

**UNIVERSITY OAKS  
PHASE IV WATER MAIN IMPROVEMENTS**

**LEVY COUNTY, FLORIDA**

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**BIDDING/CONTRACT DOCUMENTS  
AND TECHNICAL SPECIFICATIONS**

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**JANUARY 2026**

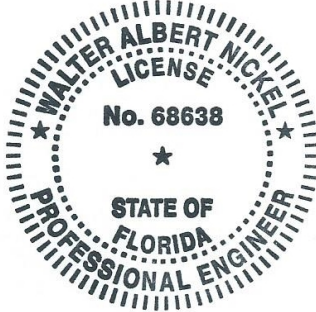
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**LEVY COUNTY, FLORIDA**  
**BIDDING/CONTRACT DOCUMENTS**  
**AND TECHNICAL SPECIFICATIONS**  
**FOR**  
**UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS**  
**JANUARY 2026**

**Prepared By:**

**Wright-Pierce**  
**601 South Lake Destiny Road, Suite 290**  
**Maitland, FL 32751**  
**407-906-1776**

SPECIFICATIONS CERTIFICATION

<p><b>PROJECT SPECIFICATIONS – GENERAL &amp; CIVIL DIVISIONS 0, 1 &amp; 2</b></p>	 <p>WALTER ALBERT NICKEL LICENSE No. 68638 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER</p>	<p>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WALTER ALBERT NICKEL, PE ON THE DATE ADJACENT TO THE SEAL.</p> <p>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.</p>
	<p><b>Walter A. Nickel, PE FL PE # 68638</b></p>	

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LEVY COUNTY BOARD OF COUNTY COMMISSIONERS  
P.O. BOX 310  
310 SCHOOL STREET  
BRONSON, FL 32621  
PHONE: (352) 486-5218

COVER PAGE  
ITB\_2025\_024 – UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS

ADVERTISEMENT PUBLISH DATE: Wednesday, January 28, 2026  
NON-MANDATORY PRE-BID CONFERENCE: Thursday, February 5, 2026 at 11:00 AM at 318 Mongo Street, Room C, Bronson, FL 32621  
DEADLINE FOR QUESTIONS: Monday, February 9, 2026 at 2:00 PM EST  
ADDENDUM ISSUED - RESPONSE TO QUESTIONS: Monday, February 16, 2026 at 2:00 PM EST  
DUE DATE: Monday, February 23, 2026 at 2:00 PM EST  
BID OPENING: Tuesday, February 24, 2026 at 10:00 AM EST at 318 Mongo Street, Room C, Bronson, FL 32621

SUMMARY OF SCOPE: Levy County is seeking construction services from a Certified General Contractor to replace approximately 1,700 linear feet (Base Bid) and 1,500 linear feet (Bid Option 1) of water main with new 6-inch diameter PVC pipe, including various fittings, connections to the existing water system, new service taps, water meter pits and reconnections to existing service lines. The work is within the University Oaks Water Utility owned by the County and generally located north of NE 109th Street, Archer, Florida as depicted in the Contract Drawings

SUBMITTAL OF BID: Levy County only accepts electronic submittals through "E-Bidding" on the OpenGov platform [www.OpenGov.com](http://www.OpenGov.com). To submit a bid in response to this solicitation the bidder must be registered with OpenGov. For questions relating to this Bid, contact Lisa Makar, Office Manager at [Makar.Lisa@LevyCounty.org](mailto:Makar.Lisa@LevyCounty.org)

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## PART 1 – SCOPE OF WORK AND PROJECT REQUIREMENTS

1. **SCOPE OF WORK:** Levy County is seeking construction services from a Certified General Contractor to replace approximately 1,700 linear feet (Base Bid) and 1,500 linear feet (Bid Option 1) of water main with new 6-inch diameter PVC pipe, including various fittings, connections to the existing water system, new service taps, water meter pits and reconnections to existing service lines. The work is within the University Oaks Water Utility owned by the County and generally located north of NE 109th Street, Archer, Florida as depicted in the Contract Drawings. The Scope of Work is specifically described in the Contract Documents.
2. **KEY CONTRACT TIMES:**
  - a. **Contract Execution:** Contractor must sign within 15 calendar days of the Notice of Award issued by the County.
  - b. **Notice to Proceed:** County will issue within 30 calendar days of the Effective Date of the Contract.
  - c. **Completion Date:** The work must be substantially complete within 180 calendar days of the date stated in the Notice to Proceed.
  - d. **Liquidated Damages:** Liquidated Damages shall be paid at a rate of \$500 for each calendar day that expires after the Completion Date, until the work is substantially complete.
3. **BID GUARANTEE:** The Bid shall be accompanied by a 5% Bid Guarantee which shall be in the form of a Bid Bond, Certified or Cashier's Check or Bank Draft (no cash, company, or personal checks will be accepted) made payable to the Levy County Board of County Commissioners. The purpose is to guarantee that the Bidder will not withdraw its bid for a period of 90 days after the Bid Opening. It shall also guarantee that the successful bidder will execute the Contract. In the event of withdrawal of bid or failure to timely execute the Contract, the bidder may be deemed in default and liable to the County for the full amount of the default. The Bid Guarantee will be released upon execution of the Contract.
4. **INSURANCE REQUIREMENTS:** Certificates of Insurance must be provided as proof that Bidder has policies in effect with coverage and limits as follows:
  - a. **Worker's Compensation:** Coverage is to apply for all employees for statutory limits in compliance with the applicable state and federal laws. The policy must include Employers' Liability with a limit of \$500,000 each accident, \$500,000 each employee, and \$500,000 policy limit for disease.
  - b. **Commercial General Liability – Occurrence Form Required:** Contractor shall maintain commercial general liability (CGL) insurance with a limit of not less than \$500,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to this location/project in the amount of \$1,000,000. Products and completed operations aggregate shall be \$1,000,000. CGL insurance shall be written on an occurrence form and shall include bodily injury and property damage liability for premises, operations, independent contractors, produces and completed operations, contractual liability, broad form property damage and property damage resulting from explosion, collapse or underground (x, c, u) exposures, personal injury and advertising injury. Damage to rented premises shall be included at a minimum of \$100,000.
  - c. **Commercial Automobile Liability Insurance:** Contractor shall maintain automobile liability insurance with a limit of not less than \$1,000,000 each accident for bodily injury and property damage liability. Such insurance shall cover liability arising out of any auto (including owned, hired and non-owned autos). This policy shall be endorsed to provide contractual liability coverage.

5. CONTRACTOR QUALIFICATIONS: Bidder must hold a current, active license issued by the State of Florida Department of Business and Professional Regulation (DBPR) as a Certified Building Contractor or a Certified General Contractor pursuant to Chapter 489, Part I, Florida Statutes. In addition, any proposed sub-contractors must hold a current, active Florida license for any specialty work performed to complete this project. Copies of all DBPR licenses shall be submitted to Levy County with the bid and failure to do so may result in the bid being deemed non-responsive.
6. PAYMENT AND PERFORMANCE BOND OR OTHER FORM OF SECURITY: At the time of execution of the Contract with the County, the Contractor shall provide a combination Payment and Performance Bond issued by an insurer authorized to do business in the State of Florida as a surety and the Bond must be in the form required by Section 255.05, Florida Statutes. Alternatively, the Contractor may provide one of the alternative forms of security authorized by Section 255.05(7), Florida Statutes. Any security provided shall be in the amount of 100% of the Bid Amount.
7. USE OF SUBCONTRACTORS: If Bidder intends to subcontract any services or work, the names of the subcontractors and any additional relevant information requested by the County, must be provided to County for review. The County reserves the right to approve or reject any subcontractor or subconsultant and to evaluate/inspect any subcontractors in order to determine the ability of the subcontractor or subconsultant. The County's approval of a subcontractor or subconsultant shall not be unreasonably withheld. The Contractor is encouraged to seek minority and women business enterprises for participation in subcontracting opportunities.

END OF PART 1

## PART 2 – INTENT AND GENERAL INFORMATION

Thank you for your interest in working with Levy County. General information regarding this bid process is provided below:

1. **INTENT:** It is the intent of Levy County (“County”) to award a contract to the lowest responsive responsible bidder who meets, or exceeds, all requirements set forth in the provisions of this Invitation to Bid (“ITB”). Bidder may be required to supply information in writing at the request and discretion of the County prior to award of bids, in order to verify the above requirements.
2. **QUESTIONS, EXCEPTIONS TO FORM OF CONTRACT AND ADDENDA:** There shall not be any contact between a potential bidder/bidder or their representative(s) and any member of County Staff or County Commissioners regarding this Project or ITB.

The County will not respond to verbal (in person or phone) questions regarding this ITB. Bidder must submit written questions (via email, mail or hand delivery) to the Office Manager at P.O. Box 310 or 310 School Street, Bronson, Florida 32621; email: MAKAR-LISA@LEVYCOUNTY.ORG.

Any bidder who requires/requests revision(s) to the Form of Contract (contained in Part 3 of this ITB) must submit a completed Contract Exception Form (contained in Part 3 of this ITB.) The County is under no obligation to grant any exceptions and bids that are contingent on exceptions to Contract being granted will not be accepted. If an exception is rejected by the County during the question portion of this ITB process and the bidder subsequently submits a bid, the bidder is deemed to have waived their request for a Contract exception.

All questions and Contract Exception Forms must be received by the County prior to the deadline for questions in order to receive a response. The County will respond to each question and each completed Contract Exception Form and will issue written addenda for any supplemental instructions or clarifications to the ITB or the Contract. All addenda will be sent to all bidders who received the ITB from the County and will also be posted on OpenGov. Each bidder must acknowledge receipt of addenda as part of its bid and is presumed to have read and be thoroughly familiar with the provisions of this ITB and its addenda.

3. **HOW TO SUBMIT A BID:** The County only accepts electronic submittals through OpenGov platform. In order to submit a bid, the bidder must be registered with OpenGov. The bidder’s complete bid must be uploaded in pdf format unless the ITB specifically states otherwise. Any bid submitted after the due date and time will not be accepted by the OpenGov platform and will not be considered. The County is not responsible for any delays in delivery or uploading of a bid caused by any issues a bidder may experience in attempts to upload on the OpenGov platform or caused by any other occurrence. A bidder should give sufficient time to address any delivery or uploading issues when it schedules the submittal of its bid.
4. **HOW TO ASSEMBLE YOUR BID:** Bids shall be submitted on the Forms (“Bid Forms”) supplied by the County in this ITB. Any erasures or other corrections in the bid forms must be explained or noted over the signature of the bidder. Bid Forms containing any conditions, omissions, erasures, alterations, or irregularities of any kind, whether explained or noted or not, may be rejected by the County.

The documents listed on the Bid Signature Form must accompany any bid submitted. A bid submitted without the required documents may result in the County deeming the bid non-responsive. The County reserves the right to request additional information from any bidder prior to award.

5. **WITHDRAWAL OF BIDS:** Modifications to or withdrawal of a bid may be made up until the Bid Due Date. Modifications and withdrawals must be documented in the OpenGov platform in order to be recognized by the

County. Error or negligence on the part of the bidder in preparing the bid confers no right for withdrawal of the bid after it has been opened.

6. CRITERIA FOR AWARD: Award of a contract (in the Form of Contract contained in the Contract Documents) shall be to the overall lowest responsive, responsible bidder whose bid meets or exceeds the requirements set forth in this ITB. The bidder who is awarded and enters into a contract with the County is referred to as "Contractor."

The County reserves the right to reject the bid of any bidder who has previously failed to perform properly, or on time, contracts of similar nature; or who is not in a position to satisfactorily perform the contract. If, after the due date and time, the lowest bidder is deemed non-responsible by the County, such bidder shall receive written notice from the County of this determination. The bidder shall have five (5) days from the date of this notice to dispute the determination and to provide to County any additional information it deems relevant regarding bidder's responsibility. The County shall make a final determination regarding the bidder's responsibility at the time of award of the contract.

The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission of bids. In addition, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduce requirements of the County. Any sole response received may be rejected by the County depending on available competition and timely needs of the County.

