

# PROJECT MANUAL

(VOLUME 1 OF 3)

**FOR THE  
CONSTRUCTION OF  
PUMP STATION #1 & FORCE MAIN IMPROVEMENTS  
SRP-W-ARP-0063**

**SMITHFIELD, NORTH CAROLINA**



**TOWN COUNCIL:**

**M. Andy Moore, Mayor**

**Roger A. Wood, Mayor Pro-Tem**

**Marlon Lee, Sloan Stevens, Travis Scott, Dr. David Barbour**

**John A. Dunn, Stephen Rabil**

**Michael L. Scott, Town Manager**

**Elaine Andrews, Town Clerk**

**January 2026**



*Robert Bernard*

January 9, 2026

**ENGINEER:**

**Stantec**

**521 East Morehead Street, Suite 425**

**Charlotte, NC 28202**

**Final Specifications – For Bidding Only  
Not Released for Construction**

**PUMP STATION #1 & FORCE MAIN IMPROVEMENTS**  
**Town of Smithfield, North Carolina**  
**DWI Project No.: SRP-W-ARP-0063**

**TABLE OF CONTENTS**

---

**VOLUME 1 | FRONT END & GENERAL REQUIREMENTS**

---

<b><u>SECTION</u></b>	<b><u>TITLE</u></b>	<b><u>PAGES</u></b>
	Title Page	1
	Table of Contents	i - vii
000001	Advertisement for Bids	ADV: 1 - 2
000002	Instructions to Bidders	ITB: 1 - 4
000003	Equal Employment Opportunity	EEO: 1
000004	Agreement between Owner and Contractor	AOC: 1 - 7
000005	General Conditions of the Contract for Construction	GC: 1 - 80
000006	Supplementary Conditions	SC: 1 - 9
000006a	Requirements for Certificate of Insurance	RCI: 1 - 2
000007	Bid Forms	BF: 1 - 12
000008	Special Notice – North Carolina Sales Tax	SN: 1
000008a	Sales Tax Report	ST: 1
000009	Non-Collusion Affidavit	NCA: 1
000010	Bid Bond	BB: 1
000011	Power of Attorney	1
000012	Performance Bond	PB: 1 - 2
000013	Payment Bond	PB: 1 - 2
<u>000014</u>	<u>Project Procedure Forms</u>	<u>PPF: 1 - 10</u>
	<i>Emergency Telephone Numbers</i>	
	<i>Monthly Payment Estimate Summary</i>	
	<i>Request for Payment for Materials on Hand</i>	
	<i>Change Order</i>	
	<i>Consent of Surety for Final Payment</i>	
	<i>Contractor's Certification of Completion</i>	
	<i>Final Waiver of Lien</i>	
	<i>Notice of Award</i>	
	<i>Notice to Proceed</i>	
<u>000015</u>	<u>M/WBE Forms Requirements and Ordinances</u>	<u>1 - 14</u>

*Affidavit A – List of the Good Faith Effort*  
*Affidavit B – Intent to Perform Contract with Own Workforce*  
*Affidavit C – Portion of the Work to be Performed by Minority Firms*  
*Affidavit D – Good Faith Efforts*  
*Appendix E – MWBE Documentation for Contract Payments*  
*NC Division of Water Infrastructure MBE/WBE (DBE) Compliance Supplement Instructions & Forms*

000016	E-Verify Affidavit	EV: 1
000016a	Iran Divestment Act Certification	IDAC: 1
000017	Vendor Information Form	VA: 1
000018	No Bid Reply Form	NBRF: 1
000019	Davis-Bacon Instructions for SRF Projects	DB: 1 - 10
000020	Wage Determination Johnston NC 2025	WD 1 - 5

**Division 01 - General Requirements**

011100	Summary of Work	011100: 1 - 2
011216	Sequence of Work and Maintaining Existing Operations During Construction	011216: 1 - 2
012000	Measurement and Payment	012000: 1 - 11
013216	Construction Scheduling	013216: 1 - 10
013233	Construction Photographs	013233: 1 - 5
013300	Submittals	013300: 1 - 18
014500	Quality Control	014500: 1 - 5
015000	Temporary Facilities	015000: 1 - 5
015639	Temporary Tree and Plant Protection	015639: 1 - 7
016600	Delivery, Storage, and Handling	016600: 1 - 3
017113	Mobilization-Demobilization	017113: 1 - 2
017329	Cutting, Coring, and Patching	017329: 1 - 5
017700	Contract Closeout	017700: 1 - 3
017800	Warranties and Bonds	017800: 1 - 3
017823	Operation and Maintenance Manuals	017823: 1 - 6
017839	Record Documents	017839: 1 - 4

---

## **VOLUME 2 | PUMP STATION #1 TECHNICAL SPECIFICATIONS**

---

<b><u>SECTION</u></b>	<b><u>TITLE</u></b>	<b><u>PAGES</u></b>
	<b>Division 02 - Existing Conditions</b>	
022100	Project Controls (Surveying)	022100: 1 - 3
	<b>Division 03 - Concrete</b>	
031513	Waterstops	031513: 1 - 3
033000	Cast-in-Place Concrete	033000: 1 - 12
034100	Precast Structural Concrete	034100: 1 - 9
036000	Grouting	036000: 1 - 10
	<b>Division 04 (NOT USED)</b>	
	<b>Division 05 - Metals</b>	
051200	Structural Steel Framing	051200: 1 - 5
	<b>Division 06 – 21 (NOT USED)</b>	
	<b>Division 22 - Plumbing</b>	
221329	Sanitary Sewerage Pumps	221329: 1 - 8
	<b>Division 23 – 25 (NOT USED)</b>	
	<b>Division 26 - Electrical</b>	
260500	Basic Materials and Methods	260500: 1 - 9
260511	Special Requirements for Electrical Installations	260511: 1 - 8
260519	Low Voltage Wires & Cables	260519: 1 - 5
260526	Grounding & Bonding	260526: 1 - 4
260529	Hangers & Supports	260529: 1 - 2
260551	Conduit Systems	260551: 1 - 4
260553	Identification	260553: 1 - 5
260570	Wiring Devices	260570: 1 - 3
260573	Short Circuit Coordination Study and Arc Flash Analysis	260573: 1 - 8
260800	Acceptance Testing & Performance Verification	260800: 1 - 11
262200	Low Voltage Transformers	262200: 1 - 4
262913	Control Panels	262913: 1 - 9

263213	Diesel Engine Standby Generator	263213: 1 - 13
263600	Automatic Transfer Switch	263600: 1 - 5
263613	Safety Switches and Disconnects	263613: 1 - 2
264300	Surge Suppression	264300: 1 - 9
268500	Instrumentation and Control	268500: 1 - 9

#### **Division 27 – 30 (NOT USED)**

#### **Division 31 - Earthwork**

311000	Site Clearing	311000: 1 - 3
312000	Earth Moving	312000: 1 - 14
312319	Dewatering	312319: 1 - 4

#### **Division 32 - Exterior Improvements**

321216	Asphalt Paving	321216: 1 - 4
321313	Concrete Paving	321313: 1 - 15
323113	Chain Link Fences and Gates	323113: 1 - 9
329200	Turf and Grasses	329200: 1 - 8

#### **Division 33 - Utilities**

330509.13	Couplings for Utility Pipe	330509.13: 1 - 2
330562	Precast Concrete Manholes and Vaults	330562: 1 - 5
331400	Water Distribution Piping	331400: 1 - 19
333000	Sanitary Sewerage Utilities	333000: 1 - 29
333001	Temporary Bypass Pumping	333001: 1 - 10
333220	Pump Station Abandonment	333220: 1 - 3

#### **Division 34 – 39 (NOT USED)**

#### **Division 40 - Process Interconnections**

400559.23	Stainless Steel Slide Gates	400559.23: 1 - 5
400565	Valves for Pump Control and Check Service	400565: 1 - 5
407113	Magnetic Flow Meters	407113: 1 - 2

#### **Division 41 – 45 (NOT USED)**

#### **Division 46 - Water and Wastewater Equipment**

462433 Open-Channel Grinder

462433: 1 - 7

**Permits**

NCDEQ Fast Track Sewer Extension

**Geotechnical Investigations**

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## **VOLUME 3 | FORCE MAIN IMPROVEMENTS TECHNICAL SPECIFICATIONS**

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<b><u>SECTION</u></b>	<b><u>TITLE</u></b>	<b><u>PAGES</u></b>
	<b>Division 02 - Existing Conditions</b>	
022100	Project Controls (Surveying)	022100: 1 - 3
	<b>Division 03 - Concrete</b>	
033000	Cast-in-Place Concrete	033000: 1 - 12
034100	Precast Structural Concrete	034100: 1 - 9
036000	Grouting	036000: 1 - 10
	<b>Division 04 – 30 (NOT USED)</b>	
	<b>Division 31 - Earthwork</b>	
311000	Site Clearing	311000: 1 - 3
312000	Earth Moving	312000: 1 - 14
312319	Dewatering	312319: 1 - 4
	<b>Division 32 - Exterior Improvements</b>	
321216	Asphalt Paving	321216: 1 - 4
321313	Concrete Paving	321313: 1 - 15
323113	Chain Link Fences and Gates	323113: 1 - 9
329200	Turf and Grasses	329200: 1 - 8
	<b>Division 33 - Utilities</b>	
330509.13	Couplings for Utility Pipe	330509.13: 1 - 2
330523.13	Utility Directional Drilling	330523.13: 1 - 18
330523.16	Utility Boring and Jacking	330523.16: 1 - 21
330562	Precast Concrete Vaults	330562: 1 - 5
333000	Sanitary Sewerage Utilities	333000: 1 - 29
333001	Temporary Bypass Pumping	333001: 1 - 10
	<b>Division 34 – 39 (NOT USED)</b>	
	<b>Division 40 - Process Interconnections</b>	
400565	Valves	400565: 1 - 5

**Division 41 – 46 (NOT USED)**

**Permits**

NCDEQ Fast Track Sewer Extension  
Erosion & Sedimentation Control  
NCDOT Encroachment

**Geotechnical Investigations**





**ADVERTISEMENT FOR BIDS**  
**FOR THE**  
**CONSTRUCTION OF**  
**TOWN OF SMITHFIELD**  
**PUMP STATION #1 & FORCE MAIN IMPROVEMENTS**  
**TOWN OF SMITHFIELD, NORTH CAROLINA**

**Sealed bids, so marked, will be received by the Town of Smithfield Utilities Department until 2:00 P.M. on Tuesday February 3, 2026 at the Town of Smithfield Operations Center, 230 Hospital Road, Smithfield, North Carolina 27577, at which time they will be publicly opened and read.** The work contemplated will include furnishing all materials, labor, equipment, tools, etc., unless otherwise specified herein, for the construction of the Town of Smithfield Pump Station #1 & Force Main Improvements as shown on the plans and as outlined in these specifications - located at 240 West Market Street, Smithfield, North Carolina.

**A Pre-bid Conference will be held on Tuesday January 20, 2026 at 2:00 P.M. at the Town of Smithfield Operations Center, 230 Hospital Road, Smithfield, NC 27577. All bidders who intend to bid are encouraged to attend. Attendance is not mandatory for bidding.**

Project Plans and Specifications (including instructions for submitting bids, specifications, contract drawings, and a complete description of the work involved and the apparatus, supplies, materials, and equipment for which bids are invited) are available online at <https://www.planscope.com/projects/1483/plans/pump-station-1-and-force-main-improvements-smithfield-nc>.

**PROJECT DESCRIPTION:** Work on this project shall be covered by a single or multiple Prime Contract(s).

**BASE BID – PUMP STATION #1:** The extent of this work includes furnishing of all materials and labor necessary for the complete construction of the Pump Station #1 Improvements, as shown on the plans and as outlined in these specifications.

- Demolition of the existing Town pump station and construction of a new 3.0 MGD pump station, including wet well, pumps, control systems, electrical, generator, and associated apparatus & systems.

**ALTERNATE BID – FORCE MAIN:** The extent of this work includes furnishing of all materials and labor necessary for the complete construction of the Force Main Improvements, as shown on the plans and as outlined in these specifications.

- Construction of approximately 9,500 LF and 20-inch diameter DIP force main, including piping, valves, blow-offs and the connection of the outlet force main to the Johnston County Waste Water Treatment Plant.

The bids will be evaluated and the Contract will be awarded in accordance with statutory public contract requirements.

The Town reserves the right to reject any and/or all bids, waive informalities, and/or accept such bids as appears in its judgement to be in the best interest of the Town. This includes the right to accept or reject either/or the Base Bid or the Alternate Bid by while accepting the other.

The Town reserves the right to award the Base Bid Contract (Pump Station #1) by itself to a single Contractor or, award the Base Bid Contract plus Alternate Bid Contract (Pump Station #1 plus Force Main) to a single Contractor or, award the Base Bid Contract and Alternate Bid Contract to two (2) different Contractors.

## INSTRUCTIONS TO BIDDERS

1. For a Bid to be considered, it must be in accordance with the following instructions:

Bids must be made in strict accordance on the "Bid Form" provided therefore and all blank spaces for the Bid Alternates and Unit Prices shall be properly filled in. When requested alternates are not bid, the Bid will be considered incomplete. The Bidders agree that Bids on the Bid Form detached from Specifications will be considered and will have the same force and effect as if attached hereto. **Numbers shall be stated both in writing and in figures for the Base Bid and Alternates. One (1) original shall be submitted to the Utilities Division.**

**Bids are invited on the basis of a Single Prime Contract. See section 01100 Summary of Work (Work covered by Contract Documents) for details.**

Any modification to the Bid Form (including Alternates and Unit Prices) may disqualify the Bid and may cause the Bid to be rejected.

The Contractor shall fill in the Bid Form as follows:

- A. If the documents are executed by a sole Owner, that fact shall be evidenced by the word "Owner" appearing after the name of the person executing them.
  - B. If the documents are executed by a Partnership, that fact shall be evidenced by the word "Co-Partner" appearing after the name of the partner executing them.
  - C. If the documents are executed on the part of a Corporation, they shall be executed by either the President or the Vice-President and attested by the Secretary or Assistant Secretary in either case, and the title of the office of such person shall appear after their signatures. The Seal of the Corporation shall be impressed on each signature page of the documents.
  - D. If the Bid is made by a Joint Venture, it shall be executed by each member of the Joint Venture in the above form for sole Owner, Partnership, or Corporation, whichever form is applicable.
  - E. All signatures shall be properly witnessed.
  - F. It shall be the specific responsibility of the Bidder to deliver this Bid to the proper official at the appointed place and prior to the time for the opening of the Bids. Late delivery of a Bid for any reason, including delivery by the United States Mail, shall disqualify the Bid.
  - G. Modifications of previously deposited Bids will be acceptable only if delivered to the place of the bid opening prior to the time for opening Bids.
  - H. Unit Prices quoted in the Bids shall include overhead and profit and shall be the full compensation for the Contractor's cost involved in the work.
2. It is understood and mutually agreed that by submitting a Bid the Contractor acknowledges that he/she has carefully examined the bidding documents pertaining to the work, the locations, accessibility and general character of the site of the work and all existing buildings and structures within and adjacent to the site; and has satisfied him/herself as to the nature of the work, the condition of the existing buildings and structures, the conformation of the ground, the character,

quality and quantity of the materials to be encountered; the character of the equipment, machinery, plant and other facilities needed preliminary to and during prosecuting of the work; the general and local conditions; the construction hazards; and all other matters, including but not limited to, the labor situation which can in any way affect the work under the Contract; and including all safety measures required by the Occupational Safety Health Act of 1970 and all rules and regulations issued pursuant thereto. It is further mutually agreed that by submitting a Bid, the Contractor acknowledges that he/she has satisfied him/herself as to the feasibility and meaning of the plans, drawings, Specifications, and other contract documents for the construction of the work and that he/she accepts all terms, conditions and stipulations contained therein and that he/she is prepared to work in cooperation with the other contractors performing work on the site.

3. **No material substitutions will be considered during the bidding.**

**All questions from the contractors must be emailed to Robert Bernard at [robert.bernard@stantec.com](mailto:robert.bernard@stantec.com) no later than 2:00 P.M., on Thursday January 22, 2026.**

4. Any Addenda to Specifications issued during the time of bidding will be posted to the Plan Room website and are to be considered incorporated in the Bid and in closing a Contract they will become part thereof. **It shall be the Contractor's responsibility to ascertain prior to Bid time the Addenda issued and to see that his/her Bid includes any changes thereby required.**

The Town Utilities Director will not be responsible for any explanation or interpretation of the proposed documents. Neither the Owner nor Town Utilities Director will be responsible for any oral instructions. Any interpretation of the proposed document will be made only by Addendum duly issued, a copy of which will be posted to the Plan Room website.

All Addenda shall be acknowledged by the bidder(s) on the Bid Form. Failure to do so may disqualify the Bid and may cause the Bid to be rejected.

5. As required by N.C. General Statute, cash, a certified check drawn on some bank or trust company insured by the Federal Deposit Insurance Corporation or Bid Bond in the amount of 5% (five percent) of the amount of the bid must be attached to each bid proposal (Bid Security). Each bid proposal requires a separate Bid Security deposit. Said Security shall guarantee that the contract will be entered into by the successful bidder if the award is made. Said Security shall be retained by the Owner in the event the successful bidder fails to execute the contract within fifteen (15) days after the award or to give satisfactory Surety as required by law. **"Payee shall be the Town of Smithfield."**

Such Security of cash or certified check may be held by the Town of Smithfield until the successful bidder has executed and delivered the contract documents, including Insurance, and Performance and Payment Bonds, to the Town of Smithfield. Bid Security submitted in the form of cash, cashier's check or certified check will be deposited in the Town's account as required by North Carolina Local Government Budget and Fiscal Control Act (N.C. General Statute Chapter 159, Article 3). The bids will be evaluated, and the contract will be awarded in accordance with statutory public contract requirements.

6. **All copies of the Bid, the Bid Security, if any and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope can be hand delivered or mailed and shall be addressed to the Town of Smithfield Utilities Department, 230 Hospital Road, Smithfield, NC 27577, and should be identified with the**

**project name, time and date of Bid Opening, the Bidder's name and address, Bidder's license number and designated portion of the work for which the Bid is submitted.**

7. Contractors who bid must be licensed to do work in the State of North Carolina under the Act to Regulate the Practice of General Contracting. The Contractor's North Carolina license number shall be designated on the outside of the envelope containing the Bid.
8. It is the responsibility of the Bidder to ensure that the bid arrives at or before the time and date indicated. Upon opening, all bids shall be read aloud.

A Bidder may withdraw its formal Bid after the Bids are opened without forfeiting its Bid deposit in certain limited circumstances. Withdrawal after opening is permitted only if all conditions specified in North Carolina General Statutes Section 143-129.1 are met.

9. Bids shall be evaluated using the Total Bid. The Total Bid shall be the summation of the product of all of the Items' Unit Bid Prices by their Estimated Quantities. In the event of a math error, the Extended Totals and the Total Bid will be corrected based on the Unit Price furnished in the Bid. Bids with math errors will be compared using the corrected Total Bid (i.e., the math must be correct before a bid is considered for award).
10. The Owner shall award the contract to the lowest responsible, responsive bidder taking into consideration the past performance of the Bidder on Construction Contracts for the Town of Smithfield, the State of North Carolina, or other governmental agencies with particular concern given to completion times, quality of work, cooperation with other Contractors, and cooperation with the Town Utilities Director and Owner. The Owner shall have the right to accept Alternates in any order of combination. The Owner reserves the right to make an award in whole or in part and reserves the right to reject any and all bids and to waive all technicalities and irregularities.
11. The successful Bidder, upon award of the Contract, shall furnish a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Price.
12. The successful Bidder, upon award of Contract, shall furnish a Payment Bond in an amount equal to one hundred percent (100%) of the Contract Price.
13. For all work being performed under this Contract, the Town of Smithfield has the right to inspect, examine, and to make copies of any books, accounts, records, and other writings related to the performance of the work. Audit shall take place at times and locations mutually agreed upon by both parties, although the contractor must make the materials to be audited available within one (1) week of the request.
14. Contract completion time for all work on this project is **425 calendar days, or 30 days** from substantial completion, whichever is first. Bidders shall note the **395 calendar day** time limit for the substantial completion of such work as may be contracted for as follows: Town of Smithfield PS#1 and/or Force Main Improvements, 240 West Market Street, Smithfield, North Carolina 27577.
15. Bidders are required to submit information about participating M/WBEs with their bid. The information must include the name and address of each M/WBE, a description of the work to be performed by each, and the dollar value of the work to be performed by each. Any bidder who fails to achieve the indicated M/WBE participation goal stated above is required to provide documentation demonstrating that good faith efforts were made in an attempt to meet the

established goal. AFFIDAVITS A through D and APPENDIX E, are provided to record this information and must be completed and enclosed with your bid. Any bid which does not include M/WBE information and documentation may be considered non-responsive.

16. All Bidders must complete the Vendor Application/W-9 Form and include it with their bid package. This information will be used to create or update Town of Smithfield's Electronic Bidder/Vendor files.

17. **A Pre-Bid Conference will be held on Tuesday January 20, 2026, at 2:00 P.M., at the Town of Smithfield Operations Center, 230 Hospital Road, Smithfield, NC 27577. All bidders who intend to bid are encouraged to attend.**

18. **Security of Non-public Records:** Pursuant to N.C.G.S. § 132-1.7, entitled, "Sensitive Public Security Information", public records, as defined in G.S. 132-1, shall not include information containing specific details of public security plans and arrangements or the detailed plans and drawings of public buildings and infrastructure facilities. Therefore, all information provided, received, gathered or obtained by Bidder containing specific details of public security plans and arrangements or the detailed plans and drawings of public buildings and infrastructure facilities shall be held confidential and shall be used by the Bidder only for the purpose of responding to this bid. Any breach of this paragraph by the Bidder may result in Bidder being barred from being awarded any contracts with the Town.

19. The following forms must be returned with your Bid Proposal.

**A. One (1) original of Bid response**

**B. Bid Form (Addenda issued must be acknowledged on the Bid Form)**

**C. Non-Collusion Affidavit**

**D. Vendor Application/W-9 Form**

**E. Bid Deposit (Bid Bond, cash, cashier's check or certified check). Power of Attorney must be included when submitting a Bid Bond)**

**F. M/WBE Forms:**

1) **Affidavit A and C** is required to be submitted with your bid/proposal if your company has M/WBE participation.

2) **Affidavit B** is required if your company has no opportunity to sub-contract and will complete all work with their own work force. No other Affidavits must be returned.

3) **Affidavit D** is to be submitted only by the apparent lowest responsible, responsive bidder within 72 hours after bid closing date.

The apparent lowest responsible Bidder shall file within 30 days after the award of the contract a list of all identified subcontractors that the contractor (Bidder) will use on the project.

**The above information must be provided as required. Failure to submit these M/WBE documents may be grounds for rejection of the bid/proposal.**

**END OF INSTRUCTIONS TO BIDDERS**

## **EQUAL EMPLOYMENT OPPORTUNITY**

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

- A. The contractor will not discriminate against any employee or applicant for employment because of race, handicap, age, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to race, handicap, age, color, religion, sex or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruiting advertising, layoff or termination rates of pay or other forms of compensation, and selection for training including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of the nondiscrimination clause.
- B. The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor state that all qualified applicants will receive consideration for employment without regard to race, handicap, age, color, religion, sex, or national origin.
- C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the labor union or workers' representative of the contractor's commitments under the Equal Employment Opportunity section of this contract and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. In the event of the contractor's noncompliance with nondiscrimination clauses of this contract or with any such rules, regulations or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Town contracts.
- E. The contractor will include the provisions of this section in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Town Council Smithfield, North Carolina so that such provisions will be binding such subcontractor or vendor.

**NORTH CAROLINA**  
**JOHNSTON COUNTY**

**CONTRACT for CONSTRUCTION  
BETWEEN OWNER AND  
CONTRACTOR**

**This Contract for Construction** is made, and entered into this the \_\_\_\_ day of \_\_\_\_\_, 2026, by and between the **TOWN OF SMITHFIELD**, a political subdivision of the State of North Carolina, (hereinafter “**OWNER**”), and \_\_\_\_\_, EID# \_\_\_\_\_ (hereinafter “**CONTRACTOR**”), whose principal place of business is: \_\_\_\_\_.

The Project: Pump Station #1 & Force Main Improvements  
Name and Location: 240 West Market Street  
Smithfield, NC

The Designer is: Stantec Consulting Services Inc.  
801 Jones Franklin Road, Suite 300  
Raleigh, NC 27606-3394

1. CONTRACT DOCUMENTS. The “Contract Documents” consist of this Contract for Construction, Contractor Bid Proposal dated \_\_\_\_\_, 2026, Addenda issued prior to execution of this Agreement and listed below, and any Modifications executed by the parties after execution of this Contract. The Contract Documents form the Contract and are fully a part of the Contract as if attached to this Contract or repeated herein. The Contract represents the entire and integrated agreement between the Owner and Contractor hereto and supersedes any and all prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents and other than Modifications, appears in Article 15, herein.

Owner and Contractor agree that should the Contractor utilize the services of a subcontractor for any Work under this Contract, the subcontractor shall be required to comply with all terms and conditions of this Contract and any and all Contract Documents entered into between the Owner and Contractor and any of its contractors or subcontractors shall so require of their subcontractors.

2. WORK. Contractor shall execute all of the Work described collectively in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.
3. DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION.

3.1 This Contract shall commence on the date first written above (hereinafter “Commencement Date”). The Contractor shall notify the Owner in writing not less than five days before commencing the Work.

3.2 The Contractor shall achieve Substantial Completion of the entire Work no later than the time established in the Contract Documents; subject to adjustments of the Contract Time as provided in the Contract Documents. In view of the difficulty of estimating damages to the Owner by reason of the failure of the Contractor to complete the work herein proposed within the time limit herein proposed, or within such further time as same may be extended, as provided for, proposed, Owner shall be and hereby is authorized to deduct and retain out of the moneys which may be due or become due to Contractor the sum of One Thousand Dollars (\$1,000.00) per day for each and every calendar day that the work may be incomplete beyond the time limit fixed for its completion, or as same may have been extended, which sum per day is hereby agreed upon, fixed and determined by the parties hereto as the ascertained and liquidated damages that the Owner will suffer by reason of such default. The above sum shall be held to include the additional expense to the Owner for loss of interest or



investment, for the employment of architects, engineers, inspectors, and other employees, together with their expenses, and all other damages to the Owner by reason of such delay.

4. CONTRACT SUM AND PAYMENT

4.1 Contractor shall receive from Owner a sum not to exceed \_\_\_\_\_<sup>+++</sup> Dollars (\$ \_\_\_\_\_), as full compensation for the provision of construction services provided under this Contract, subject to additions and deductions as provided in the Contract Documents. Owner agrees to pay for services, satisfactorily performed, in accordance with the Contract Documents. Unless otherwise specified, Contractor shall submit an itemized Application for Payment for operations completed in accordance with the schedule of values. Such application shall be notarized, supported by such data substantiating the Contractor's right to payment as the Owner may require, such as copies of requisitions from subcontractors and material suppliers and reflecting retainage, if applicable. Payment will be processed promptly upon receipt and approval of the Application by Owner.

4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

\_\_\_\_\_  
\_\_\_\_\_

4.3 Unit prices, if any, are as follows:

Detailed in Bid Proposal  
\_\_\_\_\_

5. PROGRESS PAYMENTS. Based upon Applications for Payment submitted to the Designer by the Contractor and Certificates for Payment issued by the Designer, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided in section 9.3 of the General Conditions.
6. FINAL PAYMENT. Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when (1) the Contract has been fully performed by the Contractor and the Town has approved of the Work through the inspection process, except for any work that is non-conforming or in need of correction which shall necessarily survive final payment. Such final payment shall be made by the Owner not more than 30 days after the issuance of the approved final Certificate for Payment.
7. INDEMNIFICATION. To the fullest extent permitted by laws and regulations, CONTRACTOR shall indemnify and hold harmless the OWNER and its officials, agents, and employees from and against all claims, damages, losses, and expenses, direct, indirect, or consequential (including but not limited to fees and charges of engineers or architects, attorneys, and other professionals and costs related to court action or mediation) arising out of or resulting from CONTRACTOR's performance of this Contract or the actions of the CONTRACTOR or its officials, employees, or contractors under this Contract or under contracts entered into by the CONTRACTOR in connection with this Contract. This indemnification shall survive the termination of this Contract.

In claims against any person or entity indemnified under this provision by an employee of the CONTRACTOR, a subcontractor, an employee of a subcontractor, or an agent of the CONTRACTOR or a subcontractor, the indemnification obligation under this provision shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or a subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

8. NOTICES. All notices which may be required by this contract or any rule of law shall be effective

when received by certified mail sent to the following addresses:

FOR: TOWN OF SMITHFIELD  
PUBLIC UTILITIES DEPARTMENT  
230 HOSPITAL ROAD  
SMITHFIELD, NORTH CAROLINA, 27577

FOR: CONTRACTOR

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. NON-DISCRIMINATION. Contractor shall not discriminate against any employee or applicant for employment because of age, sex, race, creed, national origin, or disability. Contractor shall take affirmative action to ensure that applicants are employed and that employees are treated fairly and legally during employment with regard to their age, sex, race, creed, national origin, or disability. In the event Contractor is determined by the final order of an appropriate agency or court to be in violation of any non-discrimination provision of federal, state or local law or this provision, this Contract may be canceled, terminated or suspended in whole or in part by Owner, and Contractor may be declared ineligible for further Owner contracts.
10. HEALTH AND SAFETY. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs required by OSHA and all other regulatory agencies while providing services under this contract.
11. NON-ASSIGNMENT. This Contract is not assignable by either party, by operation of law or otherwise.
12. MODIFICATION. This Contract may be modified only by a written agreement executed by both parties hereto.
13. TERMINATION OR SUSPENSION. The Contractor may terminate the Contract if the Work is stopped for a period of 180 consecutive days through no act or fault of the Contractor. The Owner may, without cause, order the Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as the Owner may determine. Contractor will be entitled to stop work damages for delays that stop Contractor for being able to work on the site for longer than 48 hours.
14. INSURANCE. CONTRACTOR shall procure and maintain for the duration of the contract the following insurance coverage from an insurance company(s) possessing a rating of A-VI or higher from the A.M. Best Company or an equivalent rating service. All of the policies required of the CONTRACTOR shall contain a waiver of subrogation provision to waive all rights of recovery under subrogation or otherwise against the TOWN. CONTRACTOR shall advise the TOWN of any cancellation, non-renewal, or material change in any policy within ten (10) days of notification of such action and provide updated certificates of insurance evidencing renewals within fifteen (15) days of expiration. All of the policies required of the CONTRACTOR shall be primary and the CONTRACTOR agrees that any insurance or self-funded liability programs maintained by the TOWN shall be non-contributing with respect to the CONTRACTOR's insurance.

**14.1 Commercial General Liability**

Shall be a limit of not less than **\$2,000,000** per occurrence and **\$5,000,000** aggregate. Coverage must be in a form providing coverage not less than the standard Insurance Services Office Form CG 00 01 and include products and completed operations, property damage, bodily injury, and

personal & advertising injury. The products-completed operations coverage shall be provided for a minimum of six (6) years following final acceptance of the work.

**14.2 Commercial Automobile Liability**

Shall be a limit of not less than **\$2,000,000** per occurrence for any (Code 1) vehicle.

**14.3 Worker's Compensation and Employers Liability**

Shall be at North Carolina statutory limits. CONTRACTOR shall satisfy all compulsory requirements relating to workers compensation in any jurisdiction in which benefits may be claimed. Employers Liability shall be a limit of not less than **\$1,000,000** per accident for bodily injury or disease.

**14.4 Professional Liability**

Shall be a limited of not less than **\$5,000,000** per occurrence or claim, and **\$5,000,000** aggregate. There shall be an extended reporting period of not less than six (6) years.

**14.5 Builders Risk**

Shall be at a limit **equal to the completed value of the project** with no coinsurance penalty provisions utilizing an "All Risk" (Special Perils) coverage form.

**14.6 CONTRACTORS' Pollution Legal Liability**

Shall be at a limit not less than **\$5,000,000** per occurrence or claim and **\$5,000,000** aggregate.

**14.7 "All Risk" Property (CONTRACTOR'S Property)**

Replacement cost coverage under an "All Risk" policy for any of the CONTRACTOR's real or personal property. Policy must include coverage for equipment owned, leased, rented, and borrowed, whether such equipment is located at a job site or "in transit."

Insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. CONTRACTOR, upon request, shall furnish OWNER with complete copies of insurance policies required. By requiring insurance herein, the OWNER does not represent that coverage and limits will necessarily be adequate to protect CONTRACTOR, and such coverage and limits shall not be deemed as a limitation on CONTRACTOR's liability under the indemnities granted to the OWNER in this Contract. Any umbrella or excess liability coverage must be at least as broad as the primary coverage and contain all coverage provisions that are required of the primary coverage.

The failure of the TOWN at any time to enforce the insurance provisions, to demand such certificates of insurance, or to identify a deficiency shall not constitute a waiver of those provisions, nor reduce the obligations of the CONTRACTOR to maintain such insurance or to meet its obligations under the indemnification provisions.

The CONTRACTOR shall provide the TOWN a valid certificate of insurance, in advance of the performance of any work, exhibiting coverage as required by the TOWN. Providing and maintaining adequate insurance coverage is a material obligation of the CONTRACTOR. CONTRACTOR shall require its subcontractors to maintain insurance coverage required herein or cover the subcontractors' under the CONTRACTOR's policies. The Certificate of Insurance shall be provided on the industry standard form (ACORD 25).

Notwithstanding the foregoing, nothing contained in this section shall be deemed to constitute a waiver of the governmental immunity of the Town of Smithfield, which immunity is hereby reserved to the Town of Smithfield.

## 15. ENUMERATION OF CONTRACT DOCUMENTS

15.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

- 1) This executed Contract for Construction between Owner and Contractor.
- 2) The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated \_\_\_\_\_, and are as follows:

<u>Document</u>	<u>Title</u>	<u>Pages</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

- 3) The Specifications are those contained in the Project Manual dated as in Paragraph 15.1(.2) above, and are as follows:

<u>Section</u>	<u>Title</u>	<u>Pages</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

- 4) The Drawings are as follows, and are dated \_\_\_\_\_, unless a different date is shown below:

Number: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date : \_\_\_\_\_

- 5) The Addenda, if any, are as follows:

Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____
Addendum No. ____	Dated: _____	Addendum No. ____	Dated: _____

- 6) Other documents, if any, forming part of the Contract Documents are as follows:

Invitation to Bid.  
Instruction to Bidders  
Bid Proposal

Notice to Proceed.

