not propose to accomplish the major portion of the work with his own forces and under his own supervision. No Bids shall be submitted with the intent that an unlicensed Subcontractor will be utilized to construct the major portion of the work. No Bidder shall prepare and submit a Bid under the license of another Contractor. Any misrepresentation which involves submittal of a Bid by one Contractor with the intent that another Contractor will accomplish the work shall be considered grounds for rejection of the BID FORM.

27. **Wages and Hours and Non-Discrimination**

The Contractor shall conform in every respect to applicable rules, regulations and statutes pertaining to wages, hours of work, and non-discrimination. If Federal funding is involved, a section entitled "Supplementary Conditions" together with various attachments and possibly a Wage Determination Decision will be included in these bound documents or may be added by Addendum.

28. **Drug-Free Workplace Program Requirements**

The Contractor shall comply with the requirements of Tennessee Code Annotated, Section 50-9-113 and Title 50, Chapter 9 of the Tennessee Code while performing this contract.
A written affidavit by the principal officer of the Bidder at the time the Bid is submitted to the Owner shall be submitted by each Bidder with his Bid. The affidavit shall be prepared utilizing the "Drug-Free Workplace Affidavit of Prime Bidder" form provided with the BID FORM.

29. **Statement of Compliance Certificate Illegal Immigrants**

The Contractor shall comply with the requirements of Tennessee Code Annotated Title 12, Chapter 4, Part 1 of the Tennessee Code while performing this contract.

A written affidavit by the principal officer of the Bidder at the time the Bid is submitted to the Owner shall be submitted by each Bidder with his Bid. The affidavit shall be prepared utilizing the "Statement of Compliance Certificate Illegal Immigrants" form provided with the BID FORM.

30. **Compliance with Iran Divestment Act**

The Contractor shall comply with the requirements of Tennessee Code Annotated Title 12, Paragraph 12-12-106 of the Tennessee Code while performing this contract.

A written affidavit by the principal officer of the Bidder at the time the Bid is submitted to the Owner shall be submitted by each Bidder with his Bid. The affidavit shall be prepared utilizing the "Statement of Compliance Iran Divestment Act" form provided with the BID FORM.

************
STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

Prepared By

EJCDC®
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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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 document prepared by Contractor, in a form acceptable to Engineer, to request 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; 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; 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.

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.

c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.

d. 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), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations 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 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 or Plans—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. Electronic Document—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital Portable Document Format (PDF).

21. Electronic Means—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions,
including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. **Engineer**—The individual or entity named as such in the Agreement.

23. **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.

24. **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.
   a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
   b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
   c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

25. **Laws and Regulations; Laws or Regulations**—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. **Liens**—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. **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.

28. **Notice of Award**—The written notice by Owner or the Engineer to a Bidder of Owner’s acceptance of the Bid.

29. **Notice to Proceed**—A written notice by Owner or the Engineer at the Owner’s discretion to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

30. **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.

31. **Progress Schedule**—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor’s plan to accomplish the Work within the Contract Times.
32. **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.

32a. **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.

33. **Resident Project Representative**—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.

34. **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.

35. **Schedule of Submittals**—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.

36. **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.

37. **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.

38. **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 or areas furnished by Owner which are designated for the use of Contractor.

39. **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.

40. **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.

41. **Submittal**—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals,
Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

42. **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 of such Work.

43. **Successful Bidder**—The Bidder to which the Owner makes an award of contract.

44. **Supplementary Conditions**—The part of the Contract that amends or supplements these General Conditions.

45. **Supplier**—A manufacturer, fabricator, supplier, distributor, 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.

46. **Technical Data**
   
a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.

   b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.

47. **Underground Facilities**—All active underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

48. **Unit Price Work**—Work to be paid for on the basis of unit prices.

49. **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.
50. 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 Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. Intent of Certain Terms or Adjectives: 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: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:

1. does not conform to the Contract Documents;
2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
3. 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 Paragraph 15.04).

E. Furnish, Install, Perform, Provide

1. The word “furnish,” when used in connection with services, materials, or equipment, means 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, means 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, means 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.  **Contract Price or Contract Times:** References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.

G.  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 Performance and Payment Bonds; Evidence of Insurance**

A.  **Performance and Payment Bonds:** When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).

B.  **Evidence of Contractor’s Insurance:** When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.

C.  **Evidence of Owner’s Insurance:** After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), 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 two copies of the executed Contract Documents, one of which Contractor shall furnish to Contractor’s Surety.

B.  Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03  **Before Starting Construction**

A.  **Preliminary Schedules:** Within 10 days after the Effective Date of the Contract (or as otherwise 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 **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 the schedules submitted in accordance with Paragraph 2.03.A. It is the Contractor’s responsibility to request and schedule said meeting or waive right thereto. No progress payment will 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.

4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 **Electronic Transmittals**

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.

B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents 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 Electronic Documents.
D. Project Manuals and Drawings issued by the Engineer for bidding purposes may be Electronic Documents or printed copies (also known as hard copies) as determined by the Engineer.

E. Project Manuals and Drawings issued by the Engineer for construction purposes shall be printed copies (also known as hard copies). At the request of the Contractor, the Engineer may provide Electronic Documents of Project Manuals and Drawings issued by the Engineer for construction purposes; however, said Electronic Documents are provided for the convenience of the receiving party. Any conclusion or information obtained or derived from the Electronic Documents will be at the user’s sole risk. If there is a discrepancy between the Electronic Documents and the hard copies, the hard copies shall govern.

**ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE**

3.01 Intent

A. The Contract Documents are complementary; what is required by one Contract Document 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 versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will 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.

F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will 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.

G. Nothing in the Contract Documents creates:

1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. 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.

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, means 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, and
no instruction of a Supplier, will be effective to change the duties or responsibilities of
Owner, Contractor, or Engineer 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 or Engineer 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 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 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 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 in writing 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.

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 notify Owner and Contractor in writing 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 versions, 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 precludes 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 day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 90 days after the Effective Date of the
Contract. The Contractor shall advise the Owner and Engineer related to scheduling and equipment/material delivery dates related to a delayed Notice to Proceed.

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 may be done at the Site prior to such date unless agreed to in writing by the Owner.

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 must 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 will 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 Contract Price or 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. Such an adjustment will 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 third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
4. Acts of war or terrorism.

D. Contractor’s entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor’s entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
2. Contractor shall not be entitled to an adjustment in Contract Price 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. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;
2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
4. The number of days’ increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

F. 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, together with the provisions of Paragraphs 4.05.D and 4.05.E.

G. Paragraph 8.03 addresses 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.

H. Contractor shall submit any Change Proposal seeking adjustment in the Contract Price or Contract Times within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 Availability of Lands

A. Owner shall furnish the Site. Owner shall notify Contractor in writing 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, or to improvements, structures, utilities, or similar facilities located at such adjacent lands 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 7.13, 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 in a court of competent jurisdiction; 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 will 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 provided by Owner of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;

2. Those drawings provided by Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and

3. Technical Data contained in such reports and drawings.

B. **Underground Facilities:** Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. **Reliance by Contractor on Technical Data:** 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 Paragraph 1.01.A.46.b.

D. **Limitations of Other Data and Documents:** 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;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner’s archival documents concerning the Site; or

4. 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:

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;

2. is of such a nature as to require a change in the Drawings or Specifications;

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 whether it is necessary for Owner to obtain 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; 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. Early Resumption of Work: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer’s review or Owner’s issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. Possible Price and Times Adjustments

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, 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 subject to the provisions of Paragraphs 4.05.D, 4.05.E, and 4.05.H.

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;
   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 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, then any such adjustment will 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, 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.

F. Underground Facilities; Hazardous Environmental Conditions: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.
5.05 Underground Facilities

A. Contractor’s Responsibilities: Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others. Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
2. complying with applicable state and local utility damage prevention Laws and Regulations;
3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
5. 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 on the Drawings, or was not shown or indicated on the Drawings 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), notify Owner and Engineer in writing regarding such Underground Facility.

C. Engineer’s Review: Engineer will:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
2. prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor’s resumption of Work in connection with the Underground Facility in question;
3. obtain any pertinent cost or schedule information from Contractor; 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
4. 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. **Early Resumption of Work**: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer’s review or Owner’s issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. **Possible Price and Times Adjustments**

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, 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. 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;
   b. Contractor’s entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E;
   c. Contractor gave the notice required in Paragraph 5.05.B; and
   d. Contractor did not know 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.

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, then any such adjustment will 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, no later than 30 days after Owner’s issuance of the Owner’s written statement to Contractor regarding the Underground Facility in question.

4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor’s remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 **Hazardous Environmental Conditions at Site**

A. **Reports and Drawings**: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; 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 on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. 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;
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, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, 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. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.

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, 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 obligates 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 obligates 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.

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 until the end of the warranty (guarantee) period.
   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 until the end of the warranty (guarantee) period.

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
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 the end of the warranty (guarantee) period. 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 the end of the warranty (guarantee) period 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 shall 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 shall 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 Contractor’s Means and Methods of Construction

A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor’s responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor’s expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor’s determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 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.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.
7.03 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 maintain good discipline and order at the Site.

B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor’s employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor’s own acts and omissions.

C. 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 will 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.

7.04 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 must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will 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 must 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.

7.05 “Or Equals”

A. Contractor’s Request; Governing Criteria: Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, 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 equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an “or equal” item. For
the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that the proposed item:

1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) 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) has a proven record of performance and availability of responsive service; and

4) is not objectionable to Owner.

b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) the item 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 will result in any change in Contract Price. The Engineer’s denial of an “or-equal” request will be final and binding and may not be reversed through an appeal under any provision of the Contract.

E. Treatment as a Substitution Request: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

A. Contractor’s Request; Governing Criteria: Unless the specification or description of an item of equipment or material 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 equipment or material under the circumstances described below. To the extent possible such requests must 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 equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.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 equipment or material that Contractor seeks to furnish or use. The application:
   a. will 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 the item specified; and
      3) be suited to the same use as the item 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 the item specified; and
      2) available engineering, sales, maintenance, repair, and replacement services.
   d. will 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 will be final and binding and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

### 7.07 Concerning Subcontractors and Suppliers

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor’s retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor’s obligation to Owner to perform and complete the Work in accordance with the Contract Documents.

B. Contractor shall retain specific Subcontractors and Suppliers 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 or Supplier 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 10 days.

E. Owner may require the replacement of any Subcontractor or Supplier. 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 or Suppliers 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 or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.

F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, 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 or Supplier, whether initially or as a replacement, will 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 solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

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

L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

N. Nothing in the Contract Documents:

    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

    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.

7.08 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 an 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 will be disclosed 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,
arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights
incident to 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.

7.09 Permits

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all
construction permits, licenses, and certificates of occupancy. 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.

7.10 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.

7.11 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. 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 is not Contractor’s responsibility to make certain that the Work described in the
Contract Documents is in accordance with Laws and Regulations, but this does not relieve
Contractor of its obligations under Paragraph 3.03.

C. Owner or Contractor may give written 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 written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 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.

7.13 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.

B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

C. 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.

D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.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).

E. 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.
F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that 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.

G. Contractor shall comply with the applicable requirements of Owner’s safety programs, if any. Any Owner’s safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.

H. 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.

I. Contractor’s duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

J. Contractor’s duties and responsibilities for safety and protection will 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.

7.14 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as 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 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 by an emergency or are required as a result of Contractor’s response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor’s response, a Work Change Directive or Change Order will be issued.

7.16 Submittals

A. Shop Drawing and Sample Requirements

1. Before submitting a Shop Drawing or Sample, Contractor shall:
   a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
   b. determine and verify:
      1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
2) 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

3) all information relative to Contractor’s responsibilities for means, methods,
techniques, sequences, and procedures of construction, and safety precautions
and programs incident thereto;

c. confirm that the Submittal is complete with respect to all related data included in the
Submittal.

2. Each Shop Drawing or Sample must 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 Shop Drawing or Sample, Contractor shall give Engineer specific written notice
of any variations that the Submittal may have from the requirements of the Contract
Documents. This notice must be set forth in a written communication separate from the
Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on
the Shop Drawing itself.

B. Submittal Procedures for Shop Drawings and Samples: Contractor shall label and submit Shop
Drawings and Samples to Engineer for review and approval in accordance with the accepted
Schedule of Submittals.

1. Shop Drawings
   a. Contractor shall submit the number of copies required in the Specifications.
   b. Data shown on the Shop Drawings must 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.C.

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.C.

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. Engineer’s Review of Shop Drawings and Samples

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the
accepted Schedule of Submittals. 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, comply with the requirements of 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 will 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 or other appropriate Contract modification.

5. Engineer’s review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 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, will 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 or Sample will 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.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

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 Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer’s time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer’s charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer’s charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.
E. **Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs**

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
   a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
   b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
   c. Engineer’s review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
   d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance and resubmit an acceptable document.

2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.

F. **Owner-delegated Designs:** Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

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 is entitled to rely on Contractor’s warranty and guarantee.

B. Owner’s rights under this warranty and guarantee are in addition to, and are not limited by, Owner’s rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
   1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
   2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

C. Contractor’s warranty and guarantee hereunder excludes defects or damage caused by:
   1. abuse, or improper modification, 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.