7. ARITHMETIC DISCREPANCIES: For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bid forms submitted by the bidder:
  - a. Obviously misplaced decimal points will be corrected.
  - b. In case of discrepancy between unit price and extended price, the unit price will govern.
  - c. Apparent errors in addition of lump sum and extended prices will be corrected.
8. BID PREPARATION & SUBMITTAL EXPENSES: The County is not responsible for any expense incurred by a bidder in reviewing, evaluating, preparing, or submitting a bid. Bidders are solely responsible for the entire expense of responding to this ITB.
9. ALL-INCLUSIVE COST: The bid amount shall include all costs necessary to complete the delivery of products or provide the services described in this Invitation to Bid.
10. BID OPENING; BID SUBMITTALS: In accordance with Section 255.0518, Florida Statutes, the bids will be opened at a public meeting, and the name of each bidder and the price submitted in the bid will be announced at that meeting. However, in accordance with Section 119.071(1)(b)2, Florida Statutes, the sealed bids, proposals, or replies received by an agency pursuant to a competitive solicitation are exempt from Section 119.07(1), Fla. Stat., and s. 24(a), Art. I of the State Constitution, until such time as the agency provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier.
11. CODE OF ETHICS: With respect to this bid, if any bidder violates or is a party to a violation of the State of Florida Code of Ethics for Public Officers and Employees, Chapter 112, Part III, Florida Statutes, such bidder may be disqualified from furnishing the goods or services for which the bid is submitted and shall be further disqualified from submitting any future bids for goods or services for County.

END OF PART 2

## PART 3 – REQUIRED AND OPTIONAL FORMS

(Forms on Following Pages)

## STATEMENT OF NON-SUBMITTAL

Levy County  
Board of County Commissioners  
P.O. BOX 310  
Bronson, FL 32621  
(352) 486-5218

If you do not intend to submit a response to the Invitation to Bid, please return this form to the above address or email it to [Makar.Lisa@LevyCounty.org](mailto:Makar.Lisa@LevyCounty.org) . If this statement is not completed and returned, your company may be deleted from the Levy County list for this service.

We the undersigned have declined to submit a response on INVITATION TO BID 2025\_024 – UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS for the following reason(s):

- Insufficient time to respond to the Invitation to Bid
- We do not offer this service
- Our schedule would not permit us to perform
- Unable to meet bond/insurance requirements
- Unable to meet bid specifications or scope of anticipated services
- Specifications are unclear (explain below)
- Remove us from your vendors' list for this service
- Other (specify below)

Remarks: \_\_\_\_\_

Company Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

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

Telephone: \_\_\_\_\_

Date: \_\_\_\_\_

Email: \_\_\_\_\_

## BID SIGNATURE FORM

ITB\_2025\_024 – UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS

The undersigned (“Authorized Signatory”) confirms each of the following statements on behalf of the bidder:

- They are authorized to submit this bid and to bind the bidder to the terms and conditions of this ITB.
- They have read the entire ITB package and any other documentation related to the ITB, including specifically any bid addenda issued by the County; have visited the location of the Work and/or have made any inquiries they deem necessary to determine conditions prior to submission of this bid.
- This bid is submitted with full knowledge and understanding of the terms and conditions of this ITB
- The total bid provided in the signed “Bid Form for Construction Contract” includes all labor, materials and equipment necessary to perform the Work in accordance with all requirements of this ITB and the total bid price is guaranteed for a period of ninety (90) days following the Bid Opening Date.

The bidder agrees to complete the work within 180 calendar days of the date stated in the Notice to Proceed.

The bid submitted includes all of the following signed forms and required documents:

- BID FORM FOR CONSTRUCTION CONTRACT (Section 00410 in the Contract Documents)
- SWORN STATEMENT ON PUBLIC ENTITY CRIME FORM
- NON-COLLUSION AFFIDAVIT FORM
- DRUG-FREE WORKPLACE FORM (Note: this form is optional, but may be used to break a tie bid)
- CONFLICT OF INTEREST DISCLOSURE STATEMENT FORM
- BID BOND
- CERTIFICATES OF INSURANCE – AS PROOF OF INSURANCE COVERAGES REQUIRED
- EVIDENCE THAT THE BIDDER IS QUALIFIED TO TRANSACT BUSINESS IN THE STATE OF FLORIDA
- COPIES OF ANY CURRENT LICENSES OR CERTIFICATIONS REQUIRED
- LIST OF SUBCONTRACTORS, IF ANY.

Is Bidder a small or minority business, women’s business enterprise, or labor surplus area firm?  Yes  No

Name of Bidder: \_\_\_\_\_  
If bidder is an entity, list type: \_\_\_\_\_  
Bidder Street Address: \_\_\_\_\_  
City, State, Zip: \_\_\_\_\_

Name of Authorized Signatory: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Telephone: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

## SWORN STATEMENT ON PUBLIC ENTITY CRIME

Sworn Statement Pursuant to Section 287.133(3)(a), Florida Statutes

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to \_\_\_\_\_

By \_\_\_\_\_  
(Print this individuals name and title)

For \_\_\_\_\_  
(Print name of entity submitting statements)

Whose business address is \_\_\_\_\_

and if applicable whose Federal Employer Identification Number (FEIN) is \_\_\_\_\_.

If the entity has no FEIN, include Social Security Number of the individual signing this Sworn Statement:

\_\_\_\_\_.

2. I understand that a "public entity crime" as defined in paragraph 287.133(1)(a), Florida Statutes, mean violation of any state or federal law by a person with respect to and directly related to the transactions of business with any public entity or with an agency or political subdivision of any other state or with the United States including, but not limited to any bid or contract for goods or services to be provided to any public entity or any agency or political subdivision of any other state or the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a Jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
  - a. A predecessor or successor of a person convicted of public entity crime; or
  - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in a relation to the entity submitting this sworn statement. (Please indicate which statement applies).

Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or any affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months AND (Please indicate which additional statement applies).

The entity submitting the sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months. However, there has been a subsequent proceeding before a Hearing Officers of the State of Florida, Division of Administrative Hearings and the Final Order by the Hearing Officer determined that it was not in the public interest place the entity submitting this sworn statement on the convicted vendor list. (Attached is a copy of the final order).

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THE PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED AND FOR THE PERIOD OF THE CONTRACT ENTERED INTO, WHICHEVER PERIOD IS LONGER. I ALSO UNDERSTAND THAT IA M REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

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

State of \_\_\_\_\_

County of \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_ (name), as \_\_\_\_\_ (title) for \_\_\_\_\_ (name of bidder) Personally known  OR Produced Identification  \_\_\_\_\_ (type of identification).

\_\_\_\_\_  
(Signature) Notary Public

(SEAL)

\_\_\_\_\_  
(Printed, typed or stamped commissioned name of notary public)

My Commission expires \_\_\_\_\_

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

**NON-COLLUSION AFFIDAVIT**

I, \_\_\_\_\_ of the County of \_\_\_\_\_

According to law on my oath, and under penalty of perjury, depose and say that:

1. I am \_\_\_\_\_ of the firm of \_\_\_\_\_ providing that I executed the said bid with full authority to do so.
2. This response has been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to qualifications or responses of any other responder to induce any other person, partnership or corporation to submit, or not to submit, a response for the purpose of restricting competition;
3. The statements contained in this affidavit are true and correct, and made with full knowledge that Levy County relies upon the truth of the statements contained in this affidavit in awarding contracts for any services resulting from this ITB for said project.

\_\_\_\_\_  
(Signature of Proposer Representative)

\_\_\_\_\_  
(Date)

State of \_\_\_\_\_

County of \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_ (name), as \_\_\_\_\_ (title) for \_\_\_\_\_ (name of bidder) Personally known  OR Produced Identification  \_\_\_\_\_ (type of identification).

\_\_\_\_\_  
(Signature) Notary Public

(SEAL)

\_\_\_\_\_  
(Printed, typed or stamped commissioned name of notary public)

My Commission expires \_\_\_\_\_

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

## DRUG-FREE WORKPLACE FORM

The undersigned Bidder in accordance with Section 287.087, Florida Statutes hereby certifies that the Bidder \_\_\_\_\_ (name of firm or individual) does:

1. Publish a statement notifying employees that the unlawful manufacture, distributions, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United State or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Name of Bidder: \_\_\_\_\_

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

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

Date: \_\_\_\_\_

THIS DOCUMENT IS OPTIONAL, BUT MAY BE USED TO BREAK A TIE BID, SO IT IS RECOMMENDED TO BE COMPLETED  
AND RETURNED WITH YOUR SUBMITTAL

## CONFLICT OF INTEREST DISCLOSURE STATEMENT

The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. All bidders must disclose with their bids whether any officer, director, employee or agent is also an officer or an employee of the Board of County Commissioners. All bidders must disclose whether any officer, partner, director or proprietor is the spouse or child of one of the members of the Board of County Commissioners. All bidders must disclose the name of any County officer or employee who owns, directly or indirectly, an interest of five percent (5%) or more in the firm or any of its branches or affiliates. All bidders must also disclose the name of any employee, agent lobbyist, previous employee of the Board, or other person, who has received or will receive compensation of any kind in connection with the response to this ITB. All bidders are also required to include a disclosure statement of any potential conflict of interest that the bidder may have due to other clients, contracts, or interest associated with the performance of services under this ITB and any resulting agreement. Use additional sheets if necessary.

Names of Officer, Director, Employee or Agent that is also an Employee of the Board:

\_\_\_\_\_

Names of Officer, Partner, Director or Proprietor who is spouse or child of Board Member:

\_\_\_\_\_

Names of County Officer or Employee that owns five percent (5%) or more in Bidders Firm:

\_\_\_\_\_

Names of applicable person(s) who have received compensation:

\_\_\_\_\_

Description of potential conflict(s) with other clients, contracts or interests:

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

None of the above applicable:

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

Printed Name: \_\_\_\_\_

Bidder Name: \_\_\_\_\_

Date: \_\_\_\_\_

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL



## PART 4 – CONTRACT DOCUMENTS FOR THE UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS

The following documents will be uploaded as separate files on OpenGov:

“Bidding/Contract Documents and Technical Specifications” dated January 2026 prepared by Wright-Pierce

“Contract Drawings for University Oaks Phase IV Water Main Improvements” dated January 2026 prepared by Wright-Pierce

SECTION 00100ADVERTISEMENT FOR BIDS

LEVY COUNTY, FL

## UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS

## General Notice

Levy County Board of Commissioners (Owner) is requesting Bids for the construction of the following Project:

## University Oaks Phase IV Water Main Improvements

Bids for the construction of the Project will be received by the Levy County Procurement Department at 310 School Street, Bronson, FL 32621 via the "E-Bidding" portal of [www.OpenGov.com](http://www.OpenGov.com), until Monday, February 23, 2026 at 2:00 PM EST. Bids will be publicly opened and read on Tuesday, February 24, 2026 at 10:00 AM at 318 Mongo Street, Room C, Bronson, FL 32621.

The Project includes the following Work:

Levy County is seeking construction services from a Certified General Contractor to replace approximately 1,700 linear feet (Base Bid) and 1,500 linear feet (Bid Option 1) of water main with new 6-inch diameter PVC pipe, including various fittings, connections to the existing water system, new service taps, water meter pits and reconnections to existing service lines. The work is within the University Oaks Water Utility owned by the County and generally located north of NE 109<sup>th</sup> Street, Archer, Florida as depicted in the Contract Drawings.

## Obtaining the Bidding Documents

The Issuing Office is Levy County. Information and Bidding Documents for the Project can be found at the following designated website: [www.OpenGov.com](http://www.OpenGov.com)

To be considered a responsive Bidder, the Bidder shall have obtained at least one set of Bidding Documents from the Issuing Office using the name that is to appear on the Bid Form. The designated website will be updated periodically with addenda, lists of plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website. It is the Bidder's responsibility to check the designated website for addenda.

## Pre-bid Conference

A non-mandatory pre-bid conference for the Project will be held on Thursday, February 5, 2026 at 11:00 AM at 318 Mongo Street, Bronson, FL 32621. Attendance at the pre-bid conference is encouraged but not required. A site visit will follow the meeting.

Advertisement and Bidding Schedule

Advertisement	Wednesday, January 28, 2026
Prebid Meeting	Thursday, February 5, 2026 at 11:00AM
Deadline for Questions	Monday, February 9, 2026 at 2:00PM
Issue Bid Addendum(s)	Monday, February 16, 2026 at 2:00PM
Due Date	Monday, February 23, 2026 at 2:00PM
Bid Opening	Tuesday, February 24, 2026 at 10:00AM

END OF SECTION

SECTION 00200INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

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## ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions.
- 1.02 Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders.

## ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 Owner has established a Bidding Documents Website as indicated in the Advertisement or invitation to bid. Owner recommends that Bidder register as a plan holder with the Issuing Office at such website, and obtain a complete set of the Bidding Documents from such website. Bidders may rely that sets of Bidding Documents obtained from the Bidding Documents Website are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may distribute the Bidding Documents, or make them available for examination. Those prospective bidders that obtain an electronic (digital) copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Bidding Documents Website or Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda from a plan room.
- 2.05 *Electronic Documents*
- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.
1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf). It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner

and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

- B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

### ARTICLE 3—QUALIFICATIONS OF BIDDERS

3.01 Deleted.

3.02 Deleted.

3.03 *Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:*

- A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
- B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
- C. Bidder's state or other contractor license number, if applicable.
- D. Subcontractor and Supplier qualification information.
- E. Other required information regarding qualifications.

3.04 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

### ARTICLE 4—PRE-BID CONFERENCE

4.01 A non-mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or invitation to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference; however, attendance at this conference is not required to submit a Bid.

4.02 Information presented at the pre-Bid conference does not alter the Contract Documents. Owner will issue Addenda to make any changes to the Contract Documents that result from discussions at the pre-Bid conference. Information presented, and statements made at the pre-bid conference will not be binding or legally effective unless incorporated in an Addendum.

### ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

#### 5.02 *Existing Site Conditions*

##### A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*

- 1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:
  - a. None.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

#### 5.03 *Other Site-related Documents*

- A. In addition to the documents regarding existing Site conditions referred to in Paragraph 5.02.A, the following other documents relating to conditions at or adjacent to the Site are known to Owner and made available to Bidders for reference:
  - 1. None.

#### 5.04 *Site Visit and Testing by Bidders*

- A. A Site visit is scheduled immediately following the pre-bid conference.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.
- D. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

#### 5.05 *Owner's Safety Program*

- A. Not applicable.

#### 5.06 *Other Work at the Site*

## INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

## ARTICLE 6—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder’s examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

## ARTICLE 7—INTERPRETATIONS AND ADDENDA

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing. Contact information and submittal procedures for such questions are as follows:
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than five working days prior to the date for opening of Bids may not be answered. Addenda will be issued not later than five working days before the bid opening. Bidders are responsible for determining that they have received all Addenda issued.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

## ARTICLE 8—BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder’s maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents. Bid security must be at least 5% of the Bidder’s maximum Bid price.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and

## INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.

- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

## ARTICLE 9—CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.
- 9.02 Deleted.
- 9.03 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

## SUBSTITUTE AND "OR EQUAL" ITEMS

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.
- 10.03 Deleted

## ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 Deleted.
- 11.02 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work within five days after Bid opening:
  - A. Water main construction
  - B. Maintenance of Traffic/Traffic Control

## ARTICLE 12—PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
  - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach

such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

## ARTICLE 13—BASIS OF BID

### 13.01 *Lump Sum with Unit Prices and Alternates*

- A. Bidders must submit a Bid on a lump sum basis for each lump sum item, and on a unit price basis for each unit price item of Work listed in the Bid Form for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- D. The total of all unit price "Bid Prices" and all lump sum items will be used by Owner for Bid comparison purposes.

### 13.02 *Allowances*

- A. For cash allowances the Bid price must include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

## ARTICLE 14—SUBMITTAL OF BID

14.01 Deleted.

14.02 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

14.03 Deleted

## ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.

- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

#### ARTICLE 16—OPENING OF BIDS

- 16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

#### ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

#### ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- 18.05 *Evaluation of Bids*
- A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
  - B. Deleted.
- 18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

- 18.08 All protests arising from the Owner's procurement practices must be submitted to the Owner as soon as practical. Owner will investigate the basis for the protest, seek advice of legal counsel, document all meeting and actions, and attempt to resolve the protest promptly and equitably.

#### ARTICLE 19—BONDS AND INSURANCE

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.
- 19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.
- 19.03 The successful bidder must submit Performance and Payment Bonds to the Owner prior to contract award. Detailed information can be found in the General Conditions. The successful bidder must submit Liability and Property Insurance certificates to the Owner prior to contract award. Detailed information can be found in the General Conditions and the Supplementary Conditions.

#### ARTICLE 20—SIGNING OF AGREEMENT

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

#### ARTICLE 21—SALES AND USE TAXES

Not Used.

#### ARTICLE 22—CONTRACTS TO BE ASSIGNED

Not used.

#### ARTICLE 23—DELETION OF ITEMS

- 23.01 Owner reserves the right to reduce project scope by the elimination of Bid items, reduction of quantities on unit price Bid items, or deleting elements of lump sum Bid items. No adjustment to other Bid items prices will be permitted. In the case of reduction of quantities on unit price items, the unit price will not be adjusted. Such adjustments to project scope will be determined prior to award of the Contract and will be negotiated with the apparent Successful Bidder only. If such negotiations are not satisfactory to Owner, Owner will reject all Bids

## ARTICLE 24—FEDERAL REQUIREMENTS

- 24.01 If the contract price is in excess of \$100,000, provisions of the Contract Work Hours and Safety Standards Act at 29 CFR 5.5(b) apply.
- 24.02 Federal requirements at Article 19 of the Supplementary Conditions apply to this Contract.

END OF SECTION

SECTION 00410BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

## ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Levy County, Florida for the University Oaks Phase IV Water Main Improvements

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

## ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;

## ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

3.01 *Base Bid Items*

- A. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum, unit price and allowance items.
- B. Bidder acknowledges that:
  1. Each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
  2. Estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

<b>UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS</b>					
<b>BID SCHEDULE – BASE BID (NE 107<sup>th</sup> TERRACE)</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNITS</b>	<b>TOTAL BID UNIT PRICE</b>	<b>BID AMOUNT</b>
1	Performance/Payments Bonds & Insurance	1	LS	\$	\$
2	Mobilization/Demobilization	1	LS	\$	\$
3	6" PVC Water Main Pipe	1644	LF	\$	\$
4	6" PVC Water Main Tee	1	EACH	\$	\$
5	Connect to Existing 6" Water Mains	1	LS	\$	\$
6	6" Water Main DI MJ Gate Valve and Box	1	EACH	\$	\$
7	Water Main Line Stop Valve	1	EACH	\$	\$
8	6" Water Main Cut-in Valve and Box	2	EACH	\$	\$
9	6" Water Main Tapping Sleeve, Valve and Box	1	EACH	\$	\$
10	Fire Hydrant Assembly	1	EACH	\$	\$
11	6" BLIND FLANGE	2	EACH	\$	\$
12	Temporary Water Main Piping	1	LS	\$	\$
13	Maintenance of Traffic	1	LS	\$	\$
14	Erosion Control	1	LS	\$	\$
15	Loaming and Seeding	1	LS	\$	\$
16	Clearing and Grubbing	1	LS	\$	\$
17	Dirt or Aggregate Driveway or Pavement Repair	46	SY	\$	\$
18	Concrete Driveway or Pavement Repair	39	SY	\$	\$
19	Short Water Service Assembly	3	EACH	\$	\$
20	Long Water Service Assembly	2	EACH	\$	\$
21	Existing Replacement Short Water Service Assembly	3	EACH	\$	\$
<b>TOTAL BASE BID</b>				<b>\$</b>	

<b>UNIVERSITY OAKS PHASE IV WATER MAIN IMPROVEMENTS</b>					
<b>BID SCHEDULE – BID OPTION 1 (NE 105<sup>th</sup> AVENUE)</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNITS</b>	<b>TOTAL BID UNIT PRICE</b>	<b>BID AMOUNT</b>
BO1	Performance/Payments Bonds & Insurance	1	LS	\$	\$
BO2	Mobilization/Demobilization	1	LS	\$	\$
BO3	6" PVC Water Main Pipe	1488	LF	\$	\$
BO4	6" PVC Water Main Tee	1	EACH	\$	\$
BO5	6" 45° PVC Water Main Bend	1	EACH	\$	\$
BO6	Connect to Existing 6" Water Mains	1	LS	\$	\$
BO7	6" Water Main DI MJ Gate Valve and Box	3	EACH	\$	\$
BO8	Water Main Line Stop Valve	4	EACH	\$	\$
BO9	6" Water Main Tapping Sleeve, Valve and Box	4	EACH	\$	\$
BO10	Fire Hydrant Assembly	1	EACH	\$	\$
BO11	6" BLIND FLANGE	2	EACH	\$	\$
BO12	Temporary Water Main Piping	1	LS	\$	\$
BO13	Maintenance of Traffic	1	LS	\$	\$
BO14	Erosion Control	1	LS	\$	\$
BO15	Loaming and Seeding	1	LS	\$	\$
BO16	Clearing and Grubbing	1	LS	\$	\$
BO17	Dirt or Aggregate Driveway or Pavement Repair	329	SY	\$	\$
BO18	Asphalt Driveway or Pavement Repair	33	SY	\$	\$
BO19	Short Water Service Assembly	2	EACH	\$	\$
BO20	Long Water Service Assembly	5	EACH	\$	\$
<b>TOTAL BID OPTION 1</b>				<b>\$</b>	

The County reserves the option to:

- Award only the Base Bid
- Award only Bid Option 1
- Award the Base Bid and Bid Option 1
- Award none.

ARTICLE 4—DELETED

ARTICLE 5—DELETED

ARTICLE 6—TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Deleted.
- 6.03 Deleted.
- 6.04 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7—BIDDER’S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

- 7.01 *Bid Acceptance Period*
  - A. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 7.02 *Instructions to Bidders*
  - A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.
- 7.03 *Receipt of Addenda*
  - A. Bidder hereby acknowledges receipt of the following Addenda: [Add rows as needed. Bidder is to complete table.]

Addendum Number	Addendum Date

ARTICLE 8—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

- 8.01 *Bidder’s Representations*
  - A. In submitting this Bid, Bidder represents the following:
    1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
    2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
    3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work, including all American Iron and Steel requirements.

4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

#### 8.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
  - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.

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

#### ARTICLE 9—ADDITIONAL LEVY COUNTY CONTRACT TERMS

Public Records. As required by 119.0701, Florida Statutes, the following notice is given regarding Contractor's duty to comply with Florida's public records laws (Chapter 119, Florida Statutes), as the same may be amended. Failure to comply shall constitute a breach of this Contract. Specifically, but not by way limitation, Contractor shall:

- (i) Keep and maintain public records required by County to perform the services;
- (ii) Upon request from County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law;
- (iii) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the term of this Contract and following completion of the services to be provided by Contractor under this Contract if Contractor does not transfer the records to County; and
- (iv) Upon completion of this Contract, transfer, at no cost, to County all public records in possession of Contractor or keep and maintain public records required by County to perform the services. If Contractor transfers all public records to County upon completion of this Contract, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of this Contract, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to County, upon requests from County's custodian of public records, in a format that is compatible with the information technology systems of County.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

TELEPHONE: (352) 486-5218  
EMAIL: LEVYBOCC@LEVYCOUNTY.ORG  
MAILING ADDRESS: P.O. BOX 310, BRONSON, FL 32621

Sexual Offender. If an owner, except a stockholder in publicly traded corporation, or an employee of the Contractor has been convicted of any offenses requiring registration as a sexual offender or sexual predator, regardless of the location of conviction, the Contractor shall ensure that work on the project, by the offender or predator, is consistent with his/her probation requirements.

Prompt Payment; Appropriation by Commission. Invoices will be paid in accordance with the Local Government Prompt Payment Act (Chapter 218, Part VII, Florida Statutes.) The County's performance and obligation to pay under this Contract is contingent upon appropriation for its purpose by the County Commission.

Notices. Any notice required or permitted to be sent hereunder shall be sent by United States first class mail, postage prepaid, or hand-delivered to the parties at the addresses listed below:

<p>If to County:</p> <p>County Manager</p> <p>P.O. Box 310</p> <p>Bronson, FL 32621</p>	<p>If to Contractor:</p> <p>_____</p> <p>_____</p> <p>_____</p>
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Indemnification. The Contractor agrees, to the fullest extent permitted by law, to defend, indemnify and hold harmless County and all of County's elected officials, officers, agents, and employees from and against all claims, liability, loss, and expense, including reasonable costs, collection expenses, attorneys' fees, and court costs which may arise because of the negligence (whether active or passive), misconduct, or other fault, in whole or in part (whether joint, concurrent, or contributing), of Contractor or its officers, agents or employees in performance or non-performance of its obligations under an Contract. Contractor recognizes the broad nature of this indemnification and hold harmless clause, as well as the provision of a legal defense to County when necessary, and voluntarily makes this covenant and expressly acknowledges the receipt of valuable consideration provided by County in support of these indemnification, legal defense and hold harmless contractual obligation in accordance with the laws of the State of Florida. Compliance with any insurance requirements required elsewhere within this Contract shall not relieve Contractor of its liability and obligation to defend, hold harmless and indemnify County as set forth in this provision. Nothing herein shall be construed to extend County's liability beyond that provided in Section 768.28, Florida Statutes. These provisions shall survive termination of the Contract.