16. **E-VERIFY.** As a condition of payment for services rendered under this agreement, Contractor shall comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Further, if Contractor provides the services to the Owner utilizing a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes as well. Contractor shall verify, by affidavit, compliance of the terms of this section upon request by the Owner.

**17. MISCELLANEOUS:**

a. **Merger and Modification.** This instrument constitutes the entire agreement between the parties and supersedes any and all prior agreements, arrangements and understandings, whether oral or written, between the parties. All negotiations, correspondence and memorandums passed between the parties hereto are merged herein and this agreement cancels and supersedes all prior agreements between the parties with reference thereto. No modification of this instrument shall be binding unless in writing, attached hereto, and signed by the party against whom or which it is sought to be enforced.

b. **Waiver.** No waiver of any right or remedy shall be effective unless in writing and nevertheless shall not operate as a waiver of any other right or remedy or of the same right or remedy on a future occasion.

c. **Caption and Words.** The captions and headings contained herein are solely for convenience and reference and do not constitute a part of this instrument. All words and phrases in this instrument shall be construed to include the singular and plural number, and the masculine, feminine or neuter gender, as the context requires.

d. **Binding Effect.** This instrument shall be binding upon and shall insure to the benefit of the parties and their heirs, successors and permitted assigns.

e. **North Carolina Law.** This instrument shall be construed in accordance with the laws of North Carolina without giving effect to its conflict of laws principles.

f. **Forum Selection.** In any action arising from or to enforce this agreement, the parties agree (a) to the jurisdiction and venue exclusively of the state courts in Johnston County, North Carolina.

g. **Limitation of Liability.** No party will be liable to another party, or to the extent this agreement may limit the same to any third party, for any special, indirect, incidental, exemplary, consequential or punitive damages arising out of or relating to this agreement including lost profits, whether the claims alleges tortious conduct (including negligence) or any other legal theory.

h. **Two Originals.** This instrument may be executed in two (2) or more counterparts as the parties may desire, and each counterpart shall constitute an original.

i. **Follow Through.** Each party will execute and deliver all additional documents and do all such other acts as may be reasonably necessary to carry out the provisions and intent of this instrument.

k. **Authority.** Any corporate party or business entities and its designated partners, venturer, or officers have full and complete authority to sell, assign and convey the contracts and assume the obligations referred to herein; said corporations or entities are in good standing under North Carolina law.

l. **Severability.** If any one or more of the terms, provisions, covenants or restrictions of this agreement shall be determined by a Court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Contract shall remain in full force and effect and shall in no way be affected, impaired or invalidated. If, moreover, any one or more of the provisions contained in this Contract shall for any reason be determined by a Court of competent jurisdiction to be excessively broad as to duration, geographical scope, activity or subject, it shall be construed, by limiting or reducing it, so as to be enforceable to the extent compatible with the then applicable law.

m. **Notice.** All notices, demands or writings in this Contract provided to be given or made or sent that may be given or made or sent by either party hereto to the other, shall be deemed to have been fully given or made or sent when made in writing and deposited in the United States Mail, registered and postage prepaid, and addressed as follows:

To: Public Utilities Department/Town of Smithfield

230 Hospital Road  
Smithfield, NC 27577

To:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The address to which any notice, demand or writing may be given or made or sent to any party as above provided may be changed by written notice given by such party as above provided.

This Agreement is entered into as of the day and year first written above and is executed in at least three original copies of which one is to be delivered to the Contractor, one to the Designer for use in the administration of the Contract, and the remainder to the Owner.

TOWN OF SMITHFIELD

By\_\_\_\_\_

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

\_\_\_\_\_  
Town of Smithfield Chief Financial Officer

CONTRACTOR

ATTEST:

By: \_\_\_\_\_

Secretary

Print Name/Title:\_\_\_\_\_

\_\_\_\_\_

STATE OF NORTH CAROLINA  
COUNTY OF \_\_\_\_\_

I, a Notary Public in and for the aforesaid County and State, do hereby certify that \_\_\_\_\_ personally appeared before me this day and acknowledged that he is \_\_\_\_\_ of \_\_\_\_\_, a North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its \_\_\_\_\_, sealed with its corporate seal and attested by as its \_\_\_\_\_.

Witness my hand and notarial seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_  
(SEAL)

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

## STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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# **GUIDELINES FOR USE OF EJCDC® C-700, STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT**

## **1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT**

EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), is the foundation document for the EJCDC Construction Series. The General Conditions define the basic rights, responsibilities, risk allocations, and contractual relationship of the Owner and Contractor, and establish how the Contract is to be administered.

## **2.0 OTHER DOCUMENTS**

EJCDC documents are intended to be used as a system and changes in one EJCDC document may require a corresponding change in other documents. Other EJCDC documents may also serve as a reference to provide insight or guidance for the preparation of this document.

These General Conditions have been prepared for use with either EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price), or EJCDC® C-525, Agreement Between Owner and Contractor for Construction Contract (Cost-Plus-Fee) (2018 Editions). The provisions of the General Conditions and the Agreement are interrelated, and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018).

The full EJCDC Construction series of documents is discussed in the EJCDC® C-001, Commentary on the 2018 EJCDC Construction Documents (2018).

## **3.0 ORGANIZATION OF INFORMATION**

All parties involved in a construction project benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. Careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition) when preparing documents. EJCDC® N-122/AIA® A521 is available at no charge from the EJCDC website, [www.ejcdc.org](http://www.ejcdc.org), and from the websites of EJCDC's sponsoring organizations.

If CSI MasterFormat™ is used for organizing the Project Manual, consult CSI MasterFormat™ for the appropriate document number (e.g., under 00 11 00, Advertisements and Invitations), and accordingly number the document and its pages.

## **4.0 EDITING THIS DOCUMENT**

Remove these Guidelines for Use. Some users may also prefer to remove the two cover pages.

Although it is permissible to revise the Standard EJCDC Text of C-700 (the content beginning at page 1 and continuing to the end), it is common practice to leave the Standard EJCDC Text of C-700 intact and unaltered, with modifications and supplementation of C-700's provisions set forth in EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018). If the Standard Text itself is revised, the

user must comply with the terms of the License Agreement, Paragraph 4.0, Document-Specific Provisions, concerning the tracking or highlighting of revisions. The following is a summary of the relevant License Agreement provisions:

1. The term “Standard EJCDC Text” for C-700 refers to all text prepared by EJCDC in the main body of the document. Document covers, logos, footers, instructions, or copyright notices are not Standard EJCDC Text for this purpose.
2. During the drafting or negotiating process for C-700, it is important that the two contracting parties are both aware of any changes that have been made to the Standard EJCDC Text. Thus, if a draft or version of C-700 purports to be or appears to be an EJCDC document, the user must plainly show all changes to the Standard EJCDC Text, using “Track Changes” (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions.
3. If C-700 has been revised or altered and is subsequently presented to third parties (such as potential bidders, grant agencies, lenders, or sureties) as an EJCDC document, then the changes to the Standard EJCDC Text must be shown, or the third parties must receive access to a version that shows the changes.
4. Once the document is ready to be finalized (and if applicable executed by the contracting parties), it is no longer necessary to continue to show changes to the Standard EJCDC Text. The user may produce a final version of the document in a format in which all changes are accepted, and the document at that point does not need to include any “Track Changes,” redline/strikeout, highlighting, or other indication of additions and deletions to the Standard EJCDC Text.

## **5.0 LICENSE AGREEMENT**

This document is subject to the terms and conditions of the **License Agreement, 2018 EJCDC® Construction Series Documents**. A copy of the License Agreement was furnished at the time of purchase of this document, and is available for review at [www.ejcdc.org](http://www.ejcdc.org) and the websites of EJCDC’s sponsoring organizations.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## TABLE OF CONTENTS

	Page
Article 1—Definitions and Terminology.....	1
1.01 Defined Terms.....	1
1.02 Terminology .....	6
Article 2—Preliminary Matters .....	7
2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance.....	7
2.02 Copies of Documents .....	7
2.03 Before Starting Construction .....	8
2.04 Preconstruction Conference; Designation of Authorized Representatives .....	8
2.05 Acceptance of Schedules .....	8
2.06 Electronic Transmittals .....	9
Article 3—Contract Documents: Intent, Requirements, Reuse.....	9
3.01 Intent.....	9
3.02 Reference Standards.....	10
3.03 Reporting and Resolving Discrepancies .....	10
3.04 Requirements of the Contract Documents.....	11
3.05 Reuse of Documents .....	11
Article 4—Commencement and Progress of the Work .....	12
4.01 Commencement of Contract Times; Notice to Proceed.....	12
4.02 Starting the Work.....	12
4.03 Reference Points .....	12
4.04 Progress Schedule .....	12
4.05 Delays in Contractor’s Progress .....	12
Article 5—Site; Subsurface and Physical Conditions; Hazardous Environmental Conditions .....	14
5.01 Availability of Lands .....	14
5.02 Use of Site and Other Areas.....	14
5.03 Subsurface and Physical Conditions.....	15
5.04 Differing Subsurface or Physical Conditions .....	16

5.05	Underground Facilities .....	18
5.06	Hazardous Environmental Conditions at Site .....	19
Article 6—Bonds and Insurance.....		22
6.01	Performance, Payment, and Other Bonds .....	22
6.02	Insurance—General Provisions .....	22
6.03	Contractor’s Insurance.....	24
6.04	Builder’s Risk and Other Property Insurance .....	25
6.05	Property Losses; Subrogation .....	26
6.06	Receipt and Application of Property Insurance Proceeds .....	27
Article 7—Contractor’s Responsibilities .....		27
7.01	Contractor’s Means and Methods of Construction .....	27
7.02	Supervision and Superintendence .....	28
7.03	Labor; Working Hours .....	28
7.04	Services, Materials, and Equipment .....	28
7.05	“Or Equals” .....	29
7.06	Substitutes .....	30
7.07	Concerning Subcontractors and Suppliers .....	31
7.08	Patent Fees and Royalties .....	32
7.09	Permits .....	33
7.10	Taxes .....	33
7.11	Laws and Regulations.....	33
7.12	Record Documents.....	34
7.13	Safety and Protection .....	34
7.14	Hazard Communication Programs .....	35
7.15	Emergencies .....	35
7.16	Submittals .....	36
7.17	Contractor’s General Warranty and Guarantee .....	38
7.18	Indemnification .....	39
7.19	Delegation of Professional Design Services .....	40
Article 8—Other Work at the Site.....		41
8.01	Other Work .....	41
8.02	Coordination .....	41
8.03	Legal Relationships.....	42

Article 9—Owner’s Responsibilities .....	43
9.01 Communications to Contractor .....	43
9.02 Replacement of Engineer .....	43
9.03 Furnish Data .....	43
9.04 Pay When Due.....	43
9.05 Lands and Easements; Reports, Tests, and Drawings .....	43
9.06 Insurance.....	43
9.07 Change Orders .....	43
9.08 Inspections, Tests, and Approvals.....	44
9.09 Limitations on Owner’s Responsibilities .....	44
9.10 Undisclosed Hazardous Environmental Condition.....	44
9.11 Evidence of Financial Arrangements.....	44
9.12 Safety Programs .....	44
Article 10—Engineer’s Status During Construction .....	44
10.01 Owner’s Representative.....	44
10.02 Visits to Site.....	44
10.03 Resident Project Representative.....	45
10.04 Engineer’s Authority .....	45
10.05 Determinations for Unit Price Work .....	45
10.06 Decisions on Requirements of Contract Documents and Acceptability of Work .....	45
10.07 Limitations on Engineer’s Authority and Responsibilities .....	45
10.08 Compliance with Safety Program.....	46
Article 11—Changes to the Contract .....	46
11.01 Amending and Supplementing the Contract .....	46
11.02 Change Orders .....	46
11.03 Work Change Directives.....	47
11.04 Field Orders.....	47
11.05 Owner-Authorized Changes in the Work .....	47
11.06 Unauthorized Changes in the Work.....	48
11.07 Change of Contract Price .....	48
11.08 Change of Contract Times.....	49
11.09 Change Proposals .....	49
11.10 Notification to Surety.....	51

Article 12—Claims.....	51
12.01    Claims.....	51
Article 13—Cost of the Work; Allowances; Unit Price Work .....	52
13.01    Cost of the Work .....	52
13.02    Allowances .....	56
13.03    Unit Price Work.....	56
Article 14—Tests and Inspections; Correction, Removal, or Acceptance of Defective Work .....	57
14.01    Access to Work.....	57
14.02    Tests, Inspections, and Approvals.....	57
14.03    Defective Work .....	58
14.04    Acceptance of Defective Work.....	58
14.05    Uncovering Work .....	59
14.06    Owner May Stop the Work .....	59
14.07    Owner May Correct Defective Work.....	59
Article 15—Payments to Contractor; Set-Offs; Completion; Correction Period .....	60
15.01    Progress Payments.....	60
15.02    Contractor’s Warranty of Title .....	63
15.03    Substantial Completion.....	63
15.04    Partial Use or Occupancy .....	64
15.05    Final Inspection .....	65
15.06    Final Payment.....	65
15.07    Waiver of Claims .....	66
15.08    Correction Period .....	67
Article 16—Suspension of Work and Termination .....	68
16.01    Owner May Suspend Work .....	68
16.02    Owner May Terminate for Cause.....	68
16.03    Owner May Terminate for Convenience.....	69
16.04    Contractor May Stop Work or Terminate .....	69
Article 17—Final Resolution of Disputes .....	70
17.01    Methods and Procedures.....	70
Article 18—Miscellaneous .....	70
18.01    Giving Notice .....	70
18.02    Computation of Times.....	70

18.03	Cumulative Remedies .....	70
18.04	Limitation of Damages .....	71
18.05	No Waiver .....	71
18.06	Survival of Obligations .....	71
18.07	Controlling Law .....	71
18.08	Assignment of Contract.....	71
18.09	Successors and Assigns .....	71
18.10	Headings.....	71

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## 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*—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 format.
  - 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 to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
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.
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.
  - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service 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 four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

### 2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise 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. 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.

## **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 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

### 4.02 *Starting the Work*

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

### 4.03 *Reference Points*

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

### 4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
  - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times 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.

## **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 of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
  - 2. Those drawings 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 and 4.05.E.
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:* 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. identify and communicate with the owner of the Underground Facility; 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; and
  - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, 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 Contractor's obligations under the Contract. These bonds must 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 terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, 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 must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. 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.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

### 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. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages 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, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages 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, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. 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, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. 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.
- H. Contractor shall require:
  - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain 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.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) 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 will be adjusted accordingly.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, 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 and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
  1. include at least the specific coverages required;
  2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, 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;

4. apply with respect to the performance of the Work, whether such performance is 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; and
  5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds*: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
  2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
  3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);
  4. not seek contribution from insurance maintained by the additional insured; and
  5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

#### 6.04 *Builder's Risk and Other 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 Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.



- 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 advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. 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 6.04, it may do so at Contractor's expense.

#### 6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer 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.
  - 1. 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, risks, 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 individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater 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.
  - 2. None of the above waivers extends 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. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, 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, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. 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 all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights 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 insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract 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 fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

**6.06**    *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 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 6.04 shall maintain such proceeds in a segregated account, and 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, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

**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, which will not be unreasonably withheld.

**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 5 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.

#### **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, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 7.09 *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 or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  2. An itemization of the specific matters to be covered by such authority and responsibility; and
  3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

### 8.03 *Legal Relationships*

- A. If, in the course of performing other work 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 when they are due as provided in the Agreement.

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

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

### **9.06    *Insurance***

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

### **9.07    *Change Orders***

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (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*
    - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment,

machinery, or parts must cease when the use thereof is no longer necessary for the Work.

- 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
  - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed 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, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. 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 will 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*
  - 1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
    - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

- b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

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



5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

**E. *Reductions in Payment by Owner***

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. Claims have been made against Owner 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 certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
  - 1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.

2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

#### 15.05 *Final Inspection*

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

#### 15.06 *Final Payment*

##### A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), 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 and issuance of notice of the acceptability of the Work.
- 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 within 30 days of Owner's receipt of the final Application for Payment from Engineer.

#### 15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- 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 any such notice of defect within 60 days of the discovery 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 for 30 days to pay Contractor any sum finally determined to be due, 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 for 30 days to pay Contractor any sum finally determined to be due, 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, with the words "Formal Notice" or similar in the e-mail's subject line.

### 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.

## SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (C-700, 2007 Edition) and other provisions of the Contract Documents as indicated below. All provisions, which are not so amended or supplemented, remain in full force and effect.

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

### TABLE OF CONTENTS

ARTICLE SC-1, DEFINITIONS AND TERMINOLOGY .....	1
ARTICLE SC-2, PRELIMINARY MATTERS .....	2
ARTICLE SC-3, CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE .....	2
ARTICLE SC-4, AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS .....	3
ARTICLE SC-5, BONDS AND INSURANCE .....	4
ARTICLE SC-6, CONTRACTOR'S RESPONSIBILITIES .....	5
ARTICLE SC-9, ENGINEER'S STATUS DURING CONSTRUCTION .....	8
ARTICLE SC-11, COST OF THE WORK, CASH ALLOWANCES; UNIT PRICE WORK .....	8
ARTICLE SC-12, CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES .....	8
ARTICLE SC-14, PAYMENTS TO CONTRACTOR AND COMPLETION .....	9
ARTICLE SC-16, DISPUTE RESOLUTION .....	9

### ARTICLE SC-1, DEFINITIONS AND TERMINOLOGY

The Specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.

SC-1.01.A.3. Add the following language to the end of Paragraph 1.01.A.3:

The Application for Payment form to be used on this Project is EJCDC No. C-620. Contractor may use their standard computerized forms for providing detail payment breakdown as an attachment to summary sheet.

SC-1.01.A.9. Add the following language to the end of Paragraph 1.01.A.9:

The Change Order form to be used on this Project is EJCDC No. C-941.

Add the following definitions to the General Conditions:

A.52 The term "minority business" means a business:

- a. In which at least fifty-one percent (51%) is owned by one or more minority persons or socially and economically disadvantaged individuals, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and
- b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals

who own it.

- A.53 The term "minority person" means a person who is a citizen or lawful permanent resident of the United States and who is:
- a. Black, that is, a person having origins in any of the black racial groups in Africa;
  - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
  - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, or the Pacific Islands;
  - d. American Indian, that is, a person having origins in any of the original Indian peoples of North America; or
  - e. Female.
- A.54 The term "socially and economically disadvantaged individual" means the same as defined in 15 U.S.C. 637; "Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities". "Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged."
- A.55 Notice of Violation: A written notification from a governmental agency that the Owner has violated a law or regulation that the agency has jurisdiction over. Notice will take the form used by the agency and may outline action to be taken by the Owner to correct the violation and may include a monetary fine.
- A.56 Regular Working Hours: Regular working hours for the project are defined as 8:00 am to 5:00 pm, Eastern Standard Time.

#### ARTICLE SC-2, PRELIMINARY MATTERS

SC-2.02 Delete the word "ten" and insert "five" in its place in paragraph 2.02.

SC-2.03.A Delete paragraph 2.03.A in its entirety and insert the following in its place:

2.03.A The Contract Times will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed will be issued at any time within 30 days after the Effective Date of the Agreement or a date agreed to by the Owner and Contractor.

#### ARTICLE SC-3, CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

SC-3.01.B Add the following paragraph 3.01.B.1 to the General Conditions:

3.01.B.1 Division 1, General Requirements, govern the execution of the work of all sections of the specifications.

#### ARTICLE SC-4, AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

SC 4.01 Add the following paragraph 4.01.D to the General Conditions:



SC 4.02 Delete paragraph 4.02 in its entirety and insert the following in its place:

SC 4.02 Add the following new paragraph(s) immediately after paragraph 4.02.B:

- C. In the preparation of Drawings and Specifications, Engineer or Engineer's Consultants relied upon the following reports of explorations and tests of subsurface conditions at the Site:

Report of Subsurface Exploration and Geotechnical Evaluation – Durwood Stephenson Water Line

**List Reports**

- D. In the preparation of Drawings and Specifications, Engineer or Engineer's Consultants relied upon the following drawings of physical conditions to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the site of the Work.

**List Drawings**

SC-4.04.A.2 The following shall be added to paragraph 4.04.A.2:

- a. Contractor shall follow the North Carolina General Statutes, Chapter 87, Article 8 Underground Damage Prevention.
- b. Notifying owners of underground facilities prior to start of Work.  
Investigating ahead of the Work to verify the existence of Underground Facilities.
- c. Assuming risks and repairing damage caused by the Work to existing Underground Facilities whether indicated or not in the Contract Documents. Repairs to Underground Facilities shall be done to the satisfaction of the Underground Facility owner and may require material and methods, which are better than the existing Facility. Underground Facility owner reserves the right to repair damage by the Contractor to their underground Facilities. If the Owner exercises this right, the owner's cost of this Work shall be deducted from the money due the Contractor.
- d. Uncovering Underground Facilities, with that owners approval, that are located within the Work as necessary for Engineer to determine the requirements for the change in the work.

SC 4.06 Delete paragraph 4.06.A and 4.06.B in their entirety and insert the following:

- A. No reports or drawings of Hazardous Environmental Conditions at or contiguous to the Site are known to the Owner or Engineer.
- B. Not used.

SC-4.07 Add the following new paragraph after SC-4.06:

SC-4.07 Miscellaneous Site Conditions

- A. The Contractor shall perform video inspections and take photographs of the proposed construction areas before disturbing the site in order to establish an accurate record of the pre-construction conditions for comparison to the final work. The Contractor shall provide the Owner with copies of all video and photographic records at the appropriate times (i.e., pre-construction and post-construction). The cost of video and photographic work shall be

incidental to the contract and no separate payment will be made by the Owner.

**ARTICLE SC-5. BONDS AND INSURANCE**

SC-5.01 Add the following paragraphs immediately following paragraph 5.01.C

D. The **Name of Contractor** shall provide the following Bonds in addition to the Performance and Payment Bonds required in the General Conditions:

1. A Performance and Indemnity Bond shall be expected and posted with the N.C. Division of Highways in the amount as required in the Project Encroachment Contract as attached to the end of this Section.

SC-5.04 Add the following new paragraphs immediately after paragraph 5.04.B:

C. Limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Worker's Compensation, and related coverage under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:
  - a. State: Statutory - Per the Workers' Compensation Laws of the State of North Carolina.
  - b. Applicable Federal (e.g., Longshoremen's) Statutory
  - c. Employers Liability: \$500,000
  
2. Contractor's General Liability under paragraphs 5.04.A.3 through 5.04.A.6 of the General Conditions, which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of the Contractor:
 

a. General Aggregate	\$2,000,000.00
b. Products & Completed Operations Aggregate	\$1,000,000.00
c. Personal & Advertising Injury	\$1,000,000.00
d. Each Occurrence (Bodily Injury & Property Damage)	\$1,000,000.00
e. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable.	
f. Excess or Umbrella Liability	
1) General Aggregate	\$5,000,000.00
2) Each Occurrence	\$5,000,000.00
  
3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:
 

a. Bodily Injury:	
Each person	\$1,000,000.00
Each Accident	\$1,000,000.00
b. Property Damage:	
Each Accident	\$1,000,000.00

- OR (i.e., either a. and b. or c.)
- c. Combined Single Limit of \$1,000,000.00
  
  - 4. The Contractual Liability coverage required by Paragraph 5.04.B.3 of the General Conditions shall provide coverage for not less than the following amounts:
    - a. Bodily Injury:
      - Each person \$2,000,000.00
      - Each Accident \$2,000,000.00
    - b. Property Damage:
      - Each Accident \$2,000,000.00
      - Annual Aggregate \$2,000,000.00
  
    - Pollution Liability \$2,000,000.00

SC-5.06.A Delete paragraph 5.06.A in its entirety.

SC-5.06 Add the following paragraph immediately following paragraph 5.06.E.

F. Insurance policies provided under 5.06 shall include flood insurance for all Work in the flood plain

#### ARTICLE SC-6. CONTRACTOR'S RESPONSIBILITIES

SC-6.02 Add the following paragraphs after 6.02.B:

- C. Overtime Work: If Contractor's Work requires inspection as determined by the Engineer more than 10 hours in a work day or 40 hours in a work week, Monday through Friday excluding holidays, or on the weekends he shall submit a written request to the Engineer five (5) working days prior to the scheduled Work. Contractor shall pay for the Resident Project Representative's time beyond the above hours at the rate of \$90.00 / hour.
  
- D. The above will not prevent the Contractor from working outside the above time that will not require the inspector to be present. Such work may include; start up, clean up, seeding, painting (after the base surface has been approved by the inspector), and similar items. Contractor shall obtain approval of Work to be performed outside of the above work hours.
  
- E. Contractor shall not be charged for inspector's time for Work specifically identified by the Contract Documents to be performed outside the above Work time or on weekends.

SC-6.05.C Amend the paragraph by creating two sub-paragraphs under the title "C. Engineer's Evaluation." The paragraph text shall be retitled "6.05.C.2 *After Effective Date of Agreement*". A new paragraph is added before this paragraph to read as follows:

- 1. *During Bidding*. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or "or-equal" materials and equipment as defined in paragraph 6.05 of the General Conditions, or those substitute materials and equipment approved by the Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function, and quality to be met by any proposed substitute or "or-equal" item. Request for Engineer's clarification of materials and equipment considered "or-equal"

prior to the Effective Date of the Agreement must be received by the Engineer at least 5 days prior to the date for receipt of Bids. No item of material or equipment will be considered by Engineer as a substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon the Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

SC-6.06.B Add the following sentence(s) at the end of paragraph 6.06.B:

1. Bidder shall indicate subcontractors for General work as required on the Bid Form.
2. Bidder shall indicate Minority Business Participation on the attachment to the Bid Forms. Low Bidder shall be required to submit the following Affidavits as attached to the end of this section:
  - a. Affidavit C, Portion of the Work to be Performed by Minority Firms.
  - b. Affidavit D, Good Faith Efforts
3. Contractor whose Bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the Bid, except:
  - a. If the listed subcontractor's bid is later determined by the Contractor to be nonresponsive or non-responsive, or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work; or
  - b. With the approval of the awarding authority for good cause shown by the Contractor.

SC-6.06.C.3 Add the following paragraph immediately after paragraph 6.06.C2:

3. Owner or Engineer may furnish to any such Subcontractor or Supplier to the extent practical, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

SC-6.06 Add a new paragraph immediately after Paragraph 6.06.G:

- H. The Contractor shall not award work valued at more than fifty (50%) percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.

SC-6.08 Add the following paragraph after 6.08.A:

- B. Owner shall obtain and pay for the following permits:
  1. N.C. DOT Driveway Permit
  2. NCDEQ Erosion Control Permit (project site only)
  3. USACE 404 Permit
  4. DWQ 401 / Buffer Authorization Permit
  6. PWS Water System Extension Permit
  9. N.C. DOT Encroachment Agreement

These permits are made part of this contract and attached to the end of this Section. This paragraph does not relieve Contractor of his responsibility to comply with applicable Laws and Regulations as stated in Paragraph 6.09.

SC-6.09 Add the following paragraph(s) after 6.09.C:

- D. Contractor shall be responsible for conforming to the requirements of the approved sedimentation control plan, the rules and regulations of the Erosion Control Laws of the State of North Carolina, specifically the Sedimentation Pollution Control Act of 1973 (G.S. 113A) as amended, and the local jurisdiction where the project is located as it relates to land disturbing activities undertaken by Contractor. Contractor shall be responsible to Owner for any fines imposed on Owner as a result of Contractor's failure to comply with the above as it is further described in the Erosion Control Section of the Specifications.
- E. Contractor shall be responsible for conforming to the requirements (including associated construction costs) of the N.C. Department of Transportation Encroachment Agreement, Railroad Encroachment Agreement (s), and all other local, state, and federal permits associated with the project.
- F. Should the Contractor cause the Owner to receive a Notice of Violation from a governmental agency, Contractor shall pay costs associated with Notice of Violation within ten (10) days of receipt of written notification. Costs shall include, but not be limited to:
  - 1. Fines imposed on the Owner by the agency.
  - 2. Required legal newspaper publications concerning violation.
  - 3. Required mailings to customers concerning notification of violation.
  - 4. Administrative, engineering, and construction costs associated with resolving the Notice of Violation.
- G. Notice of Violation may include, but not be limited to, the following problems:
  - 1. Sewage spill.
  - 2. Inadequate erosion control measures.
  - 3. Equipment failure during the warranty period.
  - 4. Failure of treatment facilities to meet treatment requirements.

SC-6.12 Add a new paragraph after paragraph 6.12.A:

- B. Record Documents shall be updated daily. Should the Engineer determine that the Record Documents are not being properly maintained, approval of future payment requests shall be withheld.

SC-6.17 Add the following new paragraphs immediately after Paragraph 6.17.E:

- F. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing subsequent submittals of Shop Drawings, samples or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time.
- G. In the event that Contractor requests a substitution for a previously approved item, Contractor shall reimburse Owner for Engineer's charges for such time unless the need for such substitution is beyond the control of Contractor.

#### ARTICLE SC-9, ENGINEER'S STATUS DURING CONSTRUCTION

SC-9.03.A Add the following language at the end of paragraph 9.03.A:

The Engineer will provide Resident Project Representative services for this project. The Duties, Responsibilities, and Limitations of Authority of the Resident Project Representative will be as stated in Exhibit D of the Agreement Between Owner and Engineer, E-500, 2008 Edition, as amended and executed for this specific Project.

**ARTICLE SC-11, COST OF THE WORK, CASH ALLOWANCES; UNIT PRICE WORK**

SC-11.01.A.5.c, Delete Paragraph 11.01.A.5.c in its entirety and insert the following in its place:

**C. Construction Equipment and Machinery:**

1. Rentals of all construction equipment and machinery, and the parts thereof 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.

2. Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the Rental Rate Blue Book (latest edition). An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

SC-11.03.D.1 Delete Paragraph 11.03.D.1 in its entirety and insert the following in its place:

1. if the Bid price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and

**ARTICLE SC-12, CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

SC-12.02 Add the following paragraph after 12.02.B:

- C. Time Extension: Contract time extensions for weather delays do not entitle Contractor to "extended overhead" recovery.

SC-12.03 Add the following paragraphs after 12.03.E:

F. Time extension for weather delays due to rain shall only be considered for above average precipitation. NOAA Report No. 20 shall be used to determine the average number of days with precipitation greater than or equal to 0.10 inch for each month. A link to this report is as follows: [http://cdo.ncdc.noaa.gov/climate\\_normals/clim20/statepdf/nc.pdf](http://cdo.ncdc.noaa.gov/climate_normals/clim20/statepdf/nc.pdf).

G. Claims for additional Contract Time for delays beyond the Contractor's control shall be submitted in accordance with Article 10 of the General Conditions with the Contractor's monthly pay request. Submittal shall include the number of days requested and the reason for the delay. Engineer shall notify the Owner and Contractor of his decision in

accordance with Article 10 of the General Conditions. Approval of time shall be included in a Change Order.

ARTICLE SC-14. PAYMENTS TO CONTRACTOR AND COMPLETION

SC-14.02.A Add the following to the end of paragraph 14.02.A.3:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage, or invest the retainage for the benefit of the Contractor.

SC-14.02.A Add the following new paragraph after paragraph 14.02.A.3:

4. The Application for Payment form to be used on this project is EJCDC No. C-620. The Agency must approve all Applications for Payment before payment is made.

SC-14.02.C Delete paragraph 14.02.C.1 in its entirety and insert the following in its place:

1. The Application for Payment with Engineer's recommendations will be presented to the Owner and Agency for consideration. If both the Owner and Agency find the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 14.02.D will become due 20 days after the Application for Payment is presented to the Owner, and the Owner will make payment to the Contractor.

ARTICLE SC-16. DISPUTE RESOLUTION

SC-16.01.A, Delete the second and third sentence in Paragraph 16.01 A.

SC-16.01.B, Delete Paragraph 16.01.B in its entirety and replace it with the following:

- B. Disputes shall be resolved in accordance with the dispute resolution process adopted on February 26, 2002 by the N. C. State Building Commission. The "Rules Implementing Mediated Settlement Conferences in North Carolina Public Construction Projects" are attached to this section.

SC-16.01.C, Delete Paragraph 16.01.C in its entirety and replace it with the following:

- C. All parties agree that only the North Carolina courts shall have jurisdiction over the Contract and any controversies arising out of this Contract and this agreement shall be governed by and construed in accordance with the laws of the State of North Carolina.

END OF DOCUMENT

## REQUIREMENTS FOR CERTIFICATE OF INSURANCE

**VENDOR - IMPORTANT** - Work will not be permitted until the Town of Smithfield receives an acceptable Certificate of Insurance. Give this information to your insurance agent/broker.

THE CONTRACTOR, AT ITS SOLE EXPENSE, SHALL PROVIDE AN ORIGINAL SIGNED CERTIFICATE OF INSURANCE.

1. WORKERS' COMPENSATION - STATUTORY LIMITS - EMPLOYERS' LIABILITY - \$1,000,000.

2. COVERAGE SHALL BE PROVIDED UNDER A COMPREHENSIVE GENERAL LIABILITY OR COMMERCIAL GENERAL LIABILITY AND AUTOMOBILE LIABILITY FORM OF INSURANCE, SUCH AS IS USUAL TO THE PRACTICE OF THE INSURANCE INDUSTRY, INCLUDING (BUT NOT LIMITED TO) ALL THE USUAL COVERAGE REFERRED TO AS:

- \* Comprehensive/Commercial Form;
- \* Premises/Operations Liability (M&C);
- \* Underground Explosion & Collapse Hazard;
- \* Products/Completed Operations;
- \* Blanket Contractual;
- \* Broad Form Property Damage;
- \* Personal Injury;
- \* Automobile Liability, Including Coverage for owned, non-owned, leased or hired vehicles, and
- \* Garage/Garage keepers, Bailers, or Ship keepers Liability, if applicable.