D. Contractor’s obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is
not in accordance with the Contract Documents, a release of Contractor’s obligation to perform the Work in accordance with the Contract Documents, or a release of Owner’s warranty and guarantee rights under this Paragraph 7.17:

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. The end of the correction period established in Paragraph 15.08;
8. Any inspection, test, or approval by others; or
9. Any correction of defective Work by Owner.

E. 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 will 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 losses, damages, costs, and judgments (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 from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage 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 will 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.
7.19 *Delegation of Professional Design Services*

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor’s design professional when submitted by Contractor to Engineer.

D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer’s review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;
2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

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

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

**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 third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner’s employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.

D. 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.

E. If the proper execution or results of any part of Contractor’s Work depends upon work performed by others, 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.

F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

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, Section 1 of the Project Manual, 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 Section 1 of the Project Manual, Owner shall have sole authority and responsibility for such coordination.
8.03 Legal Relationships

A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner’s employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, 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. 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 will 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, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will 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 or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

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.

1. 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 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 8.03.B.

2. 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 Contractor.

C. 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 will 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 in accordance with Paragraph 15.01 D.

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 (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 10.07. 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 Resident 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 the Supplementary Conditions and in Paragraph 10.07.

B. If Owner designates an individual or entity who is not Engineer’s consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 Engineer’s Authority
A. Engineer has the authority to reject Work in accordance with Article 14.
B. Engineer’s authority as to Submittals is set forth in Paragraph 7.16.
C. Engineer’s authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner’s delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
D. Engineer’s authority as to changes in the Work is set forth in Article 11.
E. Engineer’s authority as to Applications for Payment is set forth in Article 15.

10.05 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.

10.06 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.

10.07 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, will 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 Contractor under 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 10.07 also apply to the Resident Project Representative, if any.

10.08 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 of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 Amending and Supplementing the Contract

A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.

C. All changes to the Contract that 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, must be supported by Engineer’s recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 Change Orders

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in 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 11.05, (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 that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 Work Change Directives

A. 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 11.07 regarding change of Contract Price.

B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.

2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 Field Orders

A. 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.

B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 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. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer’s recommendation.

B. Such changes in the Work 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 must be performed under the applicable conditions of the Contract Documents.

C. Nothing in this Paragraph 11.05 obligates 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.
11.06 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.C.2.

11.07 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 must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must 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);

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 11.07.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 11.07.C).

C. Contractor’s Fee: When applicable, the Contractor’s fee for overhead and profit will 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 will be 15 percent;

   b. For costs incurred under Paragraph 13.01.B.3, the Contractor’s fee will be 5 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 11.07.C.2.a and 11.07.C.2.b is that the Contractor’s fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.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 5 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 will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
d. No fee will 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 of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and

f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor’s fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 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 must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.

B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 Change Proposals

A. Purpose and Content: Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. Change Proposal Procedures

1. Submittal: Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.

2. Supporting Data: 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.

   a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.

   b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.
The supporting data must 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.

3. **Engineer’s Initial Review**: Engineer will advise Owner regarding the Change Proposal and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.

4. **Engineer’s Full Review and Action on the Change Proposal**: Upon receipt of Contractor’s supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor’s supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must 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.

5. **Binding Decision**: Engineer’s decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

C. **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 in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

D. **Post-Completion**: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 **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 are subject 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;

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; and

4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.

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 rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, 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 will 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 will 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 will 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 will 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 will 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 will 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 will be incorporated in a Change Order or other written document 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. When needed 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 will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will 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 in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers’ compensation, health and retirement benefits, 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, will 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 accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will 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, which 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 will 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 or retained for services
specifically related to the Work.

5. Other costs consisting of 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, 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.
         1) In establishing included costs for materials such as scaffolding, plating, or
         sheeting, consideration will be given to the actual or the estimated life of the
         material for use on other projects; or rental rates may be established on the basis
         of purchase or salvage value of such items, whichever is less. Contractor will not
         be eligible for compensation for such items in an amount that exceeds the
         purchase cost of such item.
   c. Construction Equipment Rental
      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 builder’s risk or other property insurance established in accordance with
      Paragraph 6.04), 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
      include settlements made with the written consent and approval of Owner. No such
losses, damages, and expenses will 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 does not include any of the following items:

1. Payroll costs and other compensation of Contractor’s officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, 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. The cost of purchasing, renting, or furnishing small tools and hand tools.

3. Expenses of Contractor’s principal and branch offices other than Contractor’s office at the Site.

4. Any part of Contractor’s capital expenses, including interest on Contractor’s capital employed for the Work and charges against Contractor for delinquent payments.

5. 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.

6. Expenses incurred in preparing and advancing Claims.

7. 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**

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:

   a. Contractor’s fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.

   b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor’s fee will be determined as follows:

      1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.

      2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor’s fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. Documentation and Audit: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors shall establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor’s accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor’s fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

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 for any of the foregoing will be valid.

C. Owner’s Contingency Allowance: Contractor agrees that an Owner’s 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 for Work covered by allowances, and the Contract Price will 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, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. Adjustments in Unit Price

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:

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;

there is no corresponding adjustment with respect to any other item of Work; and

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 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 with such procedures and programs 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. This item intentionally deleted from these General Conditions. Section 2—Testing and Control of Materials in the Specifications covers this subject.

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 will 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 will 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 written 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 will 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 additional 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, 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 will 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 defective Work as required by Engineer, then Owner may, after 7 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 for 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.

      2. 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 must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner’s request, documentation warranting that Owner has received the materials and
equipment free and clear of all Liens; and (c) 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.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor’s legitimate obligations associated with prior Applications for Payment.

4. 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;
   b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
   c. for Contractor’s failure to comply with Laws and Regulations applicable to Contractor’s performance of the Work;
   d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; 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. The Owner will make payments promptly as funds for such payments become available from funding agencies or as otherwise agreed.

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 based on Contractor’s conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from 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 has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
j. Liquidated or other 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; or
l. Other items entitle 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 will 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 will be treated as an amount due as determined by Paragraph 15.01.D.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 7 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 notice 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 and Contractor a preliminary notice of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the notice a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary notice during which to make written objection to Engineer as to any provisions of the notice or attached punch list. If, after considering the objections to the provisions of the preliminary notice, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary notice 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 notice, 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 notice of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary notice as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary notice 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 part of the Work 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.

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 7.12), and other documents, Contractor may make application for final payment.

2. The final Application for Payment must 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 duly pending Change Proposals and Claims; 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 Final Application and Recommendation of Payment: 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 10 days after receipt of the final Application for Payment, indicate in writing Engineer’s recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will 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. 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. **Notice of Acceptability**: In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.

D. **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.

E. **Final Payment Becomes Due**: Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due 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 as a Claim 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 Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor’s repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect 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 adjacent areas;

2. correct such defective Work;

3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, 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 from the corrective measures.

B. Owner shall give written notice that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

C. If, after receipt of a notice of defect within 60 days and within the correction period, 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 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). Contractor’s failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

D. 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.

E. 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.

F. Contractor’s obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to 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 directly attributable to any such suspension. Any Change Proposal seeking such adjustments must 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) 10 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) written 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 7 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 will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 Owner May Terminate for Convenience

A. Upon 7 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 for any loss of anticipated profits or revenue, post-termination overhead costs, 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 to pay the Contractor as provided by Paragraph 15.01.D, then Contractor may, upon 7 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 to pay the Contractor as provided by Paragraph 15.01.D, Contractor may, 7 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, pursuant to Article 12; and

2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise 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;

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 requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
      1. in person, by a commercial courier service or otherwise, to the recipient’s place of business;
      2. by registered or certified mail, postage prepaid, to the recipient’s place of business; or
      3. by e-mail to the recipient.

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 will not constitute a waiver of that provision, nor will 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 of the Contract or 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 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party 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.

18.09 *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.

18.10 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.
1. **Subsurface and Physical Conditions (Article 5.03)**

   As provided by Article 5.03 (page 15) of the General Conditions, subsurface conditions are unknown unless a Geotechnical Report is included at the end of Section 1 of the Detailed Specifications.

2. **Hazardous Environmental Condition at Site (Article 5.06)**

   Neither the Owner nor the Engineer is aware of any hazardous environmental conditions on this project, however no specific examinations have been performed unless a report of such conditions is included in Section 1 of the Detailed Specifications.

   Add the following as Article 5.06 I.1:

   The Owner’s obligation to indemnify is limited in accordance with Tennessee law to damages incurred by third parties as a result of acts or omissions of the Owner for which the Owner is found liable or would be found liable under the law.

3. **Patent Fees and Royalties (Article 7.08)**

   Add the following as Article 7.08 B.1:

   The Owner’s obligation to indemnify is limited in accordance with Tennessee law to damages incurred by third parties as a result of acts or omissions of the Owner for which the Owner is found liable or would be found liable under the law.

4. **Safety and Protection (Article 7.13)**

   Article 7.13 G refers to an Owner Safety Program, if any. If such program is known to exist to the Engineer, it will be identified in Section 1 of the Detailed Specifications.

5. **Coordination (Article 8.02)**

   Section 1 of the Detailed Specifications and/or the Plans will show any other contracts or contractors which will interface with this work.
6. **Progress Payments (Article 15.01)**

   Article 15.01 (page 61) is hereby amended to allow the Owner 30 days after receipt of the Engineer’s approved Application for Payment (also known as Pay Request) in order to make payment to the Contractor.

   Add the following as Article 15.01 B.5:

   The Contractor affirms by the submission of the second Application for Payment (Pay Request) that the Contractor is discharging all financial obligations pertaining to this Contract in the customary business manner. Before final payment, as per Article 15.06, is made, the Contractor will be required to furnish an affidavit that all financial and other obligations related to this project have been satisfied listing any exceptions.

7. **Investment of Retainage**

   As provided by TCA 66-11-144, the Owner will establish an interest-bearing escrow account for all contracts whose initial value exceeds $500,000. All interest earned on the funds deposited in said account together with the principal thereof shall be paid to the Contractor upon acceptance of the work by written approval of the Engineer.

8. **Listing of the Duties, Responsibilities and Limitations of Authority of the Resident Project Representative**

   A copy of this document as it appears in the Owner-Engineer Agreement is attached to these Supplementary Conditions.

9. **Insurance Requirements**

   See Instructions to Bidders, Paragraphs 13, 14, 15, 16, and 17.

*************
A LISTING OF THE DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF THE RESIDENT PROJECT REPRESENTATIVE

ENGINEER shall furnish a Resident Project Representative (RPR) to assist ENGINEER in observing performance of the Work of the Contractor.

Through more extensive on-site observations of the Work in progress and field checks of material and equipment by the RPR and assistants, ENGINEER shall endeavor to provide further protection for OWNER against defects and deficiencies in the Work but the furnishing of such services will not make ENGINEER responsible for or give ENGINEER control over construction means, methods, techniques, sequences or procedures, or for safety precautions or programs or responsibility for CONTRACTOR’s failure to perform the Work in accordance with the Contract Documents.

The duties and responsibilities of the RPR are limited to those of ENGINEER in ENGINEER’s agreement with the OWNER and in the construction Contract Documents, and are further limited and described as follows:

A. General

RPR is ENGINEER’s agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR’s actions. RPR’s dealings in matters pertaining to the on-site work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR’s dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

B. Duties and Responsibilities of RPR

1. Schedule: Review the progress schedule, schedule of Shop Drawings submittals and schedule of values prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.

2. Conferences and Meetings: Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings.

3. Liaison:

   a. Serve as ENGINEER’s liaison with CONTRACTOR, working principally through CONTRACTOR’s superintendent and assist in understanding the intent of the Contract Documents; and assist ENGINEER in serving as OWNER’s liaison with CONTRACTOR when CONTRACTOR’s operations affect OWNER’s on-site operations.
b. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.

4. Shop Drawings and Samples:
   a. Record date of receipt of Shop Drawings and samples.
   b. Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by ENGINEER.

5. Review of Work, Rejection of Defective Work, Visiting Inspectors and Tests:
   a. Conduct on-site observations of the 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 Work is unsatisfactory, faulty or defective or does not conform to the Contract documents, or has been damaged, or does not meet the requirements of any test or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing or approval.
   c. Verify that tests, equipment and system startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to ENGINEER appropriate details relative to the test procedures and startups.
   d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to ENGINEER.

6. 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.

7. Modifications: Consider and evaluate CONTRACTOR’s suggestions for modifications in Drawings or Specifications and report with RPR’s recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.
8. Records:
   a. Maintain orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER’s clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
   b. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, 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.
   c. Record names, addresses and telephone numbers of all CONTRACTORS, subcontractors and major suppliers of materials and equipment.

9. Reports:
   a. Furnish 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. Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of Work.
   c. Report immediately to ENGINEER and OWNER upon the occurrence of any accident.

10. 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.

11. Certificates, Maintenance and Operation Materials: During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the work.
12. Completion:
   a. Before ENGINEER issues a Notice of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
   
   b. Conduct final observation in the company of ENGINEER, OWNER and CONTRACTOR and prepare a final list of items to be completed or corrected.
   
   c. Observe that all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance.

C. Limitations of Authority

   Resident Project Representative:

   1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by ENGINEER.