Governing Law/Venue/Waiver of Jury Trial/Sovereign Immunity. This Contract shall be interpreted and construed in accordance with and governed by the laws of the State of Florida. All parties agree and accept that jurisdiction of any dispute or controversy arising out of this Contract, and any action involving the enforcement or interpretation of any rights hereunder shall be brought exclusively in the Eighth Judicial Circuit in and for Levy County, Florida, and venue for litigation arising out of this Contract shall be exclusively in such state courts, forsaking any other jurisdiction which either party may claim by virtue of its residency or other jurisdictional device. In the event it becomes necessary for the County file a lawsuit to enforce any term or provision under this Contract, then the County shall be entitled to its costs and attorney's fees at the pretrial, trial and appellate levels. BY ENTERING INTO THIS CONTRACT, CONTRACTOR AND COUNTY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS CONTRACT. Nothing

in this Contract is intended to serve as a waiver of sovereign immunity, or of any other immunity, defense, or privilege enjoyed by the County pursuant to Section 768.28, Florida Statutes.

Independent Contractor. Contractor enters into this Contract as, and shall continue to be, an independent contractor. All services shall be performed only by Contractor and its employees, subcontractors and subconsultants. Under no circumstances shall Contractor, its employees, subcontractors or subconsultants look to the County as his/her employer, or as a partner or agent. Neither Contractor, nor any of and its employees, subcontractors and subconsultants, shall be entitled to any benefits accorded to the County's employees, including without limitation worker's compensation, disability insurance, vacation or sick pay. Contractor shall be responsible for providing, at Contractor's expense, and in Contractor's name, unemployment, disability, worker's compensation and other insurance as well as licenses and permits usual and necessary for conducting the services to be provided under this Contract.

Third Party Beneficiaries. It is specifically agreed between the parties executing this Contract that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof, a third party beneficiary under this Contract, or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract.

Scrutinized Companies. Pursuant to Section 215.4725, Florida Statutes, contracting with any entity listed on the Scrutinized Companies that Boycott Israel List or that is engaged in the boycott of Israel is prohibited. Any contract for goods or services of One Million Dollars (\$1,000,000) or more may be terminated at the County's option if it is discovered that the Contractor submitted false documents of certification, is listed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria.

Convicted Vendor. As required by Section 287.133(3)(a), Florida Statutes: "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, Bid, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, Bid, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, Bids, or replies on leases or real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list."

Non-Collusion. If it is discovered that Contractor provided false statements in the Non-Collusion Affidavit submitted with its Bid, or it is discovered that collusion existed between Contractor and any other proposers or parties, the responses of all participants in such collusion will be rejected and/or this Contract terminated and no participants in the collusion will be considered in future procurement processes.

Discrimination. The Contractor must comply, as applicable, with the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Rehabilitation Act of 1973, the Americans with Disabilities Act, the Florida Civil Rights Act, and Levy County Resolution 2011-59, and other laws that prohibit harassment and discrimination, all as the same may be amended. Specifically, but not by way of limitation, the Contractor agrees that:

No person shall, on the grounds of race, color, sex, religion, age, disability, national origin, genetics, pregnancy or marital status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program, activity or service funded through this Contract.

- Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, national origin, genetics, pregnancy or marital status. Contractor agrees to post notice in a conspicuous place, available to employees and applicants for employment, setting forth the provision of this non-discrimination clause.
- Contractor will, in all solicitations or advertisements regarding program activities, services provided or applications for employment, state that all qualified applicants will receive consideration for services or employment without regard to race, color, religion, sex, age, disability, national origin, genetics, pregnancy or marital status.
- County may require Contractor to submit reports, and permit the County access to Contractor's books, records, accounts and other sources of information and its facilities, as may be reasonably necessary to determine Contractor's compliance with laws that prohibit harassment and discrimination.

**Right to Audit.** The County and/or its designee shall have the right at its sole expense to audit the compliance by the Contractor with the terms, conditions, obligations, limitations, restrictions, and requirements of this Contract and such right shall extend for a period of three (3) years after expiration or termination of this Contract.

**Taxes.** Contractor agrees to pay all sales, use, or other taxes, assessments, and other similar charges when due now or in the future, required by any local, state, or federal law, including but not limited to such taxes and assessments as may from time to time be imposed by the County in accordance with this Contract. Contractor further agrees that it shall protect, reimburse, and indemnify County from and assume all liability for its tax and assessment obligations under the terms of the Contract. The County is exempt from payment of Florida state sales and use taxes. The Contractor shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the County, nor is the Contractor authorized to use the County's tax exemption number in securing such materials. The Contractor shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this Contract.

**E-verify.** Contractor agrees to comply with the requirements of Section 448.095(2), Florida Statutes, by using the E-Verify system to verify the work authorization status of newly hired employees and will require the same of any of its subcontractors.

BIDDER hereby submits this Bid as set forth above:

Bidder:

\_\_\_\_\_  
*(typed or printed name of organization)*

By: \_\_\_\_\_  
*(individual's signature)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Date: \_\_\_\_\_  
*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest: \_\_\_\_\_  
*(individual's signature)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Date: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

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

Bidder's Contact:

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contractor License No.: (if applicable) \_\_\_\_\_

END OF SECTION

SECTION 00430

BID BOND (PENAL SUM FORM)

Bidder Name: [Full formal name of Bidder] Address ( <i>principal place of business</i> ): [Address of Bidder's principal place of business]	Surety Name: [Full formal name of Surety] Address ( <i>principal place of business</i> ): [Address of Surety's principal place of business]
Owner Name: [Full formal name of Owner] Address ( <i>principal place of business</i> ): [Address of Owner's principal place of business]	Bid Project ( <i>name and location</i> ): [Owner project/contract name, and location of the project]  Bid Due Date: [Enter date bid is due]
Bond Penal Sum: [Amount] Date of Bond: [Date]	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder _____ ( <i>Full formal name of Bidder</i> )	Surety _____ ( <i>Full formal name of Surety</i> ) ( <i>corporate seal</i> )
By: _____ ( <i>Signature</i> )	By: _____ ( <i>Signature</i> ) ( <i>Attach Power of Attorney</i> )
Name: _____ ( <i>Printed or typed</i> )	Name: _____ ( <i>Printed or typed</i> )
Title: _____	Title: _____
Attest: _____ ( <i>Signature</i> )	Attest: _____ ( <i>Signature</i> )
Name: _____ ( <i>Printed or typed</i> )	Name: _____ ( <i>Printed or typed</i> )
Title: _____	Title: _____
Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
  - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2. All Bids are rejected by Owner, or
  - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

END OF SECTION

SECTION 00510

NOTICE OF AWARD

Date of Issuance:  
Owner:  
Engineer:  
Project:  
Contract Name:  
Bidder:  
Bidder's Address:

Owner's Project No.:  
Engineer's Project No.:

You are notified that Owner has accepted your Bid dated [date] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Replace approximately 1,700 linear feet (Base Bid) and 1,500 linear feet (Bid Option 1) of water main with new 6-inch diameter PVC pipe, including various fittings, connections to the existing water system, new service taps, water meter pits and reconnections to existing service lines.

The Contract Price of the awarded Contract is \$[Contract Price]. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

[Number of copies sent] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [number of copies sent] counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): [Describe other conditions that require Successful Bidder's compliance]

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

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: Levy County Board of County Commissioners  
 By (signature): \_\_\_\_\_  
 Name (printed): \_\_\_\_\_  
 Title: \_\_\_\_\_

END OF SECTION

SECTION 00520AGREEMENT BETWEEN OWNER AND CONTRACTOR  
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

This Agreement is by and between Levy County, Florida ("Owner") and [name of contracting entity] ("Contractor").

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

Owner and Contractor hereby agree as follows:

## ARTICLE 1—WORK

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

Replacement of approximately 6,446 linear feet of water main with new 6-inch diameter PVC pipe, including various fittings, connections to the existing water system, new service taps and water meter pits, and reconnections to existing service lines.

## ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

University Oaks Phase IV Water Main Improvements

## ARTICLE 3—ENGINEER

3.01 The Owner will retain an engineering firm ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by Dewberry Engineering.

## ARTICLE 4—CONTRACT TIMES

4.01 *Time is of the Essence*

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

4.02 *Contract Times: Days*

A. The Work will be substantially complete within 180 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 45 days after the date when the Contract Times commence to run.

#### 4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. *Substantial Completion*: Contractor shall pay Owner \$500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
  2. *Completion of Remaining Work*: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each day that expires after such time until the Work is completed and ready for final payment.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

#### ARTICLE 5—CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:
- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

#### ARTICLE 6—PAYMENT PROCEDURES

##### 6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

##### 6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the last day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments

previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

- a. 95 percent of the value of the Work completed (with the balance being retainage).

6.03 *Final Payment*

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

1. Deleted.

6.04 *Consent of Surety*

A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

A. Deleted.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

A. The Contract Documents consist of all of the following:

1. This Agreement.
2. Bonds:
  - a. Performance bond (together with power of attorney).
  - b. Payment bond (together with power of attorney).
3. General Conditions.
4. Supplementary Conditions.
5. Specifications as listed in the table of contents of the project manual (copy of list attached).
6. Drawings (not attached but incorporated by reference) bearing the following general title and number of sheets:

University Oaks Phase IV Water Main Improvements, 10 Sheets
7. Addenda (numbers [number] to [number], inclusive).
8. Exhibits to this Agreement (enumerated as follows):
  - a. Contractor's Bid
9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
  - a. Notice to Proceed.
  - b. Work Change Directives.

- c. Change Orders.
  - d. Field Orders.
  - e. Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

## ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

### 8.01 *Contractor's Representations*

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
  2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
  7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price,

within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

#### 8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### 8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.-

### ARTICLE 9—MISCELLANEOUS

#### 9.01 *Disadvantaged Business Enterprise Participation*

A. Deleted.

9.02 *Equal Employment Opportunity/Affirmative Action (EEO/AA) Requirements*

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

1. The contractor will not discriminate against any employee or applicant for employment because of race, 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 their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

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

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

This Agreement will be effective on [indicate date on which Contract becomes effective] (which is the Effective Date of the Contract).

Owner:

Contractor:

\_\_\_\_\_  
*(typed or printed name of organization)*

\_\_\_\_\_  
*(typed or printed name of organization)*

By: \_\_\_\_\_  
*(individual's signature)*

By: \_\_\_\_\_  
*(individual's signature)*

Date: \_\_\_\_\_  
*(date signed)*

Date: \_\_\_\_\_  
*(date signed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

*(If [Type of Entity] is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest: \_\_\_\_\_  
*(individual's signature)*

Attest: \_\_\_\_\_  
*(individual's signature)*

Title: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:

Designated Representative:

Name: \_\_\_\_\_  
*(typed or printed)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Email: \_\_\_\_\_

*(If [Type of Entity] is a corporation, attach evidence of authority to sign. If [Type of Entity] is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

License No.: \_\_\_\_\_  
*(where applicable)*

State: \_\_\_\_\_

END OF SECTION

SECTION 00550NOTICE TO PROCEED

Owner: \_\_\_\_\_ Owner's Project No.: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Engineer's Project No.: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Contractor's Project No.: \_\_\_\_\_  
 Project: \_\_\_\_\_  
 Contract Name: \_\_\_\_\_  
 Effective Date of Contract: \_\_\_\_\_

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [date Contract Times are to start] pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement: [Select one of the following two alternatives, insert dates or number of days, and delete the other alternative.]

The date by which Substantial Completion must be achieved is [date for Substantial Completion, from Agreement], and the date by which readiness for final payment must be achieved is [date for readiness, from Agreement].

[or]

The number of days to achieve Substantial Completion is [number of days, from Agreement] from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of [date, calculated from commencement date above]; and the number of days to achieve readiness for final payment is [number of days, from Agreement] from the commencement date of the Contract Times, resulting in a date for readiness for final payment of [date, calculated from commencement date above].