3. MINIMUM LIMITS OF PROTECTION MUST BE:

\$1,000,000 per occurrence /\$2,000,000 aggregate --- Bodily Injury Liability, and  
\$ 100,000 --- Property Damage Liability, or  
\$1,000,000 per occurrence /\$2,000,000 aggregate---Combined Single Limit  
Bodily Injury and Property Damage

4. BUILDER'S "ALL RISK" COVERAGE

100% of Contract Sum

5. POLICY PERIOD MUST COVER THE TERM OF CONTRACT



6. THE TOWN OF SMITHFIELD SHALL BE GIVEN NOT LESS THAN 30 DAYS NOTICE OF ANY CHANGE, CANCELLATION, EXPIRATION, OR RENEWAL OF THE POLICY.
7. A. A copy of the fully completed Endorsement must be provided. The Endorsement must name the Town of Smithfield as an Additional Insured, identify the policy number and be signed by an authorized representative. The Certificate of Insurance and Endorsement must be submitted as one document. To expedite approval, a Binder (ACORD #75) for the Endorsement will be accepted for 90 days until the actual policy is issued.

--Or--

- B. The broker/agent submits a certified copy of the insurance policy, which includes the Town of Smithfield as an additional insured.

Send your Certificate of Insurance with endorsement to:  
**Town of Smithfield – Attn: Accounts Payable**  
**350 East Market Street**  
**Smithfield, NC 27577**

**END OF SPECIAL CONDITIONS**

## BID FORM

SINGLE PRIME  
GENERAL CONSTRUCTION CONTRACT  
PROPOSAL  
to the  
Town of Smithfield

**CONSTRUCTION OF  
TOWN OF SMITHFIELD  
PUMP STATION #1 & FORCE MAIN IMPROVEMENTS  
SMITHFIELD, NORTH CAROLINA**

IFB NO.: 175568555

BID FROM: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

1. The undersigned BIDDER agrees, if this Bid is accepted, to enter into an agreement with OWNER, in the form included in the Bidding Documents, to perform and furnish the work as specified or indicated in the Bidding Documents for the Bid Price and within the Bid Times indicated in this Bid in accordance with the other terms and conditions of the Contract Documents.
2. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
  - a) This Bid will remain subject to acceptance for ninety (90) days after the day of Bid opening;
  - b) The Owner has the right to reject this bid;
  - c) Accompanying this proposal is a certified check (or bid bond) for \$\_\_\_\_\_, which represents not less than five (5) percent of the aggregate amount of the proposal. Said check, or the full amount of the bond, shall become the property of County and be retained by the County in the event of withdrawal of the bid after the public opening or should the undersigned fail to execute a contract with the County and give satisfactory surety within fifteen (15) days after the award. Otherwise, said check or bid bond, to be returned to the undersigned. The undersigned agree, if awarded the contract, to deliver satisfactory surety bond in the amount equal to not less than 100 per cent of the contract within fifteen (15) days after Notice of Award;
  - d) BIDDER will sign and submit the Agreement with the Bonds and other documents within 15 days after the date of the Owner's Notice of Award;
  - e) BIDDER has examined copies of all the Bidding Documents.

- f) BIDDER has visited the site and become familiar with the general and local site conditions;
- g) BIDDER is familiar with federal, state, and local laws and regulations;
- h) BIDDER **certifies that no federal excise or state sales taxes have been included in this bid**;
- i) BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports and drawings identified in the Bidding Documents and additional examinations, investigations, tests, studies and data with the Bidding Documents;
- j) BIDDER certifies that this proposal is made in good faith and without collusion or connection with any other person bidding on the same work, or that any official or employee of the Town of Smithfield will be admitted to any share or part of the contract or any benefits that may arise therefrom if the contract is awarded to this company;
- k) BIDDER acknowledges receipt of the following **Addenda**, which have been considered in the preparation of this Bid:

No: _____	Dated: _____
No: _____	Dated: _____
No: _____	Dated: _____
No: _____	Dated: _____
No: _____	Dated: _____
No: _____	Dated: _____
No: _____	Dated: _____

Dated in \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 2026.

3. BIDDER will complete the work in accordance with the Contract Documents for the following price(s):

**BASE CONTRACT – PUMP STATION #1**

Item	Description	Quantity	Unit Price	Total Cost
1.	<b>WASTEWATER PUMP STATION</b>			
A	TRIPLEX SUBMERSIBLE PUMPS, VALVES, FITTINGS, SCREENING, LANDSCAPING, SITE IMPROVEMENTS, ELECTRICAL, GENERATOR SET, FLOW METER, WETWELL, VAULTS AND ALL APPURTENANCES AS INDICATED ON THE PLANS	1 LS	\$ _____ /LS	\$ _____
2.	<b>PUMP STATION ABANDONMENT</b>	1 LS	\$ _____ /LS	\$ _____
3.	<b>FOR BYPASS PUMPING THROUGHOUT DURATION OF PROJECT, INCLUDING PS ABANDONMENT AND CONSTRUCTION OF NEW PS, AS SPECIFIED, COMPLETE IN PLACE.</b>	1 LS	\$ _____ /LS	\$ _____
4	<b>SUBTOTAL (ITEMS 1 THROUGH 3)</b>			\$ _____
5	<b>MOBILIZATION (3% OF ITEM 4)</b>			\$ _____
6	<b>SUBTOTAL ITEMS 4 AND 5</b>			\$ _____
<b>TOTAL BASE BID (PUMP STATION #1)</b>				\$ _____

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In words (Base Bid Pump Station #1)

**ALTERNATE NO. 1 – FORCE MAIN IMPROVEMENTS**

Item	Description	Quantity	Unit Price	Total Cost
1.	<b>FOR FURNISHING AND INSTALLING 20-INCH RESTRAINED JOINT DUCTILE IRON FORCE MAIN PIPE, AS SPECIFIED, COMPLETE IN PLACE.</b>			
A	0-4 FEET DEEP	1,000 LF	\$_____ /LF	\$_____
B	4-8 FEET DEEP	7,800 LF	\$_____ /LF	\$_____
C	8-12 FEET DEEP	950 LF	\$_____ /LF	\$_____
D	GREATER THAN 12 FEET DEEP	25 LF	\$_____ /LF	\$_____
E	12" DI PLUG VALVE	6 EA	\$_____ /EA	\$_____
F	20" DI FITTINGS	9 TONS	\$_____ /TON	\$_____
G	AUTOMATIC AIR RELIEF VALVES	6 EA	\$_____ /EA	\$_____
H	12" DI Pipe, RJ	100 LF	\$_____ /LF	\$_____
I	12" DI Fittings	2 TONS	\$_____ /TON	\$_____
2	<b>ANTI SEEPAGE COLLARS AT CREEK CROSSING</b>	6 EA	\$_____ /EA	\$_____
3	<b>CONCRETE BLOCKING, AS SPECIFIED, COMPLETE IN PLACE</b>	15 CY	\$_____ /CY	\$_____
4	<b>FOR TRENCHLESS INSTALLATION OR JACK AND BORE WITH 32" STEEL ENCASEMENT PIPE WITH 20" DUCTILE IRON CARRIER PIPE, AS SPECIFIED, COMPLETE IN PLACE (STA 10+32 TO STA 11+47)</b>			

A	32" STEEL ENCASEMENT WITH 20" RJ DIP CARRIER PIPE	115 LF	\$_____ /LF	\$_____
B	BORE PIT 5' DEEP	2 EA	\$_____ /EA	\$_____
C	BORE PIT ADDITIONAL DEPTH	12 VF	\$_____ /VF	\$_____
D	BORE PIT MOBILIZATION FOR UNSUCCESSFUL BORES, AS SPECIFIED	1 EA	\$_____ /EA	\$_____
E	GROUT INCOMPLETE CASING, AS SPECIFIED	1 EA	\$_____ /EA	\$_____
<b>5</b>	<b>FOR TRENCHLESS INSTALLATION OR JACK AND BORE WITH 32" STEEL ENCASEMENT PIPE WITH 20" DUCTILE IRON CARRIER PIPE, AS SPECIFIED, COMPLETE IN PLACE (STA 30+91 TO STA 31+98)</b>			
A	32" STEEL ENCASEMENT WITH 20" RJ DIP CARRIER PIPE	107 LF	\$_____ /LF	\$_____
B	BORE PIT 5' DEEP	2 EA	\$_____ /EA	\$_____
C	BORE PIT ADDITIONAL DEPTH	17 VF	\$_____ /VF	\$_____
D	BORE PIT MOBILIZATION FOR UNSUCCESSFUL BORES, AS SPECIFIED	1 EA	\$_____ /EA	\$_____
E	GROUT INCOMPLETE CASING, AS SPECIFIED	1 EA	\$_____ /EA	\$_____
<b>6</b>	<b>FOR TRENCHLESS INSTALLATION OR JACK AND BORE WITH 32" STEEL ENCASEMENT PIPE WITH 20" DUCTILE IRON CARRIER PIPE, AS SPECIFIED, COMPLETE IN PLACE (STA 45+56 TO STA 46+38)</b>			
A	32" STEEL ENCASEMENT WITH 20" RJ DIP CARRIER PIPE	82 LF	\$_____ /LF	\$_____
B	BORE PIT 5' DEEP	2 EA	\$_____ /EA	\$_____

C	BORE PIT ADDITIONAL DEPTH	17 VF	\$_____ /VF	\$_____
D	BORE PIT MOBILIZATION FOR UNSUCCESSFUL BORES, AS SPECIFIED	1 EA	\$_____ /EA	\$_____
E	GROUT INCOMPLETE CASING, AS SPECIFIED	1 EA	\$_____ /EA	\$_____
7	<b>CONNECTION TO EXISTING MANHOLE AT CENTRAL JOHNSTON COUNTY REGIONAL WWTP, AS SPECIFIED, COMPLETE IN PLACE</b>	1 EA	\$_____ /EA	\$_____
8	<b>FOR FURNISHING MATERIALS, EQUIPMENT, AND LABOR TO PRESSURE TEST NEW FORCE MAIN</b>			
A	20-INCH	9,382 LF	\$_____ /LF	\$_____
9	<b>FOR STONE STABILIZATION MATERIAL, AS SPECIFIED, COMPLETE IN PLACE</b>			
A	STONE STABILIZATION	500 TON	\$_____ /TON	\$_____
10	<b>FOR FURNISHING SELECT BACKFILL, AS SPECIFIED, COMPLETE IN PLACE</b>			
A	SELECT BACKFILL	4,000 CY	\$_____ /CY	\$_____
11	<b>FOR LOCATING UNDERGROUND UTILITIES, AS SPECIFIED, COMPLETE IN PLACE.</b>			
A	UTILITY LOCATIONS	20 EA	\$_____ /EA	\$_____
12	<b>FOR RELOCATING UNDERGROUND UTILITIES, AS SPECIFIED, COMPLETE IN PLACE.</b>			
A	UNDERGROUND TELEPHONE CABLES	50 LF	\$_____ /LF	\$_____
B	UNDERGROUND ELECTRIC POWER CABLES	50 LF	\$_____ /LF	\$_____

C	UNDERGROUND TV CABLES	50 LF	\$ _____ /LF	\$ _____
D	UNDERGROUND PLASTIC GAS LINES	50 LF	\$ _____ /LF	\$ _____
E	WATER LATERALS	50 LF	\$ _____ /LF	\$ _____
F	SANITARY SEWER LATERALS	50 LF	\$ _____ /LF	\$ _____
<b>13</b>	<b>FOR STORM DRAIN REPLACEMENT, AS SPECIFIED, COMPLETE IN PLACE</b>			
A	18" DIAMETER AND SMALLER	50 LF	\$ _____ /LF	\$ _____
B	24" DIAMETER AND LARGER	50 LF	\$ _____ /LF	\$ _____
<b>14</b>	<b>FOR SOLID ROCK EXCAVATION, AS SPECIFIED, COMPLETE IN PLACE (\$40/CY MINIMUM)</b>			
A	BASE REMOVAL	100 CY	\$ _____ /CY	\$ _____
B	FOR ADDITIONAL REMOVAL BEYOND 100 CY	200 CY	\$ _____ /CY	\$ _____
C	FOR EXPLORATORY DRILLING	400 VF	\$ _____ /VF	\$ _____
<b>15</b>	<b>FOR CLEARING RIGHT OF WAY AND GRUBBING UNDERBRUSH, AND TREE REMOVAL, AS SPECIFIED</b>			
A	CLEARING	42,420 SY	\$ _____ /SY	\$ _____
<b>16</b>	<b>FOR REPLACEMENT OF EXISTING TREES</b>			
A	TREE REPLACEMENT	10 EA	\$ _____ /EA	\$ _____
<b>17</b>	<b>FOR CONSTRUCTING AND MAINTAINING VARIOUS EROSION CONTROL DEVICES, TEMPORARY TREE PROTECTION, AS SPECIFIED</b>			



A	SILT FENCE	9,230 LF	\$ _____ /LF	\$ _____
B	SILT FENCE STONE OUTLET	10 EA	\$ _____ /EA	\$ _____
C	STONE SILT CHECK DAMS	10 EA	\$ _____ /EA	\$ _____
D	ROCK PIPE INLET PROTECTION	10 EA	\$ _____ /EA	\$ _____
E	CONSTRUCTION ENTRANCE	3 EA	\$ _____ /EA	\$ _____
F	EMBANKMENT MATTING	500 SY	\$ _____ /SY	\$ _____
G	TREE PROTECTION FENCING	1,000 LF	\$ _____ /LF	\$ _____
<b>18</b>	<b>FOR FERTILIZING, SEEDING AND MULCHING, AS SPECIFIED</b>			
A	FERTILIZING, SEEDING AND MULCHING	26,490 SY	\$ _____ /SY	\$ _____
<b>19</b>	<b>FOR SEEDING AS SPECIFIED (WETLANDS)</b>			
A	PERMANENT SEEDING	14,830 SY	\$ _____ /SY	\$ _____
B	TEMPORARY SEEDING	14,830 SY	\$ _____ /SY	\$ _____
C	PLANTINGS	14,830 SY	\$ _____ /SY	\$ _____
<b>20</b>	<b>FOR CUTTING AND REPLACING EXISTING ASPHALT, CONCRETE CURB AND GUTTER</b>			
A	ASPHALT CUTTING AND REPLACEMENT, FULL SECTION WITHIN TRENCH HORIZONTAL LIMITS	90 SY	\$ _____ /SY	\$ _____
B	CONCRETE CURB REMOVAL AND REPLACEMENT	500 LF	\$ _____ /LF	\$ _____
<b>21</b>	<b>PAVEMENT MARKING LINES AND SYMBOLS</b>			

A	PAVEMENT MARKING	200 LF	\$ _____ /LF	\$ _____
22	TRAFFIC CONTROL, COMPLETE, AS SPECIFIED	1 LS	\$ _____ /LS	\$ _____
23	GRAVEL DRIVEWAY AND PATHWAY REMOVAL AND REPLACEMENT	600 SY	\$ _____ /LY	\$ _____
24	SUBTOTAL (ITEMS 1 THROUGH 23)			\$ _____
25	MOBILIZATION (3% OF ITEM 24)			\$ _____
26	SUBTOTAL ITEMS 24 AND 25			\$ _____
TOTAL ALTERNATE NO. 1 – FORCE MAIN				\$ _____

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In words (Alternate No. 1 – Force Main)

TOTAL BID (BASE BID PLUS ALTERNATE NO. 1)	\$ _____
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In words (Base Bid plus Alternate No. 1)

Pursuant to N.C.G.S. 143-128(d), all bidders shall identify on their bid the contractors they have selected for the subdivisions or branches of work for:

- |     |  |       |             |
|-----|--|-------|-------------|
| (1) | Heating, ventilating,<br>and air conditioning; | _____ | Lic.# _____ |
|     |  | _____ | Lic.# _____ |
| (2) | Plumbing                                       | _____ | Lic.# _____ |
|     |  | _____ | Lic.# _____ |
| (3) | Electrical                                     | _____ | Lic.# _____ |
|     |  | _____ | Lic.# _____ |
| (4) | Trenchless or<br>Jack & Bore                   | _____ | Lic.# _____ |
| (5) | General  | _____ | Lic.# _____ |
|     |  | _____ | Lic.# _____ |
|     |  | _____ | Lic.# _____ |
|     |  | _____ | Lic.# _____ |

A contractor whose bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the original bid, except (i) if the listed subcontractor's bid is later determined by the contractor to be non-responsive or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or (ii) with the approval of the awarding authority for good cause shown by the contractor. The terms, conditions, and requirements of each contract between the contractor and a subcontractor performing work under a subdivision or branch of work listed in this subsection shall incorporate by reference the terms, conditions, and requirements of the contract between the contractor and the Town.

4. BIDDER agrees that the Work will be substantially complete and ready for final payment in accordance with the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
5. The following documents are attached to and made a condition of the Bid:  
(a) Required Bid security in the form of \_\_\_\_\_:  
\_\_\_\_\_
6. BIDDER acknowledges the provisions in the General Conditions for Liquidated Damages of \$1,000.00 per calendar day for Final Completion.
7. **Bidder has completed and enclosed the documents as required in Item 19 on page ITB-5 of the Information to Bidders.**

SUBMITTED ON \_\_\_\_\_, 20\_\_\_\_\_.

SIGNATURE OF BIDDER:

North Carolina Contractor's License Number \_\_\_\_\_

If an Individual: \_\_\_\_\_

as: \_\_\_\_\_

If a Partnership: \_\_\_\_\_

by: \_\_\_\_\_, partner

If a Corporation: \_\_\_\_\_

(a \_\_\_\_\_ Corporation)

by: \_\_\_\_\_ Attested By: \_\_\_\_\_ (SEAL &

Title: \_\_\_\_\_ Title: \_\_\_\_\_ ATTEST)

Business Address of Bidder: \_\_\_\_\_

If Bidder is a joint venture, other party must sign below.

North Carolina Contractor's License Number \_\_\_\_\_

If an Individual: \_\_\_\_\_

\_\_\_\_\_

Doing business as: \_\_\_\_\_

If a Partnership: \_\_\_\_\_

by: \_\_\_\_\_

Title: \_\_\_\_\_

If a Corporation: \_\_\_\_\_

(a \_\_\_\_\_ Corporation)

by: \_\_\_\_\_ Attested By: \_\_\_\_\_ (SEAL &

Title: \_\_\_\_\_ Title: \_\_\_\_\_ ATTEST)

We have the following necessary and suitable equipment in good condition and ready for use on this work.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## SPECIAL NOTICE

### NORTH CAROLINA SALES TAX

The Committee Substitute for Senate Bid No. 78, passed by 1961 Legislature, requires that contractors pay North Carolina Sales Tax on materials and equipment purchased for construction of municipal work, and further provides that those taxes on certain items are refundable to municipalities under submission of proper evidence by the Owner to the North Carolina Department of Revenue. Reference is made to "Sales and Use Tax Regulation 42".

**BIDDER WILL NOT INCLUDE REFUNDABLE NORTH CAROLINA SALES TAX IN HIS OR HER LUMP-SUM BID.** The Contractor will be reimbursed at the time each monthly estimate is paid for refundable North Carolina Sales Taxes paid during any preceding month, provided he or she submits to the Owner information which will make it possible to show the sales tax as a separate item on the estimate. The tax may be shown at the bottom of the estimate in the following manner.

"Total of refundable N.C. Sales Tax paid on the above estimate amounted to \$\_\_\_\_\_."

To substantiate the payment of the sales tax indicated, the CONTRACTOR MUST IN ADDITION,

Submit a SWORN NOTARIZED statement itemizing the tax, showing each amount and to whom paid, and certifying that the articles purchased were used in the work performed for the Owner. Receipts for these amounts must be included with the estimate. Such receipts should include all taxes paid by the prime contractor and any of his subcontractors.

The above must accompany each estimate for payment and is required by the Owner in making claims for tax refunds.

Every person/business who purchases any taxable tangible personal property, taxable services or certain digital property for storage, use, or consumption in North Carolina (NC) for business use from out-of-state vendors upon which the tax has not been fully paid must register with the NC Department of Revenue and remit the balance of tax due on such purchases based on NC's sales and use tax rate. Out-of-state contractors are required to register for sales and use tax purposes with the State of NC. Registration Application, Form NC-BR, must be completed and mailed to the NC Department of Revenue. Out-of-state contractors should also seek a Certificate of Exemption or Certificate of Resale Form from their state's Department of Revenue office when purchasing taxable tangible personal property from their local state to be stored, used, or consumed in NC provided their state participates in the Streamlined Sales Tax Agreement. Out of state sales tax is not reimbursable by the state of North Carolina. For additional information on North Carolina regarding sales and use tax, please contact the NC Department of Revenue.

SALES TAX REPORT

CONTRACTOR: \_\_\_\_\_

FROM \_\_\_\_\_ TO \_\_\_\_\_

PROJECT: PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

OWNER: \_\_\_\_\_

FOR PERIOD \_\_\_\_\_, 20\_\_ TO \_\_\_\_\_, 20\_\_

VENDOR	ADDRESS	INVOICE	DATE	AMOUNT	N.C. TAX	COUNTY TAX	NAME OF COUNTY

\_\_\_\_\_ being duly sworn, certifies that the foregoing statement of sales taxes paid in connection with the referenced contract is true to the best of his or her knowledge and belief.

\_\_\_\_\_  
Signature Title

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_. My commission expires \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public



## NON-COLLUSION AFFIDAVIT

STATE OF NORTH CAROLINA  
COUNTY OF JOHNSTON

I \_\_\_\_\_, being first duly sworn, deposes and says that:

1. He/She is the \_\_\_\_\_ of \_\_\_\_\_,  
the bidder that has submitted the attached bid;
2. He/She is fully informed respecting the preparation and contents of the attached bid  
and of all pertinent circumstances respecting such bid;
3. Such bid is genuine and is not a **collusive** or **sham** bid;
4. Neither the said bidder nor any of its officers, partners, owners agents, representatives,  
employees or parties of interest, including this affiant, has in any way colluded, conspired,  
connived or agreed, directly or indirectly, with any other bidder, firm or person to submit a  
**collusive** or **sham** bid in connection with the contract for which the attached bid has been  
submitted or to refrain from bidding in connection with such contract, or has in any  
manner, directly or indirectly, sought by agreement or collusion or communication or  
conference with any other bidder, firm or person to fix the price or prices in the attached  
bid or of any other bidder, or to fix any overhead, profit or cost element of the bid price of  
any other bidder or to secure through collusion, conspiracy, connivance or unlawful  
agreement any advantage against the Town of Smithfield or any person interested in the  
proposed contract; and
5. The price or prices quoted in the attached bid are fair and proper and are not tainted by  
any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or  
any of its agents, representatives, owners, employees, or parties in interest, including this  
affiant.

\_\_\_\_\_  
TITLE

Subscribed and sworn before me,  
this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

Notary Public  
My Commission Expires \_\_\_\_\_



## BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE, \_\_\_\_\_

\_\_\_\_\_ as Principal and

\_\_\_\_\_ as Surety, who is duly  
licensed to act as Surety in North Carolina are held and firmly bound unto

\_\_\_\_\_ as Obligee, in the penal sum of

\_\_\_\_\_ Dollars, lawful money of the  
United States of America, for the payment of which, well and truly to be made, we bind  
ourselves, or heirs, executors, administrators, successors and assigns, jointly and  
severally, firmly by these presents.

SIGNED, sealed and dated this \_\_\_\_\_ day of \_\_\_\_\_, 2025.

WHEREAS, The said Principal is herewith submitting proposal for \_\_\_\_\_

—

and the Principal desires to file this Bid Bond in lieu of making the cash deposit as  
required by G.S. 143-129:

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such that if  
the Principal shall be awarded the Contract for which the Bid is submitted and shall  
execute the Contract and give bond for the faithful performance thereof within fifteen  
days after the award of the same, to the Principal, then this obligation shall be null and  
void; but if the Principal fails to so execute such contract and give performance bond as  
required by G.S. 143-129, the Surety shall, upon demand, forthwith pay to the Obligee  
the amount set forth in the first paragraph hereof, and upon failure to forthwith make  
such payment, the Surety shall pay the Obligee an amount equal to the amount of the  
Bid Bond as set forth in the first paragraph hereof.

\_\_\_\_\_  
Principal

(Seal)

\_\_\_\_\_  
Surety

(Seal)

By: \_\_\_\_\_

## POWER OF ATTORNEY

(Attach Bond Company Agent's Power of Attorney)



## PERFORMANCE BOND

DATE OF EXECUTION: \_\_\_\_\_

NAME OF PRINCIPAL: \_\_\_\_\_  
(CONTRACTOR) \_\_\_\_\_

NAME OF SURETY: \_\_\_\_\_  
\_\_\_\_\_

NAME OF CONTRACTING BODY: TOWN OF SMITHFIELD

AMOUNT OF BOND: \_\_\_\_\_

CONTRACT NUMBER \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, THAT WE, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above named CONTRACTING BODY, hereinafter the Contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, 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 Contracting Body, numbered as shown above and hereto attached:

NOW THEREFORE, if the PRINCIPAL shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also as well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements as of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

\_\_\_\_\_(SEAL)  
Principal

\_\_\_\_\_(SEAL)  
Surety

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Name and Title

Executed in \_\_\_\_\_ counterparts.

\_\_\_\_\_  
Name of Principal (Contractor)

\_\_\_\_\_  
Witness

By \_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Owner, Partner, or Corp.  
Pres. Or Vice President)

Attest: (Corporation)

By \_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Corp. Sec. Or Assist. Sec.)

\_\_\_\_\_  
(Corportate Seal)

\_\_\_\_\_  
(Surety Company)

Witness:

By: \_\_\_\_\_  
(Print)

By: \_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Attorney-in-Fact)

Countersigned:

\_\_\_\_\_

\_\_\_\_\_  
N.C. Licensed Resident, Agent

\_\_\_\_\_  
(Surety Corporate Seal)

\_\_\_\_\_  
Name and Address - Surety Agency

\_\_\_\_\_

\_\_\_\_\_  
Surety Company Name and N.C.  
Regional or Branch Office Address



## PAYMENT BOND

DATE OF EXECUTION: \_\_\_\_\_

NAME OF PRINCIPAL: \_\_\_\_\_  
(CONTRACTOR)

NAME OF SURETY: \_\_\_\_\_

NAME OF CONTRACTING BODY: TOWN OF SMITHFIELD

AMOUNT OF BOND: \_\_\_\_\_

CONTRACT NUMBER \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, THAT WE, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above named CONTRACTING BODY, hereinafter the Contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, 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 Contracting Body, numbered as shown above and hereto attached:

NOW THEREFORE, if the PRINCIPAL shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

\_\_\_\_\_(SEAL)  
Principal

\_\_\_\_\_(SEAL)  
Surety

\_\_\_\_\_  
**Name and Title**

\_\_\_\_\_  
**Name and Title**

Executed in \_\_\_\_\_ counterparts.

\_\_\_\_\_  
Name of Principal (Contractor)

\_\_\_\_\_  
Witness

By\_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Owner, Partner, or Corp.  
Pres. Or Vice President)

Attest: (Corporation)

By \_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Corp. Sec. Or Assist. Sec.)

\_\_\_\_\_  
(Corporate Seal)

\_\_\_\_\_  
(Surety Company)

Witness:

By: \_\_\_\_\_  
(Print)

By: \_\_\_\_\_  
(Print)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Attorney-in-Fact)

Countersigned:

\_\_\_\_\_

\_\_\_\_\_  
N.C. Licensed Resident, Agent

\_\_\_\_\_  
(Surety Corporate Seal)

\_\_\_\_\_  
Name and Address - Surety Agency

\_\_\_\_\_

\_\_\_\_\_  
Surety Company Name and N.C.  
Regional or Branch Office Address



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

### EMERGENCY TELEPHONE NUMBERS

Project Name PUMP STATION #1 & FORCE MAIN IMPROVEMENTS Project No. \_\_\_\_\_

The following are the business and home telephone numbers where project key personnel can be reached at all times. In addition, the emergency telephone numbers of other vital agencies are listed.

	Business	Residence
Contractor's Project Manager .....	_____	_____
Contractor's Superintendent .....	_____	_____
Owner/A&E Project Manager .....	_____	_____
Owner/A&E Resident Project Representative	_____	_____

### OTHER EMERGENCY TELEPHONE NUMBERS

OSHA Representative .....	_____
Fire .....	_____
Ambulance .....	_____
Doctor .....	_____
Hospital .....	_____
Police .....	_____
Gas Company .....	_____
Electric Company .....	_____
Water Company .....	_____
Telephone Company .....	_____
Insurance Carrier .....	_____
Other .....	_____
Other .....	_____

All key personnel should have a copy of this information, and a copy should be posted in each field office in a prominent location.



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

**MONTHLY PAYMENT ESTIMATE SUMMARY**

Project Title <u>PUMP STATION #1 &amp; FORCE MAIN IMPROVEMENTS</u>			
Contractor _____			
Estimate No. Period _____ to _____	Contract Price _____	Date _____	
Description	<u>Previous</u>	<u>This Month</u>	<u>To Date</u>
Total Contract Items.....	\$ _____	\$ _____	\$ _____
Change Orders Attached.....	\$ _____	\$ _____	\$ _____
Materials On-hand.....	\$ _____	\$ _____	\$ _____
Gross Estimate.....	\$ _____	\$ _____	\$ _____
Less 10% Retainage.....	\$ _____	\$ _____	\$ _____
Less Previous Payments.....	\$ _____	\$ _____	\$ _____
Net Estimate.....	\$ _____	\$ _____	\$ _____
Approved for Payment.....			\$ _____
N.C. Sales Taxes applying to this estimate and not included in this estimate. ....			\$ _____
% Time Elapsed		% Work Completed	
<p>Contract Completion Date</p> <p>Notice to Proceed Received by Contractor..... _____</p> <p>*Contract Completion Time ..... _____</p> <p>Contract Completion Date ..... _____</p> <p style="text-align: right;">COUNTY AUTHORIZATION LIMIT _____</p> <p>*As amended by Changed Order No. _____</p>			
Submitted by (Signature & Title)		Administrative Review – Final Payment	
Approved by (Signature & Title)		Approved by - Final Payments	

ANY REQUEST FOR TIME EXTENSION WITH THIS PAYMENT?      YES (   )      NO (   )





Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

**REQUEST FOR PAYMENT FOR MATERIALS ON HAND**

Project & Location: PUMP STATION #1 & FORCE MAIN IMPROVEMENTS, Smithfield, NC  
Project No. \_\_\_\_\_ Estimate No. \_\_\_\_\_

Item No.	Material Description	Previous Units Stored	Units Received	Units Installed	Balance Units Stored	Unit Price	Materials Stored Cost

In accordance with the provisions of the General Conditions of the Contract, request is made for payment of materials on hand for the above listed materials.

**AFFIDAVIT**

The materials listed above have been purchased exclusively for use on the above-referenced project. The material is separate from the other like materials and is physically identified as our property for use on Contract No. \_\_\_\_\_. The Owner may enter upon the premises for inspection, checking or auditing, or for any other purpose as you consider necessary. It is expressly understood and agreed that this information and Affidavit is furnished to the Owner for the purpose of obtaining payment for the above materials before they are delivered to, or incorporated into, the project described above, and that the storage thereof at the location shown shall not relieve the Contractor of full responsibility for the security and protection of all materials until acceptance by the Owner of the completed project.

Contractor by: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

**CONTRACT CHANGE ORDER NUMBER** \_\_\_\_\_

Project Title: PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

Project No: \_\_\_\_\_ Contract No. \_\_\_\_\_ Contract Date: \_\_\_\_\_

Contractor: \_\_\_\_\_

The following changes are hereby made to the Contract Documents:

Justification:

**CHANGE TO CONTRACT PRICE**

Original Contract Price:	\$ _____
Current Contract Price as adjusted by previous Change Orders:	\$ _____
Contract Price due to this Change Order will be (increased) (decreased) by:	\$ _____
New Contract Price due to this Change Order will be:	\$ _____
County Spending Authorization Limit:	\$ _____

**CHANGE TO CONTRACT TIME**

Original Contract time/date \_\_\_\_\_  
Contract time as amended by previous change orders \_\_\_\_\_  
The Contract time will be (increased) (decreased) by \_\_\_\_\_ calendar days.  
The date for contract completion of all work under this contract will be \_\_\_\_\_.

**APPROVALS REQUIRED**

To be effective, this order must be approved by the Owner if it changes the scope or objective of the project, or as may otherwise be required under the terms of the Supplementary General Conditions of the Contract.

Requested by: _____	Date: _____
Recommended by: _____	Date: _____
Ordered by: _____	Date: _____



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

## CONSENT OF SURETY FOR FINAL PAYMENT

Project Name PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

Location Smithfield, NC

Project No. \_\_\_\_\_ Contract No. \_\_\_\_\_

Type of Contract \_\_\_\_\_

Amount of Contract \_\_\_\_\_

In accordance with the provisions of the above-named contract between the Owner and the Contractor, the following named surety:

\_\_\_\_\_  
\_\_\_\_\_

on the Payment Bond of the following named Contractor:

\_\_\_\_\_  
\_\_\_\_\_

hereby approves of final payment to the Contractor and further agrees that said final payment to the Contractor shall not relieve the Surety Company named herein of any of its obligations to the following named Owner as set forth in said Surety Company's bond:

\_\_\_\_\_  
\_\_\_\_\_

In Witness Whereof, the Surety Company has hereunto set its hand and seal this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety Company)

\_\_\_\_\_  
(Signature of Authorized Representative)

(Affix corporate Seal here)

Title \_\_\_\_\_



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

## CONTRACTOR'S CERTIFICATION OF COMPLETION

Date \_\_\_\_\_

Project PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

Job No. \_\_\_\_\_

Contract No. \_\_\_\_\_

Owner \_\_\_\_\_

Attn: Resident Project Representative

From: \_\_\_\_\_  
(Firm or Corporation)

This is to certify that I, \_\_\_\_\_ am an authorized official of \_\_\_\_\_

working in the capacity of \_\_\_\_\_

and have been properly authorized by said firm or corporation to sign the following statements pertaining to the subject contract:

I know of my own personal knowledge and do hereby certify that the work of the contract described above has been performed, and materials used and installed in every particular, in accordance with, and in conformity to, the contract, drawings and specifications.

The contract work is now complete in all parts and requirements and ready for final inspection.

I understand that neither the determination by the Engineer-Architect that the work is complete nor the acceptance thereof by the Owner shall operate as a bar to claim against the Contractor under the terms of the guarantee provisions of the contract documents.