   2. Shall not exceed limitations of ENGINEER’s authority as set forth in the Contract Documents.

   3. Shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR’s superintendent.

   4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.

   5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.

   6. Shall not accept Shop Drawing or sample submittals from anyone other than CONTRACTOR.

   7. Shall not authorize OWNER to occupy the Project in whole or in part.

   8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.
SECTION 1

GENERAL SCOPE AND SPECIAL PROVISIONS

1. **Scope**

The work to be accomplished under these Detailed Specifications consists of furnishing all labor, materials, equipment and services necessary for the construction of Water System Improvements, Bid Number 21-001, Contract 21-01 – Bristol Water Treatment Plant Washwater Tank Painting and Renovation for the City of Bristol, Tennessee, hereinafter called Owner. The work involved is in one (1) contract and consists of the following generally described work:

**BID NUMBER 21-001**
**CONTRACT 21-01**
**BRISTOL WATER TREATMENT PLANT**
**WASHWATER TANK PAINTING AND RENOVATION**

- The work to be performed includes cleaning the tank interior and exterior using blast cleaning methods, making certain repairs, recoating the tank, and other miscellaneous work as described in these Detailed Specifications.

2. **Execution and Coordination of the Work**

It is intended that the work covered by this Contract be done so as to cause the minimum interference with the normal operation of the existing facilities of the Owner.

The Contractor shall be required to organize and schedule his work so as to keep the existing facilities in full operation during the construction period insofar as is consistent with the nature of the construction work to be performed.

The manner in which shutdowns will be made and the Contractor's work schedule are subject to the approval of the Owner and the Engineer. Although every effort will be made to cause the minimum amount of interference with the Contractor's work, the interest of the Owner in regard to the existing facilities must always take precedence over the construction work.

THEREFORE, THE RIGHT IS RESERVED BY THE OWNER TO PUT ANY LINES OR OTHER FACILITIES THAT MAY BE SHUT DOWN FOR THE CONSTRUCTION WORK BACK INTO SERVICE WHEN AN EMERGENCY ARISES.
The Contractor must have sufficient materials, equipment, labor, and supervision available to accomplish the work required in the time allocated for any shutdown of the existing water system.

3. **Time of Completion and Liquidated Damages**

Time is of the essence on this Contract and work on this contract shall be prosecuted in a timely manner.

Time of completion after issuance of notice to proceed will be as follows:

- **Contract 21-01:** Ninety (90) consecutive calendar days

If the work is not completed within the time specified, liquidated damages in the amount of $500 per calendar day will be deducted from the compensation otherwise due to the Contractor(s) in accordance with the Contract Documents for each calendar day thereafter, Sundays and holidays included, that the work remains uncompleted.

The Contractor’s attention is called to Article 4 of the General Conditions regarding contract completion date time extensions.

If the Contractor works during inclement weather delays, said delays shall not be accounted as a weather delay.

4. **Guarantee – One Year Warranty**

The Contractor(s) shall guarantee all work performed under this contract for a period of one year after the date of Substantial Completion in accordance with requirements of Paragraph 15.08 of the General Conditions.

5. **Engineer’s Authority**

See Paragraph 10.04 of the General Conditions.

6. **Shop Drawings (See Paragraph 7.16 of the General Conditions)**

The Contractor(s) shall submit six (6) copies of detailed drawings which shall include but not be limited to the following:

- a. Contractor’s Planned Order of Work
- b. Progress Schedule
- c. Paint and Coatings
- d. Individual product data sheets for each component of the painting system including detailed application instructions
e. Fabrication and/or installation drawings for any repairs or appurtenances authorized by the Engineer for incorporation into the work

THE ENGINEER RESERVES THE RIGHT TO REQUEST SUBMITTALS FOR ANY EQUIPMENT OR MATERIALS USED ON THE PROJECT.

THE ENGINEER WILL HOLD ALL SUBMITTED OR REVIEWED SHOP DRAWINGS UNTIL THE CONTRACTOR HAS PROVIDED ACCEPTABLE SUBMITTALS FOR THE CONTRACTOR’S PLANNED ORDER OF WORK, PROGRESS SCHEDULE, PRE-CONSTRUCTION VIDEOS AND SHOP DRAWING LOG. A TEMPLATE FOR THE SHOP DRAWING LOG WILL BE PROVIDED BY THE ENGINEER AT THE PRE-CONSTRUCTION CONFERENCE.

THE CONTRACTOR(S) SHALL NOTE: SHOP DRAWINGS SENT TO THE ENGINEER BY FAX MACHINE OR ELECTRONIC MAIL WILL NOT BE ACCEPTED.

REJECTION OF THE SAME DRAWING ON THREE (3) SEPARATE OCCASIONS WILL CONSTITUTE GROUNDS FOR TOTAL REJECTION OF THE PROPOSED EQUIPMENT MANUFACTURER OR SUPPLIER AS BEING UNABLE OR UNWILLING TO MEET THESE DETAILED SPECIFICATIONS.

Shop drawings shall be checked by the Contractor(s) and evidence of such checking shall be indicated thereon. The Contractor(s) shall be completely responsible for accuracy, completeness, compliance with Plans and Detailed Specifications, and compatibility, the Engineer’s approval notwithstanding. WORK SHALL BE PERFORMED ONLY BY USE OF APPROVED SHOP DRAWINGS. THE CONTRACTOR(S) SHALL PLAINLY MARK ON HIS SUBMITTAL THE ITEM OR ITEMS IN WHICH HE IS REQUESTING APPROVAL. FAILURE TO DO SO WILL GIVE THE ENGINEER THE RIGHT TO EITHER REJECT THE SUBMITTAL OR SELECT THE ITEM OF HIS CHOICE AT NO ADDITIONAL COST TO THE OWNER.

THE ENGINEER WILL ATTEMPT TO TAKE ACTION ON ALL SHOP DRAWINGS WITHIN TEN (10) WORKING DAYS FROM THEIR RECEIPT; HOWEVER, THE ENGINEER RESERVES THE RIGHT TO TAKE UP TO TWENTY (20) WORKING DAYS FOR ACTION ON ANY GIVEN SHOP DRAWING, DEPENDENT UPON THE WORK LOAD. THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR TIMELY SUBMISSION OF SHOP DRAWINGS BASED ON THE ABOVE AND NO EXTRA FOR TIME OR COSTS WILL BE ACCEPTABLE.

After approval, the Engineer will make the following distribution: one set to the Owner, one set to Engineer’s central files, one (1) set to the Engineer’s Resident Project Representative, and the remaining sets returned to the Contractor. The
Contractor shall keep one set for his central office file, return one set to the supplier or manufacturer and send one set to the project site. The Engineer will check up to nine (9) sets of each submittal for the Contractor as his operations require.

7. Initial Videos and Progress Pictures

Before beginning the job, the Contractor shall make a DVD showing the status before construction has begun.

The Contractor shall furnish progress pictures to the Engineer at the end of each month at the time the pay request is submitted; the pictures shall be taken as directed by the Engineer's representative. The pictures shall be approximately 8" x 10" in size. Pictures shall be of high professional quality, clearly showing the work and preferably not showing workmen or passersby. The name of the project, Contractor's name, and the date shall be shown on the back of each picture. Three (3) prints each of three (3) pictures shall be required per month. One (1) set of pictures shall be submitted via email in .JPG format.

After construction and clean-up are completed, the Contractor shall submit videos showing the cleaned up work.

8. Progress Schedule and Progress Meetings

The Contractor shall furnish five (5) copies of a suitable progress chart or schedule in graphical form showing the estimated schedule for the project as required in Paragraph 2.05 of the General Conditions. After approval, the Contractor shall update the chart monthly showing the actual progress on the project for each specific item of work in relation to the estimated schedule. FAILURE TO SUBMIT SAID PROGRESS SCHEDULE AND KEEP IT CURRENT MONTHLY SHALL BE GROUNDS FOR NONPAYMENT OF PARTIAL PAYMENT REQUESTS.

The Engineer and Owner may elect to conduct monthly progress meetings on-site with the Contractor, the Owner and the Engineer to discuss progress, any problems encountered and other appropriate subjects.

9. Utilities Required by Contractor

All electric current and/or any utility service required by the Contractor(s) shall be furnished at his own expense except as otherwise noted in these Detailed Specifications. The Owner will furnish water for initial filling and disinfection of the tank. The Contractor shall supply water for refilling the tank if required.
10. **Project Sign**

   A project sign is not required.

11. **Field Office**

   A field office is not required; however, the Contractor shall have a responsible representative on site who can officially receive instructions from the Engineer.

12. **Existing Utilities**

   Special precautions shall be taken by the Contractor to avoid damage to existing overhead and underground utilities owned and operated by the Owner or by public or private utility companies.

   The Contractor shall contact Tennessee "One-Call" at 1-800-351-1111 at least 72 business hours in advance of digging. Before proceeding with the work, the Contractor shall confer with all public or private utilities in the vicinity of the construction work. The purpose of the conference or conferences shall be to notify said companies, agencies or departments of the proposed construction schedule, verify the location of and possible interference with the existing utilities, arrange for necessary suspension of service where possible and approved by the Utility, and make arrangements to locate and avoid interference with all utilities. The Engineer and Owner have no objection to the Contractor arranging for said Utility Companies, Agencies or Departments to locate and uncover their own utilities; however, the Contractor shall bear the entire responsibility for locating and avoiding or repairing damage to said existing utilities. **WORK SHALL NOT PROCEED WITHOUT ALL UNDERGROUND UTILITIES BEING LOCATED AND MARKED.**

   The Contractor shall locate all unknown metallic hazards, namely buried pipe, metals, etc., by using a pipe locator, or whatever better methods the Contractor may elect to use. All hazards should be located and marked with a stake in such manner as to notify the equipment operator of such hazard.

   Where existing utilities or other underground structures are encountered, they shall not be displaced or molested unless necessary and approved by the Owner, and in such case they shall be replaced in as good or better condition than found as quickly as possible. All such utilities that are so damaged or molested shall be replaced at the Contractor’s expense, unless in the opinion of the Engineer such damage was caused through no fault of the Contractor.

   The Contractor shall follow the requirements of Tennessee Code Annotated (TCA) 65-31-101 concerning the responsibilities involved in excavation procedures to prevent damage of underground utilities. It is expected that the Contractor will be diligent in his efforts and use every possible means to locate
existing utilities. Any claims for unavoidable damage, based on improper or unknown locations, will be thoroughly examined in light of the Contractor's efforts to locate the said utilities or obstructions prior to beginning construction.

13. **Permits, Codes, Agreements and/or Contracts with Private Utilities**

The Contractor shall make application for, obtain, and pay for all licenses, permits, agreements, and/or contracts with private utility companies and shall pay all fees and charges in connection therewith.

14. **Protection of Roadways On and Off-Site**

In the hauling of materials and/or equipment to and from the site of the work, the Contractor shall take care to protect county roads, highways, parking areas and/or city streets. The Contractor shall be responsible for repair of highways, roads, parking areas or streets damaged by his operations (or operations of his subcontractors) and shall repair said damage to the original condition. If repair to the original condition is not practical or possible, the Contractor shall be responsible for obtaining proper release from the owner of the damaged roadway.

15. **Lands, Rights-of-Way and Limits of Work**

The Owner owns the sites on which the work is to be constructed.

The Contractor shall be responsible for obtaining necessary work permits from the City of Bristol.

The Contractor shall limit his work area and storage to the Owner's property and/or permanent utility easements shown on the Plans. The Contractor shall not encroach or dump excess or waste materials on property adjacent to the work sites unless written permission is first received from the affected property owner and a copy submitted to the Engineer. Where excess materials are to be dumped off-site, the Contractor shall furnish the Owner written evidence of the property owner's permission.

In connection with work performed on easements or adjacent to private property, the Contractor shall take all reasonable care to avoid damage to the property owners' buildings, grounds and facilities and shall be completely responsible for the repair of damage to same. It is intended that when construction is complete, the easements and the private property owners' facilities and grounds shall be restored to as good or better than original condition as possible.

Large trees or other facilities within the actual construction limits that cannot be preserved and replaced shall be removed by the Contractor. THE OWNER WILL ASSUME THE RESPONSIBILITY FOR SETTLING WITH THE PROPERTY OWNER FOR THE LOSS OF SAID TREES OR FACILITIES WITHIN THE
CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ALL OTHER DAMAGES.

Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.

16. Undesirable Workmen

The Engineer reserves the right, but in so doing does not assume responsibility to make a judgment (the primary responsibility rests upon the Contractor), to remove inept or uncooperative servicemen as "Undesirable Workmen".

17. Work Hours

No night, weekend or Holiday work requiring the presence of the Engineer or Owner representatives will be permitted, except in case of emergency, and then only to the extent such work is necessary for protection of the work, and only with written approval of the Engineer. This clause shall not apply on such work which can only be performed at night.

18. Materials or Equipment to be Furnished (see Paragraph 7.05 of the General Conditions)

Where the specifications state "equal to" followed by a brand name or model, a standard of quality is being set. The naming of a brand or model is a matter of convenience to avoid writing a volume. Other brands or equipment under this category may be submitted at the shop drawing stage of construction. The Engineer will consider other products on the basis of materials of construction, weight, function, size (it must fit the space provided), service history and electrical and mechanical characteristics.