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner: \_\_\_\_\_ [Full formal name of Owner]

By (signature): \_\_\_\_\_

Name (printed): \_\_\_\_\_

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

Date Issued: \_\_\_\_\_

Copy: Engineer

END OF SECTION

SECTION 00610

PERFORMANCE BOND

1. Performance bond shall be provided by the Contractor in accordance with Florida Statute 255.05 Bond of Contractor Constructing Public Buildings. See Appendix.

END OF SECTION

SECTION 00615

PAYMENT BOND

<p><b>Contractor</b>                  Name: [Full formal name of Contractor]                  Address <i>(principal place of business)</i>:                  [Address of Contractor's principal place of business]</p>	<p><b>Surety</b>                  Name: [Full formal name of Surety]                  Address <i>(principal place of business)</i>:                  [Address of Surety's principal place of business]</p>
<p><b>Owner</b>                  Name: [Full formal name of Owner]                  Mailing address <i>(principal place of business)</i>:                  [Address of Owner's principal place of business]</p>	<p><b>Contract</b>                  Description <i>(name and location)</i>:                  [Owner's project/contract name, and location of the project]                   Contract Price: [Amount, from Contract]                  Effective Date of Contract: [Date, from Contract]</p>
<p><b>Bond</b>                  Bond Amount: [Amount]                  Date of Bond: [Date]  <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i>                  Modifications to this Bond form:  <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 18</p>	
<p>Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.</p>	
<p>Contractor as Principal</p>	<p>Surety</p>
<p><i>(Full formal name of Contractor)</i></p>	<p><i>(Full formal name of Surety) (corporate seal)</i></p>
<p>By: _____  <i>(Signature)</i></p>	<p>By: _____  <i>(Signature)(Attach Power of Attorney)</i></p>
<p>Name: _____  <i>(Printed or typed)</i></p>	<p>Name: _____  <i>(Printed or typed)</i></p>
<p>Title: _____</p>	<p>Title: _____</p>
<p>Attest: _____  <i>(Signature)</i></p>	<p>Attest: _____  <i>(Signature)</i></p>
<p>Name: _____  <i>(Printed or typed)</i></p>	<p>Name: _____  <i>(Printed or typed)</i></p>
<p>Title: _____</p>	<p>Title: _____</p>
<p><i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i></p>	

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

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
  - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
    - 16.1.1. The name of the Claimant;
    - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
    - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
    - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
  - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
  - 16.1.7. The total amount of previous payments received by the Claimant; and
  - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic’s lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of “labor, materials, or equipment” that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor’s subcontractors, and all other items for which a mechanic’s lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: [Describe modification or enter “None”]

END OF SECTION

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.

## APPLICATION FOR PAYMENT

Prepared By



Endorsed By



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Contractor's Application for Payment

Owner: _____	Owner's Project No.: _____
Engineer: _____	Engineer's Project No.: _____
Contractor: _____	Contractor's Project No.: _____
Project: _____	
Contract: _____	
Application No.: _____	Application Date: _____
Application Period: From _____ to _____	

1. Original Contract Price	\$	-
2. Net change by Change Orders	\$	-
3. Current Contract Price (Line 1 + Line 2)	\$	-
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-
5. Retainage		
a. _____ X \$ - Work Completed	\$	-
b. _____ X \$ - Stored Materials	\$	-
c. Total Retainage (Line 5.a + Line 5.b)	\$	-
6. Amount eligible to date (Line 4 - Line 5.c)	\$	-
7. Less previous payments (Line 6 from prior application)		
8. Amount due this application	\$	-
9. Balance to finish, including retainage (Line 3 - Line 4)	\$	-

**Contractor's Certification**

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

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

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

<p>Recommended by Engineer</p> <p>By: _____</p> <p>Title: _____</p> <p>Date: _____</p> <p>Approved by Funding Agency</p> <p>By: _____</p> <p>Title: _____</p> <p>Date: _____</p>	<p>Approved by Owner</p> <p>By: _____</p> <p>Title: _____</p> <p>Date: _____</p> <p>By: _____</p> <p>Title: _____</p> <p>Date: _____</p>
--	--

Progress Estimate - Lump Sum Work

Contractor's Application for Payment

Owner: _____	Owner's Project No.: _____
Engineer: _____	Engineer's Project No.: _____
Contractor: _____	Contractor's Project No.: _____
Project: _____	
Contract: _____	

Application No.: \_\_\_\_\_ Application Period: From \_\_\_\_\_ to \_\_\_\_\_ Application Date: \_\_\_\_\_

A	B	C	D	E	F	G	H	I
Item No.	Description	Scheduled Value (\$)	Work Completed		Materials Currently Stored (not in D or E) (\$)	Work Completed and Materials Stored to Date (D + E + F) (\$)	% of Scheduled Value (G / C) (%)	Balance to Finish (C - G) (\$)
			(D + E) From Previous Application (\$)	This Period (\$)				
Original Contract								
			-			-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
	Original Contract Totals	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -

Progress Estimate - Lump Sum Work

Contractor's Application for Payment

Owner: _____	Owner's Project No.: _____
Engineer: _____	Engineer's Project No.: _____
Contractor: _____	Contractor's Project No.: _____
Project: _____	
Contract: _____	

Application No.: \_\_\_\_\_ Application Period: From \_\_\_\_\_ to \_\_\_\_\_ Application Date: \_\_\_\_\_

A	B	C	D	E	F	G	H	I
Item No.	Description	Scheduled Value (\$)	Work Completed		Materials Currently Stored (not in D or E) (\$)	Work Completed and Materials Stored to Date (D + E + F) (\$)	% of Scheduled Value (G / C) (%)	Balance to Finish (C - G) (\$)
			(D + E) From Previous Application (\$)	This Period (\$)				
<b>Change Orders</b>								
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
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						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
Change Order Totals		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
<b>Original Contract and Change Orders</b>								
Project Totals		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: _____	Owner's Project No.: _____
Engineer: _____	Engineer's Project No.: _____
Contractor: _____	Contractor's Project No.: _____
Project: _____	
Contract: _____	

Application No.: \_\_\_\_\_ Application Period: From \_\_\_\_\_ to \_\_\_\_\_ Application Date: \_\_\_\_\_

A	B	C	D	E	F	G	H	I	J	K	L	
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)	
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)					
Original Contract												
					-		-		-		-	
					-		-		-		-	
					-		-		-		-	
					-		-		-		-	
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					-		-		-		-	
					-		-		-		-	
Original Contract Totals					\$	-	\$	-	\$	-	\$	-

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: \_\_\_\_\_  
 Engineer: \_\_\_\_\_  
 Contractor: \_\_\_\_\_  
 Project: \_\_\_\_\_  
 Contract: \_\_\_\_\_

Owner's Project No.: \_\_\_\_\_  
 Engineer's Project No.: \_\_\_\_\_  
 Contractor's Project No.: \_\_\_\_\_

Application No.: \_\_\_\_\_ Application Period: From \_\_\_\_\_ to \_\_\_\_\_ Application Date: \_\_\_\_\_

A	B	C	D	E	F	G	H	I	J	K	L	
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)	
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)					
Change Orders												
					-		-		-		-	
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					-		-		-		-	
					-		-		-		-	
					-		-		-		-	
Change Order Totals					\$	-	\$	-	\$	-	\$	-
Original Contract and Change Orders												
Project Totals					\$	-	\$	-	\$	-	\$	-



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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# 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

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- 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 believe 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 OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

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

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC-4.05."

### CONTENTS OF SUPPLEMENTARY CONDITIONS

<u>Section No.</u>	<u>Section Title</u>	<u>Page No.</u>
SC-1 to SC-18	Supplementary Conditions Amendments to General Conditions	00800-1
SC-19	Federal Provisions	SC-19

### ARTICLE 1—DEFINITIONS AND TERMINOLOGY

#### 1.01 *Defined Terms*

##### SC-1.01.A.3 APPLICATION FOR PAYMENT

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 or similar approved format. The Agency must approve all Applications for Payment before payment is made.

##### SC-1.01.A.8 CHANGE ORDER

Add the following language to the end of Paragraph 1.01.A.8:

The Change Order form to be used on this Project is EJCDC No. C-941. Agency approval is required before Change Orders are effective.

Add the following language to the end of Paragraph 1.01.A.8: The Change Order form to be used on this Project is the modified version of EJCDC No. C-941 provided in these specifications.

##### SC-1.01 A.30 OWNER

Add the following to the end of Paragraph 1.01.A.30 of the General Conditions:

Owner is referred to as Grantee in certain sections of these Contract Documents. Owner and Grantee are one and the same.

Add the following at the end of Paragraph 1.01.A.30 of the General Conditions:

Owner is referred to as Grantee in certain sections of these Contract Documents. Owner and Grantee are one and the same. For the purposes of Rural Development, this term is synonymous with the term "applicant" as defined in 7 CFR 1780.7 (a) (1), (2) and (3) and is an entity receiving financial assistance from the federal programs.

SC-1.01 A.50 WORK CHANGE DIRECTIVE

Add the following language at the end of the last sentence of Paragraph 1.01.A.50

The Work Change Directive form to be used on this Project is EJCDC C-940 (2018). A Work Change Directive cannot change Contract Price or Contract Times without a subsequent Change Order.

Add the following language at the end of Paragraph 1.01.A.50

The Work Change Directive form to be used on this Project is EJCDC C-940 (2018). Agency approval is required before a Work Change Directive is issued. A Work Change Directive cannot change Contract Price or Contract Times without a subsequent Change Order.

SC-1.01 A.51 AGENCY

Add the following new paragraph after Paragraph 1.01.A.50

51. Agency – The Project is financed in whole or in part by Levy County and the Suwannee River Water Management District (SRWMD). Therefore, the Agency for these documents is Levy County and the SRWMD.

SC-1.01 A.53 NON-RESIDENT CONTRACTOR

Add the following paragraph immediately after Paragraph 1.01.A.52 of the General Conditions, which is to read as follows:

53. Non-Resident Contractor -
- a. A person who is not a resident in the State where the proposed construction is to be located, or
  - b. Any partnership that has no member thereof resident in the State where the proposed construction is to be located.
  - c. Any corporation established under laws other than those of the State in which the proposed construction is located.

ARTICLE 2—PRELIMINARY MATTERS

2.02 *Copies of Documents*

SC-2.02 Delete Paragraph 2.02.A. in its entirety and replace with the following paragraph:

Owner shall furnish to Contractor 4 printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional copies will be furnished upon request at the cost of reproduction.

## 2.06 *Electronic Transmittals*

SC-2.06 Delete Paragraphs 2.06.B and 2.06.C in their entirety and insert the following in their place:

B. *Electronic Documents Protocol*: The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol (“EDP” or “Protocol”) for exchange of electronic transmittals.

### 1. *Basic Requirements*

- a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.
- b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.
- c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.
- d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.
- e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party’s use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.
- f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.

### 2. *System Infrastructure for Electronic Document Exchange*

- a. Each party will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions (“System Infrastructure”) at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.

- 1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is 10 MB. Attachments larger than that may be exchanged using large file transfer functions or physical media.
  - 2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.
- b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with the party's individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.
  - c. Each party will operate and maintain industry-standard, industry-accepted, ISO-standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security software and systems, it shall not be liable to the other party for any breach of system security.
  - d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.
  - e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.
  - f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.
  - g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the

Electronic Document or use an alternative delivery method to complete the communication.

C. *Software Requirements for Electronic Document Exchange; Limitations*

1. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.
  - a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.
2. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

No changes in this Article.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

- A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be issued at any time within 30 calendar days after the Effective Date of the Agreement.

4.03 *Reference Points*

SC-4.03 Add a new paragraph immediately after Paragraph 4.03A of the General Conditions which is to read as follows:

- B. Engineer may check the lines, elevations, reference marks, batter boards, etc., set by Contractor, and Contractor shall correct any errors disclosed by such check. Such a check shall not be considered as approval of Contractor's work and shall not relieve Contractor of the responsibility for accurate construction of the entire Work. Contractor shall furnish personnel to assist Engineer in checking lines and grades.

4.05 *Delays in Contractor's Progress*

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

5. *Weather-Related Delays*

- a. If “abnormal weather conditions” as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled. Extreme or unusual weather that is typical for a given region, elevation, or season should not be considered abnormal weather conditions. Requests for time extensions due to abnormal weather conditions will be submitted to the Engineer within five days of the end of the abnormal weather condition event. It is the responsibility of the Contractor to provide the information listed in SC 4.05.C.5.b.

## ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

### 5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

- E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

None.

- F. The following table lists the 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 specifically identifies the Technical Data upon which Contractor may rely:

None.

- G. Contractor may request copies from Engineer of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents.

## ARTICLE 6—BONDS AND INSURANCE

### 6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes shall be in accordance with will be in the form of Florida Statute 255.05, Bond of Contractor Constructing Public Buildings; Form; Action by Claimants. See Appendix A for additional information.

2. *Required Payment Bond Form:* The payment bond that Contractor furnishes shall be in accordance with Florida Statutes 255.05, Bond of Contractor Constructing Public Buildings; Form; Action by Claimants. See appendix for additional information.

6.03 *Contractor's Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: Engineer's Consultants, as specifically identified in Article 1
- E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
<b>Workers' Compensation</b>	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
<b>Jones Act (if applicable)</b>	
Bodily injury by accident—each accident	\$500,000
Bodily injury by disease—aggregate	\$500,000
<b>Employer's Liability</b>	
Each accident	\$500,000
Each employee	\$500,000
Policy limit	\$500,000
<b>Stop-gap Liability Coverage</b>	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	\$0

- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
  1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
  2. damages insured by reasonably available personal injury liability coverage, and

3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content:* Contractor’s commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
    - a. Such insurance must be maintained for three years after final payment.
    - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
  2. Blanket contractual liability coverage, including but not limited to coverage of Contractor’s contractual indemnity obligations in Paragraph 7.18.
  3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
  4. Underground, explosion, and collapse coverage.
  5. Personal injury coverage.
  6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
  7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
  2. Any exclusion for water intrusion or water damage.
  3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
  4. Any exclusion of coverage relating to earth subsidence or movement.
  5. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).
  6. Any limitation or exclusion based on the nature of Contractor’s work.
  7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$1,000,000
Products—Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$500,000
Rented Premises	\$100,000

J. *Automobile Liability*: Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	
Each Accident	\$1,000,000
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$1,000,000

6.6 *Receipt and Application of Property Insurance Proceeds*

Delete Article 6.06 in its entirety.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.03 *Labor; Working Hours*

SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be 8:00 AM to 5:00 PM.
2. Owner's legal holidays are State mandated holidays.

SC-7.07 Concerning Subcontractors and Suppliers

Amend Paragraph 7.07.A by adding the following to the end of the paragraph:

The total amount of work subcontracted by the Contractor shall not exceed fifty percent of the Contract price without prior approval from the Owner, Engineer and Agency.

Delete Paragraph 7.07.B in its entirety and insert [Deleted].

Amend Paragraph 7.07.E by deleting the second sentence of the paragraph and insert the following in its place: "Owner may not require that Contractor use a specific replacement."

Add the following subparagraphs immediately after subparagraph 7.07.M:

- O. 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-7.09 *Permits*

Add the following subparagraph immediately after Paragraph 7.09.A:1. Local permit fees for permits required from Levy County will be waived.

Add the following paragraph immediately after Paragraph 7.09.A:

- B. The following permits/approvals have been or will be obtained by the Owner. Copies of the permit approvals are in the Appendices of the Bidding Documents. Full copies of the permit applications and approvals will be on file at the Owner's Offices. It is the responsibility of the Contractor to be familiar with and comply with the applicable provisions of each permit as they apply to the work:
  - 1. *FDEP Permit to Construct Public Water System Components, Permit No - Pending.*

#### ARTICLE 8—OTHER WORK AT THE SITE

*No changes in this Article.*

#### ARTICLE 9—OWNER'S RESPONSIBILITIES

*No changes in this Article.*

#### ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

##### 10.03 *Resident Project Representative*

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

- 1. On this Project, by agreement with the Owner, the Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing the progress and quality of the Work.

#### ARTICLE 11—CHANGES TO THE CONTRACT

*No changes in this Article.*

#### ARTICLE 12—CLAIMS

No changes to this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.01 *Cost of the Work*

Add a new paragraph immediately after Paragraph 13.01.B.1, of the General Conditions which is to read as follows:

- a. Contractor shall establish, in the Agreement, the Direct Labor Cost percentage. This percentage, where approved by Owner, will be used in the determination of the Direct Labor Cost listed in the Change Order Form. The Direct Labor Costs are defined to include social security contributions, unemployment, excise and payroll taxes, workers' and workman's compensation, health and retirement benefits, sick leave, vacation and holiday pay, and cost of premiums for all additional insurance required because of the changes in the Work.

SC-13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental shall be consistent with what is customary for such equipment in the area of the Project.

SC-13.01 Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:

- a. For purposes of this paragraph, "small tools and hand tools" means any tool or equipment whose current price if it were purchased new at retail would be less than \$500.

SC 13.02 ALLOWANCES

Delete Paragraphs 13.02.A, B, C and D in their entirety.

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

SC 14.07 Owner May Correct Defective Work

In the first sentence of Paragraph 14.07.A, delete the words "7 days" and replace with the words "21 days".

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

SC-15.01 PROGRESS PAYMENTS

SC-15.01 Add the following language at the end of Paragraph 15.01.B.4:

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-15.01 Add new paragraph immediately after Paragraph 15.01.B.4:

5. The Application for Payment form to be used on this Project is EJCDC C-620.

SC-15.02 CONTRACTOR'S WARRANTY OF TITLE

Amend Paragraph 15.02.A by striking out the following text: "7 days after".

SC-15.03 SUBSTANTIAL COMPLETION

SC-15.03 Add the following to the end of the Paragraph 15.03.C:

1. Substantial Completion shall only be granted for the Milestones identified in the Agreement.

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

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

SC-15.03 Add the following new subparagraph immediately after Paragraph 15.03.F:

- G. ENGINEER shall be entitled to withhold substantial completion if CONTRACTOR has not brought all systems and subsystems that are part of the Work substantially complete to functioning condition to the satisfaction of the OWNER; provided training to OWNER to the satisfaction of the OWNER on all operating systems that are part of the Work substantially complete; and provided all necessary documentation for operation and maintenance of all operating systems including, but not limited to, final manufacturer's operation and maintenance manuals.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No changes in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

ARTICLE 18—MISCELLANEOUS

*No changes in this Article.*

ARTICLE 19—FEDERAL REQUIREMENTS

*This Article has not been added.*

END OF SECTION

SECTION 00920CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: \_\_\_\_\_ Owner's Project No.: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Engineer's Project No.: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Contractor's Project No.: \_\_\_\_\_  
 Project: \_\_\_\_\_  
 Contract Name: \_\_\_\_\_

This  Preliminary  Final Certificate of Substantial Completion applies to:

All Work  The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: [Enter date, as determined by Engineer]

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities:  None  As follows:

[List amendments to Owner's Responsibilities]

Amendments to Contractor's Responsibilities:  None  As follows:

[List amendments to Contractor's Responsibilities]

The following documents are attached to and made a part of this Certificate:

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By (*signature*): \_\_\_\_\_

Name (*printed*): \_\_\_\_\_

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

END OF SECTION

SECTION 00935NOTICE OF ACCEPTABILITY OF WORK

Owner:	Owner's Project No.:
Engineer:	Engineer's Project No.:
Contractor:	Contractor's Project No.:
Project:	
Contract Name:	
Notice Date:	Effective Date of the Construction Contract:

The Engineer hereby gives notice to the Owner and Contractor that Engineer recommends final payment to Contractor, and that the Work furnished and performed by Contractor under the Construction Contract is acceptable, expressly subject to the provisions of the Construction Contract's Contract Documents ("Contract Documents") and of the Agreement between Owner and Engineer for Professional Services dated [date of professional services agreement] ("Owner-Engineer Agreement"). This Notice of Acceptability of Work (Notice) is made expressly subject to the following terms and conditions to which all who receive and rely on said Notice agree:

1. This Notice has been prepared with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice has been prepared to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's Work) under the Owner-Engineer Agreement, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Owner-Engineer Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents, or to otherwise comply with the Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Engineer

By *(signature)*: \_\_\_\_\_  
 Name *(printed)*: \_\_\_\_\_  
 Title: \_\_\_\_\_

END OF SECTION

SECTION 00936

CONSENT OF SURETY TO FINAL PAYMENT

To: \_\_\_\_\_ (Owner)  
\_\_\_\_\_  
\_\_\_\_\_

From: \_\_\_\_\_ (Contractor)  
\_\_\_\_\_  
\_\_\_\_\_

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

BOND NUMBER: \_\_\_\_\_

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the \_\_\_\_\_ (Surety Company) on the bond of the Contractor hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the Owner as set forth in the said Surety Company's Bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Surety Company Name

\_\_\_\_\_  
Signature of Authorized Representative

Attest: (Seal)

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

Note: Power of Attorney should be attached in instances where same applies.

END OF SECTION

SECTION 00937  
CONTRACTOR'S AFFIDAVIT

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Before me, the undersigned, a \_\_\_\_\_

(Notary Public)

in and for said County and State personally appeared, \_\_\_\_\_

(Individual, Partner or duly

\_\_\_\_\_ who being duly sworn according to law

(Authorized Representative of Corporate Contractor)

deposes and says that the cost of all the Work, and outstanding claims and indebtedness of whatever nature arising out of the performance of the contract between

\_\_\_\_\_

(Owner)

and \_\_\_\_\_ of \_\_\_\_\_

(Contractor)

dated \_\_\_\_\_ for the construction of the \_\_\_\_\_

(Agreement Date)

(Project)

\_\_\_\_\_ and necessary appurtenant installations have been paid in full.

\_\_\_\_\_  
(Individual, Partner, or duly authorized representative of corporate contractor)

Sworn to and subscribed before me

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

END OF SECTION

SECTION 00938

CONTRACTOR'S RELEASE

KNOW ALL PERSONS BY THESE PRESENTS that \_\_\_\_\_  
 \_\_\_\_\_ (Contractor)  
 of \_\_\_\_\_, County of \_\_\_\_\_ and State of \_\_\_\_\_  
 do hereby acknowledge that \_\_\_\_\_ has this day had, and received of  
 \_\_\_\_\_ (Contractor)  
 and from \_\_\_\_\_ the sum of One Dollar and other valuable considerations in  
 \_\_\_\_\_ (Owner)  
 full and complete satisfaction and payment of all sums of money owed, payable and belonging to  
 \_\_\_\_\_ by any means whatsoever, for on account of a Contract  
 \_\_\_\_\_ (Contractor)  
 Agreement between \_\_\_\_\_ and \_\_\_\_\_  
 \_\_\_\_\_ (Owner) \_\_\_\_\_ (Contractor)  
 dated \_\_\_\_\_ for \_\_\_\_\_  
 \_\_\_\_\_ (Agreement Date) \_\_\_\_\_ (Project)

NOW, THEREFORE, the said \_\_\_\_\_  
 \_\_\_\_\_ (Contractor)

(for myself, my heirs, executors and administrators) (for itself, its successors and assigns)  
 do/does, by these presents remise, release, quit-claim and forever discharge \_\_\_\_\_  
 \_\_\_\_\_ (Owner)

, of and from all claims and demands, arising from or in connection  
 with the said contract dated \_\_\_\_\_, and of and from all, and all manner of action  
 \_\_\_\_\_ (Agreement Date)

and actions, cause and causes of action and actions, suits, debts, dues, duties, sum and sums of  
 money, accounts, reckonings, bonds, bills, specialties, covenants, contracts, agreements, promises,  
 variances, damages, judgments, extents, executions, claims and demand, whatsoever in law or  
 equity, or otherwise, against \_\_\_\_\_ its successors and assigns, which (I,  
 \_\_\_\_\_ (Owner)

my heirs, executors, or administrators) (it, its successors and assigns) ever had, now have or which  
 (I, my heirs, executors, or administrators) (it, its successors and assigns) hereafter can, shall or  
 may have, for, upon or by reason of any matter, cause, or thing whatsoever; from the beginning of  
 recorded time to the date of these presents.