By \_\_\_\_\_

Title \_\_\_\_\_

For \_\_\_\_\_

Distribution: 1. Project Manager  
2. Field Office  
3. File



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

## FINAL WAIVER OF LIEN

To All Whom It May Concern:

WHEREAS, the undersigned has been employed by (A) \_\_\_\_\_

to furnish labor and material for

(B) \_\_\_\_\_ work, under a

contract (C) \_\_\_\_\_

for the improvement of the premises described as (D) \_\_\_\_\_

\_\_\_\_\_ in the

\_\_\_\_\_ (City-Village) of \_\_\_\_\_

County of \_\_\_\_\_, State of \_\_\_\_\_

of which \_\_\_\_\_ is the Owner.

NOW, THEREFORE, this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

For and in consideration of the sum (E) \_\_\_\_\_

Dollars paid simultaneously herewith, the receipt whereof is hereby acknowledged by the undersigned, the undersigned does hereby waive and release any lien rights to, or claim of lien with respect to and on said above-described premises, and the improvements thereon and on the monies or other considerations due or to become due from the Owner, on account of labor, services, materials, fixtures, apparatus or machinery heretofore or which may hereafter be furnished by the undersigned to or for the above described premises by virtue of said contract.

(F) \_\_\_\_\_ (SEAL)

(Name of sole ownership, corporation or partnership)

(Affix Corporation

Seal here)

\_\_\_\_\_ (SEAL)

(Signature of Authorized Representative)

TITLE: \_\_\_\_\_

## INSTRUCTIONS FOR FINAL WAIVER

- (A) Person or Firm with whom you agreed to furnish either labor, or services, or materials, or both.
- (B) Fill in nature and extent of work; strike the word labor or the word materials if not in your contract.
- (C) If you have more than one contract on the same premises, describe the contract by number if available, date and extent of work.
- (D) Furnish an accurate enough description of the improvement and location of the premises so that it can be distinguished from any other property.
- (E) Amount shown should be the amount actually received and equal to total amount of contract as adjusted.
- (F) If waiver is for a corporation, corporate name should be used, corporate seal affixed and title of officer signing waiver should be set forth; if waiver is for a partnership, the partnership name should be used, partner should sign and designate himself as partner.



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

## NOTICE OF AWARD

Dated \_\_\_\_\_, 20\_\_

TO: \_\_\_\_\_.  
(Bidder)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Bidder's Address)

PROJECT NO. \_\_\_\_\_

PROJECT: PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

OWNER'S CONTRACT NO. \_\_\_\_\_

CONTRACT FOR: General Construction

-----

You are notified that your Bid dated \_\_\_\_\_, 20\_\_ for the above Contract has been considered.  
You are the apparent successful Bidder and have been awarded a contract  
for \_\_\_\_\_

(Indicate total Work, alternates or sections of Work awarded)

The Contract Price of your contract is \_\_\_\_\_ Dollars (\_\_\_\_\_).

Enclosed are \_\_\_\_\_ copies of the Contract Documents for your execution and subsequent return to this office for further processing.

You must comply with the following conditions precedent within fifteen (15) days of the date of this Notice of Award, that is by \_\_\_\_\_, 20\_\_:

1. Execute all copies of the Agreement. Each Project Manual and set of contract drawings must bear your signature on the cover sheet. Do not date the Agreements or bonds; this will be accomplished upon execution of the contracts by the Owner. Submit a power of attorney authorizing Owner to date bonds and Agreements.

2. Submit \_\_\_\_\_ copies of the Performance and Payment Bonds. Instructions to the Surety and the Principal for execution of the bonds are as follows:

Where the Contractor is a Corporation, the Agreement and any bonds must be executed by the President or the Chairman of the Board of the corporation. The Agreement or Bond is accompanied by a statement certified by a Secretary of the Corporation. The signatures of the persons executing the bond on behalf of the Principal and of the Surety, respectively, shall each be dated on the signature line. If the bond is executed by an Attorney-in-Fact for the Surety, the accompanying Power of Attorney must be executed by persons whose authority to do so is plainly identified on the face of the Power of Attorney.

Neither signatures nor the Corporate Seal may appear by facsimile unless the authority for them to appear in that form is plainly disclosed on the face of the document. The Secretary or other properly authorized Officer must certify and seal a statement declaring that the authority granted by the Power of Attorney remained in force on the date that the bond was executed by the Attorney-in-Fact.

3. The standard cancellation clause must read as follows:

"Should any of the above described policies be cancelled or changed by restricted amendment before the expiration date thereof, the issuing Company will give thirty (30) days written notice to the below named certificate holder."

Failure to comply with these conditions within the time specified will entitle Owner to consider your Bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Within twenty (20) days after you comply with the above conditions, the Owner will return to you one fully signed counterpart of the Contract Documents attached.

If you have any questions, or if we can be of any further assistance, please do not hesitate to contact this office.

Sincerely,

Town of Smithfield, North Carolina  
(Owner)

By \_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
(Printed Name & Title of above signer)

Contractor

By \_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
(Printed Name & Title of above signer)



Town of Smithfield Public Utilities Department  
230 Hospital Road,  
Smithfield, NC 27577

### NOTICE TO PROCEED

Dated \_\_\_\_\_, 20\_\_

CONTRACT NO.: \_\_\_\_\_

CONTRACT FOR: PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

CONTRACTOR:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Gentlemen:

You are hereby notified to commence work on the subject contract on or before \_\_\_\_\_ and are to fully complete the work within \_\_\_\_ **calendar days**. In accordance with the contract documents, the Substantial Completion date is \_\_\_\_\_, with the Final Completion date being \_\_\_\_\_. Extension in time will be by written change order only.

The contract provides for assessment of liquidated damages for each consecutive calendar day after the above established substantial completion date the sum of \_\_\_\_\_ that the work remains incomplete and for each consecutive calendar day after the above established final completion date the sum of \_\_\_\_\_ that the work remains incomplete.

\_\_\_\_\_  
(Owner)  
By \_\_\_\_\_  
(Authorized Signature)  
\_\_\_\_\_  
(Printed Name & Title of above Signatory)

\_\_\_\_\_  
(Contractor)  
By \_\_\_\_\_  
(Authorized Signature)  
\_\_\_\_\_  
(Printed Name & Title of above Signatory)

NOTE: Attach this Notice to your contract making it a part thereof.



# **Minority and Women Business Enterprise Requirements**

State of North Carolina AFFIDAVIT A - List of the Good Faith Effort

Town of Smithfield

Affidavit of \_\_\_\_\_  
(Name of Bidder)

**I have made a good faith effort to comply under the following areas checked:**  
(A minimum of 5 areas must be checked in order to have achieved a "good faith effort")

- ☐ 1-Contacted minority businesses that reasonably could have expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☐ 2-Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☐ 3-Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ 4-Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority business.
- ☐ 5-Attended prebid meetings scheduled by the public owner.
- ☐ 6-Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☐ 7-Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ 8-Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ 9-Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☐ 10-Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cashflow demands.

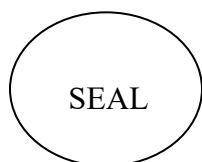
In accordance with GS 143-128.2(d) the undersigned will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon execution of a contract with the Owner. Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
Notary Public \_\_\_\_\_  
My commission expires \_\_\_\_\_

**State of North Carolina AFFIDAVIT B -Intent to Perform Contract with Own Workforce**

**TOWN OF SMITHFIELD**

Affidavit of \_\_\_\_\_  
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for

the PUMP STATION #1 & FORCE MAIN IMPROVEMENTS contract.  
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

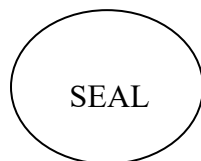
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
Notary Public \_\_\_\_\_  
My commission expires \_\_\_\_\_

**ATTACH TO BID - IF YOU MEET THE M/WBE GOAL**

**State of North Carolina AFFIDAVIT C - Portion of the Work to be Performed by Minority Firms**

**TOWN OF SMITHFIELD**

Affidavit of \_\_\_\_\_ I do hereby certify that on the  
(Name of Bidder)  
\_\_\_\_\_ **PUMP STATION #1 & FORCE MAIN IMPROVEMENTS** \_\_\_\_\_  
(Project Name)

Project ID No. 175568555 Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with minority businesses enterprises. Work will be subcontracted to the following firms listed below. Attach additional sheets if needed.

Name and Phone Number	*Minority Category	Work Description	Dollar Value	Percentage of Goal

**\*Minority categories:** Black, African American (**B**), Hispanic (**H**), Asian American (**A**), American Indian (**I**), Female (**F**)

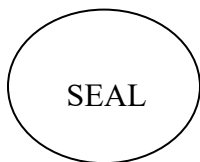
Pursuant to GS 143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
Notary Public \_\_\_\_\_  
My commission expires \_\_\_\_\_

DO NOT SUBMIT WITH THE BID DO NOT SUBMIT WITH THE BID DO NOT SUBMIT WITH THE BID  
(NOTE: This form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If you do not meet the M/WBE Goal, the Bidder shall provide the following documentation of his Good Faith Efforts within **72 hours** after notification of being the low bidder.

**State of North Carolina AFFIDAVIT D - Good Faith Efforts  
TOWN OF SMITHFIELD**

Affidavit of \_\_\_\_\_  
(Name of Bidder)

I do certify the attached documentation as true and accurate representation of my good faith efforts.

I will expend a minimum of \_\_\_\_\_ % of the total dollar amount of the contract with minority businesses enterprises. Work will be subcontracted to the following firms listed below. Attach additional sheets if needed.

Name and Phone Number	*Minority Category	Work description	Dollar Value	Percentage of Goal

**\*Minority categories:** Black, African American (**B**), Hispanic (**H**), Asian American (**A**), American Indian (I), Female (**F**)

Documentation of the Bidder's good faith efforts to meet the goals set forth in the provisions. Examples of documentation include, but are not limited to, the following evidence:

- A. Copies of solicitation for quotes to at least three (3) minority business firms from the source list provided by the  
State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need to equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

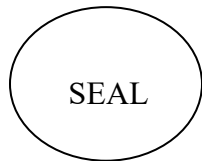
Pursant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

## APPENDIX E

### MWBE DOCUMENTATION FOR CONTRACT PAYMENTS

Prime Contractor/Architect: \_\_\_\_\_

Address & Phone: \_\_\_\_\_

Project Name: PUMP STATION #1 & FORCE MAIN IMPROVEMENTS

Pay Application #: \_\_\_\_\_ Period: \_\_\_\_\_

The following is a list of payments to be made to minority business contractors on this project for the above-mentioned period.

Firm Name	*Minority Category	Total Contract Amount	Amount Paid this Period	Total Payment Amount to date	Percentage of Work Completed	Scheduled Start Date	Scheduled End Date

**\*Minority categories:** Black, African American (**B**), Hispanic (**H**), Asian American (**A**), American Indian (I), Female (**F**)

Date: \_\_\_\_\_ Approved/Certified By: \_\_\_\_\_

Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

**\*THIS DOCUMENT MUST BE SUBMITTED WITH EACH PAY REQUEST & FINAL PAYMENT\***

# NC Division of Water Infrastructure MBE/WBE (DBE) Compliance Supplement Instructions

(This package combines the various aspects of State of NC HUB program requirements and Federal DBE requirements into a single compliance supplement in order to eliminate redundancy and ambiguity)

Item	What to do with it
Good Faith Efforts Form	Provided by all bidders to be responsive Only low bidder's form is submitted to the State
Table A (Summary of firms on job)	Provided by all bidders to be responsive Only low bidder's form is submitted to the State
Table B (per item being subbed)	Provided by low bidder if SRF project or SRP/SEL* that obtains less than 10% M/WBE utilization (see page 2)
Provide documentation of anything you did that is mentioned later in this supplement	- Proof of trade paper advertisement - Printouts of DBE sources used - Solicitation emails and/or letters
<b>Additional Forms for SRF Projects (these forms are currently not applicable)</b>	
<del>6100-3 (per M/WBE firm)</del>	<del>Provided by low bidder if SRF project</del>
<del>6100-2</del>	<del>Distributed to M/WBE firms if SRF project</del>
<del>Subs submit concerns on 6100-2 forms to:</del>	<del><b>Michael Pigram</b> <b>Region 4, Atlanta Federal Center</b> <b>61 Forsyth Street</b> <b>Atlanta, GA 30303-8960</b></del>

## NOTES on this Compliance Supplement

### Verifiable Goals

- EPA MBE/WBE participation goals: MBE 10.9%  
WBE 10.4%

These are goals that the State reports against and are not quotas. The good faith efforts must be adhered to and all forms provided regardless of what percentage utilization is achieved.

- State of NC MBE/WBE participation goal: 10% (combined)

Table B is not required for SRP and SEL projects if you achieve 10% utilization.

### DBE (MBE or WBE) Certification

In order for a firm to count towards the goals, a firm must be properly certified. Table A and Table B both provide spaces to note who certified the firm. The North Carolina Department of Administration and North Carolina Department of Transportation are the most common certifications we see listed. Division of Water Infrastructure staff verify all certifications listed.



**For SRF projects, please note the EPA's six Good Faith Efforts found in 40 CFR 33**

Filling out the Good Faith Efforts Form and providing Table B (if subcontracting is achieved) constitutes compliance with EPA's six good faith efforts.

(1) Ensure MBE/WBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and local Government recipients, this will include placing MBE/WBEs on solicitation lists and soliciting them whenever they are potential sources.

(2) Make information of forthcoming opportunities available to MBE/WBEs and arrange time for contracts and establish delivery schedules, where requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

(3) Consider in the contracting process whether firms competing for large contracts could subcontract with MBE/WBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities in order to increase opportunities for participation by MBE/WBEs in the competitive process.

(4) Encourage contracting with a consortium of MBE/WBEs when a contract is too large for one of these firms to handle individually.

(5) Use the services and assistance of the SBA and the MBDA.

(6) If the prime contractor awards subcontracts, require the prime contractor to take the steps in subparagraphs (1)-(5) of this section.

**Pertinent State of North Carolina Administrative Code Regarding M/WBE Compliance. The provisions in this Compliance Supplement constitute compliance with the Rules below.**

Owner Requirements 01 NCAC 30I .0306

Contractor Requirements 01 NCAC 30I .0308

## Resources

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***Some sources for identifying MBE/WBE (DBE) firms***

- <https://www.ips.state.nc.us/vendor/SearchVendor.aspx> (NCDOA)
- <https://www.ebs.nc.gov/VendorDirectory/default.html> (NCDOT)
- [http://dsbs.sba.gov/dsbs/search/dsp\\_dsbs.cfm](http://dsbs.sba.gov/dsbs/search/dsp_dsbs.cfm) (US SBA)

***Some sources for finding minority trade papers for potential solicitation advertisements and Federal advertising options***

- <http://web.sba.gov/subnet/> (US SBA Subnet advertising website)
- <https://www.mbd.gov/> (US Dept. of Commerce)
- <https://ncadmin.nc.gov/businesses/hub> (NC HUB Office)

## Good Faith Efforts Form

---

*Attempts to provide subcontracting opportunities for MBE/WBE firms.*

Per 01 NCAC 30I .0101, 50 points must be claimed below by the bidder.

*(This is identical to State of NC Affidavit A)*

- ☐ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☐ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☐ **3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ☐ **5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- ☐ **6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☐ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ **8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ **9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☐ **10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

*Results of Good Faith Efforts Undertaken (you must check one box below)*

- ☐ No subcontractors are being used for this contracted work. Fill out Table A listing only the Prime Contractor. (This statement takes the place of State of NC Affidavit B)
- ☐ Subcontractors are being used. Fill out Table A and B for each trade. **Each Table B lists 3.**
- ☐ Subcontractors are being used. If any Table B has fewer than 3 solicitations you must also advertise in an M/WBE trade paper and indicate what source of M/WBE firms you used (*must list at least one*). Some possible papers and sources of M/WBE firms are listed in the Instructions of this Supplement.

Name of the Trade Paper: \_\_\_\_\_

Submit proof of advertisement with package

M/WBE Sources:      Source: \_\_\_\_\_      Source: \_\_\_\_\_

Submit printouts from M/WBE source(s)

**Certification Statement and Affidavit of Contractor.**

The below affidavit constitutes compliance with 01NCAC 30I .0308(7)(a) and (b) and takes the place of State of North Carolina Affidavits C and D.

I have read the information in this compliance supplement and all information provided to the State in this package is accurate and true to the extent of my knowledge including the calculated percentages and the good faith efforts presented herein.

\_\_\_\_\_  
Prime Contractor Company Name (Print)

\_\_\_\_\_  
Prime Contractor Representative (Sign & Date)



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My Commission Expires \_\_\_\_\_

**Certification of Project Owner/Funding Applicant**

\_\_\_\_\_  
Funding Applicant (City, Town etc)

\_\_\_\_\_  
Applicant Authorized Representative (Sign & Date)

\_\_\_\_\_  
Division of Water Infrastructure Project Number

## Table A: Prime Contractor and list of selected subcontractors

List Prime and ALL of the selected subcontractors (both DBE's and non-DBE's) being used on the project. Each Trade listed on this sheet should have a completed Table B: Subcontract Solicitation List showing the DBE firms contacted and given opportunities to bid.

Company Name (list prime first then subs)	Company Address and Phone	Trade (Above) and Price (Below)	MBE or WBE and certifying agency <u>if applicable</u>	(State use only) Listed in EPLS as Debarred?
		\$		
		\$		
		\$		
		\$		

Calculate M/WBE utilization as a percent (00.00%) of the prime contract. Limited to 100% even if the Prime is a DBE.

<b>MBE and WBE subs total</b>	\$	
<b>Prime Contract Price</b>	\$	
		_____ %

Note: Table A substitutes for both the State of NC "Identification of Minority Participation" form and EPA Form 6100-4.

## Table B: Subcontract Solicitation List

Table B is required if:

- 1) Project is Federally funded (**SRF**) OR;
- 2) Project is a State Reserve Project or State Emergency Loan (**SRP or SEL**) and Utilization % on Table A is less than 10%
- 3)

**Trade:** \_\_\_\_\_ (enter the trade being solicited, paving, hauling etc.)

**List the firm being used on the project first. If three MBE or WBE firms are not listed, additional information must be provided showing advertisements and/or sources used to identify MBE/WBE subs.**

**Use as many of these sheets as are necessary to cover every trade being subbed out.**

Company Name	Company Address and Phone	MBE or WBE and certifying agency if applicable.	How was this firm contacted (email, letter, phone) and what was the result of the solicitation?*

\*Must submit copies of emails or letters. If phone calls were made this sheet can serve as documentation of calls.

## MBE/WBE (DBE) – Change or Add a Subcontractor Form

According to EPA guidance on 40 CFR 33.302

*If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts described in §33.301 if soliciting a replacement subcontractor.*

Please provide the information below **if the subcontracted work in question was included in previously submitted good faith efforts documentation:**

Prime Contractor:

Subcontracted work:

Previous Subcontractor:

Reason this firm did not complete the work:

New subcontractor and DBE status:

☐ MBE

☐ WBE

☐ N/A

If this is a new trade being subcontracted, or was not documented in the original Project Bid Information submittal to the State then good faith efforts to solicit a DBE firm must be documented. As the original DBE instructions indicate, please provide a Table B from those original instructions, showing all the DBE firms contacted to perform this work. If three (3) firms are not listed on Table B, then additionally you must submit proof of an advertisement in a minority trade paper and evidence that there were not three reasonably available firms in the work area. The EPA provides in 33.301(a) that good faith efforts are to be carried out "...to the fullest extent practicable...". If solicitations were not carried out due to being impracticable, please attach this explanation to this form.

**Please follow the steps below for new subcontracted work:**

Indicate the new trade being subcontracted:

Indicate the firm being used and DBE status:

☐ MBE

☐ WBE

☐ N/A

Attach Table B

(For State Use) Is this sub debarred?

☐ Yes

☐ No

\_\_\_\_\_  
Project Owner/Applicant:

\_\_\_\_\_  
Project Number:

\_\_\_\_\_  
Signature of Prime Contractor's Representative

# E-VERIFY

STATE OF NORTH CAROLINA

AFFIDAVIT

COUNTY OR MUNICIPALITY \_\_\_\_\_

\*\*\*\*\*

I, \_\_\_\_\_ (the individual attesting below), being duly authorized by and on behalf of \_\_\_\_\_ (the entity bidding on project hereinafter "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a).
3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (mark Yes or No)
  - a. YES \_\_\_\_\_, or
  - b. NO \_\_\_\_\_
4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This \_\_\_\_\_ day of \_\_\_\_\_, 20 .

\_\_\_\_\_  
Signature of Affiant

Print or Type Name: \_\_\_\_\_

State of North Carolina County of \_\_\_\_\_

Signed and sworn to (or affirmed) before me, this the \_\_\_\_\_ day of \_\_\_\_\_, 20 .

My Commission Expires:

\_\_\_\_\_  
Notary Public

## IRAN DIVESTMENT ACT CERTIFICATION

As required by N.C.G.S. 147-86.59:

N.C.G.S. 147-86.60 prohibits the State of North Carolina, a North Carolina local government, or any other political subdivision of the State of North Carolina from contracting with any entity that is listed on the Final Divestment list created by the North Carolina State Treasurer pursuant to N.C.G.S. 147-86.58. N.C.G.S. 147-86.59 further requires that contractors with the State, a local government, or any political subdivision of the State of North Carolina must not utilize and subcontractor found on the Stat Treasurer's Final Divestment List.

As of the date of execution of this agreement:

\_\_\_\_\_ hereby certifies that  
(Company Representative)

\_\_\_\_\_ is not listed on the Final  
(Company)

Divestment List created by the North Carolina State Treasurer and that

\_\_\_\_\_ will not utilize any  
(Company)

subcontractors found on the Final Divestment List.





## VENDOR INFORMATION FORM

VENDOR # \_\_\_\_\_ (Assigned by the Town of Smithfield)

Legal Name  
(Business or Owner) \_\_\_\_\_

Doing Business As (DBA) \_\_\_\_\_

Remit Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Telephone# \_\_\_\_\_ Fax# \_\_\_\_\_

Email \_\_\_\_\_ Website \_\_\_\_\_

Is this a minority owned business? \_\_\_\_\_

Products or services you wish to sell: \_\_\_\_\_

Federal Law requires that taxpayer identification numbers from individuals and businesses be obtained for anyone receiving payment from the Town of Smithfield. Please complete the Form W-9 and return with Vendor Information Form.

The federal E-Verify program which is operated by United States Department of Homeland Security is used to verify the work authorization of newly hired employees pursuant to federal law. In accordance with NCGS§160A-169.1, no town may enter into a contract unless the contractor and the contractor's subcontractors comply with these requirements. The Town of Smithfield requires vendors/contractors to complete and return a notarized copy of the E-Verify Affidavit for purchases and/or construction/repair contracts in the formal bidding range..

As a condition of doing business with the Town of Smithfield, all vendors performing services on town premises must provide a Certificate of Liability Insurance that includes evidence of Workers' Compensation Insurance, Automobile Liability Insurance, and evidence of General Liability Insurance with limits of liability not less than \$1,000,000.

If you have questions, please contact Jennifer Aycock at (919)934-2116 Ext. 1135 or [jennifer.aycock@smithfield-nc.com](mailto:jennifer.aycock@smithfield-nc.com). Please return all forms to:

Mailing

Attn: Jennifer Aycock  
Town of Smithfield  
PO Box 761  
Smithfield NC 27577

Fax

Attn: Jennifer Aycock  
(919)934-1688

Email

[jennifer.aycock@smithfield-nc.com](mailto:jennifer.aycock@smithfield-nc.com)

## NO BID REPLY FORM

TO: Town of Smithfield  
Utilities Department  
230 Hospital Road  
Smithfield, NC 27577

ID TITLE: Town of Smithfield PS #1 & Force Main Improvements

To assist us in obtaining good competition on our Request for Proposals, we ask that each firm that has received an invitation, but does not wish to submit a proposal, state their reason(s) below and return to this office. This information will not preclude receipt of future invitations unless you request removal from the Bidders' List by so indicating below, or do not return this form or bona fide proposal.

Unfortunately, we must offer a "No Bid/Proposal" at this time because:

- \_\_\_\_\_ 1. We do not wish to participate in the proposal process.
- \_\_\_\_\_ 2. We do not wish to submit a bid/proposal under the terms and conditions of the Bid/Proposal document. Our objections are:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_ 3. We do not feel we can be competitive.
- \_\_\_\_\_ 4. We cannot submit a Bid/Proposal because of the marketing or franchising policies of the manufacturing company.
- \_\_\_\_\_ 5. We do not wish to sell to the Town of Smithfield. Our objections are:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_ 6. We do not sell the items/services on which Proposals are requested.
- \_\_\_\_\_ 7. Other: \_\_\_\_\_
- \_\_\_\_\_

\_\_\_\_\_  
FIRM NAME

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
PHONE

\_\_\_\_\_ We wish to remain on the Bidders' List.

\_\_\_\_\_ We wish to be deleted from the Bidders' List.

## **Davis-Bacon Instructions for SRF Projects**

To be included in the Contract Documents:

- The entire contents of 29 CFR 5.5
- The appropriate wage determination (usually Heavy). This determination must be the most current and have been in effect at least 10 days prior to bid opening. If a wage determination for the project location is not available, then the Statewide wage determination may be used. If it takes longer than 90 days to execute contracts and the wage determination changes, then the new wage rates must be incorporated into the contract. Wage Determinations can be found at:  
[https://beta.sam.gov/search?index=wd&is\\_active=true&date\\_filter\\_index=0&date\\_rad\\_selection=date&wdType=dba&page=1](https://beta.sam.gov/search?index=wd&is_active=true&date_filter_index=0&date_rad_selection=date&wdType=dba&page=1)

During Construction:

- Post the Davis-Bacon Poster  
<https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/fedprojc.pdf>
- Post the appropriate wage rates. These should be the ones included in the specifications and any new classifications approved by the Department of Labor.
- Weekly payrolls are to be maintained onsite for all subject contractors and subcontractors. Number them for each week of the construction period including weeks that do not have payroll. Form WH 347 is suggested. Do not submit these to the State SRF office, submit them to the municipality for review. Link to Form WH 347 -  
<https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf>
- The municipality will conduct interviews with employees when there are irregularities concerning wages being paid. Use Standard Form 1445.
- For additional wage classification approvals, complete form SF 1444 found at this link:  
[https://www.nps.gov/dscw/upload/sf1444-classificationrateauthorizationrequest\\_7-14-06.pdf](https://www.nps.gov/dscw/upload/sf1444-classificationrateauthorizationrequest_7-14-06.pdf)  
Email this form to: [whd-cbaconformance\\_incoming@dol.gov](mailto:whd-cbaconformance_incoming@dol.gov)

The entire contents of this package is:

- 1) These Instructions
- 2) 29 CFR 5.5
- 3) Davis-Bacon Poster
- 4) Payroll form WH 347

## 29 CFR §5.5 Contract provisions and related matters.

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in §5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided*, That such modifications are first approved by the Department of Labor):

(1) *Minimum wages.* (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in §5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by

the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) *Withholding.* The (write in name of Federal Agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) *Payrolls and basic records.* (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show

that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under §5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5(a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) *Apprentices and trainees*—(i) *Apprentices*. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) *Trainees*. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In

addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) *Equal employment opportunity.* The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) *Contract termination: debarment.* A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) *Compliance with Davis-Bacon and Related Act requirements.* All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) *Disputes concerning labor standards.* Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) *Certification of eligibility.* (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) *Contract Work Hours and Safety Standards Act.* The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or §4.6 of part 4 of this title. As used in this paragraph, the terms *laborers* and *mechanics* include watchmen and guards.



(1) *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) *Withholding for unpaid wages and liquidated damages.* The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in §5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

# EMPLOYEE RIGHTS UNDER THE DAVIS-BACON ACT

## FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

<b>PREVAILING WAGES</b>	You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.
<b>OVERTIME</b>	You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.
<b>ENFORCEMENT</b>	Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.
<b>APPRENTICES</b>	Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.
<b>PROPER PAY</b>	If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

or contact the U.S. Department of Labor's Wage and Hour Division.



For additional information:  
**1-866-4-USWAGE**  
(1-866-487-9243) TTY: 1-877-889-5627



**WWW.WAGEHOUR.DOL.GOV**

NAME OF CONTRACTOR		OR SUBCONTRACTOR		ADDRESS		OMB No.: 1235-0008 Expires: 01/31/2015	
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PAYROLL NO.		FOR WEEK ENDING		PROJECT AND LOCATION		PROJECT OR CONTRACT NO.	
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(1)  NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2)  NO. OF WITHHOLDING EXEMPTIONS	(3)  WORK CLASSIFICATION	OT OR ST.	(4) DAY AND DATE							(5)  TOTAL HOURS	(6)  RATE OF PAY	(7)  GROSS AMOUNT EARNED	(8)  DEDUCTIONS						(9)  NET WAGES PAID FOR WEEK		
				HOURS WORKED EACH DAY										FICA	WITH- HOLDING TAX			OTHER	TOTAL DEDUCTIONS			
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Date \_\_\_\_\_

I, \_\_\_\_\_  
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by \_\_\_\_\_ on the \_\_\_\_\_  
(Contractor or Subcontractor)  
\_\_\_\_\_ ; that during the payroll period commencing on the \_\_\_\_\_  
(Building or Work)  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, and ending the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_,  
all persons employed on said project have been paid the full weekly wages earned, that no rebates have  
been or will be made either directly or indirectly to or on behalf of said  
\_\_\_\_\_ from the full  
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly  
from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part  
3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948,  
63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) That any payrolls otherwise under this contract required to be submitted for the above period are  
correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the  
applicable wage rates contained in any wage determination incorporated into the contract; that the classifications  
set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship  
program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and  
Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered  
with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:  
(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in  
the above referenced payroll, payments of fringe benefits as listed in the contract  
have been or will be made to appropriate programs for the benefit of such employees,  
except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid,  
as indicated on the payroll, an amount not less than the sum of the applicable  
basic hourly wage rate plus the amount of the required fringe benefits as listed  
in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR  
SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE  
31 OF THE UNITED STATES CODE.

"General Decision Number: NC20250084 01/03/2025

Superseded General Decision Number: NC20240084

State: North Carolina

Construction Type: Heavy

Counties: Franklin and Johnston Counties in North Carolina.

#### HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> <li>. Executive Order 14026 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.</li> </ul>
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> <li>. Executive Order 13658 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</li> </ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number      Publication Date  
0                              01/03/2025

SUNC2011-065 08/26/2011

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 13.98 **	0.69
ELECTRICIAN.....	\$ 15.41 **	3.13
LABORER: Common or General.....	\$ 9.84 **	2.90
LABORER: Pipelayer.....	\$ 12.61 **	1.75
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 16.16 **	3.18
OPERATOR: Bulldozer.....	\$ 14.63 **	0.00
OPERATOR: Loader.....	\$ 15.13 **	2.79
TRUCK DRIVER.....	\$ 13.12 **	1.89

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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\*\* Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the

type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

#### Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

#### Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

## State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

## WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to [davisbaconinfo@dol.gov](mailto:davisbaconinfo@dol.gov) or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to [BCWD-Office@dol.gov](mailto:BCWD-Office@dol.gov) or by mail to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to [dba.reconsideration@dol.gov](mailto:dba.reconsideration@dol.gov) or by mail to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the



interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210.

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END OF GENERAL DECISION"

**SECTION 011100  
SUMMARY OF WORK**

**PART 1 GENERAL**

**1.01 LOCATION OF WORK**

- A. The work of this Contract is located at:

The Work is located at the Owner's Pump Station at 250 W Market St, Smithfield NC 27577 and the existing sewer easement which extends from the pump station to the Johnston County Wastewater Plant on Huntley St, Smithfield NC 27577.

**1.02 SCOPE OF WORK**

- A. Furnish all labor, materials, equipment and incidentals required to construct and install the following in its entirety as shown on the Drawings and as specified herein:
1. Installation of a new triplex pump station with submersible pumps, electrical, controls, generator, valve vault, meter vault, site piping, and site work.
  2. Abandonment of the existing pump station.
  3. Bypass pumping.
  4. Installation of 10,400 LF of new 20-inch diameter ductile iron force main piping.

**1.03 WORK SEQUENCE**

- A. Work sequence shall also be in accordance with Section 011216, Sequence of Work and Maintaining Existing Plant Operations during Construction as well as the construction drawings.

**1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have complete and exclusive use of the premises for the performance of the Work.
- B. Contractor shall limit the use of the premises for his/her Work and for storage to allow for:
1. Work by other contractors.
  2. Owner occupancy
  3. Public use.
- C. Coordinate use of premises with Owner.
- D. Contractor shall assume full responsibility for security of all his/her and his/her subcontractors materials and equipment stored on the site.

- E. If directed by the Owner or Engineer, move any stored items which interfere with operations of Owner or other contractors.
- F. Obtain and pay for use of additional storage or work areas if needed to perform the Work.

**1.05 OWNER OCCUPANCY**

- A. Owner will occupy premises during performance of the work for the conduct of his/her normal operations. Coordinate all construction operations with Owner/Engineer to minimize conflict and to facilitate Owner usage.

END OF SECTION

**SECTION 011216**  
**SEQUENCE OF WORK AND**  
**MAINTAINING EXISTING OPERATIONS DURING CONSTRUCTION**

**PART 1 GENERAL**

**1.01 SITE CONDITIONS**

- A. Several areas of construction under this contract must be coordinated with Town of Smithfield Personnel and accomplished in a logical order to maintain existing flows through the Town of Smithfield Pump Station #1 and Forcemain and to allow construction to be completed within the time allowed by Contract Documents. Coordinate the activities with the other contractors, if any, to allow orderly and timely completion of all the work.
- B. When access through construction areas must be disrupted, provide alternate acceptable access for the plant operators or other contractors.
- C. Coordinate the activities in the common areas with other contractors and the plant operators. Submit to the Engineer a description and schedule as to how the common areas will be utilized, recognizing the required coordination with other contractors and the plant operators.
- D. Coordinate with the Plant Operation Personnel prior to attempting any valve closures and provide any corrective measure of temporary facilities necessary to attain the shut-off needed to perform the work at no additional cost to the Owner and without interrupting the plant operation.
- E. Various interconnections within the plant and intake may require temporary partial power shutdown. Make every effort necessary to minimize the shutdown time and coordinate with the Plant Operating Personnel and/or utility authorities prior to attempting any such power shutdown. Furthermore, provide any corrective measure or temporary facilities necessary to perform the work at no additional cost to the Owner and without interrupting the plant operation. Shutdown plans must be submitted to the Engineer for approval at least 2 weeks prior to requested shutdown date and shall detail all equipment, tools, and manpower necessary for the shutdown as well as proposed maximum shutdown duration.