Where the specifications state one or more model numbers and manufacturers followed by the words "or approved equal" the meaning is that the product(s) specified is acceptable and that while there may be other products that are acceptable the only way to be assured is to submit the desired substitution during the BID PROCESS and receive an affirmative answer in the form of a letter or an addendum. The Engineer will consider the factors previously described in making the determination.

Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. The Engineer shall have the right to require the use of such specifically designated material, article,
or process. The Engineer, where practical, may require submission of actual samples of materials or products.

19. **Occupational Safety and Health Act**

   The Contractor’s attention is called to **Paragraph 7.13** of the General Conditions.

20. **Noise, Odor and Dust Control**

   The work hereunder is to be performed within the suburban area of Bristol which lies near a residential area. The Contractor shall be responsible for noise, odor and dust abatement procedures and shall be cognitive of working hours.

21. **Chemical Requirements**

   All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classifications, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with the Material Safety Data Sheets.

22. **Confined Spaces**

   During the construction of the facilities to be built under the terms of this contract, it may be necessary for the OWNER'S or the ENGINEER'S representative(s) to enter "confined space(s)”, as defined by OSHA Regulations, in order to observe the work of the Contractor and/or in order to determine compliance with the terms of the contract. The Contractor shall provide the proper "Permit", the "Attendant", and/or the "Entry-Supervisor", the testing safety and emergency equipment and all other means of compliance with OSHA regulations. The OWNER or the ENGINEER will provide general training to their respective proposed “authorized Entrant(s)” who are employees of the OWNER or the ENGINEER, however the Contractor shall provide any specialized training required for the equipment furnished, the Contractor's Permit System or any other condition special to the work to be performed. The Contractor shall submit a copy of its written Permit System prior to the commencement of construction and shall be fully responsible for compliance with the appropriate regulations.

23. **Restoration of Disturbed Areas in Connection with Work on or Adjacent to Private Property**

   In connection with work performed on or adjacent to private property, the Contractor(s) shall take all reasonable care to avoid damage to the property Owners' buildings, grounds and facilities and shall be completely responsible for the repair of damage to same. Fences, hedges, shrubs, etc., within the construction limits shall be carefully removed, preserved, and replaced when the
construction is completed. Where ditches or excavations cross lawns, the sod shall be removed carefully and replaced when the backfilling has been completed. If sod is damaged or not handled properly, it shall be replaced with new sod equal to existing sod at the Contractor's expense. All unpaved areas, other than lawns, shall be graded, fertilized, and seeded when construction is completed in accordance with the requirements set out in Section 4 of these Detailed Specifications. It is intended that when construction is completed, the private property Owner's facilities and grounds shall be restored to as near their original condition as possible.

Foundations adjacent to an excavation which is to be carried below the bottom of the foundation shall be supported by shoring, bracing, or underpinning, and the Contractor(s) shall be held strictly responsible for any damage to said foundation.

Work on rights-of-way of the State Highway Department or the City of Bristol shall be considered work on Private Property. It shall be the Contractor's responsibility to obtain any necessary work permits.

24. Reference to Tennessee Department of Transportation Specifications and Standard Roadway and Structure Drawings

Where items are referred as being in conformance with Tennessee Department of Transportation Specifications and/or Standard Drawings, certain materials, equipment and construction methods required under this Section of the Detailed Specifications for Road and Bridge Construction and subsequent special provisions and revisions issued by the Tennessee Department of Transportation; and the Standard Roadway and Structure Drawings (current revision) adopted by the Tennessee Department of Transportation (TDOT), Bureau of Highways, as amended and/or modified herein.

25. References to Standard General Conditions of the Construction Contract

Where references are provided within this Project Manual to the Standard General Conditions of the Construction Contract, they are provided for the benefit of the Contractor. Where conditions may be repeated or expanded in this Section, they shall be in addition to those requirements stated in the Standard General Conditions of the Construction Contract. Where any conflicts may exist with the Standard General Conditions of the Construction Contract and text found elsewhere in the Project Manual, the Standard General Conditions of the Construction Contract shall prevail.

26. Connecting to Existing Lines and Facilities

The Contractor shall make the required connections to existing lines and structures as shown on the Plans and as specified in these Detailed Specifications.
Specifications. Refer to Paragraph 2. Execution and Coordination of the Work of this Section.

27. **Water and Uplift**

The Contractor(s) shall, by the use of well points, pumps or other approved methods, prevent the accumulation of water in excavated areas. Should water accumulate, it shall be promptly removed. The Contractor(s) shall also provide for dewatering areas adjacent to structures or lines to prevent uplift during construction operations. The Contractor(s) will be held responsible for any damage due to uplift of such structures or lines and to existing structures during construction operations.

28. **Applicability of Governing Standards**

The latest version of any standard listed in these Detailed Specifications as of the bid date shall apply. In cases that an incorrect revision year is listed, it shall not apply - the latest version as of the bid date shall apply.

29. **Subsurface Conditions/Site Conditions**

As provided by Article 5.03 and 5.04 of the General Conditions, subsurface conditions are unknown unless a Geotechnical Report is included at the end of Section 1.

30. **Temporary Project Water Pollution Control (Soil Erosion)**

Temporary pollution control provisions shall be taken to avoid damage to embankments and cut slopes and to avoid transport of sediment to adjacent property owners and/or streams.

Pollution and erosion control methods shall include but are not limited to the following:

- **Temporary Berms**
  
  Temporary berms shall be constructed of compacted soil with or without a shallow ditch at the top of all excavation and embankment slopes to prevent excessive erosion until the slopes are stabilized.

- **Temporary Slope Drains**
  
  Temporary slope drains shall be stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half-round pipe, metal pipe, plastic pipe, sod or other material acceptable to the Engineer that may be used to carry water down slopes to reduce erosion.
c. **Temporary Silt Fences**

Temporary silt fences with baled hay or straw shall be placed on the natural ground, at the bottom of fill slopes, in ditches or other areas where siltation is a problem or where shown on the Plans.

Silt fences are constructed of wire mesh fence with a covering of filter cloth composed of burlap, plastic filter fabric or some other suitable material on the upper grade side of the fence and anchored into the soil.

Bales shall be either hay or straw containing five (5) cubic feet or more of material.

The above listed pollution and erosion control methods shall be used at the discretion of the Contractor or where directed by the Engineer. Temporary pollution control is NOT a separate pay item.

The Contractor shall be solely and strictly liable for any violations of State or Federal water pollution laws, regulations, or standards caused during construction by the Contractor's forces or subcontractors and shall pay any penalties levied by any party due to said violations.

The Contractor(s) shall maintain the construction area for stormwater discharges associated with construction activities and shall meet all requirements and complete all forms as established by the Tennessee Department of Environment and Conservation.

31. **Substantial Completion/Delays in Final Completion**

See **Paragraph 15.03** of the General Conditions.

In order to allow all outstanding incomplete items to be completed during the initial start-up and operating period, a semi-final inspection will be made upon request by the Contractor after the beginning of the initial start-up period. In no event will the date of substantial completion of the Contract for purposes of determining payment of the liquidated damages be set before the beginning of the initial start-up period.

32. **Initial Start-Up of Facilities**

The Contractor will be responsible for the initial start-up of the newly constructed facilities and all equipment furnished. During the initial start-up period all malfunctions and other incomplete items discovered by either the Contractor, Owner or Engineer shall be corrected. The initial start-up period shall not be considered complete until all such items are corrected and the facilities are determined by the Engineer to be in full and satisfactory operation.
33. **Final Clean-Up**

Before the work is considered as complete, all rubbish and unused material due to or connected with the construction shall be removed and the premises left in a condition satisfactory to the Engineer. Streets, curbs, crosswalks, pavements, sidewalks, fences and other public and private property disturbed or damaged shall be restored to their former condition at the Contractor’s expense. Final acceptance will be withheld until such work is completed.

34. **Disposal of Demolition Debris and Salvageable Material**

The Owner shall have the right to claim and salvage any materials or equipment removed from the Bristol Water Treatment Plant Washwater Tank. The Contractor is responsible for disposal of any materials or equipment not claimed by the Owner. The Contractor shall be responsible for the disposal of demolition debris created by this project. The Contractor shall furnish the Owner with written evidence of the property owner’s permission.

35. **Basis of Payment**

The Contractor shall furnish all necessary labor, machinery, tools, apparatus, materials, equipment, services, and other necessary supplies and perform all work including all repairs, surface preparation and painting (without additional compensation except where specifically set out in these Detailed Specifications) at the lump sum and unit prices listed in the BID FORM.

************
SECTION 2
CLEANING, REPAIRING AND PAINTING EXISTING
STEEL ELEVATED WATER STORAGE TANK

1. Scope

The work described at this Section includes furnishing all labor, materials, equipment and services necessary for cleaning, repairing and painting all interior and exterior surfaces of the existing 250,000 gallon elevated Bristol Water Treatment Plant Washwater Tank, hereinafter referred to as “Washwater Tank” for the City of Bristol.

The Washwater Tank was erected in 1979 by Universal Tank & Iron. An inspection report dated October 25, 2016 was completed by Utility Service Co., Inc. and is included at the end of this Section.

The Contractor shall provide a containment system to prevent the migration of any hazardous blast media, dust and paint residue onto or from the Washwater Tank site. The containment system shall meet SSPC, Class 3A and include the cover panels, screens, tarps, scaffolds, supports and shrouds used to enclose an entire work area or approved alternate method. The purpose is to prevent the debris generated during surface preparation from entering into the environment, and to facilitate the controlled collection of the debris for disposal. Refer to SSPC-Guide 6 (CON) Guide for Containing Debris Generated During Paint Removal Operations. Containment and collection shall be in accordance with applicable federal, state and local requirements.

2. Reference Specifications

The standards, regulations and guides referenced at this Section of the Detailed Specifications include the most recent editions of those published by the coating manufacturer’s printed instructions, the American Society of Testing Materials (ASTM), the American National Standards Institute/National Sanitation Foundation (ANSI/NSF), the American Water Works Association (AWWA), the U.S. Environmental Protection Agency (EPA) Code of Federal Regulations (CFR), and the Society for Protective Coatings (SSPC).

All work described at this Section shall be performed in accordance with the following applicable standards, regulations and guides as amended or revised at these Detailed Specifications.
3. Special Requirements

a. Containment and Disposal of Surface Preparation Debris and Paint Residue

(1) Results of Existing Coating Analyses for Contamination

Paint samples from the existing interior and exterior coatings on the tank were tested for heavy metals. A copy of these test results is included in the inspection report dated October 25, 2016 by Utility Service Co., Inc. located at the end of this Section of these Detailed Specifications.

(2) Contractor Responsibility Regarding Paint Debris

Cleaning and surface preparation of surfaces to be painted shall be completed to a condition as described at Paragraph 5. Cleaning and Surface Preparation hereinafter without producing hazardous waste.

The Contractor will obtain and pay for all permits and authorizations required for disposal of the paint and debris resulting from cleaning and surface preparation operations as long as the waste is determined to be non-hazardous. The Contractor shall obtain all samples of paint and debris and contract with an analytical laboratory for all analyses required by appropriate regulatory agencies as a condition for obtaining necessary permits and authorization for ultimate disposal. The Contractor shall pay for all costs associated with this testing and the Contractor will be responsible for transporting the containers containing the paint debris off-site and for all costs associated with ultimate disposal of the containers and paint debris.

At least once each week, the Contractor shall clean up the blast debris and store in sealed watertight containers. All containers
shall be labeled using weather resistant labeling and marked using indelible ink with the contents (i.e., paint debris), tare weight of the container, and the origin (i.e., 250,000 Gallon Bristol Washwater Tank, Bristol, Tennessee), date of collection of the material and a container number. The containers shall be stored in a temporary holding area at the work site.

b. Repair Work on the Washwater Tank

Unless specifically listed in the BID FORM, cost associated with performing all interior and exterior mandatory repair work listed hereinafter shall be included in the Lump Sum bid amount for cleaning, repairing and painting the interior of the Washwater Tank.

The Contractor shall perform the following repair work:

1. All repairs shall be made in a manner to affect a permanent repair. Welding shall be performed by qualified personnel. Care shall be taken to avoid damage to seams, plates and pipe connections that could result in leakage. The Contractor shall guarantee the water tank to be free from leakage upon completion of his work.

2. Any welding on the tank shall be in conformance with the requirements at AWWA D100 for welded steel tanks for water storage.

3. Sharp edges can cause premature coating failure. All sharp edges, weld spatter, and burrs shall be ground flush.

4. Repair all cracks and spalling in the concrete and grout around base plates with commercial non-shrinking grout as specified.

5. Blast and coat all handrails as specified.

6. Seal the steel tank to the concrete foundation as specified.

7. Paint all manways Safety Yellow and apply 2-inch black lettering that reads:

   ! DANGER !

   CONFINED SPACE

8. Replace existing level indicator system as specified.

9. Drill weepholes in the balcony floor where water is ponding.
(10) Install a new roof vent as specified hereinafter.

(11) Caulk all un-welded interior seams as specified.

c. **Repair Work to be Performed If Authorized by the Engineer**

If and where authorized by the Engineer following the cleaning of the interior of the Washwater Tank, the following repair work shall be performed:

(1) Fill sharp edged pits and pits between 1/16-inch and 1/8-inch deep on the interior of the tank shell with caulking.