IN WITNESS WHEREOF, \_\_\_\_\_  
(Contractor)

has caused these presents to be duly executed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Signed, Sealed and Delivered in the presence of:

\_\_\_\_\_  
(Individual -Contractor) (seal)

\_\_\_\_\_

\_\_\_\_\_  
(Partnership - Contractor) (seal)

\_\_\_\_\_ By \_\_\_\_\_ (seal)  
(Partner)

\_\_\_\_\_

Attested:

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

\_\_\_\_\_ By \_\_\_\_\_  
(Secretary) (President or Vice President)

(Corp. Seal)

END OF SECTION

SECTION 00939

WAIVER OF LIEN - MATERIALS AND LABOR

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

To: \_\_\_\_\_ (Owner)

\_\_\_\_\_

\_\_\_\_\_

WHEREAS, \_\_\_\_\_ (the undersigned) have been employed by \_\_\_\_\_ (Contractor) on the \_\_\_\_\_ (Project Name) to furnish the following:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (description of material and services).

NOW THEREFORE, the undersigned, for good and valuable considerations do hereby waive and release any and all lien, or right of lien, or claim to lien on said above project and premises under the Law, in relation to Mechanics' Liens Law, on account of labor and materials, or both, furnished by the undersigned to or on account of the said contract for the said project and premises only so far as that portion of work which has been included in our requisition dated \_\_\_\_\_ and all prior requisitions.

THIS WAIVER AND RELEASE is being made to the undersigned in the amount of \$ \_\_\_\_\_ which sum the undersigned certifies to be the balance due the undersigned for all labor, materials or both, furnished by the undersigned to or on account of the said contract as included on Contractor's requisition dated \_\_\_\_\_.

GIVEN UNDER our hand and seal, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

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

Manufacturer, Supplier or Subcontractor Name

\_\_\_\_\_  
Signature of Authorized Representative

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

END OF SECTION

SECTION 00940

WORK CHANGE DIRECTIVE NO.: [Number of Work Change Directive]

Owner:	Owner's Project No.:
Engineer:	Engineer's Project No.:
Contractor:	Contractor's Project No.:
Project:	
Contract Name:	
Date Issued:	Effective Date of Work Change Directive:

Contractor is directed to proceed promptly with the following change(s):

Description:

[Description of the change to the Work]

Attachments:

[List documents related to the change to the Work]

Purpose for the Work Change Directive:

[Describe the purpose for the change to the Work]

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to: [Check one or both of the following]

Non-agreement on pricing of proposed change.  Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$ \_\_\_\_\_ [increase] [decrease] [not yet estimated].

Contract Time: \_\_\_\_\_ days [increase] [decrease] [not yet estimated].

Basis of estimated change in Contract Price:

Lump Sum  Unit Price  Cost of the Work  Other

Recommended by Engineer

Authorized by Owner

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

\_\_\_\_\_

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

\_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

SECTION 00941

CHANGE ORDER NO.: [Number of Change Order]

Owner: \_\_\_\_\_ Owner's Project No.: \_\_\_\_\_  
 Engineer: \_\_\_\_\_ Engineer's Project No.: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Contractor's Project No.: \_\_\_\_\_  
 Project: \_\_\_\_\_  
 Contract Name: \_\_\_\_\_  
 Date Issued: \_\_\_\_\_ Effective Date of Change Order: \_\_\_\_\_

The Contract is modified as follows upon execution of this Change Order:

Description:

[Description of the change]

Attachments:

[List documents related to the change]

Change in Contract Price	Change in Contract Times [as days or dates]
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. [Number of previous CO]: \$ _____	[Increase] [Decrease] from previously approved Change Orders No.1 to No. [Number of previous CO]: Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: \$ _____	[Increase] [Decrease] this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

<p><b>Recommended by Engineer (if required)</b></p> <p>By: _____                  Title: _____                  Date: _____</p> <p style="text-align: center;"><u>Authorized by Owner</u></p> <p>By: _____                  Title: _____                  Date: _____</p>	<p><b>Accepted by Contractor</b></p> <p>_____</p> <p>_____</p> <p>_____</p> <p style="text-align: center;"><u>Approved by Funding Agency (if applicable)</u></p> <p>_____</p> <p>_____</p> <p>_____</p>
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END OF SECTION

SECTION 00942

FIELD ORDER NO.: [Number of Field Order]

Owner: \_\_\_\_\_ Owner's Project No.: \_\_\_\_\_  
Engineer: \_\_\_\_\_ Engineer's Project No.: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Contractor's Project No.: \_\_\_\_\_  
Project: \_\_\_\_\_  
Contract Name: \_\_\_\_\_  
Date Issued: \_\_\_\_\_ Effective Date of Field Order: \_\_\_\_\_

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s): \_\_\_\_\_

Drawing(s) / Details (s): \_\_\_\_\_

Description:

[Description of the change to the Work]

Attachments:

[List documents supporting change]

Issued by Engineer

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

END OF SECTION

SECTION 01010SUMMARY OF WORKPART 1 - GENERAL1.1 DESCRIPTION:

- A. Location: The Work locations include, but are not limited to, locations within the right-of-ways on the following streets and easements in Levy County northeast of the City of Bronson, Fl.
1. N.E. 107<sup>th</sup> Terrance (Base Bid)
  2. N.E. 105th Avenue (Bid Option 1)
- B. Work Included: The Work includes, but is not limited to, the following:
1. New Water System:
    - a. Water main, valves and hydrants
    - b. Water services
    - c. Disinfection of water mains and appurtenances
    - d. Removal and disposal or abandonment of existing water main, valves and services.
    - e. Temporary water service system and laterals

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

PART 2 - PRODUCTS (NOT APPLICABLE)PART 3 - EXECUTION3.1 MAINTAIN EXISTING WORKS

- A. Continuous Operations Criteria:
1. The Contractor shall conduct operations in such a manner and sequence which shall neither result in a disruption of, nor interfere with, the functional workings of any existing utilities.
  2. The Contractor shall furnish, install and operate any piping, equipment and appurtenances necessary to provide the temporary services/facilities required during construction including, but not limited to, bypass pumping, flow barriers and diversions. Temporary facilities, if required, shall have pumping capacity equal to or greater than the existing maximum capacity of the piping as determined by their size and slope.

3. The Owner will operate and maintain all existing systems and equipment not modified or impacted by the project. The Contractor shall notify and coordinate with the Owner whenever Contractor's temporary facilities or construction will interface with existing utilities.
  4. The Contractor shall be responsible for the operation and maintenance of all new and temporary facilities until such time as the new facilities are accepted by the Owner.
- B. Minimize Interference
1. The Contractor shall at all times conduct operations so as to interfere as little as possible with existing works. The Contractor shall develop a program, in cooperation with the Engineer and interested officials, which shall provide for the construction and putting into service of the new works in the most orderly manner possible. This program shall be adhered to except as deviations therefrom are expressly permitted
  2. Work of connecting with, cutting into and reconstructing existing pipes or structures shall be planned to interfere with the operation of the existing facilities for the shortest possible time and when the demands on the facilities best permit such interference. It may be necessary to work outside of normal working hours to minimize interference. Before starting work which will interfere with the operation of existing facilities, the Contractor shall do all possible preparatory work and shall see that all tools, materials, and equipment are made ready and at hand.

### 3.2 CONSTRUCTION SEQUENCE

- A. Construction of the proposed facilities will disrupt the existing structures and operations. To maintain continuous operations, the construction must be divided into phases or sequenced appropriately.
- B. The Contractor shall follow the proposed sequence of construction operations provided by the Engineer.
- C. The Contractor shall submit to the Engineer a written request to deviate from the above sequence with adequate supporting information to demonstrate to the Engineer that the continuity and degree of treatment will not be adversely affected.

### 3.3 SITE ACCESS LIMITATIONS

### 3.4 SCHEDULE LIMITATIONS AND WORK RESTRICTIONS/ REQUIREMENTS

- A. Work Hours:
  1. Work hours are defined in the Section 00700 (General Conditions) and Section 00800 (Supplemental Conditions).
  2. All Work shall be prohibited on Saturdays, Sundays, and legal holidays  
All Work on weekdays shall be performed between the hours of 7 AM and after 5 PM, except during emergencies.
  3. The Contractor shall request permission to work outside the work hours specified above at least 72-hours in advance of the proposed work. The Contractor shall not commence work outside of the work hours specified above unless or until granted such permission from the Owner and Engineer.

- B. Temporary Facilities Plan:
  - 1. A project Temporary Facilities Plan shall be submitted prior to the Pre-Construction Meeting. The Temporary Facilities Plan shall identify the approach for maintaining continuous operations for each impacted utility.
- C. Maintain Services:
  - 1. Maintain all existing sewer, water, and storm drain services.
- D. Traffic Control Plan:
  - 1. A project-specific Traffic Control Plan shall be submitted prior to the Pre-Construction Meeting (refer to Section 01570). The Traffic Control Plan shall identify traffic management requirements for each distinct component of the project.
  - 2. Contractor shall provide one lane for the passage of traffic within any work zone unless approved by the Owner.
  - 3. Contractor shall maintain access to all residences and businesses at all times.
  - 4. Contractor shall maintain access for garbage collection and mail services to all residences and businesses at all times. Contractor shall coordinate with these service providers.
  - 5. Contractor shall maintain access for bus routes, schools, day care facilities, etc. at all times. Contractor shall coordinate efforts with local school district to ensure access.
- E. Pavement Maintenance and Winter Shutdown Period:
  - 1. The Contractor shall maintain pipe trenches with compacted gravel until pavement operations can be completed.

END OF SECTION

SECTION 01050COORDINATIONPART 1 - GENERAL1.1 DESCRIPTION

- A. Contractor is required to work in close proximity and connect to Owner's existing facilities. The Contractor, under this Contract, will be responsible for coordinating construction activities with Owner to ensure that services, facilities, and safe working conditions are maintained.
- B. Contractor shall coordinate with other Construction Contractors working within the work area and in the vicinity of this Contract
- C. Any damage to existing structures, equipment and property, accepted equipment or structures, and property or work in progress by others; as a result of the Contractor's or their subcontractor's operations shall be made good by the Contractor at no additional cost to the Owner.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 COORDINATION WITH OTHERS

- A. Levy County, Florida:
  - 1. Contractor shall coordinate access, egress, detours and traffic control, if required, at each site with the Levy County Sheriff's Police Department. The Contractor shall notify Levy County Sheriff's Department, Fire Department and Rescue Squad at least 24 hours in advance of any street closings or detours.
  - 2. The Contractor shall be responsible for coordinating and maintaining public services to all public and private properties.
- B. Florida Power and Light (FPL):
  - 1. The Contractor shall be responsible for coordinating all work around FPL facilities with FPL and shall bear all costs of inspection requirements, temporary facilities relocation and other requirements.
- C. Telephone:
  - 1. The Contractor shall be responsible for coordinating and providing telephone service to all construction sites, both temporary and permanent. The Contractor shall also be responsible for coordinating all work around Telephone facilities with telephone and shall bear all costs of inspection requirements, temporary facilities relocation and all other requirements.
- D. The Contractor shall provide the Owners Resident Project Representative a construction schedule indicating the times to perform the work required. The Contractor shall update the schedule when required and give the facility one week notice before the start of any work. The Contractor shall provide the facility personnel enough time to obtain materials and perform the work required of them. The Contractor shall communicate daily with the Owner's Resident Project

Representative concerning updating the schedule, job progress, delay or early starts that affect the treatment process, facility staffing, etc.

- E. Weekly coordination meetings shall be held between the Contractor, Engineer, and the Owner's Resident Project Representative. This meeting shall cover the following:
  - 1. Work to be completed the following week
  - 2. Project Schedule
  - 3. Shop Drawing and O&M issues
  - 4. Outstanding RFIs and Clarifications
  - 5. Change Orders and Field Orders
  - 6. Review of Record Drawing Information
  - 7. Discussion/Resolution of any old issues
  - 8. New issues discussion
  - 9. Contractor's Safety and Health Plan Updates

#### 1.4 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall have use of the premises within the limits shown on the Drawings and as defined in the General Conditions for the performance of the Work.
  - 1. The Contractor will be responsible for finding their own laydown area . The Contractor shall negotiate any area needed not owned by the City with nearby property owners at their own expense.
    - a. Additional off-site vehicle parking may be required and will be coordinated with the Owner.
    - b. All Contractor personnel shall wear shirts or vests that clearly identify they are an employ of the contractor; this is also required for any subcontractors' onsite.
- B. Contractor work hours will be limited to 7:00AM to 5:00PM, Monday through Friday. Any work outside these hours will require permission of the Owner and adequate notice.
- C. Contractor shall coordinate delivery schedules, site access, and other construction-related activities with any other contractors that may be hired by the Owner during the course of construction.
- D. Contractor shall assume full responsibility for security of all of their, and their subcontractors, materials and equipment stored on the site.
- E. If directed by the Owner, Contractor shall move any stored items which interfere with operations of Owner.
- F. Obtain and pay for use of additional storage or work areas if needed to perform the Work.
- G. Contractor shall not have access to Owners lunch room, toilet or locker room facilities at any time..