**1.02 CONSTRUCTION CONSTRAINTS**

- A. This section contains constraints to consider in developing the overall plan of construction. This list is not intended to release the Contractor from the responsibility to coordinate the work in any manner which will ensure project completion within the time allowed. A suggested sequence within each area, where necessary, is included.
- B. Clearing and grubbing or land disturbing activity shall not be performed in any area until the Contractor has installed appropriate sediment and erosion control measures. Should the Contractor elect to use multiple full-time pipe laying crews, clearing and grubbing may take place in multiple sections simultaneously upon approval by the Engineer.
- C. The Contractor shall adhere to the following general construction sequence within the project area unless otherwise specified.

1. Notify all stakeholders and impacted property owners.
2. Conduct pre-construction photography and videotaping.
3. Install temporary construction entrances.
4. Survey and stake permanent and temporary construction easement lines.
5. Install construction barrier fencing and safeguards.
6. Install tree protection systems.
7. Install sedimentation and erosion control devices.
8. Perform clearing and grubbing.
9. Pipe installation
10. Complete connections to existing system.
11. Conduct testing in accordance with technical sections.
12. Remove construction barrier fences and safeguards.
13. Remove sediment and erosion control devices and tree protection systems upon approval of the Engineer.
14. Remove any temporary access roadways constructed by the Contractor for his/her own use incidental to the construction.
15. Cleanup, repairs, and final restoration.
16. Conduct post-construction photography and videotaping.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

END OF SECTION

**SECTION 012000  
MEASUREMENT AND PAYMENT**

**PART 1 GENERAL**

**1.01 SCOPE**

- A. This Section includes specification for the measurement and payment of the various elements of the Work; with provisions applicable to lump sum prices, unit prices, and allowances, if applicable.
- B. The Contractor shall receive no payment for any portion of the work until it is installed. The only exception to this is payment for stored materials on site if the Contract provides for the payment of stored materials. Partial payment may be requested for items partially installed.

**1.02 LUMP SUM ITEMS**

- A. Lump Sum measurement will be for the entire item, unit of work, structure, or combination thereof, as specified and as indicated in the Schedule of Prices in the Bid Form. Measurement and payment for all bid items indicated as Lump Sums shall include the cost of all labor, materials and equipment necessary to furnish, install, clean, test, and place each bid item into operation; including permitting, general conditions, overhead and profit.
- B. Progress payments will be based on the Schedule of Values, as specified in Section 012973, prepared by the Contractor and approved by the Owner/Engineer before acceptance of the first Application for Payment.
- C. In order for the Contractor to request progress payments against Lump Sum items, Contractor shall provide a disaggregation or breakdown in sufficient measurable detail that is acceptable to the Owner/Engineer.
- D. Measurement
  - 1. Measurement shall be based on the estimated percent complete of each Lump Sum item based on the Schedule of Values, as specified in Section 012973.
- E. Payment
  - 2. Payment will be made at the lump sum price proportional to the completion percentages approved by the Owner/Engineer.

**1.03 UNIT PRICE ITEMS**

- A. Quantity and measurement estimates stated in the Schedule of Prices in the Bid Form are estimates for bidding purposes only. Actual payments shall be based on actual quantities installed, in-place, as measured and/or verified by the Owner/Engineer.
- B. Unless otherwise provided in the General Conditions, the bid unit prices shall be in effect throughout the contract duration, regardless of variances between the estimated quantities and the actual installed quantities.

- C. The Contractor shall make no claim, nor receive any compensation, for anticipated profits, loss of profit, damages, or any extra payment due to any difference between the amounts of work actually completed, or materials or equipment furnished, and the estimated quantities
- D. Unless otherwise approved by the Owner/Engineer, any unit quantities exceeded may not be invoiced until the estimated quantity is increased by contract change order.
- E. Contractor shall assist Owner/Engineer by providing necessary equipment, workers, and survey personnel as required to measure quantities.
- F. Measured quantities shall be rounded to the nearest whole integer, unless the value of the unit price exceeds \$100, in which case measured quantities shall be rounded to the nearest half unit.
- G. Measurement
  - 1. Measurement for progress payment shall be made by, or approved by, the Owner/Engineer based on the estimated effective quantity installed. The effective quantity installed represents the actual units or quantities installed, adjusted for incomplete elements or components.
  - 2. Unless otherwise provided for in the Schedule of Prices in the Bid Form, unit price items are all-inclusive of all related work, direct and indirect, to provide a complete and functional item. For example, underground water pipe installation would include pipe, trenching, shoring, dewatering, bedding, installation, backfill, testing, flushing, disinfection, and commissioning; including all labor, materials and equipment necessary to furnish, install, clean, test, and place into operation; including permitting, general conditions, overhead and profit.
  - 3. The final measurement shall be based on actual quantities, jointly measured by Contractor and Owner/Engineer, complete, fully, tested and placed into service.
- H. Payment
  - 1. Progress payments shall be in accordance with the contract documents based on estimated effective quantities installed, paid at the bid unit price.
  - 2. The final payment shall be based on actual quantities, fully installed, tested and placed into service, paid at the bid unit price.

## **PART 2 BID ITEMS**

### **BASE CONTRACT – PUMP STATION**

#### **PAY ITEM 1 - WASTEWATER PUMP STATION**

- A. Unless specifically included as a separate pay item, this item includes all materials, labor and equipment necessary, to install the pump station, complete in place, as shown on the plans. This includes all work related to the access road and all work taking place on the parcel on which the existing and proposed pump station are situated. This includes, but may not be

limited to spill containment basin, vaults, wetwell, concrete pads, controls enclosure, generator, earthwork, electrical, plumbing, gates and fencing, screening, driveways, other site modifications, restoration, connection to existing manhole, erosion control, and testing. This item does not include any proposed off-site water line, force main, or gravity sanitary sewer. The dividing line for the force main and water line is the pump station property line.

B. Payment will be made on the basis of the lump sum bid.

## **PAY ITEM 2 - PUMP STATION ABANDONMENT**

A. Unless specifically included as a separate pay item, this item includes all materials, labor and equipment necessary, to remove equipment and abandon the existing Town of Smithfield Pump Station #1 as shown on the plans. This includes all applicable equipment, and structures as indicated on the plans and Section 333220 of the Contract Documents. The Town of Smithfield has first right of refusal to certain equipment, as defined in Section 333220.

B. Payment will be made on the basis of the lump sum bid.

## **PAY ITEM 3 – BYPASS PUMPING**

A. Unless specifically included as a separate pay item, this item includes all materials, labor and equipment necessary, to install, operate, and maintain temporary bypass pumping operations for the duration of the project, including until after the new pump station is complete, certified, and accepted by the Town of Smithfield, in accordance with Section 333001 of the Contract Documents.

B. Payment will be made on the basis of the lump sum bid.

## **ALTERNATE NO. 1 – FORCE MAIN IMPROVEMENTS**

### **PAY ITEM 1 - INSTALLATION OF 20” RJ DIP FORCE MAIN**

A. This item includes furnishing all new materials, equipment, and work required to install specified Pressure Class 250 20-inch and Pressure Class 350 12-inch diameter restrained joint ductile iron pipe, valves, fittings, and ARVs, complete in place, as shown on the plans. This item shall also include the cost of all of the following:

1. For complete restoration (including but not limited to fence, sign, or pole replacement and ditch bank grading as necessary) as specified and as directed by the Engineer.
2. For the selective clearing and grubbing of the right-of-way under the supervision and direction of the Engineer, when not included in other pay items.
3. For temporary patching of driveways, walkways, and roadways immediately following construction and maintaining same until final or permanent repairs can be made.
4. For all erosion control measures, for which there is no pay item, necessary for the lawful completion of this construction. This includes but is not necessarily limited to temporary fertilizing, seeding and mulching, and temporary construction barrier fence. All erosion



control measures shall be maintained in good condition until such time as their disposition has been adjudged and directed by the Engineer.

5. For placing and compacting suitable backfill materials as specified and as directed by the Engineer.
6. For Type III Bedding for pipes.
7. For location of existing septic tanks & drain fields.
8. For complying with all applicable OSHA regulations.
9. For creek crossings.
10. For coordination required related to materials and density testing.
11. For utility locating and coordination with the property owner.

B. Payment will be made according to the unit price bid in the Proposal.

#### **PAY ITEM 2 – ANTI-SEEPAGE COLLARS**

- A. This item includes furnishing all equipment, materials, and work required to construct anti-seepage collars as shown on the plans and details.
- B. Also included in this item is all excavating (excluding rock) for furnishing, placing, compacting clay and damming, pumping, and all else required to construct specified clay collars in place.
- C. Payment will be made on a per unit basis for each collar installing according to the unit price bid in the Proposal.

#### **PAY ITEM 3 - CONCRETE BLOCKING**

- A. This item includes furnishing all new material, equipment, and labor to properly place thrust blocks at all valves, tees, vertical and horizontal bends, and plugs, as required and directed by the Engineer.
- B. Payment shall be on an installed cubic yard basis for concrete according to the unit price bid.

#### **PAY ITEM 4 – TRENCHLESS INSTALLATION OR JACK AND BORE WITH 32” STEEL ENCASEMENT (STA 10+32 TO STA 11+47)**

- A. This item includes furnishing all materials, equipment, and labor required to install 32-inch diameter steel encasement pipe by jack and bore, as specified and as shown on the Plans, Highway Encroachment, and Standard Details, including items A.1 through A.11 of Pay Item 4.
- B. Included in this payment will be material costs for specified casing pipe and the carrier pipe with spiders installed 18” downstream at each joint inside the casing and masonry plugs at each end. No payment for bore pit mobilization will be made if the casing is used.

- C. This item includes furnishing all materials, equipment, and labor required to excavate and backfill the bore pits, seal the unused casings watertight and mobilize for the attempted bores shown on the plans. No payment will be made for this item if the proposed bore is successful. If the bore is unsuccessful, payment for this item will be inversely proportional to the percentage of the bore completed.
- D. This item includes furnishing all materials, equipment, and labor required to grout an incomplete casing pipe, as specified.
- E. Payment will be made according to the unit price bid in the Proposal.

**PAY ITEM 5 – TRENCHLESS INSTALLATION OR JACK AND BORE WITH 32” STEEL ENCASEMENT (STA 30+91 TO STA 31+98)**

- A. This item includes furnishing all materials, equipment, and labor required to install 32-inch diameter steel encasement pipe by jack and bore, as specified and as shown on the Plans, Highway Encroachment, and Standard Details, including items A.1 through A.11 of Pay Item 4.
- B. Included in this payment will be material costs for specified casing pipe and the carrier pipe with spiders installed 18” downstream at each joint inside the casing and masonry plugs at each end. No payment for bore pit mobilization will be made if the casing is used.
- C. This item includes furnishing all materials, equipment, and labor required to excavate and backfill the bore pits, seal the unused casings watertight and mobilize for the attempted bores shown on the plans. No payment will be made for this item if the proposed bore is successful. If the bore is unsuccessful, payment for this item will be inversely proportional to the percentage of the bore completed.
- D. This item includes furnishing all materials, equipment, and labor required to grout an incomplete casing pipe, as specified.
- E. Payment will be made according to the unit price bid in the Proposal.

**PAY ITEM 6 – TRENCHLESS INSTALLATION OR JACK AND BORE WITH 32” STEEL ENCASEMENT (STA 46+56 TO STA 46+38)**

- A. This item includes furnishing all materials, equipment, and labor required to install 32-inch diameter steel encasement pipe by jack and bore, as specified and as shown on the Plans, Highway Encroachment, and Standard Details, including items A.1 through A.11 of Pay Item 4.
- B. Included in this payment will be material costs for specified casing pipe and the carrier pipe with spiders installed 18” downstream at each joint inside the casing and masonry plugs at each end. No payment for bore pit mobilization will be made if the casing is used.
- C. This item includes furnishing all materials, equipment, and labor required to excavate and backfill the bore pits, seal the unused casings watertight and mobilize for the attempted bores shown on the plans. No payment will be made for this item if the proposed bore is successful.

If the bore is unsuccessful, payment for this item will be inversely proportional to the percentage of the bore completed.

- D. This item includes furnishing all materials, equipment, and labor required to grout an incomplete casing pipe, as specified.
- E. Payment will be made according to the unit price bid in the Proposal.

**PAY ITEM 7 - CONNECT TO EXISTING MANHOLE AT CENTRAL JOHNSTON COUNTY REGIONAL WWTP**

- A. This item includes furnishing all new material, equipment, and work required to make connection to the existing sewer, as specified, and as directed by the Engineer. Included in the cost of this connection shall be all additional work required at the existing manhole to make the connection with flexible watertight coupling on pre-cast concrete manholes or concrete collar on brick or block manholes as required, installing masonry plugs to prevent infiltration or introduction of foreign material into the existing system, and reworking invert. Also included is sealing the cover.
- B. Payment will be made in accordance with the unit price bid.

**PAY ITEM 8 – FORCE MAIN TESTING AND DISINFECTION**

- A. This item includes furnishing all materials, equipment and labor required to successfully complete the required pressure testing of the force main, as specified and as directed by the Engineer.
- B. Payment will be made on the basis of the unit price bid, per linear foot of force main pipe.

**PAY ITEM 9 - STONE STABILIZATION MATERIAL**

- A. This item includes all materials, equipment, and work required, including undercutting ditch line, handling, and compacting in place, to construct a stable bottom to receive the Stone Bedding, geotextile fabric, and pipe. This material shall be clean, washed stone, standard size number (ASTM) 467, or as approved by the Engineer.
- B. Payment shall be made on the basis of the unit price bid per ton of stone required or square yard of geotextile reinforced fabric to construct a stable bottom.

**PAY ITEM 10 - SELECT BACKFILL MATERIAL**

- A. This item includes all equipment, materials, and labor required for furnishing select backfill material when native trench material is judged unsuitable in accordance with the specifications. The Engineer may require select backfill in order to meet the requirements of the Detailed Specifications for construction pertaining to backfill and compaction. Select backfill material shall be obtained from an approved borrow source and shall only be used when directed by the Engineer in writing. This item shall be on a compacted in place basis.

- B. This item shall also include removing and disposing of soils, which are removed from the trench and determined to be unsuitable for use as backfill.
- C. Payment will be made at the unit price bid per cubic yard for "Select Backfill Material". Payment will only be made when native material is unsuitable and stockpiles of suitable material from previous trench excavations have been exhausted and use of "Select Backfill Material" has been directed by the Engineer in writing.
- D. Payment shall be based on the standard trench width (30-inches plus nominal pipe diameter) relative to the type of pipe being laid and shall be considered in a vertical plane up to ground grade. Payment at manholes shall be limited to 8' x 8' and shall be considered in a vertical plane. Payment at bore pits shall be determined by the size of the boring machine and shall be considered in a vertical plane.
- E. Note: Select backfill material required to replace solid rock excavation is included in the cost of "Solid Rock Excavation".
- F. Payment shall be made on the basis of the unit price bid.

#### **PAY ITEM 11 - FOR LOCATING EXISTING UTILITIES**

- A. This item includes furnishing all materials, equipment and labor to dig up, locate and backfill existing underground utilities, as directed by the Engineer, ahead of construction. Utilities uncovered during pipe installation are not eligible for payment in this item. Utilities which are obviously not in either horizontal or vertical conflict with the proposed facilities are not eligible for payment in this item.
- B. Payment will be made per dig up location per utility uncovered ahead of construction.

#### **PAY ITEM 12 - FOR RELOCATING EXISTING UTILITIES**

- A. This item includes furnishing all materials, equipment and work to relocate existing utilities to one side of the required trench for gravity sewer, force main, and water main installation, as directed by the Engineer.
- B. This pay item also includes any necessary replacement of water line laterals with copper piping, punching under the existing asphalt as needed.
- C. This pay item also includes any necessary replacement of sanitary sewer laterals.
- D. Payment will be made per linear foot of utility relocated according to the unit price bid.

#### **PAY ITEM 13 - STORM DRAIN REPLACEMENT**

- A. This item includes furnishing all new materials, equipment and work required to remove and replace any storm drains in conflict with the alignment of the proposed force main, as specified and as directed by the Engineer. Removal and or damage to any part of the storm system more

than three (3.0) feet from the center line of the force main will be repaired or replaced as directed but will not be considered for payment.

- B. Payment will be made on the basis of the unit price bid per linear foot of storm pipe removed and replaced, regardless of size. Payment for substituting new Class 3 R.C.P. or new Corrugated Metal Pipe will be in addition to payment for removing and replacing pipe.

#### **PAY ITEM 14 - SOLID ROCK EXCAVATION**

- A. This item includes all work, new materials, and equipment required to remove solid rock from the trench and structure area and dispose of same. This does not include rock excavation included in the pump station site (Pay Item 1). Rock shall be defined as solid ledge rock that requires drilling and blasting, sledging, or barring for its removal. Boulders greater than one (1) cubic yard in volume will also be considered rock excavation. Soft disintegrated rock that can be removed with a pick shall not be classified as solid rock. This item shall also include the cost to furnish suitable backfill material, blasting permits, conducting Contractor's own Blast Monitoring, and coordinating blasting activities with the Owner's Independent Blast Survey and Monitoring Firm.
- B. Payment shall be based on the standard trench width (30-inches plus nominal pipe diameter) relative to the type of pipe being laid and shall be considered in a vertical plane up to the ground grade.

**THE UNIT PRICE BID SHALL BE AT LEAST \$40 FOR THE FIRST 100 CY REMOVED. IF AN AMOUNT LESS THAN \$40 IS BID, THE ENGINEER WILL ADJUST THE FIGURE TO THE CORRECT AMOUNT (\$40) AND ADJUST THE TOTAL BID ACCORDINGLY.**

- A. Payment will be made on the basis of the unit price bid.
- B. Also included as Part C of this pay item is exploratory drilling, which will be paid on a vertical foot basis.

#### **PAY ITEM 15 - CLEARING AND GRUBBING, TREE REMOVAL**

- A. This item includes all new material, equipment and labor required to clear areas needed for construction, including clearing of trees, grubbing of underbrush, necessary for installation of the proposed facilities, as specified and as directed by the Engineer. Stumps not disturbed by pipe installation may be cut flush to finish grade.
- B. Payment will be made on the basis of the unit price bid per square yard of clearing and grubbing.
- C. Trimming and pruning shall be considered incidental to construction and shall not be considered for payment.

#### **PAY ITEM 16 – REPLACEMENT OF EXISTING TREES**

- A. This item includes all new material, equipment and work required to prepare the bed, mulch, install and fertilize 2-inch caliber trees, as needed.
- B. Payment will be made on the basis of the unit price bid.

**PAY ITEM 17 - EROSION AND SEDIMENTATION CONTROL MEASURES**

- A. This item includes furnishing all materials, equipment, and work required to install and maintain the various erosion control devices as specified.
- B. Payment will be made on the basis of the unit price bid.

**PAY ITEM 18 - FERTILIZING, SEEDING AND MULCHING**

- A. This item includes all new material, equipment and work required to prepare the seed bed, fertilize, seed, and mulch as specified and as directed by the Engineer.
- B. Payment will be made for seeding up to the full width of the permanent right-of-way and/or temporary construction easement but will be for the actual width seeded within the permanent right-of-way and/or temporary construction easement. When the pipeline construction is in a road right-of-way, the Contractor shall be paid for the actual width seeded, up to the width of 25 feet for force main construction.

**PAY ITEM 19 – WETLAND SEEDING AND PLANTINGS**

- A. This item includes all new material, equipment and work required to prepare the seed bed, seed, mulch, and install plantings as specified and as directed by the Engineer in wetland areas.
- B. Payment will be made on the basis of the unit price bid.

**PAY ITEM 20 - CUTTING AND REPLACING EXISTING ASPHALT PAVEMENT AND CONCRETE CURB/GUTTER**

- A. This item includes furnishing all new materials, equipment and labor for cutting (sawing as required) and replacing all pavement (bituminous concrete, penetration and other surface treatments) including roadways and driveways, as well as concrete curb and gutter, as specified and as directed by the Engineer and in accordance with the specifications.
- B. Damage to existing asphalt outside the pipe trench width shall be repaired as directed by the controlling agency or as directed by the Engineer, but shall not be considered for payment.
- C. One part of this pay item includes the saw cutting and removal and replacement of the full pavement section, including surface course, within the force main trench.
- D. Another part of this pay item includes surface course from the edge of the concrete gutter to the centerline of the roadway, on the same side of the roadway as the force main, minus the area in the sentence above.

- E. Payment will be on a square yard as measured on a horizontal plane in accordance with the unit price bid. Payment for one-inch of I-2 overlay will be made on a square yard basis.
- F. This item also includes furnishing all new materials, equipment and labor for cutting (sawing) and replacing concrete curb and gutters to match existing, as specified and as directed by the Engineer, complete in place.
- G. Also, included in this item is all excavating, forming, vibrating, curing, expansion joint material, and all else required to construct the necessary curb and gutters.
- H. Damage to parallel curb and gutter outside the area specified in the special provisions will be repaired as specified, or directed by the controlling agency, but will not be considered for payment.
- I. Payment will be made on the basis of the unit price bid.

#### **PAY ITEM 21 - PAVEMENT MARKING LINES AND SYMBOLS**

- A. This item includes furnishing all equipment, new materials, and labor required to replace existing pavement marking lines and symbols and to re-paint pavement marking lines and symbols to direct and control the movement of traffic, as directed and approved by the controlling agency and the Engineer.
- B. All markings shall be with pavement marking paint only. No adhesive backed tape shall be used on this project, unless otherwise approved by the controlling agency and the Engineer.
- C. Payment for painting pavement-marking lines will be made on a linear foot basis. Payment for painting symbols will be made on the basis of the unit price bid.

#### **PAY ITEM 22 – TRAFFIC CONTROL**

- A. This item includes furnishing all materials, equipment and labor required to maintain traffic, as specified and as directed by the Engineer. This pay item includes the use of Jersey Barriers, if required.
- B. Payment will not be made for flaggers on low traffic volume roads or subdivision streets when flagging is not required on a full time basis. Costs associated with part time flagging shall be included in the cost of the pipe.
- C. Payment for this item will be made on a lump sum basis.

#### **PAY ITEM 23 – GRAVEL DRIVEWAY AND PATHWAY REMOVAL AND REPLACEMENT**

- A. This item includes furnishing all new materials, equipment and labor for replacing all gravel driveways and pathways damaged or removed during construction, as specified and as directed by the Engineer and in accordance with the specifications.
- B. Payment will be made on the basis of the unit price bid.

**PART 3 EXECUTION – NOT USED**

END OF SECTION



## **SECTION 013216 CONSTRUCTION SCHEDULING**

### **PART 1 GENERAL**

#### **1.01 PROGRAM DESCRIPTION**

- A. A Critical Path Method (CPM) construction schedule shall be used to control the Work and to provide a basis for determining job progress. The construction schedule shall be prepared and maintained by the Contractor. All work shall be done in accordance with the established CPM schedule. The Contractor and all subcontractors shall cooperate fully in developing the construction schedule and in executing the work in accordance with the CPM schedule.
- B. The construction schedule shall consist of a computerized CPM network (diagram of activities) presented in a time-scaled graphic (print-out) with reports, as specified herein.
- C. No progress payments will be made until the preliminary Progress Schedule has been accepted by the Engineer.

#### **1.02 QUALIFICATIONS**

- A. The Contractor shall have the capability of preparing and utilizing the specified CPM schedule, or engage the services of a specialized scheduling professional to do so. At the Pre-Construction Conference, provide a résumé or qualifications statement for the individual within the Contractor's organization, or the outside consultant, who is being proposed as the responsible party for development and maintenance of the CPM schedule. The résumé or qualifications statement shall demonstrate that the proposed responsible party has successfully developed and maintained CPM schedules for at least three construction projects of the same size or greater than this project. The proposed responsible party for the CPM schedule is subject to approval by the Owner/Engineer. If the proposed responsible party for the CPM schedule is not approved, Contractor shall resubmit a more-appropriate candidate within 5 days for approval.

#### **1.03 SUBMITTALS**

- A. Contractor shall submit Interim, Preliminary, Baseline (also known as "as-planned") CPM schedules, revisions, and Monthly Status Reports, all including graphics, reports, and narratives, and an as-built schedule, as specified herein.

#### **1.04 INCLEMENT WEATHER**

- A. Work shall not be performed when inclement weather creates work site conditions that are unsafe for workers, for the general public, or prevents performance of Contract provisions.
- B. When work cannot be performed due to inclement weather, the Contractor shall be entitled to submit a Change Proposal for an extension of Contract time, subject to the provisions included in this section. Claims for extension of Contract time due to all other weather-related events (including but not limited to Acts of God, Force Majeure, etc.) are addressed elsewhere in the Contract.

- C. The following conditions warrant consideration as inclement weather:
1. Daily rainfall exceeding 0.10'' on an authorized work day.
  2. Daily rainfall exceeding 1.0'' on an authorized work day, or one day prior, shall warrant consideration of an additional inclement weather day or "mud day".
  3. Inclement weather days shall be granted at the discretion of the Town of Smithfield Project Manager and the Engineer for other inclement weather conditions such as temperature extremes, snowfall/ice accumulation, high winds, etc.
- D. The Contractor shall obtain weather data during construction and maintain weather records using the closest National Oceanic and Atmospheric Administration (NOAA) weather station to the Project site. A list of NOAA weather stations may be found at the following website: <https://www.ncdc.noaa.gov/cdo-web/results>. In the event that data is unavailable at the closest weather station, the next closest NOAA weather station in terms of straight-line distance from the Project site, with available data, shall govern as the reputable source.
- E. Claims for an extension of Contract time shall be submitted by the Contractor to the Engineer via a Change Proposal. No claims for an extension of Contract time shall be considered unless: (1) An inclement weather condition has occurred as indicated above, (2) the critical path of the construction was negatively impacted by the inclement weather condition, (3) the number of observed inclement weather days exceeds the monthly anticipated total as indicated in the chart below, (4) the weather impact is applicable to the work being performed or planned; e.g., work performed in an enclosed building is not impacted by weather.
- F. The Contractor shall share weather data for discussion on a weekly basis with Engineer's Resident Project Representative and Town of Smithfield's Project Manager or Construction Inspector. The Contractor shall submit a Change Proposal for an extension of Contract time to the Engineer on a monthly basis. The Change Proposal shall include relevant weather data to substantiate the request as well as a list of critical path work activities planned for the requested inclement weather day to ensure that the work itself and the critical path was impacted by the inclement weather. The Engineer will determine if the requested inclement weather days are allowable based on the parameters defined above and grant only the number of allowable days that exceed the anticipated inclement weather days as indicated in the chart below, by way of approving the Change Proposal. Adjustments to the Contract time will be based on a comparison for the entire month.

MONTHLY ANTICIPATED INCLEMENT WEATHER DAYS											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
7	6	7	5	6	5	6	7	4	4	6	6

- G. Partial months at the beginning and ending of the Contract time will be prorated proportionally. Inclement weather conditions occurring on holidays, Saturdays, or Sundays are included in the anticipated inclement weather days chart above. The Contractor shall take into consideration these monthly anticipated inclement weather days when submitting their Bid, and therefore these calendar days are included in the Contract time. Inclement weather occurring on holidays, Saturdays, or Sundays shall not be included in considerations of granting additional inclement

weather days. Only “mud days” shall be considered in this case in accordance with the parameters defined above.

- H. The Engineer will consider special conditions caused by inclement weather or by continuing adverse weather patterns on a case by case basis. The Contractor shall submit a Change Proposal including documentation of cause and effect of occurrence(s) on critical path activities to the Engineer within seven calendar days of the occurrence(s). The Engineer shall respond to the contractor within 30 calendar days of receipt of the Change Proposal.
- I. The Contractor’s sole remedy for delays covered by this provision shall be an extension of Contract time only. Any weather-related extension of Contract time shall be non-compensable. Efficiencies gained as a result of favorable weather within a calendar month, where the number of days of observed inclement weather days is less than anticipated, shall contribute to the project Float and shall not affect the Contract time.

## **PART 2 PRODUCTS**

### **2.01 SOFTWARE**

- A. Unless otherwise approved by the Owner/Engineer, the computer-based schedule shall be generated using Microsoft Project 2010 or higher or Oracle-Primavera P6 Professional Project Management Software Release 8.3 or higher.
- B. If the Contractor wants to pursue the use another scheduling software (other than what is stated above) they need to submit a written request within 5 days of award of contract to the Owner/Engineer justifying their intended scheduling software selection providing 3 examples of where they have used the scheduling software on similar dollar and length of time projects within the last 3 years.

### **2.02 NETWORK REQUIREMENTS**

- A. Each schedule submittal shall contain and display the following identifying information:
  - 1. Project Title, Owner's Contract Number, and the Project Number
  - 2. Contractor's name
  - 3. All Contract milestones, as specified
  - 4. The project calendar(s) (including work week and holidays)
  - 5. Type of submittal (e.g., Interim, Preliminary, Baseline or Monthly Current Update Period)
  - 6. Page number and total page count
  - 7. Data date and run (print) date and time
  - 8. Schedule File Name
- B. The network of activities shall show the order and inter-dependence of activities; and, show the sequence in which the work is to be accomplished, as planned by the Contractor. The basic

concept of a network analysis diagram shall be followed to show how each activity is dependent on preceding activities (predecessors) and following activities (successors).

- C. All activities shall be sufficiently identified and/or described so that the scope of work of each activity is clear. All work tasks shall be broken down into appropriate scopes and durations to facilitate monitoring progress within a given month. Unless otherwise approved by the Owner/Engineer, no activities shall have durations of more than one month; except for off-site activities such as procurement and delivery of materials and equipment - or administrative or management (Level of Effort (LOE)) activities that span the project duration that do not reflect earned progress.
- D. Network activities shall be organized (grouped) by phases (or stages), physical areas, buildings, elevations, or other portions of the project.
- E. Separate network activities shall be provided for subcontractors.
- F. The number of network activities, sufficiency of description, and level of breakdown shall be subject to the Owner/Engineer's review and approval to confirm conformance with the specified requirements.
- G. The format of the schedule network graphic shall be a time-scaled logic diagram - with a list of network activities and the specified data fields presented adjacent to the graphic display.
- H. The following general requirements also apply to the network diagram.
  - 1. The Critical Path (the sequence of project network activities that add up to the longest overall duration and thereby determines the shortest time possible to complete the project) shall be identified - preferably in 'red'.
  - 2. Unless otherwise approved by the Owner/Engineer, the Contractor's work schedule shall be based on 'normal work week' as defined in the Contract Documents – (typically 40 hours per week, consisting of five 8-hour days).
  - 3. The graphics shall indicate the calendar(s) on which activity durations are based (i.e., 5-day workweek or 7 calendar day week). When multiple calendars or work weeks are used, the graphics shall clearly indicate which calendars are used where.
  - 4. The project calendar shall include exclusions for holidays observed by the Contractor and those indicated in the Contract Documents.
- I. Each network activity shall have the following information (fields) listed alongside the activity on the graphic display.
  - 1. Activity ID – a manually assigned designation (numeric or alphanumeric). The Contractor should use a logical approach to assigning identification to network activities to facilitate grouping (sorting) of activities.
  - 2. Activity Description needs to include an Action verb, Element, and Demarcation Points (for example: Excavate 6” CPVC Line from Sta14+15 to 16+01)

3. Original Duration – including allowances for adverse weather interruptions – normal for the project location, as defined in the Contract Documents.
4. Percent complete – the Contractor's estimated physical percent complete for each network activity as of the data date for the respective report.
5. Remaining Duration - a calculated value based on Original Duration of each network activity.
6. Early Start Date
7. Early Finish Date
8. Late Start Date
9. Latest Finish Date
10. Total Float

## **2.03 SUBMITTAL REQUIREMENTS**

### **A. Each schedule submittal shall include the following elements:**

1. Graphics – unless otherwise approved by the Owner/Engineer, the network graphics shall consist of 4 copies on 11X17 single sided sheets; including a list of activities and the specified data fields.
2. Narrative
  - a. The Narrative shall consist of a written report by the Contractor providing an overview of the schedule – specific to each submittal.
  - b. The Narratives for developmental submittals, i.e., Interim and Preliminary, shall describe the Contractor's approach to executing the project Work.
  - c. The Narrative for the Baseline Schedule shall:
    - 1) explain key activities and assumptions on which the schedule is based;
    - 2) describe the Critical Path;
    - 3) discuss key deliveries that might adversely affect the project schedule; and,
    - 4) explain the Contractor's approach to adverse weather interruptions – normal for the project location. Normal weather shall mean seasonally average weather conditions, as recorded by NOAA.
  - d. The Narratives provided with Monthly Status Reports (updates) shall also identify:
    - 1) any changes the Contractor has made to the CPM logic (including any added, modified or deleted activities,
    - 2) any delays that have been encountered, and
    - 3) remedial actions or recovery steps the Contractor will employ to arrest and/or recover from such delays.

### **B. Reports**

1. The following reports are required to be submitted with Baseline Schedule, when a major revision is made to the schedule, and when requested by the Owner/Engineer.
  - a. Activity – a report listing all network activities, sorted by activity ID

- b. Early Start – a report listing all network activities, sorted by Early Start date
- c. Total Float – a report listing all network activities, sorted by Total Float (ascending from low to high).
- d. Predecessor/Successor – a report of all activities, sorted by Activity ID that lists all predecessor and successor activities for each network activity.

## **2.04 ACCEPTABILITY**

- A. The Contractor shall submit the CPM schedule submittals, as specified, and resubmit as needed, until they are in compliance with Contract requirements.
- B. The Owner/Engineer's review of the Contractor's construction schedule submittals will only be for conformance with the Contract requirements – including but not limited to contract time and work sequences specified in the Contract Documents. The Owner/Engineer's review of the schedule shall not include the Contractor's means and methods of construction or safety. The Owner/Engineer's concurrence, acceptance, or approval of the Contractor's schedule submittals will not relieve the Contractor from responsibility for complying with the Contract Scope, Contract Time or any other contract requirement. Any indication of concurrence, acceptance, or approval of the Contractor's schedule will only indicate a general conformance with the Contract requirements.
- C. Concurrence, acceptance, or approval of the Contractor's CPM schedule by the Owner/Engineer in no way makes the Owner/Engineer an insurer of the CPM schedule's success, nor liable for time or cost overruns resulting therefrom.
- D. Failure to include any element of work required for the performance of this Contract will not excuse the Contractor from completing all Work required within the Contract completion date(s), notwithstanding the review of the network by the Owner/Engineer.
- E. CPM schedules that contain activities with negative float, or which extend beyond the contract completion date, will not be acceptable.
- F. Except where earlier completions are specified, CPM schedules which show completion of all work prior to the contract completion date may be indicated; however, in no event shall they constitute a basis for claim for delay by the Contractor.