(2) Fill-weld pits deeper than 1/8-inch on the interior of the tank shell.

(3) Continuously caulk interior tank lapped seams or other gapped, lapped or skip-welded seams so that they are completely sealed. Caulk roof lapped seams, the roof channel beam to roof seams and the crevice along the top of the shell where the roof connects with Sika Flex-1A.

The Contractor will be paid for performing the hereinbefore described repair work if authorized in writing by the Engineer at the unit prices listed in the BID FORM.

4. **Order of Work**

In order to ensure that the volume debris is kept to an absolute minimum and to insure surface cleaning and preparation is in accordance with the requirements of this Section prior to applying paint or caulking, the following order of work shall be strictly followed unless modifications are requested in writing by the Contractor and approved in writing by the Engineer.

a. The Contractor shall submit a proposed schedule and order of work to the Engineer prior to draining the tank.

   The Owner will be responsible for draining the tank.

b. Remove all visible oil, wax, grease, soil, dirt, and other soluble contaminants in accordance with SSPC-SP1 prior to blast cleaning.

c. The Contractor shall plug and protect all inlet and outlet pipes to prevent the entrance of paint debris or residue.

d. The entire interior surface of the tank shall then be cleaned in one continuous operation in accordance with Society for Protective Coatings.
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Surface Preparation Specification No. 10 “Near-White Blast Cleaning” to establish a blast profile of 1.5 to 2.5 mils.

e. All interior repair work or exterior repair work which could cause damage to the interior coating system shall be completed by the Contractor.

f. Prior to any caulking work or application of the interior prime coat, any surface to be caulked or primed shall be recleaned in accordance with Society for Protective Coatings Surface Preparation Specification No. 10 “Near-White Blast Cleaning” as described at Paragraph 5.a. of this Section. Upon completion of all interior surface preparation operations, the debris from the recleaning operation shall be collected and disposed of by the Contractor. After final blast cleaning, interior primer may be applied.

g. The entire exterior surface of the tank shall be cleaned in accordance with Society for Protective Coatings Surface Preparation Specification No. 6 “Commercial Sand Blast Cleaning” to establish a blast profile of 1.5 to 2.5 mils.

h. All exterior repair work shall be completed by the Contractor.

i. Any exterior surface to be primed shall be recleaned in accordance with Society for Protective Coatings Surface Preparation Specification No. 6 “Commercial Sand Blast Cleaning” as described at Paragraph 5.b. of this Section prior to any application of the exterior prime coat. Upon completion of all exterior surface preparation operations, the debris from the recleaning operation shall be collected and disposed of by the Contractor. After final blast cleaning, exterior primer may be applied.

j. After any steel surfaces are coated with primer; the Contractor may apply intermediate and final coats at his discretion, taking into account curing requirements of the previous coat. The contractor is responsible for complying with the manufacturer’s time limitations between coats.

k. Upon completion of all painting operations and after the appropriate curing time of the final interior coats, the Contractor shall perform a Holiday Detection Test as specified hereinafter.

l. Upon completion of ALL painting operations and after the appropriate curing time of the final interior and exterior coats, the Contractor shall disinfect the tank interior as specified hereinafter.
5. Cleaning and Surface Preparation

a. Interior Cleaning and Surface Preparation

The entire interior surface of the tank shell and center riser shall be cleaned in one continuous operation in accordance with the requirements stipulated at Society for Protective Coatings Surface Preparation Specification No. 10 “Near-White Blast Cleaning” to establish a minimum blast profile of 2.0 mils. This shall be accomplished in a manner that does not produce hazardous waste as described at Paragraph 3.a. of these this Section.

Immediately following the “Near-White Blast Cleaning” operations and before any primer or caulking is applied to the freshly blasted surface, an ultra-violet light (black light) shall be used to inspect the entire interior surface for oil, grease or wax residues. If any oil, grease or wax residue or areas which have not been properly cleaned are identified, they shall be recleaned or blasted until they are shown by the ultra-violet inspection to be free of oil, grease and wax. The Contractor shall furnish the ultra-violet light inspection equipment.

AFTER MANDATORY REPAIR WORK ON THE TANK INTERIOR DESCRIBED ELSEWHERE AT THIS SECTION IS COMPLETED, RECLEANING IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED AT SOCIETY FOR PROTECTIVE COATINGS SURFACE PREPARATION SPECIFICATION NO. 10 “NEAR-WHITE BLAST CLEANING” SHALL BE PERFORMED AT THE VICINITY OF THOSE AREAS REPAIRED.

Due to the necessity to open abrasive blast clean the entire interior tank surface for inspection prior to beginning coating operations, portions of the interior tank surface may develop a thin rust or oxidation layer between the time the initial “Near-White Blast Cleaning” is performed and the time primer is applied. If the surface temperature of the tank in the area to be painted drops below the temperature that is five degrees Fahrenheit above the dew point between the time the “Near-White Blast Cleaning” is performed and the time priming operations begin in that area, or if more than 12 hours pass after the “Near-White Blast Cleaning” is performed before priming operations begin, the Contractor shall reclean the area to be immediately primed in accordance with the requirements stipulated at Society for Protective Coatings Surface Preparation Specification No. 10 “Near-White Blast Cleaning”. If the area recleaned by “Near-White Blast Cleaning” is not immediately primed and the interior tank surface temperature drops below the temperature that is five degrees Fahrenheit above the dew point, or 12 hours pass after the “Near-White Blast Cleaning”
is performed, the area to be primed shall be recleaned again in accordance with the requirements stipulated at Society for Protective Coatings Surface Preparation Specification No. 10.

No abrasive blast cleaning operations shall be conducted when the tank interior surface temperature is less than five degrees Fahrenheit above the dew point.

The Contractor shall plug and protect the tank inlet and outlet pipe at all times to prevent damage and the entrance of debris.

b. Exterior Cleaning and Surface Preparation

The entire exterior surface of the tank shell and support structure shall be cleaned in accordance with the requirements stipulated at Society for Protective Coatings Surface Preparation Specification No. 6 “Commercial Blast Cleaning”. This shall be accomplished in a manner that does not produce hazardous waste as described at Paragraph 3.a. of these this Section.

AFTER MANDATORY REPAIR WORK ON THE TANK EXTERIOR DESCRIBED ELSEWHERE AT THIS SECTION IS COMPLETED, RECLEANING IN ACCORDANCE WITH THE REQUIREMENTS STIPULATED AT SOCIETY FOR PROTECTIVE COATINGS SURFACE PREPARATION SPECIFICATION NO. 6 “COMMERCIAL BLAST CLEANING” SHALL BE PERFORMED AT THE VICINITY OF THOSE AREAS REPAIRED.

Due to the necessity to open abrasive blast clean the exterior surface for inspection prior to beginning coating operations, portions of the exterior surface may develop a thin rust or oxidation layer between the time the initial “Commercial Blast Cleaning” is performed and the time primer or caulking is applied. **If the surface temperature of the exterior in the area to be painted drops below the temperature that is five degrees Fahrenheit above the dew point between the time the “Commercial Blast Cleaning” is performed and the time priming operations begin in that area, or if more than 12 hours pass after the “Commercial Blast Cleaning” is performed before priming operations begin, the Contractor shall reclean the area to be immediately primed in accordance with the requirements stipulated at Society for Protective Coatings Surface Preparation Specification No. 6 “Commercial Blast Cleaning”.** If the area recleaned by “Commercial Blast Cleaning” is not immediately primed and the exterior surface temperature drops below the temperature that is five degrees Fahrenheit above the dew point, or 12 hours pass after the “Commercial Blast Cleaning” is performed, the area to be primed shall be recleaned again in
accordance with the requirements stipulated at Society for Protective Coatings Surface Preparation Specification No. 6.

No abrasive blast cleaning operations shall be conducted when the exterior surface temperature is less than five degrees Fahrenheit above the dew point.

6. Repairs and Appurtenances Required

a. Materials

Materials utilized for repairs and appurtenances described at these Detailed Specifications shall conform with the requirements set out at Section 2 of AWWA D100.

b. Welding

All welding shall conform to the requirements at Section 8 of AWWA D100.

The Contractor shall submit qualifications for welding operators in writing (triplicate) to the Engineer for approval prior to use of the operator on the job.

Where directed by the Engineer, pits deeper than 1/8-inch shall be filled by welding. After filling with welding rod, the repair shall be ground smooth.

c. Shop Fabrication (If Required)

Shop fabrication shall conform to the requirements at Section 9 of AWWA D100.

d. Erection (If Required)

Field erection shall conform to the requirements at Section 10 of AWWA D100.

e. Inspection of Repair Work Welding

All field welding shall be inspected by a qualified welding inspector selected by the Contractor and approved by the Engineer. Said field inspection shall be carried out in strict conformance with the requirements at Section 11 of AWWA D100 including Radiographic Inspection of Welds, if deemed necessary by the Engineer. The cost of this field inspection of the welding shall be borne by the Contractor. Defective welds shall be repaired by drilling, chipping, grinding or arc-gouging, and then rewelded
to make the repair to the seam or pit with acceptable workmanship. Upon completion of the work, the Engineer shall be furnished with one copy of a certificate indicating acceptance of the workmanship, which certificate shall have been prepared by the aforesaid welding inspector.

f. **Testing for Watertightness**

The Washwater Tank is presently watertight and shall remain watertight. If the tank requires pit repairs below the overflow elevation, a watertightness test shall be performed. At the Contractor’s option, this test for water-tightness may be performed when the tank is disinfected; however, if performed at that time, all paint or coatings disturbed by subsequent repairs shall be satisfactorily repaired.

Tests for watertightness shall be repeated until the tank is perfectly tight and approved by the Engineer. The Owner shall provide water for the first filling to test for watertightness and for disinfection (same filling), but the Contractor shall, at his own expense, provide the water for any subsequent fillings or fillings.

g. **Cleaning Concrete Foundation**

The Contractor shall clean the concrete foundation. All surfaces shall be prepared as necessary to make them clean and structurally sound. The surface shall be cleaned by chipping, acid-etching, sandblasting and/or shot-blast cleaning methods to remove all dust, grease, paint, sealers and other foreign materials from the Portland cement concrete surface.

*After cleaning, the tank shall be sealed to the foundation with Dow Corning CWS caulk or equal.*

h. **Appurtenances Required**

(1) **Level Indicating Device**

A standard half travel steel indicator with float shall be provided and mounted on the outside of the tank at a location to be determined by the Owner showing depth in feet at “E to F”. Structural parts shall be carbon steel, moving parts shall be bronze and the cable shall be Type 304 or 316 stainless steel. The roof opening through which the indicator mechanism passes shall be so constructed as to prevent the entrance of insects or debris.
(2) **Handrails, Ladders, Safety Chains and Appurtenances**

Handrails, ladders, safety chains and appurtenances shall be in accordance with all OSHA requirements including OSHA 1910.23 and OSHA 1910.27. Safety chains shall be stainless steel. Details are provided at the end of this Section for bidding purposes. Final fabrication drawings shall be submitted during the shop drawing phase bearing the seal of an Engineer registered to practice in the State of Tennessee.

(3) **Roof Vent**

A suitable aluminum frost-proof vent shall be furnished and installed in the tank roof. The vent’s capacity to pass air shall be such that dangerous pressures will not be developed at fill and discharge rates of up to 40,000 gallons per minute (gpm) (89 CFS). The vent shall be so designed and constructed as to prevent the ingress of insects and include a special pressure-vacuum screen or a pressure-vacuum relief mechanism. The insect screen shall be stainless steel.

7. **Painting (Coating)**

a. **General**

All surfaces to which paint is applied shall be clean and dry. NO PAINT (COATING) SHALL BE APPLIED UNLESS THE FOLLOWING CONDITIONS AND THE REQUIREMENTS OF THE PAINT MANUFACTURER’S CURRENT PRODUCT DATA SHEET ARE MET:

(1) Air temperature is at least 40ºF. and rising.

(2) Temperature of surface to be painted is within the limits stated on the paint manufacturer’s current product data sheet and is at least 5ºF above the dew point.

(3) Relative humidity is 85% or less.

(4) Wind direction and velocity is such that overspray will not fall on objects not scheduled to be painted or which cannot be protected from overspray.

(5) Adequate ventilation and sufficient heating facilities to maintain the temperature of the tank shell above the minimum temperature listed on the manufacturer’s product data sheet for 24 hours before, during, and 48 hours after application of paint.
At least four times each day the air temperature, humidity, tank surface temperature and dew point, using the tank surface temperature as the “dry bulb” reading, shall be checked and logged as to time by the Contractor.

Coatings shall be applied in accordance with the manufacturer’s current product data sheets by experienced persons skilled in the application of the specified coatings under experienced supervision. Brushes shall be used at joints and in other places where required to obtain coverage and adhesion.

The Contractor may be required to furnish satisfactory evidence of experience and facilities for performing the cleaning and coating operations.

During the work, the Engineer shall at all times have access for inspection to all places where work is being accomplished. The Contractor shall repair, without delay, any defects disclosed by these inspections.