## **PART 3 EXECUTION**

### **3.01 IMPLEMENTATION SCHEDULE**

- A. Interim Schedule
  - 1. Within 15 days following the receipt of the Notice to Proceed, submit an Interim Schedule indicating the planned operations during the first 60 calendar days after Notice to Proceed. In addition, the Contractor shall indicate its general approach for the balance of the project.
  - 2. While the Preliminary schedule is being developed, the Contractor shall update the Interim schedule on a monthly basis – indicating actual progress - until the Preliminary schedule is submitted.
- B. Preliminary Schedule

1. Within 30 days following the receipt of Notice to Proceed, submit a proposed Preliminary Schedule. The Preliminary Schedule shall consist of a draft computer-generated CPM-schedule showing the entire Scope of Work. The Preliminary Schedule shall not include any actual progress earned during development of the schedule (i.e., as of the Notice to Proceed).
2. Within 5 days of submittal of the Preliminary Schedule, meet with the Owner/Engineer to discuss the review comments.
3. Once the Preliminary Schedule is submitted, Contractor shall discontinue updating the Interim Schedule. Provide monthly updates of the Preliminary Schedule until concurrence, acceptance, or approval of the Baseline Schedule.

C. Baseline (as-planned) Schedule

1. With 10 days of the review meeting on the Preliminary Schedule submittal, the Contractor shall incorporate the Owner/Engineer's comments into the network and submit a Baseline Schedule. Resubmit the Baseline Schedule, as required until it is deemed acceptable as stated in Paragraph 2.04, above.
2. Upon concurrence, acceptance, or approval of the Contractor's initial Baseline Schedule, it shall be recognized as the basis against which the Contractor's progress shall be measured.
3. Each Progress Schedule activity that has an actual cost shall have a cost value assigned to it. Each activity's assigned cost shall consist of all costs associated with that activity including all project management, superintendence, overhead, and profit costs. The sum of all activity costs shall be equal to the current Contract Price at all times, including approved change orders. Contractor shall certify that the costs are not unbalanced and that the value assigned to each activity represents Contractor's total cost to perform that activity. Monthly payment projections shall be presented to the Engineer and Owner.

D. Monthly Status Reports

1. Monthly Status Reports shall include updated graphics and a narrative. In addition, if requested by the Owner/Engineer, Contractor shall provide copies of one or more of the standard reports listed in Paragraph 2.03.B.
2. The Contractor shall provide Monthly Status Reports (schedule updates) commencing approximately 30 days after submission of the Interim Schedule. Unless approved otherwise by the Owner/Engineer, the Monthly Status Reports shall be statused as of the end of each calendar month.
3. While the Preliminary Schedule is being developed, the Contractor shall update the Interim schedule on a monthly basis – indicating actual progress - until the Preliminary Schedule is submitted.
4. While the Baseline Schedule is being developed, the Contractor shall update the Preliminary Schedule on a monthly basis – indicating actual progress - until concurrence, acceptance, or approval of the Baseline Schedule.

5. Once the initial Baseline Schedule is complete, Monthly Status Reports shall be based on the Baseline Schedule.

E. As-Built Schedule

1. Upon achieving Substantial Completion, the Contractor shall submit an as-built schedule, showing all activities from the Notice to Proceed through Substantial Completion. In addition, provide the reports listed in Paragraph 2.03.B. A Narrative is not required.

### **3.02 DELIVERABLES**

- A. Unless approved otherwise by the Owner/Engineer, the Contractor is to provide an electronic copy of the file (for P6 .XER or XML Format) and PDF copies of all submittal reports, and 4 hard copies of all submittals will be printed in color on 11 X 17 single sided sheets which may be divided into as many separate sheets as required.

### **3.03 PROGRESS REPORTING**

- A. Progress under the approved CPM schedule shall be reported monthly by the Contractor by submitting a Monthly Status Report. Unless otherwise approved by the Owner/Engineer, the Contractor shall meet monthly with the Owner/Engineer, to jointly evaluate the status of each network activity. Each activity shall be updated to reflect the actual progress (physical percent complete) and the actual dates activities were started and completed, as applicable.
- B. The Monthly Status Report shall include an update of the computer-generated network graphics and a Narrative report. The Narrative shall include:
  1. A description of the progress during the reporting period in terms of completed activities
  2. A summary of the Critical Path
  3. A description or explanation of each delays to network activities
  4. A description of problem areas, current and anticipated delaying factors and their anticipated effect on the performance of other activities and completion dates
  5. An explanation of corrective action taken or proposed.
  6. A schedule look-ahead, time-scaled logic diagram that shows the last 4 weeks prior to the data date and the next 6 weeks after the data date sorted by work area and early start.
  7. This report, as well as the CPM Status Report, will be discussed at each progress meeting.

### **3.04 RESPONSIBILITY FOR SCHEDULE COMPLIANCE**

- A. Whenever it becomes apparent from the current CPM schedule and CPM Status Report that delays to the critical path have resulted and the contract completion date will not be met, or when so directed by the Owner/Engineer, take some or all of the following actions at no additional cost to the Owner. Submit to the Owner/Engineer for approval, a written statement of the steps intended to take to remove or arrest the delay to the critical path in the approved schedule.



1. Increase construction manpower in such quantities and crafts,
  2. Increase the number of working hours per shift, shifts per day, working days per week,
  3. Increase the amount of construction equipment, and/or
  4. Reschedule activities to maximize the concurrence of activities and comply with the revised schedule.
- B. If when so requested by the Owner/Engineer, failure to submit a written statement of the steps intended to take or should fail to take such steps as approved by the Owner/Engineer, the Owner/Engineer may direct the Contractor to increase the level of effort in man-power (trades), equipment and work schedule (overtime, weekend and holiday work, etc.) to be employed by the Contractor in order to remove or arrest the delay to the critical path in the approved schedule and the Contractor shall promptly provide such level of effort at no additional cost to the Owner.

### **3.05 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME**

- A. If the Contractor wants or needs to make changes in his/her execution of the construction schedule that would affect the approved CPM schedule, he/she shall notify the Owner/Engineer in writing stating what changes are proposed and the reasons for the changes. If the Owner/Engineer approves such changes, the Contractor shall revise and submit a revised schedule for approval - without additional cost to the Owner. The CPM schedule shall be adjusted by the Contractor only after prior approval of his/her proposed changes. Adjustments may consist of changing portions of the activity sequence, activity durations, division of approved activities, or other adjustments as may be approved by the Owner/Engineer; however, the addition of extraneous, non-working activities and activities that add unapproved restraints to the CPM schedule will not be allowed.
- B. Shop drawings that are not approved on the first submittal will require the addition of network activities for the resubmittals.
- C. Equipment that does not pass the specified tests will require the addition of network activities for the retesting.
- D. Total float in the approved CPM network belongs to the project; i.e., either the Owner or Contractor may take advantage of available total float on a first-come, first-served basis. Therefore, without obligation to extend either the overall completion date, or any intermediate completion dates set out in the CPM network, the Owner may initiate changes to the work or delay work that absorb available total float existing at the time of the change or delay. Owner initiated changes or delays that affect the Critical Path on the approved CPM network shall be the sole grounds for extending (or contracting) contract completion dates or fixed milestones.

### **3.06 COORDINATING SCHEDULES WITH OTHER CONTRACT SCHEDULES**

- A. Where work is to be performed under this Contract concurrently with or contingent upon work performed on the same facilities or area under other contracts, the Contractor's CPM Schedule shall be coordinated with the schedules of the other contracts. Obtain the schedules of the other appropriate contracts from the Owner for the preparation and updating of the CPM schedule and

make the required changes in the schedule when indicated by changes in corresponding schedules.

- B. In case of interference between the operations of different contractors, the Owner will determine the work priority of each contractor and the sequence of work necessary to expedite the completion of the entire project. In all such cases, the decision of the Owner shall be accepted as final. The temporary delay of the Contractor's work due to such circumstances shall not be considered as justification for claims for additional compensation.

END OF SECTION

**SECTION 013233**  
**CONSTRUCTION PHOTOGRAPHS AND VIDEO RECORDING**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. Furnish all labor, materials, equipment and incidentals required to provide photographic documentation and video taping of the Project as specified herein.
- B. Work includes administrative and procedural requirements for the following:
  - 1. Land-based preconstruction photographs.
  - 2. Land-based final completion construction photographs.
  - 3. Preconstruction video recordings.

**1.02 RELATED WORK**

- 1. Submittal procedures are included in Section 013300.
- 2. Project Record Documents are included in Section 017839.

**1.03 REFERENCES**

- A. Not Used.

**1.04 SUBMITTALS**

- A. Key Plan: Submit key plan of Project site and/or buildings with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction if applicable.
- B. Digital Photographs land-based: Submit image files within seven days of taking photographs.
  - 1. File Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
  - 2. Submit digital photographs in data disc format acceptable to Engineer.
    - a. Full-size (12-cm / 4.7-inch diameter) CD-R, DVD-R and DVD+R single-use recordable discs are acceptable as are USB drives.
    - b. Package each disc in a hard plastic case, clearly and indelibly labeled using self-adhesive labels specifically designed for labeling of discs. Include on the label the project name, project number, and the time period covered by the photographs contained on the disc.

3. Identification: Provide the following information with each image description in file metadata tag:
  - a. Name of Project.
  - b. Name and contact information for photographer.
  - c. Name of Engineer and/or City Construction Administrator.
  - d. Name of Contractor.
  - e. Date and time photograph was taken.
  - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
  - g. Unique sequential identifier keyed to accompanying key plan.
- C. Construction Photographs land-based: Submit two prints of each photographic view within seven days of taking photographs.
  1. Format: 8-by-10-inch (203-by-254-mm) smooth-surface matte prints on single-weight, commercial-grade photographic paper;
  2. Identification: On back of each print, provide an applied label or rubber-stamped impression with the following information:
    - a. Name of Project.
    - b. Name and contact information for photographer.
    - c. Name of Engineer and/or City Construction Administrator.
    - d. Name of Contractor.
    - e. Date and time photograph was taken if not date stamped by camera.
    - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
    - g. Unique sequential identifier keyed to accompanying key plan.
- D. Video Recordings: Submit video recordings within seven days of recording.
  1. Submit video recordings in digital video disc format acceptable to.
    - a. Full-size (12-cm / 4.7-inch diameter) CD-R, DVD-R and DVD+R single-use recordable discs are acceptable as are USB drives.
    - b. Package each disc in a hard-plastic case, clearly and indelibly labeled using self-adhesive labels specifically designed for labeling of discs. Include on the label the project name, project number, and the time period covered by the photographs contained on the disc.
  2. Identification: With each submittal, provide the following information:
    - a. Name of Project.
    - b. Name and contact information for videographer.
    - c. Name of Engineer and/or City Construction Administrator.
    - d. Name of Contractor.
    - e. Date video recording was recorded.
    - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
    - g. Weather conditions at time of recording.

## **1.05 USAGE RIGHTS**

- A. Obtain and transfer copyright usage rights from photographer and/or videographer or Contractor to Owner for unlimited reproduction of photographic documentation.

## **PART 2 PRODUCTS**

### **2.01 PHOTOGRAPHIC MEDIA**

#### **A. Digital Photographs:**

1. Provide digital photographs produced by a dedicated, fixed- or interchangeable-lens digital camera. Images made with cell phones, tablets, webcams, and wearable cameras are not acceptable.
2. Digital Camera: Have a minimum image resolution of 8 megapixels, and produce images in JPEG (.JPG) format with image dimensions of not less than 3200 by 2400 pixels.
3. Include date and time in file name for each image.

#### **B. Digital Video Recordings:**

1. Provide video recordings made with a dedicated digital video camera specifically made for video recordings. Video recordings made with cell phones, tablets, webcams, and wearable cameras are not acceptable.
2. Digital Video Camera: Have a minimum resolution of 720p (1280 x 720, progressive).
3. Provide video recordings in a common digital video format such as .MP4 or .WMV. The minimum resolution of all video files shall be 720p (1280 x 720, progressive).

## **PART 3 EXECUTION**

### **3.01 CONSTRUCTION PHOTOGRAPHS**

#### **A. General**

1. Engage a qualified photographer to take construction photographs.
2. Take photographs that clearly show the Work. Exhibit correct exposure and focus, accurate color balance, maximum depth of field, minimal optical distortion, and minimal noise. Photographs that, in the Owner/Engineer's opinion, do not meet these quality criteria will not be accepted and shall be re-taken at no additional cost to the Owner.
3. Maintain key plan with each set of construction photographs that identifies each photographic location.
4. Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
5. Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted.

**B. Preconstruction Photographs**

1. Before commencement of any excavation, demolition, or start of any construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points. Take additional photographs as specifically as directed by the Owner/Engineer.
2. Flag excavation areas and construction limits before taking construction photographs.
3. Take photographs to show existing conditions, including roadways, parking lots, driveways, walkways, etc., adjacent to property before starting the Work.
4. Take photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
5. Take photographs as required to record existing settlement or cracking of adjacent structures, pavements, and improvements.
6. The exact number of photographs will depend on the complexity of the project and the density of the surrounding area. The Contractor shall ensure an adequate number of photographs are taken to properly document the above existing conditions.

**C. Periodic Construction Photographs**

1. Take photographs weekly. Select vantage points to show status of construction and progress since last photographs were taken.
2. From time to time, the Owner/Engineer may instruct Contractor to take additional photographs from select vantage points and directions to show the status of construction and progress since last photographs were taken.

**D. Final Completion Construction Photographs**

1. Take photographs after date of Substantial Completion for submission as project record documents as required by Section 017839.
2. The exact number of photographs will depend on the complexity of the project and the density of the surrounding area, but in general should be at the same locations of the Preconstruction photographs. The Contractor shall ensure an adequate number of photographs are taken to properly document the above existing conditions.

**3.02 CONSTRUCTION VIDEO RECORDINGS**

**A. Engage a qualified videographer to record construction video recordings.**

**B. Video Recordings:**

1. Produce bright, clear, sharp pictures with accurate colors and free from distortion, excessive shake, or any other form of picture imperfection. The audio track of each video recording shall reproduce precise and concise explanatory notes by the camera operator with proper volume, clarity and freedom from distortion and interference. Video recordings

that, in the Engineer's opinion, do not meet these quality criteria will not be accepted and shall be re-recorded at no additional cost to the Owner.

2. Mount camera on tripod before starting recording unless otherwise necessary to show area of construction. Display continuous running time and date. At start of each video recording, record weather conditions from local newspaper or television and the actual temperature reading at Project site.
- C. Narration: Describe scenes on video recording by audio narration by microphone while video recording. Include description of items being viewed, recent events, and planned activities. At each change in location, describe vantage point, location, direction (by compass point), and elevation or story of construction.
1. Confirm date and time at beginning and end of recording.
  2. Begin each video recording with name of Project, Contractor's name, videographer's name, and Project location.
- D. Preconstruction Video Recording: Before commencement of any excavation, demolition, or start of any construction, take video recording of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by the Engineer or City Inspector. Contractor shall give Engineer or Inspector 48 hours' notice prior to recording video and the Engineer and Inspector shall be present for the recording.
1. Flag excavation areas and construction limits before recording construction video recordings.
  2. Show existing conditions, including all roadways, parking lots, driveways, walkways, etc., adjacent to Project site before starting the Work.
  3. Show existing buildings either on or adjoining Project site to accurately record physical conditions at the start of excavation, demolition, or any construction.
  4. Show protection efforts by Contractor.
- E. Final Completion Construction Video: Take video recording after date of Substantial Completion of the same area videoed prior to Construction and submit as project record documents.

END OF SECTION

## **SECTION 013300 SUBMITTALS**

### **PART 1 GENERAL**

#### **1.01 SCOPE OF WORK**

- A. This Section includes the requirements for compiling, processing and transmitting submittals required for execution of the project. Submittals are categorized into two types, Action Submittals and Informational Submittals, as follows:
1. Action Submittals: Written and graphic information submitted by the Contractor that requires the Owner/Engineer's approval. The following are examples of action submittals, which may or may not be required for this project per the Contract Documents:
    - a. Shop drawings (including working drawings, valve schedules, and product data)
    - b. Samples
    - c. Operation & maintenance manuals
    - d. Equipment and performance test results required by the Contract Documents
    - e. Site Usage Plan (Contractor's staging and material laydown area)
    - f. Schedule of values
    - g. Equipment delivery schedule
    - h. Applications for Payment
    - i. Requests for Information (RFI)
    - j. Requests for Information Log
    - k. Substitutions Log
    - l. Submittal / Shop Drawings Log
    - m. Owner Selected Items Log
    - n. Record Drawings
  2. Informational Submittals: Information submitted by the Contractor that does not require the Owner/Engineer's approval. The following are examples of informational submittals, which may or may not be required for this project per the Contract Documents:
    - a. Shop Drawing Schedule
    - b. Construction Schedule
    - c. Statements of Qualifications
    - d. Health and Safety Plans
    - e. Fire Safety Program
    - f. Construction Photography and Videography
    - g. Work Plans
    - h. Excavation/Sheet Piling Plans
    - i. Moisture and Mold Control Plan
    - j. Dust and HVAC Control Plan
    - k. Maintenance of Flow Plan
    - l. Maintenance of Traffic Plans
    - m. Outage Requests
    - n. Proposed Testing Procedures
    - o. Vendor Training Outlines/Plans
    - p. Any equipment or structure designed by a vendor authorized Owner/Engineer.



- q. Warranties and Bonds
- 3. There will be no direct payment for this work, the cost of which shall be included in other bid items.

## **1.02 RELATED WORK**

- A. The General Conditions for the Contract are included in Section 000005.
- B. Operation and Maintenance manuals are included in Section 017823.
- C. Contract closeout submittals are included in Section 017700.
- D. Warranties and Bonds are included in Section 017800.
- E. Construction Photos are included in Section 013233.
- F. Applications for Payment are included in Section 000014.
- G. Construction Schedules are included in Section 013216.
- H. Project Controls (Surveying) in Section 022100.
- I. Project Record Documents are included in Section 017839.

## **1.03 CONTRACTOR'S RESPONSIBILITIES**

- A. All submittals shall be clearly identified as follows:
  - 1. Date of Submission.
  - 2. Project Number.
  - 3. Project Name.
  - 4. Contractor Identification.
    - a. Contractor.
    - b. Supplier.
    - c. Manufacturer.
    - d. Manufacturer or supplier representative.
    - e. Identification of the Product.
  - 5. Reference to Contract Drawing.
  - 6. Reference to specification section number, page and paragraph(s).
  - 7. Reference to applicable standards, such as ASTM or other industry standard numbers.
  - 8. Contractor's Certification statement.
  - 9. Identification of deviations from the Contract Documents, if any.

10. Reference to previous submittal (for resubmittals).
- B. Submittals shall be clear and legible, and of sufficient size for legibility and clarity of the presented data.
- C. Contractor shall maintain a log of all submittals. The submittal log shall be kept accurate and up to date. This log shall be submitted for review prior to the first submittal request for approval and reconciled with a similar log being kept by the Inspector or Owner/Engineer on a monthly basis at the Construction Progress meetings. This log should include the following items (as applicable):
1. Description.
  2. Submittal Number.
  3. Date transmitted to the Owner/Engineer.
  4. Date returned to Contractor (from Owner/Engineer).
  5. Status of Submittal (Approved/Not Approved/etc.).
  6. Date of Resubmittal to Owner/Engineer and Return from Owner/Engineer (if applicable and repeat as necessary).
  7. Date material released for fabrication.
  8. Projected (or actual) delivery date .
- D. Contractor shall utilize the following submittal identification numbering system:
1. The first character shall be a D, S, M or I which represents Shop Drawing (including working drawings and product data), Sample, Manual (Operating & Maintenance) or Informational, respectively.
  2. The next five digits shall be the applicable Section Number.
  3. The next three digits shall be the sequential number of each separate item or drawing submitted under each Specification Section, in the chronological order submitted, starting at 001.
  4. The last character shall be a letter, A to Z, indicating the submission (or resubmission) of the same submittal, i.e., "A" = 1st submission, "B" = 2nd submission, "C" = 3rd submission, etc.
  5. A typical submittal number would be as follows:
    - a. D-033000-008-B.
    - b. D = Shop Drawing (033000) = Section for Concrete.
    - c. 008 = the eighth different submittal under this Section.
    - d. B = the second submission (first resubmission) of that particular shop drawing.

E. Variances

1. Notify the Owner/Engineer in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
2. Notify the Owner/Engineer in writing, at the time of re-submittal (resubmission), of all deviations from previous submissions of that particular shop drawing, except those deviations which are the specific result of prior comments from the Owner/Engineer.
3. This notice shall be both a written communication separate from the shop drawing and/or submittal; and, in addition, by a specific notation made on each shop drawing or submittal for review and approval of each such variation.
4. "OR EQUAL" Items
  - a. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains specifically states that no like, equivalent, or "or-equal" item, or no substitution is permitted, other items of material, products or equipment of other Suppliers may be submitted to the City for review under the circumstances described below:
  - b. If in the Owner/Engineer's discretion an item of material, product or equipment proposed by the Contractor is functionally equal to that named and sufficiently similar so that no change in related work will be required, it may be considered by the Owner/Engineer as an "or-equal" item. The review and approval of the proposed item may, in the Owner/Engineer's sole discretion, be approved. For the purposes of this specification, a proposed item of material, product or equipment may be considered functionally equal to an item so named if it is determined that all of the following are met:
    - 1) It is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics,
    - 2) It will reliably perform its intended function and achieve the results imposed by the design concept of the completed Project as a functioning whole,
    - 3) Provide a record of performance and availability of responsive service,
    - 4) The Contractor certifies that, if approved and incorporated into the Project, there will be no increase in Contract time or cost, and it will conform substantially to the detailed requirements of the item shown in the Contract Documents.
5. Substitute Items:
  - a. If in the Owner/Engineer's discretion, an item of material, product or equipment proposed by the Contractor does not qualify as an "or-equal" item under the above Section, they will consider a proposed substitute item. The Contractor shall submit sufficient information to allow the Owner/Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute thereof. Requests for review of proposed substitute items of material, product or equipment will not be accepted by the Owner/Engineer from anyone other than the Contractor.

- b. The Contractor shall request to use substitute materials, products and/or equipment in writing and shall provide the Owner/Engineer certification that the proposed substitute will:
  - 1) Perform the functions and achieve the results called for in the plans and the design.
  - 2) Be similar in substance to that specified.
  - 3) Be suited to the same use in the same conditions as that specified.
- c. The Contractor shall:
  - 1) State the extent, if any, to which the use of the proposed substitute will prejudice the Contractor's achievement of project completion.
  - 2) State whether or not the 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 the City for other work on the Project) to adapt the design to the proposed substitute item.
  - 3) State whether or not incorporation or use of the proposed substitute item in connection with the work is subject to payment of any license or other fee.
  - 4) Identify all variations and differences of the proposed substitute item from that specified.
  - 5) Identify available Engineering, sales, maintenance, repair and replacement services.
  - 6) Prepare an itemized estimate of the cost or credits that will result directly or indirectly from the use of the proposed item, including cost of redesign and claims of other Contractors affected by any resulting changes.

#### F. Action Submittals

- 1. General
  - a. Shop drawings, working drawings, and product data sheets 11-in x 17-in and smaller shall be bound together in an orderly fashion and bear the below Certification Statement on the cover sheet. The transmittal cover sheet for each identified shop drawing shall fully describe the packaged data and include a listing of all items within the package and include a place for the Owner/Engineer's stamp.
  - b. The review and approval of shop drawings, working drawings, product data, or samples by the Owner/Engineer shall not relieve the Contractor from the responsibility for the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Owner/Engineer will have no responsibility therefore.
  - c. Submittals that are acceptable will be reviewed and returned with comments/notes to the contractor in a timely manner after receipt. The need for re-submittals will not be a basis for an extension of contract time for the Contractor.
  - d. The Contractor shall not receive time extensions or additional cost for expired certifications and/or delays to submittal reviews and approvals.
  - e. Project work, materials, fabrication, and installation shall conform to approved shop drawings (including working drawings and product data) and applicable samples.

- f. No portion of the work requiring a shop drawing (including working drawings and product data) or sample shall be started, nor shall any materials be fabricated or installed before approval of such item. Procurement, fabrication, delivery or installation of products or materials that do not conform to approved shop drawings shall be at the Contractor's risk. Furthermore, such products or materials delivered or installed without approved shop drawings, or in non-conformance with the approved shop drawings will not be eligible for progress payment until such time as the product or material is approved or brought into compliance with approved shop drawings. Neither Owner/Engineer will be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- 2. Professional Owner/Engineer (P.E.) Certification Form
  - a. If specifically required in any of the technical Specification Sections, submit a Professional Owner/Engineer (P.E.) Certification for each item required, using the form appended to this Section.
- 3. Contractor's / Subcontractor Certification and additional Requirements
  - a. Each shop drawing, working drawings, product data, and sample shall have affixed to it the following Certification Statement:
    - 1) "Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements."
- 4. Shop Drawings, Working Drawings, Product Data and Samples.
  - a. Shop Drawings.
    - 1) Shop drawings as defined in the General Conditions, and as specified in individual Sections may include, but are not necessarily limited to, custom prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, valve schedules, wiring diagrams, coordination drawings, equipment inspection and test reports, and performance curves and certifications, as applicable to the work.
    - 2) Prior to the beginning of construction, the Contractor shall submit (6) copies of each submittal and/or shop drawing for the Owner's use; Contractor shall provide additional copies as needed for their records. Submittal and shop drawing review shall be limited to general design requirements only and shall not relieve the Contractor from responsibility for errors and/or omissions or responsibility for resulting consequences due to deviations from the Contract Documents. Changes shall not be made to any submittal after it has been reviewed; a new submittal must be presented for review and approval if changes are requested.

- 3) Contractor shall verify all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and coordinate each item with other related shop drawings and the Contract requirements.
- 4) All details on shop drawings shall clearly show the relation of the various parts to the main members and lines of the structure and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.
- 5) All shop drawings submitted by subcontractors and vendors shall be reviewed by the Contractor. Contractor shall confirm, materials, dimensions, catalog numbers, technical data and performance criteria; and shall coordinate with other related shop drawings and the Contract requirements. In addition, Contractor shall confirm existing field conditions and dimensions and assure that the submittal is coordinated and compatible with existing conditions. Submittals directly from subcontractors or vendors will not be accepted by the Owner/Engineer.
- 6) The Contractor shall be responsible the accuracy of the subcontractor's or vendor's submittal; and, for their submission in a timely manner to support the requirements of the Contractor's construction schedule. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractor or vendor to correct, before submission to the Owner/Engineer. All shop Drawings shall be approved by the Contractor.
- 7) Delays to construction due to the untimely submission of submittals will constitute inexcusable delays, for which Contactor shall not be eligible for additional cost nor additional contract time. Inexcusable delays consist of any delay within the Contactor's control.
- 8) Submittals for equipment specified shall include a listing of installations where identical or similar equipment manufactured by that manufacturer has been installed and in operation for a period of at least five years or as otherwise specified in other specification sections.
- 9) The Contractor shall be responsible for providing updated certifications/approvals prior to expiration of such. Uncertified and/or unapproved Contractors, materials, plants, etc. shall not participate in or perform work on this project until such time as documentation is provided to the Owner/Engineer showing recertification and/or approval.

b. Working Drawings

- 1) Detailed installation drawings (equipment, piping, electrical conduits and controls, HVAC work, and plumbing, etc.) shall be prepared and submitted for review and approval by the Owner/Engineer prior to installing such work. Installation drawings shall be to-scale and shall be fully dimensioned.
- 2) Piping working drawings shall show the laying dimensions of all pipes, fittings, valves, as well as the equipment to which it is being connected. In addition, all pipe supports shall be shown.

- 3) Equipment working drawings shall show all equipment dimensions, anchor bolts, support pads, piping connections and electrical connections. In addition, show clearances required around such equipment for maintenance of the equipment.
- 4) Electrical working drawings shall show conduits, junction boxes, disconnects, control devices, lighting fixtures, support details, control panels, lighting and power panels, and Motor Control Centers. Coordinate all locations with the Contract Documents and the Contractor's other working drawings.

c. Product Data

- 1) Product data, as specified in individual Specification Sections, include, but are not limited to, the manufacturer's standard prepared data for manufactured products (catalog data), such as the product specifications, installation instructions, availability of colors and patterns, rough-in diagrams and templates, product photographs (or diagrams), wiring diagrams, performance curves, quality control inspection and reports, certifications of compliance (as specified or otherwise required), mill reports, product operating and maintenance instructions, recommended spare parts and product warranties, as applicable.
- 2) The product data shall also include the manufacturer's recommendations for the repair of damaged materials, along with a list of all replaceable parts with Suppliers contact information.

d. Samples

- 1) Furnish, samples required by the Contract Documents for the Owner/Engineer's approval. Samples shall be delivered to the Owner/Engineer as specified or directed. Unless specified otherwise, provide at least two samples of each required item. Materials or equipment for which samples are required shall not be used in the work unless and until approved by the Owner/Engineer.
- 2) Samples specified in individual Specification Sections, include, but are not limited to: physical examples of the work (such as sections of manufactured or fabricated work), small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and other specified units of work.
- 3) Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify and Contract Requirements.
- 4) Approved samples not destroyed in testing shall be sent to the Owner/Engineer or stored at the site of the work. Approved samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the approved samples. Samples which fail testing or are not approved will be returned to the Contractor at his expense, if so requested at time of submission.

5. Operation and Maintenance Data

- a. Operation and maintenance data shall be submitted in assembled manuals as specified in Section 017823. Such manuals shall include detailed instructions for Owner personnel on safe operation procedures, controls, start-up, shut-down, emergency procedures, storage, protection, lubrication, testing, trouble-shooting, adjustments, repair procedures, and other maintenance requirements.
6. Schedule of Values
- a. On projects consisting of lump sums (in whole or in part) submit a proposed schedule of values providing a breakdown of lump sum items into reasonably small components – generally disaggregated by building, area, and/or discipline as specified in Section 013216, if applicable. The purpose of the schedule of values is for processing partial payment applications. If requested by the Owner/Engineer, provide sufficient substantiation for all or some items as necessary to determine the proposed schedule of values is a reasonable representation of the true cost breakdown of the Work. The schedule of values shall not be unbalanced to achieve early payment or over-payment in excess of the value of work or any other mis-distribution of the costs. If, in the opinion of the Owner/Engineer, the schedule of values is unbalanced, Contractor shall reallocate components to achieve a balanced schedule acceptable to Owner/Engineer.
  - b. Equipment delivery schedule – The Contractor shall also prepare a schedule of anticipated shipping dates for materials and equipment. It is intended that equipment and materials be so scheduled as to arrive at the job site just prior to time for installation to prevent excessive materials on hand for inventory and the necessity for extensive storage facilities at the job site.
7. Payment Application Format
- a. The Owner shall provide the Contractor an Application of Payment form at the Pre-Construction Meeting. This form shall be used for all monthly Applications for Payment unless otherwise directed by the Owner.
  - b. See also Specification Section 000014.
8. Site Usage
- a. Submit a proposed site staging plan, including but not limited to the location of office trailers, storage trailers and material laydown. Such plan shall be a graphic presentation (drawing) of the proposed locations; and, shall include on-site traffic modifications, and temporary utilities, as may be applicable
9. Request for Information (RFI) – All RFI's will be submitted on the form mutually agreed upon by the Contractor and Owner/Engineer.
10. Construction Site Weekly Reports shall be provided on all projects in excess of \$100,000 and shall be submitted to Owner/Engineer. Each report shall contain:
- a. List of subcontractors at Project site.
  - b. Approximate count of personnel at Project site.



- c. Equipment at Project site.
  - d. Material deliveries.
  - e. High and low temperatures and general weather conditions, including presence of rain or snow.
  - f. Accidents.
  - g. Meetings and significant decisions.
  - h. Unusual events.
  - i. Stoppages, delays, shortages, and losses.
  - j. Meter readings and similar recordings.
  - k. Emergency procedures.
  - l. Orders and requests of authorities having jurisdiction.
  - m. Change Orders received and implemented.
  - n. Construction Change Directives received and implemented.
  - o. Services connected and disconnected.
  - p. Equipment or system tests and startups.
  - q. Partial completions and occupancies.
  - r. Substantial Completions authorized.
11. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:
- a. Material stored prior to previous report and remaining in storage.
  - b. Material stored prior to previous report and since removed from storage and installed.
  - c. Material stored following previous report and remaining in storage.
12. Moisture-Protection Plan: As needed and as changes are implemented, submit a report that describes procedures and controls for protecting materials and construction from water absorption and damage.
- a. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
  - b. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
  - c. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
13. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

#### G. Informational Submittals

- 1. Shop Drawing Schedule

- a. Prepare and submit a schedule indicating when shop drawings are required to be submitted to support the as-planned construction schedule. The submittal schedule shall allow sufficient time for preparation and submittal, review and approval, and fabrication and delivery to support the construction schedule.
  - b. Shop Drawing Schedule is to include any specified materials that has to be ordered very early due to long lead time.
2. Construction Schedule
  - a. Prepare and submit construction schedules and monthly status reports as specified.
3. Statements of Qualifications
  - a. Provide evidence of qualification, certification, or registration, as required in the Contract Documents, to verify qualifications of licensed land surveyor, professional Engineer, materials testing laboratory, specialty subcontractor, technical specialist, consultant, specialty installer, and other professionals.
4. Health & Safety Plans
  - a. When specified, prepare and submit a general company Health and Safety Plan (HSP), modified or supplemented to include job-specific considerations.
5. Work Plans
  - a. Prepare and submit copies of all work plans needed to demonstrate to the Owner that Contractor has adequately thought-out the means and methods of construction and their interface with existing facilities.
6. Excavation/Sheet Piling Near Existing Utilities Plan
  - a. Contractor to coordinate with and submit to the Owner/Engineer a plan before excavating or sheet piling near existing utilities to ensure that the Owner/Engineer is aware of the construction activities, and has given authorization for the construction methods to be utilized in the area.
7. Maintenance of Flow Plan
  - a. The Contractor shall maintain existing, uninterrupted flow in sewers, drains, water courses and provide a written plan & map of “proposed maintenance of flow” to Owner/Engineer.
8. Maintenance of Traffic Plans
  - a. Prepare maintenance of traffic plans where and when required by the Contract Documents and by local ordinances or regulations. If Contractor is not already knowledgeable about local ordinances and regulations regarding maintenance of traffic requirements, become familiar with such requirements and include all costs for preparation and submittal of traffic management plans and all associated costs for permits and fees to implement the traffic management plan, in the bid amount. In

addition, unless a supplemental payment provision is provided in the bid form, include the cost of police attendance, when required.

9. Outage Requests

- a. Provide sufficient notification of any outages required (electrical, flow processes, etc.) as may be required to tie-in new work into existing facilities. Unless specified otherwise elsewhere, a minimum of seven calendar days' notice shall be provided.

10. Proposed Testing Procedures

- a. Prepare and submit testing procedures it proposes to use to perform testing required by the various technical specifications.

11. Test Records and Reports

- a. Provide copies of all test records and reports as specified in the various technical specifications.

12. Vendor Training Outlines/Plans

- a. At least two weeks before scheduled training of Owner's personnel, provide lesson plans for vendor training in accordance with the specification for O&M manuals.

13. Test and Start-up Reports

- a. Manufacturer shall perform all pre-start-up installation inspection, calibrations, alignments, and performance testing as specified in the respective Specification Sections. Provide copies of all such test and start-up reports.

14. Certifications

- a. Provide various certifications as required by the technical specifications. Such certifications shall be signed by an officer (of the firm) or other individual authorized to sign documents on behalf of that entity. Certifications may include, but are not limited to:
  - 1) Welding certifications and welders qualifications
  - 2) Certifications of Installation, Testing and Training for all equipment
  - 3) Material Testing reports furnished by an independent testing firm
  - 4) Certifications from manufacturer(s) for specified factory testing
  - 5) Certifications required to indicate compliance with any sustainability or LEEDS accreditation requirements indicated in the Contract Documents

15. Record Drawings

- a. No later than Substantial Completion, submit a record of all changes during construction not already incorporated into drawings – in accordance with Specification section 017839.

16. Manufacturer's Guaranty/Warranty/Bonds

- a. Contractor to provide a list at the Preconstruction conference of all Warranties deemed to start before Substantial Completion.
- b. Assemble a booklet or binder of all warranties and bonds as specified in the various technical specifications and in accordance with the specification on Warranties and Bonds; and provide two originals to the Owner/Engineer.

17. As-Built Surveys

- a. Engage the services of a licensed land surveyor in accordance with the Project Controls (Surveying) specification. Prior to Final Completion, provide an as-built survey of the constructed facility, as specified.

18. Contract Close-Out Documents

- a. Submit Contract documentation as indicated in the specification for Contract Close-out.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

**3.01 SUBMITTAL SCHEDULE**

- A. Provide an initial submittal schedule at the Pre-Construction conference for review by Owner/Engineer. Incorporate comments from Owner/Engineer into a revised submittal schedule.
- B. Maintain the submittal schedule and provide sufficient copies for review by Owner/Engineer. An up-to-date submittal schedule shall be provided at each project progress meeting.

**3.02 TRANSMITTALS**

- A. Prepare separate transmittal sheets for each submittal. Each transmittal sheet shall include at least the following: the Contractor's name and address, Owner's name, project name, project number, submittal number, description of submittal and number of copies submitted.
- B. Submittals shall be transmitted or delivered directly to the office of the Owner/Engineer, as indicated in the Contact Documents or as otherwise directed by the Owner/Engineer.
- C. Provide copies of transmittals forms or cover letters (without attachments) directly to the Inspectors.

**3.03 PROCEDURES**

- A. Action Submittals
  - 1. Contractor's Responsibilities

- a. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required). Coordinate with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. Extensions to the Contract Time will not be approved for the Contractor's failure to transmit submittals sufficiently in advance of the Work.
- b. The submittals of all shop drawings (including working drawings and product data) shall be sufficiently in advance of construction requirements to allow for possible need of re-submittals, including review time for the Owner/Engineer.
- c. No less than 21 calendar days will be required for Owner/Engineer's review time for shop drawings and O&M manuals. Resubmittals will be subject to the same review time.
- d. If more than one re-submittal is required due to the failure of the Contractor to provide all previously requested corrected data or additional information, Contractor shall reimburse Owner for the charges of the Engineer for review of the additional submittals. This does not include initial submittal data such as shop tests and field tests that are submitted after the initial submittal.
- e. Submittals of operation and maintenance data shall be provided within 30 days of approval of the related shop drawing(s).
- f. Before submission to the Owner/Engineer, review shop drawings as follows:
  - 1) make corrections and add field measurements, as required
  - 2) use any color for its notations except red (reserved for the Owner/Engineer's notations) and black (to be able to distinguish notations on black and white Documents)
  - 3) identify and describe each and every deviation or variation from Contract documents or from previous submissions, except those specifically resulting from a comment from the Owner/Engineer on a previous submission
  - 4) include the required Contractor's Certification statement
  - 5) provide field measurements (as needed)
  - 6) coordinate with other submittals
  - 7) indicate relationships to other features of the Work
  - 8) highlight information applicable to the Work and/or delete information not applicable to the Work
- g. If Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, provide written notice thereof to the Owner/Engineer immediately; and do not release for manufacture before such notice has been received by the Owner/Engineer.
- h. When the shop drawings have been completed to the satisfaction of the Owner/Engineer, carry out the construction in accordance therewith; and make no further changes therein except upon written instructions from the Owner/Engineer.

## 2. Owner/Engineer's Responsibilities

- a. Owner/Engineer will not review shop drawings (including working drawings and product data) that do not include the Contractor's approval stamp and required certification statement. Such submittals will be returned to the Contractor, without action, for correction.
  - b. Partial shop drawings (including working drawings and product data) will not be reviewed. If, in the opinion of the Owner/Engineer, a submittal is incomplete, that submittal will be returned to the Contractor for completion. Such submittals may be returned with comments from Owner/Engineer indicating the deficiencies requiring correction.
  - c. If shop drawings (including working drawings and product data) meet the submittal requirements, Owner/Engineer will forward copies to appropriate reviewer(s). Otherwise, noncompliant submittals will be returned to the Contractor without action - with the Owner/Engineer retaining one copy.
  - d. Submittals which are transmitted in accordance with the specified requirements will be reviewed by the Owner/Engineer within the time specified herein. The time for review will commence upon receipt of submittal by Owner/Engineer.
3. Review of Shop Drawings (Including Working Drawings and Product Data) and Samples
- a. The review of shop drawings, working drawings, data and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
    - 1) as permitting any departure from the Contract requirements
    - 2) as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials
    - 3) as approving departures from details furnished by the Owner/Engineer, except as otherwise provided herein
  - b. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
  - c. If the shop drawings (including working drawings and product data) or samples as submitted describe variations and indicate a deviation from the Contract requirements that, in the opinion of the Owner/Engineer are in the interest of the Owner and are so minor as not to involve a change in Contract Price or Contract Time, the Owner/Engineer may return the reviewed drawings without noting an exception.
  - d. Only the Owner/Engineer will utilize the color "RED" in marking submittals.
  - e. Shop drawings will be returned to the Contractor with one of the following codes.

- 1) "REVIEWED, NO EXCEPTIONS TAKEN" – This code is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
  - 2) "REVIEWED, MAKE CORRECTIONS NOTED" - This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
  - 3) "REVISE AND RE-SUBMIT" – This code is assigned when notations and comments are extensive enough to require a resubmittal of the entire package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the Owner/Engineer within 30 calendar days of the date of the Owner/Engineer's transmittal requiring the resubmittal.
  - 4) "NOT REVIEWED" – This code is assigned when the submittal does not meet the intent of the contract documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the requirements of the contract documents.
- f. Repetitive Reviews: Shop drawings, O&M manuals and other submittals will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at the Contractor's expense. Reimburse the Owner for all costs invoiced by Engineer for the third and subsequent reviews.
4. Electronic Transmission
- a. Action Submittals shall be transmitted by electronic means and uploaded into the Owner's database (e-Builder Construction Management Software). The following conditions must be met:
    - 1) The above-specified material shall include a transmittal form with specified numbering configuration.
    - 2) All other requirements specified above have been met including, but not limited to, coordination by the Contractor, review and approval by the Contractor, and the Contractor's Certification.
    - 3) The submittal contains no pages or sheets larger than 11 x 17 inches.
    - 4) With the exception of the transmittal sheet, the entire submittal is included in a single file.
    - 5) The electronic files are PDF format (with printing enabled).
    - 6) For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.) transmit at least two hard-copy originals to the Owner/Engineer. In addition, provide additional photocopied or scanned

copies, as specified above, showing the required certification, corporate seal, or professional seal.

B. Informational Submittals

1. Contractor's Responsibilities

- a. Number of copies: Submit three copies, unless otherwise indicated in individual Specification sections
- b. Refer to individual technical Specification Sections for specific submittal requirements.

2. Owner/Engineer's Responsibilities

- a. The Owner/Engineer will review informal submittals, schedules, and information and determine if acceptable, however, acceptance will not impose responsibilities on the the Owner/Engineer or interfere with or relieve the Contractor from the Contractor's full responsibilities.
- b. The Owner/Engineer will review each informational submittal within 14 Calendar days. If the informational submittal complies with the Contract requirements, Owner/Engineer will file for the project record and transmit a copy to the Owner. Owner/Engineer may elect not to respond to Contractor regarding informational submittals meeting the Contract requirements.
- c. If an informational submittal does not comply with the Contract requirements, Owner/Engineer will respond accordingly to the Contractor within 14 Calendar days. Thereafter, the Contractor shall perform the required corrective action, including retesting, if needed, until the submittal, in the opinion of the Owner/Engineer, is in conformance with the Contract Documents.

3. Electronic Transmission

- a. Informational submittals shall be transmitted by electronic means and uploaded into the Owner's database (e-Builder Construction Management Software). The following conditions must be met:
  - 1) The above-specified material shall include a transmittal form with specified numbering configuration.
  - 2) All other requirements specified above have been met including, but not limited to, coordination by the Contractor, review and approval by the Contactor, and the Contractor's Certification.
  - 3) The submittal contains no pages or sheets larger than 11 x 17 inches.
  - 4) With the exception of the transmittal sheet, the entire submittal is included in a single file.
  - 5) The electronic files are PDF format (with printing enabled).



- 6) For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.) transmit at least two hard-copy originals to the Owner/Engineer. In addition, provide additional photocopied or scanned copies, as specified above, showing the required certification, corporate seal, or professional seal.

END OF SECTION

## **SECTION 014500 QUALITY CONTROL**

### **PART 1 GENERAL**

#### **1.01 SCOPE OF WORK**

- A. This Section includes general requirements related to the Contractor's responsibility for quality control involving inspections, testing, and certifications. Testing includes both shop tests (those provided by the manufacturer prior to shipment of equipment to the site) and field tests (performance tests of installed equipment and in-situ testing of materials by a state-certified laboratory). Specific requirements are also included in the individual technical sections.
- B. This Section includes the following:
  - 1. Inspections.
  - 2. Quality Assurance – Control of Installation.
  - 3. Inspecting and Physical Testing Laboratory Services.
  - 4. Equipment Calibration.
- C. Unless otherwise indicated, only new materials shall be incorporated in the Work. All materials furnished by the Contractor to be incorporated in the Work shall be subject to the inspection and approval of the Owner and the Engineer. No material shall be processed for, or delivered to the Site without prior approval by the Owner/Engineer.
- D. All materials of construction, supplies and parts, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended.
- E. All materials, parts and equipment furnished and incorporated in the work shall be of high grade materials, free from defects and imperfections, and of recent manufacture. Workmanship shall be of the highest grade and in accordance with the best modern standard of practice.
- F. When required, all tests shall be made in the presence of the Owner/Engineer. Where not required, sworn statements or test results shall be furnished by the Contractor within 7 days of completion of tests.

#### **1.02 RELATED WORK**

- A. Submittals are included in Section 013300.
- B. Specific testing and inspection requirements are also specified in the individual Technical Specifications.
- C. Where standard published specifications of recognized authorities or organizations are specified, the latest revision of such specification at the time the work is executed shall govern, unless otherwise authorized or directed.

### **1.03 SUBMITTALS**

- A. The Contractor is responsible for providing the Owner/Engineer a copy of the proposed Quality Control and Quality Acceptance Program for review and for maintaining such program for the duration of the project within 30 days of Notice to Proceed.
- B. The Contractor shall provide the Owner/Engineer copies of the Contractor-selected North Carolina Department of Transportation Certified material testing laboratories.
- C. The Contractor shall provide the Owner/Engineer copies of current organizational chart including names, telephone numbers and current certifications of personnel responsible for the Quality Control Program, testing, inspection, etc. on the project. All tests performed shall be under the supervision of certified personnel or it may result in nonpayment, delay and/or reduction in payment for the material of concern.
- D. Where the specifications call for certified copies of mill or shop tests to establish conformance with the specifications, it shall be the responsibility of the Contractor to assure the delivery of such certifications to the Owner/Engineer.
- E. Transcripts or certified shop test reports including all test results shall be submitted for review to the Owner/Engineer and approved prior to delivery of any equipment to the site. The testing shall have been performed by an approved independent testing facility within the previous six months. Transcripts of test results shall be accompanied by a certificate in the form of a letter from the manufacturer or supplier certifying that the tested material meets the specified requirements and is of the same type, quality, manufacturer, and make as that specified.
- F. The Contractor shall submit signed and certified written reports of each field inspection, test, or similar quality control and quality assurance service performed to the Owner/Engineer within seven (7) working days of the performed service. All original final written reports shall be turned over to the Owner/Engineer at substantial completion of the project. Written reports and attached forms of each field inspection, test or similar service shall be complete and accurate, shall specify the test locations, shall specify the tests performed, shall include the methods used to perform the test and shall be signed, stamped and dated by the certified person of the state-certified laboratory or testing firm. Reports shall also include:
  - 1. Date of issue.
  - 2. Project title and number.
  - 3. Name, address, and telephone number of testing laboratory or firm.
  - 4. Dates and locations of samples and tests or inspections.
  - 5. Names of individuals making the inspection or test.
  - 6. Designation of the Work and test method.
  - 7. Identification of product or material and Specification Section.
  - 8. Complete inspection of test data.

9. Test results and an interpretation of test results.
10. Ambient conditions at the time of sample taking and testing.
11. Comments or professional opinion on whether inspected or tested Work complies with requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting.

#### **1.04 INSPECTIONS**

- A. The Engineer and the Owner shall have the right to inspect all material and equipment at all stages of collection and processing, and shall be allowed access to the site and to the Contractor's and supplier's facilities to conduct such inspections. Onsite work shall be subject to continuous inspection. Inspection by the Engineer or the Owner shall not release the Contractor from responsibility or liability with respect to material. The Engineer or the Owner will supply the Contractor a minimum of 24 hours' notice prior to unscheduled offsite inspections.
- B. No materials or finished articles shall be incorporated in the work until such materials and finished articles have passed any required tests. The Contractor shall promptly segregate and remove rejected material or finished articles from the site of the work. Failure to condemn the material on preliminary inspection shall not be grounds for acceptance if defects are found later.
- C. When local codes or laws require approval and inspection of the work by other agencies or organizations, the Contractor shall obtain such approval and submit one signed original and three copies of the approval to the Owner/Engineer.
- D. The Owner/Engineer shall have the right to mark rejected materials to distinguish them as such.
- E. The Contractor shall furnish the inspector with the necessary facilities and assistance for carrying out his duties. The work and materials shall be supervised by the Owner/Engineer and the inspectors to obtain the finished product in accordance with the Contract Documents. The City shall not assume any liabilities of the Contractor or relieve him of any of his obligations.
- F. The Owner/Engineer shall determine the quality and quantity of the several kinds of work and materials which are included in this contract. He shall answer all questions relating to lines, levels and dimensions of the work, and interpretations of the plans and specifications.
- G. The Owner/Engineer shall be the final judge of the quality and suitability of the work and materials. Should they fail to meet his approval and/or do not conform to the requirements of the Contract Documents, upon notice from the Owner/Engineer, they shall be removed from the work, forthwith reconstructed, made good, replaced and/or corrected by the Contractor at his own expense. Rejected materials shall immediately be removed from the site. If, in the opinion of the Owner/Engineer, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount that, in the judgment of the Owner/Engineer, shall be equitable.

- H. The testing and approval of materials by the laboratory, or laboratories, shall not relieve the Contractor of his obligations to fulfill his contract and guarantee workmanship and materials. The Contractor may, at his option, and at his own expense, cause such other test to be conducted as he may deem necessary to assure suitability, strength and durability of any material or finished article.

#### **1.05 QUALITY ASSURANCE – CONTROL OF INSTALLATION**

- A. The Contractor shall monitor quality control over suppliers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. The Contractor shall comply with manufacturers' instructions, including complying with each step, in-sequence.
- C. The Contractor shall examine the areas and conditions where work is to be performed and notify the Owner/Engineer of conditions detrimental to the proper and timely completion of the Work. The Contractor shall not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Owner/Engineer.
- D. The Contractor shall request clarification from Owner/Engineer should manufacturers' instructions conflict with Contract Documents. The clarification shall be received prior to proceeding.
- E. The Contractor shall comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- F. Work shall be performed by persons qualified to produce workmanship of specified quality.
- G. All tests performed shall be under the supervision of certified personnel or it may result in nonpayment, delay and/or reduction in payment for the material of concern.

#### **1.06 INSPECTING AND PHYSICAL TESTING LABORATORY SERVICES**

- A. The Owner will contract with an independent testing firm to perform laboratory testing as required by these Specifications.
- B. The Contractor shall provide labor and materials at the site as required to allow the Owner and independent testing firm access to perform any necessary testing and/or inspections. The Contractor shall cooperate with the Owner and the Engineer and the independent testing firm and shall provide the testing firm with at least 48 hours' notice prior to specified testing.
- C. The Contractor shall be responsible for scheduling and coordinating inspections, tests, and similar activities with minimum delay to the project.
- D. The Contractor shall manage and coordinate all material testing and sequencing of activities to avoid the necessity of removing and replacing construction work to accommodate inspections and tests. The Contractor is responsible for scheduling times for inspections, testing, taking samples, and similar activities and shall be responsible for ensuring all tests are performed in accordance with the Contract Documents and North Carolina Department of Transportation

Standard Specifications for Highway Construction, latest edition and the supplemental specifications.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

END OF SECTION

**SECTION 015000  
TEMPORARY FACILITIES**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. Furnish all labor, equipment, materials, and incidentals necessary and provide separate temporary facilities for the Contractor's use and the Engineer's use, as specified herein and as shown on the drawings.
- B. Operate and maintain temporary facilities for the duration of the project and as directed by the Owner/Engineer.
- C. A temporary Contractor field office is not required for this project. The Contractor, at their discretion, may provide a temporary field office.

**1.02 RELATED WORK**

- A. Submittals are included in Section 013300.

**1.03 SUBMITTALS**

- A. Submit shop drawings and product data, in accordance with Section 013300, showing materials of construction and details of installation for:
  - 1. Site Plan: Show the proposed locations for temporary facilities including offices, temporary utilities, storage containers/buildings, vehicle access and parking areas, material laydown and staging areas, temporary fencing, fire truck ingress/egress, hydrant(s) to use, and other security measures.
  - 2. Engineer's Field Office: Dimensioned floor plan, office systems, furnishings, and equipment.
  - 3. Temporary Fence: Layout drawings which indicate dimensions, access to fire hydrants, gate locations and opening sizes, and other site-specific requirements. Fence needs to be constructed so it does not interfere with construction. If fencing needs to be relocated due to construction phase, the contractor will be responsible for relocation and cost associated with the relocation.
  - 4. Project Sign, if required: Layout, dimensions, graphics, and wording.
- B. Submittals shall be received by the Engineer no later than the date of the Preconstruction Conference.

**1.04 QUALITY ASSURANCE**

- A. Temporary facilities shall comply with all applicable state and local ordinances, codes and regulations.

- B. Coordinate with authorities having jurisdiction to inspect (and test if required) temporary facilities.
- C. Obtain all required permits for temporary facilities.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Temporary Fence: Fabric shall be No. 9 gauge galvanized wire woven in 2-in diamond mesh with top and bottom twisted selvage. Intermediate and terminal posts shall be galvanized steel H or pipe, minimum 2-3/8-in OD line posts, 2-7/8-in OD corner and pull posts, and 1-5/8-in OD top rails.
- B. Project Sign, if required: Plywood shall be A-A EXT-APA grade, 1-in thick. Posts and braces shall be pressure treated lumber.

### **2.02 EQUIPMENT**

- A. Fire Extinguishers: Provide portable, UL-rated with class and extinguishing agent required by locations and classes of fire exposure. Provide at least one for each trailer/office. Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers or a combination of extinguishers of NFPA recommended classes for the exposures.
- B. Temporary Heat: Provide vented, self-contained, liquid propane gas or fuel oil heaters with individual space thermostatic control. Equipment shall be listed and labeled for type of fuel consumed and marked for intended use. Provide temporary heating units that have been tested and labeled by UL, FM, or I another recognized trade association related to the type of fuel being consumed.

## **PART 3 EXECUTION**

### **3.01 CONTRACTOR'S FIELD OFFICE**

- A. Provide a temporary field office(s) for the Contractor's use for the duration of the project. An authorized representative of the Contractor shall be present at all times while the Work is in progress. Instructions received at the Contractors field office from the Engineer shall be considered delivered to the Contractor.
- B. Locate field office(s) in accordance with approved shop drawings and as directed by the Owner.
- C. Establish and occupy field office within 30 days of the Notice to Proceed, unless otherwise approved by the Engineer or Owner.

### **3.02 TEMPORARY POWER AND LIGHT**

- A. Contractor shall furnish temporary light and power, complete with wiring, lamps and similar equipment as required to adequately light all work areas and with sufficient power capacity to



meet the project needs. Make all necessary arrangements with the local electric company for temporary electric service and pay all expenses in connection therewith.

- B. Provide connections to existing facilities sized to provide service required for power and lighting. Contractor shall pay the costs of power used.
- C. Provide properly configured NEMA polarized outlets to prevent insertion of 110-120 Volt plugs into higher voltage outlets. For connection of power tools and equipment, provide outlets equipped with ground-fault circuit interrupters, reset button and pilot light.
- D. Provide grounded extension cords. Use heavy duty cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if more than one length is required.
- E. Provide general service incandescent lamps as required for adequate illumination. Provide guard cages or tempered glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.

### **3.03 TEMPORARY AIR, STEAM AND WATER**

- A. Provide all air, steam and water, including temporary piping and appurtenances required for cleaning and testing pipelines and equipment. Remove temporary piping and appurtenances upon approval of equipment being tested.
- B. In order to use water from a fire hydrant, the Contractor shall apply for a temporary hydrant meter. The Contractor shall be responsible for all water usage fees.

### **3.04 SANITARY FACILITIES**

- A. Provide self-contained, single occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed in a fiberglass or other approved non-absorbent shell.

### **3.05 CONSTRUCTION AIDS**

- A. Provide temporary elevators, hoists, cranes, scaffolding and platforms as necessary to perform the Work. Provide temporary stairs where ladders are not adequate. Protect permanent stairs from damage from construction operations.

### **3.06 VEHICLE ACCESS AND PARKING**

- A. Contractor shall provide and maintain suitable parking areas for use of all workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or construction activities.
- B. A gravel area or pad shall be constructed in the vicinity of the construction trailers (or other area acceptable to Owner). Contractor shall properly grade and place geotextile and a minimum of 6 inches of gravel in the designated area. Proper drainage shall be provided to drain the temporary pad to a suitable outlet. The Contractor shall maintain the gravel construction staging/parking area and gravel drive in a condition to prevent mud or sediment from building

up in the gravel area. Upon completion of the construction activities, the Contractor shall remove and dispose of all gravel from the construction staging/parking area and provide at least 3 inches of topsoil and the area shall be seeded as specified.

- C. Clear snow and ice from all drives, walks, and stairs to maintain safe vehicle and pedestrian access to the site and facilities as directed by the Engineer.

### **3.07 TEMPORARY FENCE**

- A. Provide temporary fence as shown on the Drawings, as specified herein, and as the Contractor requires for site security. Plant Security shall be maintained at all times during the performance of the Work. No existing fencing shall be disturbed or demolished until new fencing has been installed such that continuous plant perimeter security fencing is maintained. If temporary fencing is required in order to maintain plant security, then Contractor shall provide Owner approved temporary fencing until such time that new permanent fencing is installed.
  - 1. Provide 6-ft high chain link fence with at least two vehicle and two pedestrian access gates. Gates shall be equipped with locking hardware and padlocks. Furnish two sets of keys to Engineer and Owner. Coordinate with local first responders for access during non-work hours.
  - 2. Fence installation shall comply with ASTM F567. Post spacing shall not exceed 8-ft on center. Posts shall be set plumb in concrete footings.
  - 3. Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
  - 4. Extent of Fence: As required to secure construction operations in order to limit access and maintain safety and to secure materials stored on site.
  - 5. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
  - 6. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
  - 7. Add Pedestrian Safety Walkway protection with temporary roof when be needed to protect from falling objects.
  - 8. Perform daily inspections of fence and immediately repair or replace damaged or compromised sections and as directed by the Engineer.

### **3.08 WASTE MANAGEMENT**

- A. Provide covered dumpster, minimum 4-cubic yards, dedicated for field office waste. Provide separate covered dumpster of adequate size for construction debris. Empty dumpsters on a regular basis and as directed by the Engineer. Dumpsters shall not exceed their capacities at any time.

### **3.09 PROJECT SIGNS**

- A. Furnish and install the project signs indicated in the Contract Documents. Signs shall be placed as directed by the Engineer; and, shall remain maintained in good condition for the life of the construction period.
- B. Remove signs at final acceptance, unless otherwise directed.
- C. Sign text and logo information shall be coordinated with the Owner. A sign design shall be submitted to the Owner/Engineer for approval prior to fabrication.

### **3.10 REMOVAL AND RESTORATION**

- A. Remove each temporary facility completely when need for its service has ended and as approved by the Engineer. Coordinate removal of temporary facilities with authorities having jurisdiction.

### **3.11 DAMAGE TO EXISTING PROPERTY**

- A. Contractor shall be held responsible for any damage to existing structures, Work, materials, or equipment because of his operations and shall repair or replace any damaged structures, Work, materials, or equipment to the satisfaction of, and at no additional cost to, Owner.
- B. Contractor shall protect all existing structures and property from damage and shall provide bracing, shoring, or other work necessary for such protection.
- C. Contractor shall be responsible for all damage to streets, roads, curbs, sidewalks, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property which may be caused by transporting equipment, materials, or workers to or from the Work. Contractor shall make satisfactory and acceptable arrangements with the agency having jurisdiction over the damaged property concerning its repair or replacement.

### **3.12 SECURITY**

- A. Contractor shall be responsible for protection of the Site, and all Work, materials, equipment, and existing facilities thereon, against vandals and other unauthorized persons.
- B. No Claim shall be made against the Owner by reason of any act of an employee or trespasser, and Contractor shall make good all damage to Owner's property resulting from Contractor's failure to provide security measures as specified.
- C. Security measures shall be at least equal to those usually provided by Owner to protect Owner's existing facilities during normal operation, but shall also include such additional security fencing, barricades, lighting and other measures as required to protect the Site.
- D. Contractor, subcontractors, and suppliers are to wear identifying name badges with pictures or sign in daily at the Contractor's designated sign-in area and receive a number badge for wear. All vehicles and construction equipment are to have company identification signs as well as vehicle number (3 inch min height) visible on the vehicle while on the plant site.

END OF SECTION

**SECTION 015639**  
**TEMPORARY TREE AND PLANT PROTECTION**

**PART 1 GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.
- B. Related Requirements:
  - 1. Section 311000 Site Clearing for removing existing trees and shrubs.

**1.03 DEFINITIONS**

- A. Caliper: Diameter of a trunk measured by a diameter tape at a height 6 inches above the ground for trees up to and including 4-inch size at this height and as measured at a height of 12 inches above the ground for trees larger than 4-inch size.
- B. Caliper (DBH): Diameter breast height; diameter of a trunk as measured by a diameter tape at a height 54 inches above the ground line.
- C. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.
- D. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings defined by a circle concentric with each tree with a radius 1.5 times the diameter of the drip line unless otherwise indicated.
- E. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

**1.04 ACTION SUBMITTALS**

- A. Product Data: For each type of product.

**1.05 INFORMATIONAL SUBMITTALS**

- A. Qualification Data: For arborist and tree service firm.

- B. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- C. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.
- D. Existing Conditions: Documentation of existing trees and plantings indicated to remain, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.
  - 1. Use sufficiently detailed photographs or video recordings.
  - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.
- E. Quality-control program.

## **1.06 QUALITY ASSURANCE**

- A. Arborist Qualifications: Certified Arborist as certified by ISA.
- B. Tree Service Firm Qualifications: An experienced tree service firm that has successfully completed temporary tree and plant protection work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of the Work.
- C. Quality-Control Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work without damaging trees and plantings. Include dimensioned diagrams for placement of protection zone fencing and signage, the arborist's and tree-service firm's responsibilities, instructions given to workers on the use and care of protection zones, and enforcement of requirements for protection zones.

## **1.07 FIELD CONDITIONS**

- A. The following practices are prohibited within protection zones:
  - 1. Storage of construction materials, debris, or excavated material.
  - 2. Moving or parking vehicles or equipment.
  - 3. Foot traffic.
  - 4. Erection of sheds or structures.
  - 5. Impoundment of water.
  - 6. Excavation or other digging unless otherwise indicated.
  - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- B. Do not direct vehicle or equipment exhaust toward protection zones.
- C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Backfill Soil: Planting soil of suitable moisture content and granular texture for placing around tree; free of stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.
  - 1. Mixture: Well-blended mix of two parts stockpiled soil to one part planting soil.
  - 2. Planting Soil: Seeding schedule in drawings.
- B. Organic Mulch: Free from deleterious materials and suitable as a top dressing for trees and shrubs, consisting of one of the following:
  - 1. Type: Wood and bark chips.
  - 2. Size Range: 3 inches maximum, 1/2 inch minimum.
  - 3. Color: Natural.
- C. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements:
  - 1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with 2-inch maximum opening in pattern and weighing a minimum of 0.4 lb/ft.; remaining flexible from minus 60 to plus 200 deg F; inert to most chemicals and acids; minimum tensile yield strength of 2000 psi and ultimate tensile strength of 2680 psi; secured with plastic bands or galvanized-steel or stainless-steel wire ties; and supported by tubular or T-shape galvanized-steel posts spaced not more than 96 inches apart.
    - a. Height: 48 inches.
    - b. Color: High-visibility orange, nonfading.
  - 2. Gates: Single-swing access gates matching material and appearance of fencing, to allow for maintenance activities within protection zones; leaf width 36 inches.
- D. Protection-Zone Signage: Shop-fabricated, rigid plastic or metal sheet with attachment holes prepunched and reinforced; legibly printed with nonfading lettering and as follows:
  - 1. Size and Text: As shown on Drawings.
  - 2. Lettering: 3-inch-high minimum, black characters on white background.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

- B. Prepare written report, endorsed by arborist, listing conditions detrimental to tree and plant protection.

### **3.02 PREPARATION**

- A. Locate and clearly identify trees, shrubs, and other vegetation to remain. Flag each tree trunk at 54 inches above the ground.
- B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
- C. Tree-Protection Zones: Mulch areas inside tree-protection zones and other areas indicated. Do not exceed indicated thickness of mulch.
  - 1. Apply 2-inch uniform thickness of organic mulch unless otherwise indicated. Do not place mulch within 6 inches of tree trunks.

### **3.03 PROTECTION ZONES**

- A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones before materials or equipment are brought on the site and construction operations begin in a manner that will prevent people and animals from easily entering protected areas except by entrance gates. Construct fencing so as not to obstruct safe passage or visibility at vehicle intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.
  - 1. Chain-Link Fencing: Install to comply with ASTM F 567 and with manufacturer's written instructions.
  - 2. Posts: Set or drive posts into ground one-third the total height of the fence without concrete footings. Where a post is located on existing paving or concrete to remain, provide appropriate means of post support acceptable to Town of Smithfield.
  - 3. Access Gates: Install where indicated; adjust to operate smoothly, easily, and quietly; free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.
- B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Town of Smithfield. Install one sign spaced approximately every 50 feet on protection-zone fencing, but no fewer than four signs with each facing a different direction.
- C. Maintain protection zones free of weeds and trash.
- D. Maintain protection-zone fencing and signage in good condition as acceptable to Town of Smithfield and remove when construction operations are complete and equipment has been removed from the site.
  - 1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.

2. Temporary access is permitted subject to preapproval in writing by arborist if a root buffer effective against soil compaction is constructed as directed by arborist. Maintain root buffer so long as access is permitted.

### **3.04 EXCAVATION**

- A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Section 312000 Earth Moving unless otherwise indicated.
- B. Trenching within Protection Zones: Where utility trenches are required within protection zones, excavate under or around tree roots by hand or with air spade, or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots.
- C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately 3 inches back from new construction and as required for root pruning.
- D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

### **3.05 ROOT PRUNING**

- A. Prune tree roots that are affected by temporary and permanent construction. Prune roots as shown on Drawings, and as follows:
  1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
  2. Cut Ends: Do not paint cut root ends.
  3. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
  4. Cover exposed roots with burlap and water regularly.
  5. Backfill as soon as possible according to requirements in Section 312333 Trenching and Backfilling.
- B. Root Pruning at Edge of Protection Zone: Prune tree roots flush with the edge of the protection zone by cleanly cutting all roots to the depth of the required excavation.
- C. Root Pruning within Protection Zone: Clear and excavate by hand or with air spade to the depth of the required excavation to minimize damage to tree root systems. If excavating by hand, use narrow-tine spading forks to comb soil to expose roots. Cleanly cut roots as close to excavation as possible.



### **3.06 CROWN PRUNING**

- A. Prune branches that are affected by temporary and permanent construction. Prune branches as directed by arborist.
  - 1. Prune to remove only broken, dying, or dead branches unless otherwise indicated. Do not prune for shape unless otherwise indicated.
  - 2. Do not remove or reduce living branches to compensate for root loss caused by damaging or cutting root system.
  - 3. Pruning Standards: Prune trees according to ANSI A300 (Part 1) and as indicated on Drawings.
    - a. Type of Pruning: Cleaning and thinning where indicated.
    - b. Specialty Pruning: Structural and utility where indicated.
- B. Unless otherwise directed by arborist and acceptable to Town of Smithfield, do not cut tree leaders.
- C. Cut branches with sharp pruning instruments; do not break or chop.
- D. Do not paint or apply sealants to wounds.
- E. Provide subsequent maintenance pruning during Contract period as recommended by arborist.
- F. Chip removed branches and dispose of off-site.