Painting materials shall be delivered to the project site in labeled unbroken containers. All materials used in contact with potable water shall be certified to NSF/ANSI Standard 61.

All coatings utilized shall be certified “non-lead” as defined in Part 1303 of the Consumer Product Safety Act. B.

b. Acceptable Paint Manufacturers

Stipulated products are those manufactured by Tnemec Company, Inc. of Kansas City, Missouri or Sherwin-Williams of Cincinnati, Ohio and are specified as the standard of quality required for use on this project. Equivalent products by other manufacturers are acceptable, providing they meet or exceed all performance criteria of the specified materials. No products shall be considered that would decrease film thicknesses or offer a change in the generic type of coating specified.

c. Interior Pit Filling (Where Authorized by the Engineer)

Pit filler shall be applied as a surface leveler where pitting of a depth between 1/16-inch and 1/8-inch has occurred. Pit filling may be applied with a squeegee. The finished appearance of pit filling used to fill pitted areas shall be smooth and uniform. All pit filling applied as a pit filler shall be either Tnemec 215 Surfacing Epoxy applied immediately after application of the interior primer or Sherwin-Williams Steel-Seam FT910 applied prior to priming.
Where authorized by the Engineer, seam, rafters and lap joints above the high water mark shall be sealed with Sika-Flex 1A applied after the finish coat has been applied.

d. **Interior Coating System**

The interior coating system shall be applied to all the interior surfaces of the water holding compartments including the tank shell and center riser.

The interior coating system shall be of the following components and meet the following specific requirements:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Coat</strong></td>
<td>Tnemec Series 94-H20 Hydro-Zinc or Sherwin-Williams Corothane I Galvapac 1K Zinc; one complete coat to a dry film thickness of 2.5 to 3.5 mils.</td>
</tr>
<tr>
<td><strong>Stripe Coat</strong></td>
<td>Tnemec Series 20/FC20-15BL Pota-Pox or Sherwin-Williams Macropoxy 646 PW; “Tank White”; to all weld seams, rivet heads, ladders, and plate edges to a dry film thickness of 3.0 to 5.0 mils.</td>
</tr>
<tr>
<td><strong>Intermediate Coat</strong></td>
<td>Tnemec Series 20/FC20-39BL Pota-Pox or Sherwin-Williams Macropoxy 646 PW; “Delft Blue”; one complete coat to a dry film thickness of 4.0 to 6.0 mils.</td>
</tr>
<tr>
<td><strong>Seams</strong></td>
<td>Gapped or skip weld seams below the high water level shall be caulked after priming with Tnemec Series 215 Surfacing Epoxy. Roof lap seams shall be sealed with Sika Flex-1A after the Finish Coat is applied where authorized by the Engineer.</td>
</tr>
<tr>
<td><strong>Finish Coat</strong></td>
<td>Tnemec Series 20/FC20-15BL Pota-Pox or Sherwin-Williams Macropoxy 646 PW; “Tank White”; one complete coat to a dry film thickness of 4.0 to 6.0 mils.</td>
</tr>
<tr>
<td><strong>Coating Thickness</strong></td>
<td>Minimum acceptable dry film thickness shall be 10.5 mils at any test point.</td>
</tr>
</tbody>
</table>
Curing and Ventilation  The manufacturer’s recommended curing time shall elapse before the next coat is applied. Adequate ventilation which will effectively remove solvent vapors shall be provided for proper drying of paints on interior tank surfaces. A minimum of ten days following the application of the final coat on the interior surfaces shall pass before the tank is flushed, disinfected or filled with water.

Safety Precautions  Safety is the Contractor’s responsibility. The Contractor shall be responsible for following all safety information provided by the paint manufacturer pertaining to the storage, handling, and application and curing of the paint products.

After the entire interior coating system has been applied and cured for at least five days, but before filling the tank with water, a 67.5 volt, wet sponge, Holiday Detector Test shall be performed using a Tinker and Rasor Model M-1, or approved equal, holiday detector by the Contractor on tank interiors to determine the integrity of the interior coating. The sponge shall be kept saturated with an electrolyte (5 percent sodium chloride) and a surfactant (2 percent household detergent). Any areas which are found to have the holiday indications shall be marked, repaired using final coat material, and then retested with the holiday detector. The Contractor is responsible for furnishing Holiday Detector Test equipment.

e. Exterior Coating System – OCS-6

The exterior coating system shall be applied to all surfaces not covered by the interior system.

Finish coat colors shall be selected by the Owner from actual color samples submitted by the Contractor.

The exterior coating system for all exterior surfaces shall be a zinc/epoxy/polyurethane exterior coating system consisting of the following components and meeting the following specific requirements:

Prime Coat: Tnemec Series 94-H2O Hydro-Zinc or Sherwin-Williams Corothane I Galvapac 1K Zinc; one complete coat to a dry film thickness of 2.5 to 3.5 mils.
Intermediate Coat: Tnemec Series 66 HS/161 HS-Color Hi-Build Epoxyline or Sherwin-Williams Macropoxy 5500; one coat at a dry film thickness of 2.0 to 3.0 mils applied to all exterior surfaces.

Finish Color Coat and Graphics: Tnemec Series 73 Color Endura-Shield with UV Inhibitor or Sherwin-Williams Hi-Solids Polyurethane; one coat at a dry film thickness of 2.0 to 3.0 mils applied to all exterior surfaces. Owner to select color.

Coating Thickness: Minimum acceptable dry film thickness shall be 6.5 mils at any test location; maximum acceptable dry film thickness shall be 9.5 mils at any test location to prevent solvent entrapment.

Curing and Ventilation: The manufacturer’s recommended curing time shall elapse before the next coat is applied.

Safety Precautions: Safety is the Contractor’s responsibility. The Contractor shall be responsible for following all safety information provided by the paint manufacturer pertaining to the storage, handling, application, and curing of the paint products.

8. Testing

a. General

Paint film thickness shall be verified by measuring the dry film thickness after each coat is applied and of the entire system.

b. Dry Film Thickness

The dry film thickness shall be measured in accordance with Society for Protective Coatings Standard SSPC-PA2 with a magnetic gauge that will measure the dry film thickness within an accuracy of ±0.25mil. Dry film thickness measurements shall be made so that there is approximately one measurement for each 100 square feet of surface painted following application of each coat. The dry film thickness measurements shall be made while surfaces are accessible. Extensive re-rigging after paint has dried so that dry film thickness measurements can be made is not required provided that a sufficient number of the locations tested meet or exceed the minimum dry film thickness specified.
If the specified coat does not meet dry film thickness requirements, additional coats shall be applied in order to attain the minimum dry film thickness specified for the painting system.

c. **Test Report**

A test report shall be prepared at the conclusion of dry film thickness testing indicating the film thickness gauge used, the locations where tests were made, the dry film thickness at each location, and the name of the person performing the tests. The test report shall be certified by a representative of the Contractor who witnessed the testing.

9. **Disinfection of Tank**

Upon completion of the cleaning, repairing and painting of the tank by the Contractor, the Owner shall perform all disinfection and bacteriological testing in accordance with Tennessee Department of Environment and Conservation, Division of Water Supply and American Water Works Association Standards.

10. **First Anniversary Inspection**

a. **General**

The tank shall be inspected by representatives of the Owner, Engineer and the Contractor at approximately one (1) years’ time after painting work has been completed, to determine whether any repair work is necessary.

b. **Arrangements**

The Engineer shall establish the date for the inspection and shall notify the Contractor at least thirty (30) days in advance. If an inspection date has not been established within thirteen (13) months after the painting work was completed, the first anniversary inspection shall be considered to be waived.

c. **Remedial Work (All Coating Systems)**

Any location where coats of paint have peeled off, bubbled, or cracked, and any location where rusting is evident shall be considered to be a failure of the paint system. The Contractor shall make repairs at all points where failures are observed by removing the deteriorated coating, cleaning the surface, and recoating with the same paint system. If the area of failures exceeds twenty-five (25) percent of the area of a portion of the tank surface, then for that portion the entire paint system shall be removed and repainted. For purposes of determining the need for complete repainting,
11. **Finish Grading, Topsoiling, Seeding and Sodding**

Finish grading of disturbed areas shall be performed in accordance with the finished elevations and grades shown on the Plans and shall be made to blend into conformation with remaining natural ground surfaces. All finished grading surfaces shall be left smooth and free to drain. The tops of all cuts shall have berm ditches. Selected materials, which have been obtained from stripping the site, shall be spread upon the slopes of fills and other areas to a uniform depth and compacted suitable for planting. Excess materials shall be spread and compacted as directed. The top four (4) to six (6) inches of material in areas to be grassed shall be topsoil.

Soil tests shall be performed to determine the seed and fertilizer requirements. For the purpose of bidding, the following grass and fertilizer requirements shall be used:

- **Annual Rye Grass**: application rate 28 lb/acre
- **Kentucky Fescue #31**: application rate 28 lb/acre
- **Inoculated Clover**: application rate 7 lb/acre
- **Ammonium Nitrate**: application rate 200 lb/acre
- **Commercial Fertilizer**: application rate 400 lb/acre
- **Lime, if required**: application rate 200 lb
- **Straw**: application rate 3,000 lb/acre

Seed shall be certified to contain not more than 3 percent weeds.

All graded areas shall be topsoiled with materials stripped from the site. If the Contractor fails to stockpile the topsoil, then material shall be brought in. The topsoil shall be left smooth and, after the fertilizer and/or lime have been distributed, it shall be disced or harrowed into the soil.

Sod shall be locally available, reasonably free of weeds and approved by the Engineer, carefully cut, transported and laid. Sod shall be so laid that no voids occur between strips. Weed roots shall be removed as the sod is laid. Sod shall be tamped or rolled immediately after it is laid, and the finished surface shall be true to grade, even and equally firm at all points. Well screened topsoil shall be lightly sprinkled over the sodded areas and shall be raked to ensure sealing the sod joints.

12. **Final Clean-up**

Before the work is considered as complete, all rubbish and unused material due to or connected with the construction shall be removed and the premises left in a
condition satisfactory to the Engineer. Final acceptance will be withheld until such work is completed.
Utility Service Co., Inc.
250,000 Gallon Washwater Elevated Storage Tank
Inspection Report

November 10, 2016
250,000 Gallon Washwater Elevated Storage Tank Inspection Report
City of Bristol, TN

Prepared For:
Mark Quickel
Water Plant Superintendent
(423) 989-5576
mquickel@bristoltn.org

Prepared By:
Bert Gore
Water System Consultant
(423) 416-2773
bgore@utilityservice.com

Date:
November 10th, 2016
General Information

INTRODUCTION

On September 25th, 2016, Utility Service Co., Inc. conducted a Visual inspection of the 250,000 gallon Washwater water storage tank. The purpose of the inspection was to determine the condition of the coatings and structure, and evaluate the tank for compliance with current sanitation guidelines, safety & security regulations and guidelines in accordance AWWA, OSHA, (state name) Environmental Protection Department, US EPA and US Dept of Homeland Security and related state and federal agencies.

In this report, you will find a description of the current condition of this tank along with photographs to support the recommendations.

TANK DETAILS

<table>
<thead>
<tr>
<th>CAPACITY:</th>
<th>250,000 Gallons</th>
<th>DESIGN:</th>
<th>Elevated</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSPECTION DATE:</td>
<td>10/25/16</td>
<td>INSPECTOR:</td>
<td>Bert Gore</td>
</tr>
<tr>
<td>CONSTRUCTION STYLE:</td>
<td>Welded Steel</td>
<td>CONSTRUCTION DATE:</td>
<td>1979</td>
</tr>
<tr>
<td>BUILDER:</td>
<td>Universal Tank &amp; Iron</td>
<td>HEIGHT/ DIMENSION:</td>
<td>58' H, 35'' Diameter</td>
</tr>
<tr>
<td>LADDER GATE:</td>
<td>High Wind</td>
<td>SAFETY CLIMB EQUIPMENT:</td>
<td>Notch Rail</td>
</tr>
<tr>
<td>EXTERIOR COATING:</td>
<td>Pigmented Acrylic Poly</td>
<td>EXTERIOR LEAD/ CHROMIUM PRESENCE:</td>
<td>YES</td>
</tr>
<tr>
<td>INTERIOR COATING:</td>
<td>Pigmented Acrylic Poly</td>
<td>INTERIOR LEAD/CHROMIUM PRESENCE:</td>
<td>YES</td>
</tr>
</tbody>
</table>

ESTIMATED REPLACEMENT VALUE

The replacement cost of this tank is estimated at

$725,000.00.
Exterior Coatings Conditions

Exterior was in Poor condition. Dirt and Mildew is present on Surface of the outside of tank. Flash rust is very prevalent on walkways, sidewalks and bottom.

Recommendations

- Tool blast and 2 part over coat.
**Interior Conditions**

Interior is in Poor condition with signs of sediment is present in bottom of tank with staining on wall. Heavy coating deterioration on walls above and below water line and heavy rust showing.

---

**RECOMMENDATIONS**

- SP 10 Blast and apply 2 part epoxy system.
Structural, Sanitation, Safety and Security Conditions

**Structural**

**Handrails**
Good Condition but rusted

**Hatches / Manways**
All hatches and manways are in good condition, locked, and serviceable.

**Welds / Bolts / Rivets**
Good condition on wall supports.

**Ladders**
Exterior - Structurally sound and in serviceable condition.
Interior - Structurally sound and in serviceable condition. Rust is present.