### **3.07 REGRADING**

- A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- B. Lowering Grade within Protection Zone: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by arborist unless otherwise indicated.
  - 1. Root Pruning: Prune tree roots exposed by lowering the grade. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots as required for root pruning.
- C. Raising Grade: Where new finish grade is indicated above existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- D. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with backfill soil. Place backfill soil in a single uncompacted layer and hand grade to required finish elevations.

### **3.08 FIELD QUALITY CONTROL**

- A. Inspections: Engage a qualified arborist to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

### **3.09 REPAIR AND REPLACEMENT**

- A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or to be relocated that are damaged by construction operations, in a manner approved by Town of Smithfield.
  - 1. Submit details of proposed pruning and repairs.
  - 2. Perform repairs of damaged trunks, branches, and roots within 24 hours according to arborist's written instructions.
  - 3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Town of Smithfield.
- B. Trees: Remove and replace trees indicated to remain that are more than 66 percent dead or in an unhealthy condition or are damaged during construction operations that Town of Smithfield determines are incapable of restoring to normal growth pattern.
  - 1. Small Trees: Provide new trees of same size and species as those being replaced for each tree that measures 6 inches or smaller in caliper size.
  - 2. Large Trees: Provide one new tree(s) of 6-inch caliper size for each tree being replaced that measures more than 6 inches in caliper size.
    - a. Species: As selected by Town of Smithfield.
- C. Excess Mulch: Rake mulched area within protection zones, being careful not to injure roots. Rake to loosen and remove mulch that exceeds a 2-inch uniform thickness to remain.
- D. Soil Aeration: Where directed by Town of Smithfield, aerate surface soil compacted during construction. Aerate 10 feet beyond drip line and no closer than 36 inches to tree trunk. Drill 2-inch-diameter holes a minimum of 12 inches deep at 24 inches o.c. Backfill holes with an equal mix of augered soil and sand.

### **3.010 DISPOSAL OF SURPLUS AND WASTE MATERIALS**

- A. Disposal: Remove excess excavated material, displaced trees, trash, and debris and legally dispose of them off Town of Smithfield's property.

END OF SECTION

**SECTION 016600**  
**DELIVERY, STORAGE, AND HANDLING**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This Section specifies the general requirements for the delivery handling, storage and protection for all items required in the construction of the work. Specific requirements, if any, are specified within individual technical sections.
- B. All materials furnished by the Contractor shall be delivered, handled, and distributed at the site by the Contractor as recommended by the manufacturer. No materials will be furnished by the Owner unless otherwise noted.
- C. There shall be no direct payment for these items, the cost of which shall be included in other bid items.

**1.02 TRANSPORTATION AND DELIVERY**

- A. Equipment delivery schedule – The Contractor shall also prepare a schedule of anticipated shipping dates for materials and equipment. It is intended that equipment and materials be so scheduled as to arrive at the job site just prior to time for installation to prevent excessive materials on hand for inventory and the necessity for extensive storage facilities at the job site. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from the Owner/Engineer.
- B. Transport and handle items in accordance with manufacturer's instructions.
- C. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.
- D. Deliver products to the site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.
- E. All items delivered to the site shall be unloaded and placed in a manner which will not hamper the Contractor's normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.
- F. Provide necessary equipment and personnel to unload all items delivered to the site.
- G. Promptly inspect shipment to assure that products comply with requirements, quantities are correct and items are undamaged. For items furnished by others (i.e., Owner, other Contractors), perform inspection in the presence of the Owner/Engineer. Notify Owner/Engineer verbally, and in writing, of any problems.
- H. If any item has been damaged, including pipe and fitting linings, coatings, etc., such damage shall be repaired at no additional cost to the Owner as recommended by the manufacturer or replaced with new materials as required by the Owner/Engineer.

- I. When distributing materials for pipeline projects, materials shall be unloaded opposite or near the place where it is to be laid in the trench.

### **1.03 STORAGE AND PROTECTION**

- A. Store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instruction shall be studied by the Contractor and reviewed with the Owner/Engineer. Instruction shall be carefully followed and a written record of this kept by the Contractor. Arrange storage to permit access for inspection.
- B. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, cracking and spalling to a minimum.
- D. All mechanical and electrical equipment and instruments subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a weathertight building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Owner/Engineer. Building shall be provided with adequate ventilation to prevent condensation. Maintain temperature and humidity within range required by manufacturer.
  1. All equipment shall be stored fully lubricated with oil, grease and other lubricants unless otherwise instructed by the manufacturer.
  2. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, the Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
  3. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.
  4. Prior to acceptance of the equipment, the Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guaranty the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

- E. All paint and other coating products shall be stored in areas protected from the weather. Follow all storage requirements set forth by the paint and coating manufacturers.

END OF SECTION

**SECTION 017113**  
**MOBILIZATION / DEMOBILIZATION**

**PART 1 GENERAL**

**1.01 MOBILIZATION**

A. As required for the proper performance and completion of the Work, mobilization shall include, but not be limited to, the following principal items:

1. Move onto the site all Contractor's equipment required for the first month's operation.
2. Install temporary construction power, wiring, and lighting facilities.
3. Provide and furnish field office trailers for Contractor and Engineer.
4. Provide on-site sanitary facilities and potable water facilities.
5. Arrange for and erect Contractor's work and storage yard.
6. Submit all required insurance certificates and bonds.
7. Obtain all required permits.
8. Post all OSHA, NCDEQ, Department of Labor, and all other required notices.
9. Erect all required Project signs.
10. All construction areas within the project area have been video recorded prior to any work.
11. The Engineer is satisfied that responsive and responsible progress on the Contract Work is under way.

B. PAYMENT FOR MOBILIZATION

1. The Contractor's attention is directed to the condition that no payment for mobilization, or any part thereof, will be approved for payment under the Contract until all mobilization items listed above have been satisfactorily completed as specified.

**1.02 DEMOBILIZATION**

A. As required for the proper performance and completion of the Work, demobilization shall include, but not be limited to, the following principal items:

1. Remove Contractor's and Engineer's field offices and trailer used for storage, if applicable.
2. Remove all temporary power and utility lines.
3. Remove any temporary roadways and parking areas.

4. All areas disturbed during construction are seeded per the Contract Documents.
  5. Remove contract signs.
  6. All construction areas within the project area have been videotaped after construction, including final restoration, is completed.
  7. Meet with Engineer and Owner on site and have the site approved and acceptable as is.
  8. Completed all items and submitted all documents required for Close out as specified in Sections 017700 and 017839.
- B. Demobilization activities must be completed prior to the final application for payment in accordance with Section 000014.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

END OF SECTION

**SECTION 017329**  
**CUTTING, CORING, AND PATCHING**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This Section covers the cutting, coring, rough and finished patching of holes and openings. Holes and opening maybe in existing construction, or in parts of new construction. Procedures for cutting and patching will be the same for either condition.
- B. All cutting, coring, and rough patching shall be performed by the trade requiring the opening.
- C. Provide all cutting, filling and patching, including excavation and backfill, required to complete the work or to:
  - 1. Make material parts fit together properly.
  - 2. Uncover portions of the work to provide for installation of ill-timed or improperly scheduled work.
  - 3. Remove and replace defective work.
  - 4. Remove and replace work not conforming to requirements of Contract Documents.
  - 5. Remove samples of installed work as specified for testing.
  - 6. Provide penetrations of structural surfaces and materials for installation of piping, ductwork, equipment and electrical conduit.
  - 7. Provide penetrations of non-structural surfaces and materials for installation of piping, ductwork, equipment and electrical conduit. The determination of what is a nonstructural surface or material shall be made by the Engineer.
  - 8. Remove, install, or relocate materials or equipment.

**1.02 RELATED WORK**

- A. Summary of Work is included in Section 011100.

**1.03 SUBMITTALS**

- A. Submit, in accordance with Section 013300, a written request prior to executing any cutting or alteration which is not shown or detailed on the Contract Documents which affects or requires:
  - 1. Cutting structural members.
  - 2. Holes drilled in beams or other structural members.
  - 3. Work of the Owner or any separate contractor.
  - 4. Structural value or integrity of any element of the project.



5. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
  6. Efficiency, operational life, maintenance or safety of operational elements.
  7. Visual qualities of sight-exposed elements.
- B. Request shall include:
1. Description of affected work.
  2. The reason for cutting, alteration or excavation.
  3. Effect on work of Owner or any separate contractor, or on structural or weatherproof integrity of project.
  4. Description of proposed work:
    - a. Method and extent of cutting, patching, alteration, or excavation.
    - b. Trades who will execute the work.
    - c. Products proposed to be used.
    - d. Extent of refinishing to be done.
  5. Alternatives to cutting and patching.
  6. Confirmation of coordination with any separate contractor whose work will be affected.
  7. Related shutdown requests if required to do the work.
  8. Request for hot work permission if required to do the work.
- C. Submit written notice to the Owner/Engineer designating the date and the time the work will be completed.
- D. When a written request is required, do not proceed with the work until a written notice to proceed is received from the Owner/Engineer.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Comply with specifications and standards for each specific product involved. Where there is no equivalent specification, the Contractor shall notify the Owner/Engineer who will provide a specification for the materials to be used.
- B. Materials for finish patching shall be equal to those of adjacent construction. Where existing materials are no longer available, use materials with equivalent properties and that will provide the same appearance. The materials are to be approved by the Owner/Engineer prior to their use.

## **PART 3 EXECUTION**

### **3.01 INSPECTION**

- A. Inspect existing conditions of project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to the Owner/Engineer in writing; do not proceed with work until further instructions have been received.

### **3.02 PREPARATION**

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of work.
- B. Protect surrounding materials and equipment prior to starting work.
- C. Contain and control cooling liquids and slurry produced by the cutting and coring operations.
- D. When the cutting or coring will result in the structure or equipment being exposed, provide adequate weather protection.
- E. Provide dewatering for excavation work in accordance with Section 312319.

### **3.03 PERFORMANCE**

- A. Execute cutting and demolition by methods which will prevent damage to other work and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work. When excavating in close proximity to piping, duct banks or other items subject to damage, use hand excavation.
- C. All equipment and workplace safety shall conform to OSHA standards and applicable Contract Specifications and building codes.
- D. Where possible, employ original installer or fabricator to perform cutting and patching for:
  - 1. Weather-exposed or moisture-resistant elements.
  - 2. Sight-exposed finished surfaces.
- E. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- F. Restore work which has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents.
- G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:

1. For continuous surfaces, refinish to nearest intersection.
  2. For an assembly, refinish entire unit.
- H. Remove rubble and excess patching materials from the premises.

### **3.04 CORING**

- A. All coring shall be performed in such a manner as to limit the extent of patching. Locate the rebar before coring to minimize cut throughs
- B. Coring shall be performed with an approved non-impact rotary tool with diamond core drills.
- C. Size of holes shall be suitable for pipe, conduit, sleeves, equipment or mechanical seals to be installed.
- D. Fit work to minimize space to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- E. Fit to pipes and other penetrations in tanks to be water tight using seals or other methods defined in the specifications.
- F. All holes cut through concrete and masonry walls, slabs or arches shall be core drilled unless otherwise approved. All work shall be performed by mechanics skilled in this type of work.
- G. If holes are cored through floor slabs they shall be drilled from below where possible. If holes are drilled from above, provide protection and containment below the area being drilled to catch the plug and contain liquid and slurry.

### **3.05 CUTTING**

- A. All cutting shall be performed in such a manner as to limit the extent of patching.
- B. Fit work to minimize space to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- C. Cutting shall be performed with a concrete saw and diamond saw blades of proper size.
- D. Provide for control of slurry generated by sawing operation on both sides of wall and from below if cutting a floor.
- E. When cutting a reinforced concrete wall or floor, the cutting shall be done so as not to damage the bond between the concrete and reinforcing steel left in structure. Cut shall be made so that steel neither protrudes nor is recessed from face of the cut.
- F. Adequate bracing of area to be cut shall be installed prior to start of cutting. Check area during sawing operations for partial cracking and provide additional bracing as required to prevent a partial release of cut area during sawing operations.
- G. Provide equipment of adequate size to remove cut panel.
- H. Saw cut concrete and masonry prior to breaking out sections.

- I. Install work to minimize the amount of cutting and patching.
- J. All cutting of structural members shall be done in a manner directed by the Owner/Engineer.
- K. When existing conduits or pipe sleeves are cut off at the floor line or wall line, they shall be filled with grout or suitable patching material.

### **3.06 PATCHING**

- A. Rough patching shall be such as to bring the cut or cored area flush with existing construction unless otherwise shown.
- B. Finish patching shall match existing surfaces as approved.
- C. Patching shall be of the same kind and quality of material as was removed.
- D. The completed patching work shall restore the surface to its original appearance or better.
- E. Patching of waterproofed surfaces shall render the area of the patching completely waterproofed to include the joint between the existing material and the patch.

### **3.07 PROTECTION**

- A. Provide devices and methods to protect other portions of project from damage.
- B. Provide protection from elements for that portion of the project which may be exposed by cutting and patching work.
- C. Maintain excavations free from water.
- D. Equipment damaged during cutting and patching shall be replaced or repaired at the Owner/Engineer's sole discretion and at the expense of the Contractor.
- E. Repaint any damage to factory applied paint finishes using touch-up paint. The damaged section shall be repainted in accordance with appropriate specifications at the expense of the Contractor doing the work.
- F. Slurry or tailings resulting from coring or cutting operations shall be contained and vacuumed or otherwise removed from the area following drilling or cut.
- G. Equipment and utilities shall be protected against mechanical and water damage during cutting and patching. Provide protective covers or use other means such as temporary relocation to protect equipment that is at risk of damage from the cutting and patching.

END OF SECTION

**SECTION 017700  
CONTRACT CLOSEOUT**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This Section specifies administrative, verification and procedural requirements for project closeout, including but not limited to:
  - 1. Operation & Maintenance data and Manuals, instrumentation and control adjustments in Section 017823.
  - 2. Project Record Documents in Section 017839.
  - 3. Spare parts and maintenance materials as specified.
  - 4. Record Shop Drawings.
  - 5. Warranties, guarantees, and bonds in Section 017800 and applicable Sections in Technical Specifications.
  - 6. Reconciliation of final accounting, final change order, final payment application in Section 000014.
  - 7. As-built construction schedule in Section 013216.
  - 8. Training Confirmation, as applicable.
  - 9. Permit close-outs including Certificate of Occupancy or Certificate of Completion.

**1.02 CLOSEOUT PROCEDURES**

- A. Provide all deliverables as specified above, prior to submitting the final application for payment.
- B. Verify that the Contractors Shop Drawing log, testing log (field tests, shop tests, and performance tests), warranties list, and material samples list is consistent with that of the Engineer.
- C. Provide submittals to Owner/Engineer that are required by governing or other authorities having applicable jurisdiction including but not limited to permit close out information, certificates of occupancy, etc.
- D. Submit Certificate of Occupancy or Certificate of Completion to the Owner.
- E. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments and sum remaining due, following submittal and approval of Record Documents and Record Drawings.
- F. Submit Contractor's Final Release and Release of Liens with final payment application.

### **1.03 FINAL CLEANING**

- A. Contractor to complete final cleaning prior to submittal of the final application for payment. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Remove from the project site all temporary construction facilities (those used for both the Contractor and Engineer) as specified in Section 015000. Remove tools, construction equipment, machinery, and surplus material from Project site.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.
- D. Provide final cleaning by a professional service company if project is located in a building or facility. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturers written instructions. Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces. Complete the following cleaning operations for all buildings or facilities worked on as part of the Project before requesting inspection for certification of Substantial Completion for entire Project or for a portion of the Project:
  - 1. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - 2. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches equipment vaults, manholes, attics, and similar spaces.
  - 3. Sweep concrete floors broom clean in unoccupied spaces.
  - 4. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
  - 5. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
  - 6. Remove labels that are not permanent.
  - 7. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration. Remove any rust from areas. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
  - 8. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment.

9. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  10. Replace parts subject to unusual operating conditions.
  11. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  12. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills. Clean ducts, blowers, and coils if units were operated without filters during construction.
  13. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
  14. Leave Project clean and ready for occupancy.
- E. For pipeline projects, clean Project site, yard, streets, parking areas, easement areas, grounds, landscaped areas, and all other areas disturbed by construction activities. Remove rubbish, waste material, litter, and other foreign substances.
1. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
  2. Rake grounds that are neither planted nor paved to a smooth even textured surface.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

END OF SECTION

**SECTION 017800  
WARRANTIES AND BONDS**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

**1.02 RELATED WORK**

- A. Refer to Conditions of Contract for the general requirements relating to warranties and bonds.
- B. General closeout requirements are included in Section 017700.
- C. Specific requirements for warranties for the work and products and installations that are specified to be warranted are included in the individual Sections.

**1.03 SUBMITTALS**

- A. Submit written warranties to the Owner prior to Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the work, or a designated portion of the work, submit written warranties upon request of the Owner.
- B. When a designated portion of the work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within [15] days of completion of that designated portion of the Work.
- C. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner for approval prior to final execution.
- D. Refer to individual Sections for specific content requirements, and particular requirements for submittal of special warranties.
- E. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
- F. The Engineer shall provide a list of all required Warranties to the Contractor at the time of the Pre-Construction Conference. The Contractor shall verify that all warranties on that list have been submitted to the Owner prior to Substantial Completion. The Contractor is required to submit all warranties requested in the Contract Documents, whether or not the Engineer has included the warranty on the list.



#### 1.04 WARRANTY REQUIREMENT

- A. Related Damages and Losses: When correcting warranted work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conformance with requirements of the Contract Documents.
- F. For a period of at least one year after the date of substantial completion of the contract the contractor warrants the fitness and soundness of all work done and materials and equipment put in place under the contract. Neither the, certificate of substantial completion, certificate of final acceptance, payment of the final application for payment, nor any provision in the Contract Documents, not partial or entire occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the Contract Documents, nor relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.
- G. The Contractor shall remedy any defects in the work and pay for any damage to work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work *unless a longer period is specified*. The Owner will give notice of observed defects with reasonable promptness.”
- H. The one-year warranty described herein shall be in addition to all other warranties required in the Contract Documents. The one-year warranty extended herein shall not limit, alter or prejudice any other right or remedy available to the Owner under the Contract Documents or granted by law. All of the Owner’s rights under this one-year warranty are cumulative, and in addition to, all other rights and remedies under the contract.
- I. The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of Work which is not in accordance with the requirements of the Contract Documents. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, the Owner may correct it and charge the Contractor all costs related to correcting the Work.

- J. The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work. The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor.
- K. The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.
- L. Establishment of the one-year period for correction of Work relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

#### **1.05 MANUFACTURERS CERTIFICATIONS**

- A. Where required, the Contractor shall supply evidence, satisfactory to the Owner/Engineer, that the Contractor can obtain manufacturers' certifications as to the Contractor's installation of equipment.

#### **1.06 DEFINITIONS**

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### **PART 2 PRODUCTS (NOT USED)**

#### **PART 3 EXECUTION (NOT USED)**

END OF SECTION

**SECTION 017823**  
**OPERATION AND MAINTENANCE MANUALS AND VENDOR TRAINING**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This Section includes general procedural requirements for compiling and submitting operation and maintenance manuals and data required to complete the project.
- B. Specific requirements for operation and maintenance manuals and data are included in the individual technical specifications.

**1.02 RELATED WORK**

- A. Submittals are included in Section 013300.
- B. Contract closeout is included in Section 017700.
- C. Warranties and Bonds are included in Section 017800.

**1.03 OPERATING MANUALS**

- A. Provide specific operation and maintenance instructions for all electrical, mechanical, and instrumentation & controls equipment furnished under various technical specifications Sections.
- B. Separate manuals shall be provided for each type of equipment, or each Section number. Each manual shall contain the following:
  - 1. Format and Materials shall include:
    - a. Commercial quality three ring binders with durable and cleanable plastic covers
    - b. Maximum ring width capacity: 3 inches
    - c. When multiple binders are used, correlate the data into related consistent groupings/volumes.
    - d. Identify each volume on the cover and spine with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". Include the following:
      - 1) Title of Project.
      - 2) Identify the general subject matter covered in the manual.
      - 3) Identify structure(s) and/or location(s), of the equipment provided.
      - 4) Specification Section number.

- e. 20 lb. loose leaf paper, with hole reinforcement
  - f. Page size: 8-1/2 inch by 11-inch
  - g. Provide heavy-duty section separators, matching the table of contents, for each separate product, each piece of operating equipment, and organizational sections of the manual.
  - h. Provide reinforced punched binder tab; bind in with text.
  - i. Reduce larger drawings and fold to the size of text pages - but not larger than 11 inches x 17 inches - or provide a suitable clear plastic pocket (with drawing identification) for such folded drawings/diagrams.
2. Contents: Prepare a table of contents/Index, divided into sections reflective of the major components provided. Specific description of each system and component shall be identified in three parts as follows:
- a. Part 1: Directory
    - 1) Name, address, telephone number(s) and e-mail address(es) of vendor(s) and local service representative(s) of manufacturer or supplier, Contractor, Subcontractors, and major related equipment suppliers.
  - b. Part 2: Operation and maintenance instructions arranged by system and subdivided by specification section. Identify the following:
    - 1) Significant design criteria.
    - 2) List of equipment.
    - 3) Parts list for each component.
    - 4) Specific on-site operating instructions (including starting and stopping procedures).
    - 5) Project specific operational procedures and recommended log sheet(s).
    - 6) Maintenance instructions for equipment and systems.
    - 7) Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
    - 8) Safety considerations.
    - 9) Manufacturer's operating and maintenance instructions – specific to the project.
    - 10) Copy of each wiring diagram.
  - c. Part 3: Project documents and certificates, including the following:

- 1) Air and water balance reports.
- 2) Certificates.
- 3) Copy of approved shop drawing(s) and Contractor's coordination/layout drawing(s).
- 4) List of spare parts and recommended quantities.
- 5) Product Data: Mark each sheet to clearly identify specific products and component parts and data applicable to installation. Delete inapplicable information.
- 6) Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- 7) Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified.
- 8) Warranties and Bonds, as specified in the General Conditions.

### 3. Transmittals

- a. Prepare separate transmittal sheets for each manual. Each transmittal sheet shall include at least the following: Contractor's name and address, Owner's name, project name, project number, submittal number, description of submittal and number of copies submitted.
- b. Submittals shall be transmitted or delivered directly to the office of the Owner/Engineer, as indicated in the Contact Documents or as otherwise directed by the Owner/Engineer.
- c. Provide copies of transmittals (only, i.e., without copies of the respective submittal) directly to the Owner/Engineer.

### C. Manuals for Equipment and Systems - In addition to the requirements listed above, for each System, provide the following:

1. Overview of system
  - a. Description of unit or system and component parts
  - b. Identify function, normal operating characteristics and limiting conditions.
  - c. Include legible performance curves, with engineering data and tests.
  - d. Complete nomenclature and commercial number of replaceable parts.
2. Panel board circuit directories including electrical service characteristics, controls and communications and color-coded wiring diagrams as installed.

3. Wiring Diagrams as Installed
4. Operating procedures: include start-up, break-in and routine normal operating instructions and sequences; regulation, control, stopping, shut-down and emergency instructions; and summer, winter and any special operating instructions.
5. Maintenance Requirements:
  - a. Procedures and guides for trouble-shooting; disassembly, repair, and reassembly instructions.
  - b. Alignment, adjusting, balancing and checking instructions.
  - c. Servicing and lubrication schedule and list of recommended lubricants.
  - d. Manufacturer's printed operation and maintenance instructions.
  - e. Sequence of operation by instrumentation and controls manufacturer.
  - f. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
  - g. Control diagrams by controls manufacturer as installed (as-built).
  - h. Contractor's coordination drawings, with color coded piping diagrams, as installed (as-built).
  - i. Charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams. Include equipment and instrument tag numbers on diagrams.
  - j. List of original manufacturer's spare parts and recommended quantities to be maintained in storage.
  - k. Test and balancing reports, as required.
  - l. Additional Requirements as specified in individual product specification.
  - m. Design data for systems engineered by the Contractor or its Suppliers.

D. Electronic Transmission of O&M Manuals

1. Unless otherwise approved by the Owner/Engineer, O&M manuals may be transmitted by electronic means including CD-ROM or USB flash drive. Electronic O&M manuals shall meet the following conditions:
  - a. The above-specified transmittal form is included.
  - b. All other requirements specified above have been met, including, but not limited to, coordination by the Contractor, review and approval by the Contractor.
  - c. The submittal contains no pages or sheets large than 11 x 17 inches.

- d. With the exception of the transmittal sheet, the entire submittal is included in a single file.
  - e. Files are Portable Document Format (PDF) – with the printing function enabled.
  - f. All scanned manufacturer's O&M manuals must be quality checked after scanning to ensure the page are not crooked and all information is legible.
- 2. When electronic copies are provided, transmit two hard copy (paper) originals to the Owner/Engineer with an electronic copy on CD-ROM.
  - 3. The electronic copy of the O&M manual must be identical in organization, format and content to the hard copies of the manual.
  - 4. The electronic O&M Manual must be bookmarked identically to the paper manual table of contents to allow quick access to information. Electronic submittals that require extensive scrolling will not be accepted. The document must be indexed and searchable.

## **PART 2 PRODUCTS (NOT USED)**

## **PART 3 EXECUTION**

### **3.01 SUBMITTAL SCHEDULE**

- A. Operation and maintenance manuals shall be delivered directly to the office of the Owner/Engineer, as follows:
  - 1. Provide preliminary copies of each manual to the office of the Owner/Engineer, no later than 30 days following approval of the respective shop drawings.
  - 2. Provide final copies of each completed manual prior to testing.
  - 3. Provide a letter that grants the Engineer and Owner to the limited right to use and reproduce each manual (in its entirety or any portion thereof) from the respective equipment manufacturer(s). Such limited right shall allow the Engineer and Owner to use each manual or and portion thereof for:
    - a. The potential assembly of a comprehensive facility operation and maintenance manual for the sole benefit of the Owner; and, supplemental training of the Owner's personnel and operators, over and above the required vendor's training, regarding operation of the facility as a system.
- B. The Owner/Engineer will review Operation and Maintenance manuals submittals for operating equipment for conformance with the requirements of the applicable specification Sections.
- C. If during test and start-up of equipment, any changes were made to the equipment, provide two hard copies of as-built drawings or any other amendments for insertion, by the contractor, in the previously transmitted final manuals. In addition, provide one revised electronic version including the as-built drawings and any other amendments. The manuals shall be completed, including updates, if any, within 30 days of start-up and testing of the facility.

### **3.02 VENDOR TRAINING/INSTRUCTIONS (TO OWNER'S PERSONNEL)**

- A. Before operation, Contractor's vendors shall train/instruct Owner's designated personnel in the operation, adjustment, and maintenance of products, equipment and systems at times convenient to the Owner. Specific number of hours for instruction, types of training, and other specific requirements are specified in technical Sections.
- B. Unless specified otherwise under the respective equipment specification section, vendor training/instruction shall consist of eight hours of training for each type of equipment. Such training/instruction shall be scheduled and held at times to accommodate the work schedules of Owner's personnel, including splitting the required training/instruction time into separate sessions and/or presented at reasonable times other than the Contractor's "normal working hours" or the Owner's normal day shift.
- C. Use operation and maintenance manuals as basis for instruction. Train/instruct the Owner's personnel, in detail, based on the contents of manual explaining all aspects of operation and maintenance of the equipment. If the respective equipment is inter-related to the operation of other equipment, all interlock, and constraints shall be explained.
- D. At least two weeks prior to the schedule for vendor training, a detailed lesson plan, representative of the material to be covered during instruction, shall be submitted to the Owner/Engineer for approval. Lesson plans shall consist of in-depth outlines of the training material, including a table of contents, resume of the instructor, materials to be covered, start-up procedures, maintenance requirements, safety considerations, and shut-down procedures.
- E. Prepare and insert additional data in each Operation and Maintenance Manual when the need for such data becomes apparent during training/instruction.
- F. Vendor's training/instruction will be considered acceptable based on the completed Owner's Acknowledgement of Manufacturer's Instruction as indicated on the Equipment Manufacturer's Certification of Installation, Testing, and Instruction appended to this Section.

END OF SECTION



**SECTION 017839  
PROJECT RECORD DOCUMENTS**

**PART 1 GENERAL**

**1.01 SCOPE**

- A. The Contractor shall keep and maintain, at the job site, a copy of submittals and contract documents, marked up to indicate all changes made during the course of a project for field use, as specified herein.
- B. Contractor shall keep and maintain and submit to the Owner/Engineer all required as-built drawings and specs, construction photographs, survey control, warranties/bonds, schedules, shop drawings and other submittals, testing results, and all else specified herein.

**1.02 RELATED REQUIREMENTS**

- A. Contract close-out submittals are included in Section 017700.
- B. Warranties and bonds are included in Section 017800.
- C. As-built construction schedules are included in Section 013216.
- D. As-built surveys are included in Section 022100.
- E. As-built construction photographs are included in Section 013233.CHA

**1.03 REQUIREMENTS INCLUDED**

- A. Contractor shall maintain a record copy of the following documents, marked up to indicate all changes made during the course of a project:
  - 1. Contract Drawings - A full set of plans shall be on site and regularly “red lined” with record drawing data. Plans should reflect up to date construction that parallels current Application for Payment quantities.
  - 2. Specifications
- B. Contractor shall assemble copies of the following documents for turnover to the Owner/Engineer at the end of the project, as specified.
  - 1. All Field Orders, Change Orders, Design Modifications, and RFIs
  - 2. All Field Test records
  - 3. All Permits and permit close-outs (final approvals)
  - 4. Certificate of Occupancy, Permit to Operate, or Certificate of Completion, as applicable
  - 5. All Laboratory test reports (e.g., bacteriological and primary & secondary water quality)

6. Certificates of Compliance for materials and equipment
7. All Record Shop Drawings
8. All Final Submittal logs
9. Final change order and potential change order logs.
10. Construction photographs
11. Final Survey and Control
12. All Samples
13. All required Warranties/ Bonds

#### **C. RECORD DRAWINGS**

1. The Contractor shall annotate (mark-up) the Contract Drawings to indicate all project conditions, locations, configurations, and any other changes or deviations that vary from the original Contract Drawings. This requirement includes, but is not limited to, buried or concealed construction, and utility features that are revealed during the course of construction. Special attention shall be given to recording the locations (horizontal and vertical) and material of all buried utilities that are encountered during construction – whether or not they were indicated on the Contract Drawings. The record information added to the drawings may be supplemented by detailed sketches, if necessary, clearly indicating, the WORK, as constructed.
2. These annotated Contract Drawings constitute The Contractor's Record Drawings and are actual representations of as-built conditions, including all revisions made necessary by change orders, design modifications, requests for information and field orders.
3. The annotated Contract Drawings shall include at least three actual dimensions from permanent markers, accurately locating all underground piping, bends, fittings, valves, structures, or appurtenances. Detailed sketches are acceptable for improved clarity and should be permanently affixed to the relevant Contract Drawing.
4. All original Contract Drawings shall be included with the (Mark-up) set of Drawings. Submit two copies of mark-ups and electronic PDF files to the City.
5. Record drawings shall be accessible to the Owner and Engineer at all times during the construction period.

### **PART 2 – PRODUCTS (NOT USED)**

### **PART 3 – EXECUTION**

#### **3.01 MAINTENANCE OF RECORD DOCUMENTS AND SAMPLES**

- A. Store documents and samples in Contractor's field office apart from documents used for construction.

1. Provide files and racks for storage of the record documents.
  2. Provide locked cabinet(s) or secure storage space for storage of samples.
- B. File documents and samples in accordance with Construction Specifications Institute (CSI) format.
  - C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
  - D. Make documents and sample available for inspection by the Engineer or Owner at all times.

### **3.02 MARKING METHOD**

- A. Use the color Red (indelible ink) to record information on the Drawings and Specifications,
- B. Label each document "PROJECT RECORD" in neat large printed letters.
- C. Unless otherwise specified elsewhere, notations shall be affixed to hardcopies of documents.
- D. Record information contemporaneously with construction progress.
- E. Legibly mark drawings with as-built information:
  1. Elevations and dimensions of structures and structural elements.
  2. All underground utilities (piping and electrical), structures, and appurtenances
    - a. Changes to existing structure, piping and appurtenance locations.
    - b. Record horizontal and vertical locations of underground structures, piping, utilities and appurtenances, referenced to permanent surface improvements.
    - c. Record actual installed pipe material, class, size, joint type, etc.

### **3.03 RECORD INFORMATION COMPILATION**

- A. Do not conceal any work until the required information is acquired.
- B. Items to be recorded include, but are not limited to:
  1. Location of internal utilities and appurtenances concealed in the construction – referenced to visible and accessible features.
  2. Field changes of dimensions and/or details
    - a. Interior equipment and piping relocations.
    - b. Architectural and structural changes, including relocation of doors, windows, etc.
    - c. Architectural schedule changes.
- C. Changes made by Field Order, Change Order, design modification, and RFI.
- D. Details not indicated on the original Contract Drawings.
- E. Specifications - legibly mark each Section to record:

1. Manufacturer, trade name, catalog number, and Supplier of each product and item of equipment actually installed.
2. Changes made by Field Order, Change Order, RFI, and approved shop drawing.

### **3.04 SUBMITTAL**

- A. Upon substantial completion of the Work and prior to final acceptance, the Contractor shall finalize and deliver two complete sets of Record Drawings to the Owner/Engineer conforming to the construction records of the Contractor. The set of drawings shall consist of corrected and annotated drawings showing the recorded location(s) of the work. Record Drawings shall be in the form of a set of prints with annotations carefully and neatly superimposed on the drawings in red.
- B. The information submitted by the Contractor into the Record Drawings and Record Documents will be assumed to be correct, and the Contractor shall be responsible for the accuracy of such information, and shall bear the costs resulting from the correction of incorrect data.
- C. Contractor shall place a certification statement and signature on the Record Drawings certifying that "All locations of piping, structures, and appurtenances are accurately shown and dimensioned on these record Drawings."
- D. Delivery and Approval of Record Drawings and Record Documents to the Owner/Engineer will be a prerequisite to Final payment.
- E. The Contractor shall maintain a copy of all books, records, and documents pertinent to the performance under this Agreement for a period of five years following completion of the contract.

END OF SECTION