**Overflow System**
Good condition and serviceable and meets AWWA regulations

**Target and Float Assembly**
Poor Condition - not staying with water

**Vents**
The roof vent is sufficient, but screen is in poor condition.

**Cathodic Protection / Telemetry**
N/A

**Interior Structure**
Structure was in Good condition

**Anchor Bolts / Nuts / Chairs**
Good condition and Tight

**Foundations**
Foundation is in OK condition - Stress Cracks Present
**RECOMMENDATIONS**

- Repair Float system
- Repair cracks and coat foundations
- Replace clamp style manway on riser pipe with AWWA Standard (Optional - Grandfathered)

**SANITATION**

**Roof Hatch**
The roof access hatch is in good and serviceable condition and of a style that meets FDEP requirements as well as can be locked.

**Roof Vent Screen**
The roof vent screen is in poor condition and screen is damaged.

**Overflow Assembly Screen & Flapper**
Good condition.

**Protective Fill Pipe Cover**
N/A

**Cathodic Protection Plates**
N/A

**RECOMMENDATIONS**

- Replace screen on vent
SAFETY & SECURITY

Safety Climb System
Notch Rail in good condition and servicable.

Ladder Gate Climb Prevention Shield
Equipped with a High Wind Lockable Gate

Access Manways
Sidewall man ways on this tank meet AWWA size Requirements and are in good condition and serviceable. Riser Manway is grandfatherd in but would recommend to replace clamp style with bolted.

Handrails
Good condition - Rust is showing through

Tank Site
The tank site is in a secured area

RECOMMENDATIONS

- Recommend replacement of clamp style, undersized manway on riser - Optional
- Tool Blast and coat railings.
SUMMARY AND RECOMMENDATIONS

SUMMARY

In summary, this water storage vessel is in Poor condition on the exterior and needs to be renovated with a minimum of a tool brush and overcoat on outside. Internal is recommended to be SP10 blasted and 2 part coating installed. If these are completed while being cleaned on a regular basis, inspected annually, and maintained, the tank life cycle can be extended for a long time into the future. All findings associated with this tank are recommendations only.

- Washout every 5 years and annual visual inspections per TN State requirements.
- Internal/External Coatings could prolong the life of the tank and prevent future replacement
250,000 Gallons Washwater Elevated Storage Tank Bristol, TN
Photo #9

Photo #10
Photo #13

Photo #14

Washwater Tank Inspection Report
Bristol, TN
**Analytical Results**

11/8/2016

Utility Service Co, Inc
Regina Arthur
P.O. Box 1330
Perry, GA 31069

---

**Project: City of Bristol, TN Washwater 250K Elevated**

<table>
<thead>
<tr>
<th>Lab Sample ID: PQ- 37953</th>
<th>Sample ID: BG 2016-22 Interior</th>
<th>Sample Date: 10/25/2016 10:30:00 AM</th>
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<tbody>
<tr>
<td>Analyte</td>
<td>Method</td>
<td>Result</td>
</tr>
<tr>
<td>Chromium (Cr)</td>
<td>EPA 6010B</td>
<td>133</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>EPA 6010B</td>
<td>ND</td>
</tr>
</tbody>
</table>

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**Lab Sample ID: PQ- 37954 | Sample ID: BG 2016-22 Exterior | Sample Date: 10/25/2016 9:30:00 AM |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyte</td>
<td>Method</td>
<td>Result</td>
</tr>
<tr>
<td>Chromium (Cr)</td>
<td>EPA 6010B</td>
<td>85.2</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>EPA 6010B</td>
<td>ND</td>
</tr>
</tbody>
</table>
Sales Department
Paint Chip Identification Request

*Date: 10/28/16
*City or County: Bristol
*State: TN
Customer: CITY OF BRISTOL, TN
Tank Name: WASHWATER
Tank Type & Size: ELEVATED 250K
USCI Sample No: BG 2016-22
*Submitted By: Bart Gore
Employee Dept. No.: 863

(*) Denotes Required Information for proper identification by Analytical Lab

To: Tnemec Company Inc.
101 W 26th Avenue
North Kansas City, MO 64116
Attn: Technical Service Analytical Lab

1. Interior Sample
Sample Location: (i.e.: Roof, Sidewall, Floor) Ladder/lid
This sample should reflect the majority of the tested area, please avoid Touch-Up areas.
Topcoat Color that needs to be identified: BEIGE
FTIR Generic Topcoat Analysis: Pigmented Acrylic Polyurethane

2. Exterior Sample
Sample Location: (i.e.: Roof, Sidewall, Floor) SIDE WALLS, ROOF
This sample should reflect the majority of the tested area, please avoid Touch-Up areas.
Topcoat Color that needs to be identified: BEIGE
* Please check for clear coat:
FTIR Generic Topcoat Analysis: Pigmented Acrylic Polyurethane

3. Additional Sample
Sample Location: (i.e.: Roof, Sidewall, Floor) N/A
This sample should reflect the majority of the tested area, please avoid Touch-Up areas.
Topcoat Color that needs to be identified: N/A
FTIR Generic Topcoat Analysis: 

Analytical Use Only:

1 2 3 No evidence of coating. (Inorganic/Rust Material)
Missing Information.
Not enough samples in bag for proper identification.

Fax Results To: Regina Arthur, Sales Coordinator @ 478-987-2991
Email to: Regina Arthur rarthur@utilityservice.com
Lara Anderson laraanderson@utilityservice.com
BID FORM
4646 – January 2021

BID FORM

An Individual ☐
A Partnership ☐
A Corporation ☐
A Limited Liability Company ☐

Date________________________

1. BID for construction of Water System Improvements for the City of Bristol, Tennessee as Owner.

TO THE CITY OF BRISTOL, TENNESSEE:

I
WE_________________________________________

Name of Bidder

_________________________________________

Address of Bidder

The undersigned, as bidder, proposes to furnish all necessary labor, machinery, tools, apparatus, materials, equipment, service and other necessary supplies, in strict accordance with the terms and conditions of the Detailed Specifications, Contract Documents and the Plans hereto attached and referred to herein for the construction of Water System Improvements, Bid Number 21-001, Contract 21-01 – Bristol Water Treatment Plant Washwater Tank Painting and Renovation and do such other work incidental thereto as may be ordered by the Engineer, at the unit or lump sum prices listed herein.

2. The Bidder declares that he has examined the sites of the work and informed himself fully in regard to all conditions pertaining to the places where the work is to be done; that he has examined these Detailed Specifications and Contract Documents for the work and has read all special provisions furnished prior to the opening of bids; and that he has satisfied himself relative to the work to be performed. The Bidder further declares that he understands the unit price work is subject to increase or decrease, and that should the scope of any of the items of work be changed materially, the undersigned proposes to do the additional work using the unit prices set out herein. Should the quantities be decreased the undersigned will make no claim for anticipated profits.

3. Bids shall include sales tax and all other applicable taxes, fees or licenses.
4. Amounts are to be shown in both words and numerals. In case of discrepancy, the amount shown in words will govern.

5. The unit and lump sum prices shall include all labor, materials, shoring, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

6. The Bidder agrees that his Bid shall be good and may not be withdrawn for a period of 90 calendar days after the scheduled closing time for receiving bids.

7. The Bidder understands that the Owner reserves the right to waive any informalities in the bidding.

8. The Bidder is required to fill in all blank spaces in the BID FORM for all Forms. Failure to fill in all blank spaces for Lump Sum or Unit Prices in both words and figures may be grounds for declaring a bid irregular.
9. **BID FORM A – CONTRACT 21-01**  
BRISTOL WATER TREATMENT PLANT WASHWATER TANK PAINTING AND RENOVATION

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>APPROXIMATE QUANTITY</th>
<th>DESCRIPTION WITH UNIT BID PRICE WRITTEN IN WORDS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lump Sum</td>
<td>Clean and paint exterior of the existing 250,000 Gallon Washwater Tank as specified. (This item does not include any repair work). For________________________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dollars________________</td>
<td>Cents, lump sum</td>
<td>$_________</td>
<td></td>
</tr>
<tr>
<td>2. Lump Sum</td>
<td>Clean and paint interior of the existing 250,000 Gallon Washwater Tank, including disinfection, as specified. (This item does not include any repair work) For________________________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dollars________________</td>
<td>Cents, lump sum</td>
<td>$_________</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL BID, CONTRACT 21-01, BID FORM A, ITEMS 1 THROUGH 2, INCLUSIVE $_________________
### BID FORM B – CONTRACT 21-01 (cont’d)
#### REPAIR WORK

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>APPROXIMATE QUANTITY</th>
<th>DESCRIPTION WITH UNIT BID PRICE WRITTEN IN WORDS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lump Sum</td>
<td>Remove and grind flush with surrounding steel all sharp edges, weld spatter, burrs and rigging nuts as specified For______________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars ____________________ Cents, lump sum $ ___________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Lump Sum</td>
<td>Repair all cracks and spalling in the concrete and grout around base plates with commercial non-shrinking grout as specified For______________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars ____________________ Cents, lump sum $ ___________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Lump Sum</td>
<td>Seal tank to the concrete foundation as specified For______________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars ____________________ Cents, lump sum $ ___________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Lump Sum</td>
<td>Drill weepholes in the balcony floor as specified For______________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars ____________________ Cents, lump sum $ ___________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. BID FORM B – CONTRACT 21-01 (cont’d)
REPAIR WORK – (cont’d)

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>APPROXIMATE QUANTITY</th>
<th>DESCRIPTION WITH UNIT BID PRICE WRITTEN IN WORDS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Lump Sum</td>
<td></td>
<td>Replace the existing level indicator system as specified For______________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars_________________________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cents, lump sum $______________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Lump Sum</td>
<td></td>
<td>Install a new roof vent as specified For______________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dollars_________________________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cents, lump sum $______________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL BID, CONTRACT 21-01, BID FORM B, ITEMS 1 THROUGH 6, INCLUSIVE $______________________________
## WORK TO BE PERFORMED IF ORDERED BY THE ENGINEER

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>APPROXIMATE QUANTITY</th>
<th>DESCRIPTION WITH UNIT</th>
<th>UNIT PRICE WRITTEN IN WORDS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
</table>
| 1.          | 1,000 Sq. In.         | Pit repair fill-welding for pits deeper than 1/8-inch on the interior and/or exterior surfaces of existing 250,000 Gallon Washwater Tank as specified. Pits less than 1 sq. in. will be considered 1 sq. in. For__________________________
Dollars ___________________ Cents, per square inch $_________ $_________  |
| 2.          | 1,000 S.F.            | Pit filler for pits having a depth between 1/16-inch and 1/8-inch on the interior of existing 250,000 Gallon Washwater Tank as specified. Caulked areas less than 1 sq. ft. will be considered 1 sq. ft. For__________________________
Dollars ___________________ Cents, per square foot $_________ $_________ |
| 3.          | 1,000 L.F.            | Caulk seams or other gapped, lapped or skip-welded seams so that they are completely sealed as specified. For__________________________
Dollars ___________________ Cents, per linear foot $_________ $_________ |
9. **BID FORM C – CONTRACT 21-01 (cont’d)**  
**WORK TO BE PERFORMED IF ORDERED BY THE ENGINEER (cont’d)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>APPROXIMATE QUANTITY</th>
<th>DESCRIPTION WITH UNIT BID PRICE WRITTEN IN WORDS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
</table>

**TOTAL BID, CONTRACT 21-01, BID FORM C, ITEMS 1 THROUGH 3, INCLUSIVE**  

$ ____________________

**TOTAL BID, CONTRACT 21-01, SUM OF BID FORM A PLUS B PLUS C**  

$ ____________________
10. **Time of Commencement and Completion**

   The Bidder further proposes and agrees hereby to commence the work with adequate force and equipment on a date to be specified in a written order of the Engineer, and complete all work within the calendar days shown:

   The Contractor is allowed ninety (90) calendar days to complete all work under this contract.

11. **Liquidated Damages**

   The Bidder further understands that if the work is not completed within the time specified, that any additional engineering and resident construction observation costs incurred by the Owner due to the Contractor exceeding the time allowed for completion plus other damages, including the revenue lost from the project’s water customers, will be deducted on a per calendar day basis from the compensation otherwise due him in accordance with the General Conditions for each day thereafter, Sundays and holidays included, that work remains uncompleted.

   The following sum is agreed by the parties to be liquidated damages:

   **Five Hundred ($500.00) Dollars per calendar day**

12. **Time Limit for Execution of Documents**

   The undersigned further agrees that, in case of failure on his part to execute the Contract and the Bond(s) in the six (6) counterparts within ten (10) consecutive calendar days after written notice being given of the award of the Contract, the check or bid bond accompanying this bid and the monies payable thereon shall be paid into the funds of the City of Bristol, Tennessee as liquidated damages for such failure; otherwise the check or bid bond accompanying this BID FORM shall be returned to the undersigned.

13. **Bid Guaranty**

   Attached hereto is a certified check on the [Name of Bank] or a Bid Bond on the form provided for the sum of 5% of Bid Dollars ($_______) made payable to the City of Bristol, Tennessee to insure that the Contractor will enter into the Construction Contract and Contract Bond.
14. **Interested Parties**

The undersigned, as Bidder, hereby declares that the only person or persons interested in the BID FORM as principal or principals is or are named herein, and that no other person herein mentioned has any interest in this BID FORM or in the Contract to be entered into; that this BID FORM is made without connection with any other person, company, or parties making a bid or proposal and that it is in all respects fair and in good faith without collusion or fraud.

<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. **Addenda**

I hereby certify that I have received, read and examined the following numbered Addenda: __, ___, ___, ___, ___, ___, ___, ___, ___, ___.

16. **Drug-Free Workplace Affidavit**

The Drug-Free Workplace Affidavit which follows must be satisfactorily completed in order for the bid to be considered.

17. **Illegal Immigrants**

The Compliance Certificate relative to Illegal Immigrants which follows must be satisfactorily completed in order for the bid to be considered.

18. **Iran Divestment Act**

The Statement of Compliance relative to the Iran Divestment Act which follows must be satisfactorily completed in order for the bid to be considered.
BY: ________________________________

Name of Bidder

_________________________________

Address of Bidder

_________________________________

Signature of Authorized Representative

_________________________________

Title

ATTEST (For Corporations)

_________________________________

(Name)

_________________________________

Title

************
DRUG-FREE WORKPLACE AFFIDAVIT OF PRIME BIDDER  
(TENNESSEE)

STATE OF

COUNTY OF

Comes the affiant after having first been duly sworn and testifies as follows:

1. My name is ______________________________. I hold the principal office of ______________________________ for _____________________________________________________.

2. ______________________________ (Name of Bidder) has submitted a bid to the ________________________________________________________________________________ for the construction of Contract 21-01 – Bristol Water Treatment Plant Washwater Tank Painting and Renovation.

3. ______________________________ (Name of Bidder) employs more than five people.

4. In accordance with T.C.A. § 50-9-113, this is to certify that ______________________________ (Name of Bidder) has in effect, at the time of submission of its bid to perform the construction of Contract 21-01 – Bristol Water Treatment Plant Washwater Tank Painting and Renovation, a drug-free workplace program.

5. This affidavit is made on personal knowledge.

Further the affiant saith not this _____ day of _____________________, 20____.

________________________________________
Title: __________________________________

Subscribed and sworn to before me this _____ day of _____________________, 20____.

My Commission Expires: ____________________________

________________________________________
Notary Public

________________________________________
Name (printed)

NOTES:

1. This affidavit to be attached to the Bid Form at the time of submission of the Bid.

2. A copy of proof of state approval shall be attached hereto.
STATEMENT OF COMPLIANCE CERTIFICATE
ILLEGAL IMMIGRANTS

EACH CONTRACTOR BIDDING SHALL FILL IN AND SIGN THE FOLLOWING

This is to certify that __________________________________________________________
have fully complied with all the requirements of Chapter 878 (House Bill No. 111 and Senate Bill No. 411) which serves to amend Tennessee Code Annotated Title 12, Chapter 4, Part I, attached herein for reference.

• All Bidders for construction services on this project shall be required to submit an affidavit (by executing this compliance document) as part of their bid that attests that such Bidder shall comply with requirements of Chapter No. 878.

Signed:

__________________________________

State of ____________) ss

County of ____________) ss

Personally appeared before me, _____________________ the undersigned Notary Public, __________________________ ___, the within named bargainor, with whom I am personally acquainted, and known to me to be the President / Owner / Partner (as applicable) of the ________________________________________________, Corporation, Partnership, Sole Proprietorship (as applicable) and acknowledged to me that he executed the foregoing document for the purposes recited therein.

Witness my hand, at office, this _________ day of ________________, 20___.

__________________________________

Notary Public

My commission expires ____________________

__________________________________

Notary Public

My commission expires ____________________
STATEMENT OF COMPLIANCE
IRAN DIVESTMENT ACT

In compliance with the Iran Divestment Act (State of Tennessee 2016, Public Chapter No. 817), which became effective on July 1, 2016, certification is required of all bidders on contracts over $1,000.

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 hereto 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 T.C.A. § 12-12-106.

I affirm, under the penalties of perjury, this statement to be true and correct.

______________________  ______________________________
Date                  Signature of Bidder

_____________________
Company

A bid shall not be considered for award nor shall any award be made where the foregoing certification has not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefor. The City of Bristol, Tennessee may award a bid to a bidder who cannot make the certification, on a case-by-case basis, if:

(1) The investment activities in Iran were made before July 1, 2016, the investment activities in Iran have not been expanded or renewed on or after July 1, 2016, and the person has adopted, publicized, and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or

(2) The City of Bristol, Tennessee makes a determination that the goods or services are necessary for the City of Bristol, Tennessee to perform its functions and that, absent such an exemption, the political subdivision will be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.
BID BOND

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

_________________________________________________________________ as Principal, and ____________________________________________ as Surety, are hereby held and firmly bound unto the City of Bristol, Tennessee, as Owner, in the penal sum of:

_________________________________________________________________ the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this __________ day of ______________________, 20__.

The condition of the above obligation is such that whereas the Principal has submitted to the City of Bristol, Tennessee, a certain BID, attached hereto and made a part hereof to enter into Contract in writing for the construction of Water System Improvements, Bid Number 21-001, Contract No. 21-01 – Bristol Water Treatment Plant Washwater Tank Painting and Renovation.

NOW THEREFORE,

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

(b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such BID; and said Surety does hereby waive notice of any such extension.
IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal


Firm Name


BY:


Signature


Printed Name


ADDRESS:


Seal


Surety


Firm Name


BY:


Signature


Printed Name


ADDRESS:


Seal
NOTE: A copy of the Power of Attorney of the Surety's Principal is required and the amount of the bond must not be less than five percent (5%) of the amount of bid.

Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

************
THIS AGREEMENT made and entered into this the _____ day of __________, 20____, by and between ________________________________
doing business as __________________________________________ (an individual) or (a partnership) or (a corporation)
hereinafter called the Contractor, and the City of Bristol, Tennessee, hereinafter called the Owner:

WITNESSETH:

That the Contractor, for the consideration hereinafter fully set out, hereby agrees with the Owner as follows:

1. **Scope of the Work**

That the Contractor shall furnish all labor, materials, tools, machinery and service, to complete the construction of Water System Improvements, Bid Number 21-001, Contract No. 21-01 – Bristol Water Treatment Plant Washwater Tank Painting and Renovation for the Owner, in the manner and form as provided by the Detailed Specifications and Documents attached hereto and enumerated as follows:

a. **Specifications and Contract Documents**

| (1) | Advertisement for Bids | AB 1 – 3 |
| (2) | Instructions to Bidders | IB 1 – 10 |
| (3) | General Conditions | GC 1 – 72 |
| (4) | Supplementary Conditions | SC 1 – 2 |
2. **Time for Commencement and Completion**

That the Contractor shall commence the work to be performed under this Agreement on written order of the Engineer and shall fully complete all work
hereunder within the following number of consecutive calendar days from and including said date.

Ninety (90) consecutive calendar days

3. Payments

The Owner hereby agrees to pay to the Contractor for the faithful performance of this Agreement, subject to additions and deductions as provided in the Detailed Specifications and Contract Documents, in lawful money of the United States, as follows:

the full sum of ________________________________ Dollars

___________ Cents ($______________).

4. Progress Payments

The Owner shall, in a timely manner, make partial payments to the Contractor on the basis of Partial Payment Request approved by the Engineer for work performed during the preceding calendar month by the Contractor, less five (5) percent, as required by Tennessee law, of the amount of such Partial Payment Request which is to be retained by the Owner until all work has been performed strictly in accordance with this Agreement and until such work has been accepted by the Owner.
5. **Final Payment**

After the completion by the Contractor of all work covered by this Agreement, and the acceptance of such work by the Owner and upon submission by the Contractor of an affidavit satisfactory to the Owner that all payrolls, material bills, and other costs incurred by the Contractor in connection with the construction of the work have been paid in full, final payment on account of this Agreement shall be made within sixty (60) days.

6. **Liquidated Damages**

It is mutually agreed between the parties hereto that time is the essence on each and every portion of this Contract. If the said Contractor shall neglect, fail or refuse to complete the work within the time specified within the Contract, or within any proper extension thereof granted by the Owner, then the Contractor does hereby agree to pay, either by means of deduction from the compensation due the Contractor under this Contract or by direct payment by the Contractor to the Owner, not as a penalty, but as liquidated damages, the sum of Five Hundred ($500.00) Dollars, per calendar day as a result of said neglect, failure, or refusal to complete and the attendant delay thereto, including any and all additional engineering and resident observation cost, reasonable attorney’s fees, all revenue lost, and all other associated expenses per calendar day, Sunday and holidays included, for each day thereafter that the work remains uncompleted.
7. **Additional Bond**

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Performance Bond and the Payment Bond hereto attached for its faithful performance, the Owner shall, for cause, deem the surety or sureties upon such bond to be unsatisfactory, or if for any reason such bond ceases to be adequate to cover the performance of the work, the Contractor shall, at his expense, within ten days after the receipt of notice from the Owner so to do, 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 the Contractor shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the Owner.

8. **Hold Harmless Clause**

The Contractor agrees to indemnify and hold harmless the Owner, their officers, agents and employees from any and all liabilities for personal injury of damages and claims of every kind arising out of or in any way related to the Contractor's negligent performance.

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the day and date first above written in 6 counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original contract.
AGREEMENT
4646 – January 2021

CONTRACTOR: ___________________________________________

BY: ___________________________________________

NAME: ___________________________ (PLEASE TYPE)

TITLE: ___________________________________________

(SEAL)

ATTEST OR WITNESS:

____________________________________________________

NAME: ___________________________________________

(PLEASE TYPE)

OWNER: CITY OF BRISTOL, TENNESSEE

BY: ___________________________________________

NAME: ___________________________________________

(PLEASE TYPE)

TITLE: ___________________________________________

(SEAL)

ATTEST:

____________________________________________________

NAME: ___________________________________________

(PLEASE TYPE)

************
KNOW ALL MEN BY THESE PRESENTS: that

_________________________________ (Name of Contractor)

_________________________________ (Address of Contractor)
a ___________________________________________________________ hereinafter called

(Corporation, Partnership or Individual)

Principal, and ________________________________________________

(Name of Surety)

_________________________________ (Address of Surety)

hereinafter called “Surety”, are held and firmly bound unto

City of Bristol, Tennessee

(Name of Owner)

_________________________________________________________

801 Anderson Street, Bristol, Tennessee 37620

(Address of Owner)

hereinafter called “Owner”, in the penal sum of ___________________ Dollars __________ Cents ($ ____________) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner dated ______ day of ________________, 20__, a copy of which is hereto attached and made a part hereof for the construction of:

Water System Improvements

Bid Number 21-001

Contract No. 21-01 – Bristol Water Treatment Plant

Washwater Tank Painting and Renovation

Wauford Project No. 4646

NOW, THEREFORE, if the Principal shall well, truly and faithfully performs its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all cost and damages which it may suffer by reason of failure to do, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.
PERFORMANCE BOND
4646 – January 2021

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 6 counterparts, each one of which shall be deemed an original, this the _____ day of ___________________, 20__.

WITNESSES:

______________________________
Principal

______________________________
BY:____________________________

______________________________
Address

(SEAL)

WITNESSES:

______________________________
Surety

______________________________
BY:____________________________

Attorney-in-Fact

NOTE: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

**********
PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

__________________________
(Name of Contractor)

__________________________
(Address of Contractor)

a ________________________ hereinafter called
(Corporation, Partnership or Individual)

Principal, and ________________________
(Name of Surety)

__________________________
(Address of Surety)

hereinafter called “Surety”, are held and firmly bound unto

City of Bristol, Tennessee
(Name of Owner)

__________________________
(Address of Owner)

hereinafter called “Owner”, in the penal sum of

Dollars __________ Cents ($______________ ) in lawful money of the United States, for
the payment of which sum well and truly to be made, we bind ourselves, successors,
and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal
entered into a certain contract with the Owner dated ______ day of ____________,
20__, a copy of which is hereto attached and made a part hereof for the construction of:

Water System Improvements
Bid Number 21-001
Contract No. 21-01 – Bristol Water Treatment Plant
Wataford Water Tank Painting and Renovation

Wauford Project No. 4646

NOW, THEREFORE, if the Principal shall promptly make payment to all persons,
firms, subcontractors, and corporations furnishing materials for or performing labor in
the prosecution of the work provided for in such contract, and any authorized extension
or modification thereof, including all amounts due for materials, lubricants, oil, gasoline,
coal and coke, repairs on machinery, equipment and tools consumed or used in
connection with the construction of such work, and all insurance premiums on said work,
and for all labor, performed in such work whether by subcontractor or otherwise, then
this obligation shall be void; otherwise to remain in full force and effect.
PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 6 counterparts, each one of which shall be deemed an original, this the _____ day of __________________, 20___.

WITNESSES:

_________________________________________ Principal

_________________________________________ BY:_________________________________________

_________________________________________ Address

(SEAL)

WITNESSES:

_________________________________________ Surety

_________________________________________ BY:_________________________________________

Attorney-in-Fact

_________________________________________

NOTE: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

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