END OF SECTION

SECTION 01070

ABBREVIATIONS & SYMBOLS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Where any of the following abbreviations are used in these Specifications, they shall have the meaning set forth opposite each.

AASHTO	American Association of State Highway & Transportation Officials
AC	Alternating Current
ACI	American Concrete Institute
ACP	Asbestos Cement Pipe
AGA	American Gas Association
AIC	Ampere Interrupting Capacity
AGMA	American Gear Manufacturers Association
AIEE(IEEE)	American Institute of Electrical Engineers (Institute of Electrical and Electronics Engineers, Inc.)
AISC	American Institute of Steel Construction
AMP	Ampere 125-16
Amer. Std.	American Standard for Cast Iron Pipe Flanges and Flanged Fittings, Class 125 (ASA B16 11960)
ANSI	American National Standards Institute
API	American Petroleum Institute
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American or Brown and Sharpe Wire Gage
AWWA	American Water Works Association
CCTV	Closed Circuit Television
CF	Cubic Foot
CFM	Cubic Foot Per Minute
CFS	Cubic Foot Per Second
CI	Cast Iron
CIPP	Cured-in-Place Pipe
CIPRA	Cast Iron Pipe Research Association
CSI	Construction Specifications Institute
CY	Cubic Yard
DC	Direct Current
DEP	Department of Environmental Protection
DI (DIP)	Ductile Iron (Pipe)
DOT	Department of Transportation
EDR	Equivalent Directional Radiation

EPA	U.S. Environmental Protection Agency
FPS	Feet Per Second
FT	Feet
GAL	Gallons
GPD	Gallons Per Day
GPM	Gallons Per Minute
HP	Horsepower
IBR	Institute of Boiler and Radiator Manufacturers
IN	Inches
ISA	Instrument Society of America
KVA	Kilovolt-ampere
KW	Kilowatt
LB	Pound
MACP	Manhole Assessment and Certification Program
MAX	Maximum
MGD	Million Gallons Per Day
MIN	Minimum
NACE	National Association of Corrosion Engineers
NASSCO	National Association of Sewer Service Companies
NBS	National Bureau of Standards
NEC	National Electrical Code, Latest Edition
NEMA	National Electrical Manufacturers Association
FSAWWA	Florida Section of American Water Works Association
NPT	National Pipe Thread
OS&Y	Outside Screw and Yoke
PCA	Portland Cement Association
PPM	Parts Per Million
PSI	Pounds Per Square Inch
PSIG	Pounds Per Square Inch Gage
PVC	Polyvinyl Chloride
RPM	Revolutions Per Minute
RUS	Rural Utility Service
SF	Square Foot
STL. W.G.	U.S. Steel Wire, Washburn and Moen, American Steel and Wire Cos., or Roebling Gage
SY	Square yard
TDH	Total Dynamic Head
USAS	Standards of the United States of America Standards Institute (formerly American Standards Association)
USS GAGE	United States Standard Gage
VC	Vitrified Clay
WSP	Working Steam Pressure
Fed. Spec.	Federal Specifications issued by the Federal Supply Service of the General Service Administration, Washington, D.C.

END OF SECTION

SECTION 01150BMEASUREMENT AND PAYMENTPART 1 - GENERAL1.1 DESCRIPTION

- A. For lump sum items, payment shall be made to the contractor in accordance with an accepted progress schedule and schedule of values on the basis of actual work completed.
- B. For unit-price items, payment shall be based on the actual amount of work accepted and for the actual amount of materials in place, as shown by final measurements.
  - 1. All units of measurement shall be standard United States convention as applied to the specific items of work by tradition and as interpreted by the Engineer. At the end of each day's work, the Contractor's Superintendent or other authorized representative of the Contractor shall meet with the Resident Project Representative and determine the quantities of unit price work accomplished and/or completed during the workday.
  - 2. These quantities will provide the basis of the monthly quantity estimate upon which payment will be made.
  - 3. After the work is completed and before final payment is made, the Engineer will make final measurements to determine the quantities of various items of work accepted as the basis for final settlement.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1, 2, 3, and 15.

1.3 SCOPE OF PAYMENT

- A. Payments to the Contractor will be made for the actual quantities of the Contract items performed and accepted in accordance with the Contract Documents. Upon completion of construction, if these actual quantities show either an increase or decrease from the quantities given in the Proposal Form, the Contract Unit Prices will still prevail.
- B. The Contractor shall accept in compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the Contract; also for all loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work and until its final acceptance by the Engineer, and for all risks of every description connected with the prosecution of the work, except as provided herein, also for all expenses incurred in consequence of the suspension of the Work as herein authorized.

- C. The payment of any partial estimate or of any retained percentage except by and under the approved final invoice, in no way shall affect the obligation of the Contractor to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

1.4 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

- A. When alterations in the quantities of work not requiring supplemental agreements, as hereinbefore provided for, are ordered and performed, the Contractor shall accept payment in full at the Contract price for the actual quantities of work done. No allowance will be made for anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as stipulated in such agreements.

1.5 OMITTED ITEMS

- A. Should any items contained in the bid form be found unnecessary for the proper completion of the work contracted, the Engineer may eliminate such items from the Contract, and such action shall in no way invalidate the Contract, and no allowance will be made for items so eliminated in making final payment to the Contractor.

1.6 PARTIAL PAYMENTS

- A. Partial payments shall be made monthly as the work progresses. Partial payments shall be made subject to the provisions of the Supplemental and General Conditions. The breakdown of quantities will be determined by the Engineer.

1.7 PAYMENT FOR MATERIAL DELIVERED

- A. When requested by the Contractor and at the discretion of the Owner, payment may be made for all or part of the value of acceptable, non-perishable materials and equipment which are to be incorporated into bid items, have not been used and have been delivered to the construction site, or placed in storage places acceptable to the Owner. Payment shall be subject to the provisions of the General and Supplemental Conditions.
- B. No payment shall be made upon fuels, supplies, lumber, false work, or other materials, or on temporary structures of any kind which are not a permanent part of the Contract.

1.8 FINAL PAYMENT

- A. After final measurements are made by the Engineer, the Contractor will prepare a final quantity invoice of the amount of the Work performed and the value of such Work. Owner shall make final payments of the sum found due less retainages subject to provisions of the General and Supplemental Conditions.

1.9 INCIDENTAL WORK

- A. Incidental work items for which separate payment will not be made includes, but is not limited to, the following items:
  1. Pre-Construction photographs or videos.
  2. Project Record Documents (NTS-On large and highly detailed owner requirements project records or with a GIS component, it might make sense for this to be a bid item. See "AS BUILT SURVEY" bid item below)
  3. Signs

4. Clean-up and restoration of property.
5. Restoration of fences and other structures.
6. Cooperation and coordination with other Contractors and utility companies including related inspection costs and other costs (Refer to Section 01050).
7. Utility crossings and relocations, unless otherwise paid for.
8. Temporary utility services to buildings, as required to maintain service during construction.
9. Restoration of gravel/aggregate/dirt roadways, lanes, and driveways disturbed by construction.
10. Minor Items--such as relocation of sign posts, guard rails, rock wall, mail boxes, curbs, traffic loop detectors, pavement markings, etc., damaged as a result of construction activities.
11. Trench boxes, steel and/or wood sheeting as required, including that left in place.
12. Maintenance of all existing sewer flows and repair of existing sewer pipes.
13. Temporary Construction Dewatering as necessary.
14. Dust control.
15. Quality assurance testing.
16. Final cleaning of sewers, force mains and storm drains.
17. Loam, seeding, grading, liming, fertilization, mulching, and watering.
18. Routine flagman services.
19. Construction schedules, bonds, insurance, shop drawings, warranties, guarantees, certifications, and other submittals required by the Contract Documents.
20. Repair and replacement of water lines under 2-inches in size, culverts, underdrains, rock lined drainage trenches in streets and other utilities damaged by construction activities and corresponding proper disposal of removed materials unless otherwise paid for.
21. Temporary construction necessary for construction sequencing and other facilities not permanently incorporated into the work.
22. Weather protection.
23. Permits not otherwise paid for or provided by the Owner.
24. Visits to the project site or elsewhere by personnel or agents of the Contractor, including manufacturer's representatives, as may be required.
25. All excavation except the test pits specifically shown or ordered by the Engineer to establish sewer line and water line locations, earth excavation below grade and rock excavation.
26. Contract administration and insurance.
27. Test pits to establish in place field soils density, groundwater conditions, or requirements for dewatering.
28. Pipe markings.
29. Replacement of unsuitable material above pipe bedding and backfill.
30. Temporary Field Office.
31. Earthwork
32. Test Pits for the Contractor's Benefit

33. Disinfection cleaning and testing of installed water mains and blow offs where show on plans
34. Sewer service risers.
35. Temporary resetting or replacement of existing street and traffic signs and temporary traffic signals where necessary.
36. Disconnecting and reconnecting traffic signal power to accommodate the work.
37. Raising and lowering of existing frames and covers of buried utilities to grade unless payment is otherwise provided for.
38. Horizontal adjustment of existing frames, covers and grates to match final grades and curb faces.
39. Removing and replacing existing SMH inverts to accommodate new and replacement pipes.
40. Removing and resetting of existing steps, guard rails, fences, walls and non-paved brick or paver walkways disturbed during construction, other than those identified on the Drawings to be replaced.
41. Protection of existing block and stone retaining walls unless otherwise identified to be removed, relocated or modified in the Drawings.
42. Cross-over channels and underdrains for sewer, storm drain and water excavation pits, and check dams for all excavated channels.
43. Installing temporary pavement markings on binder course that will not be surfaced within 14 days of installation.
44. Installing raised pavement markers and temporary symbols on the binder course within 48 hours of installing any section of the binder course and maintaining these throughout the project duration.
45. Locating and verifying the locations of water and sewer services within the limits of work. Capping or plugging existing underground utilities as shown on the plans and Dye testing as required to determine bulkheading and reconnection requirements.
46. Modifying, to include coring, patching and parging of existing sewer and drainage structures to accommodate new pipes as shown on plans.
47. Removal and subsequent delivery of replaced or obsolete frames, covers, grates, hydrants curbstones and signs to a location within the City limits designated by the Owner.
48. Leak testing of all existing sewer manholes whose frames and covers have been replaced.
49. Removal of temporary or permanent pavement markings, prior to paving. This includes removing markings that are applied on the winter binder layer, prior to installation of the wearing course.
50. Clay (impervious material) trench dams. Concrete Trench Dams are a unit price item.
51. Relocation, replacement and extension of all underground telephone, power, cable, data, gas and all other private utility services from within the Rights of Way to the dwellings, structures or meters.
52. Flushing and final cleaning of storm drain system.
53. Completion of the Storm Water Pollution Prevention Plan as well as required inspections, monitoring and reporting.

54. Post Completion CCTV and report of Entire Sanitary Sewer System installed under this Contract.
55. Provide temporary pavement marking paint on the streets as shown in the layout plans on the binder course within two weeks of pavement installation if the wearing course will not be installed until after a winter season.

1.10 DESCRIPTION OF PAY ITEMS

- A. The following sections describe the measurement of and payment for the work to be done under the respective items listed in the Bid Form.
- B. Each unit or lump-sum price stated in the Bid Form shall constitute full compensation, as herein specified, for each item of the work completed.

Bid Item 1 and BO1 – Performance/Payment Bonds & Insurance

- A. Method of Payment: Lump Sum.
- B. Basis of Payment: The Lump Sum bid price provided shall cover all bonds and insurance required stated in the bid and contract documents.

Bid Item 2 and BO2– Mobilization/Demobilization

- A. Method of Measurement: Lump Sum. Total of bid item shall not exceed [5%] of Total Amount of the Bid.
- B. Basis of Payment: Mobilization/demobilization costs are those costs of initiating and ending the contract. Payment for mobilization/demobilization shall be the Lump Sum price as stated in the Bid Form. Seventy-Five percent (75%) of the lump sum will be payable when the Contractor is operational on the site and the remaining 25% of the lump sum will be payable when the Contractor leaves the site following the completion of all contract work. For purposes of payment on this item, "Operational" shall mean the Contractor has provided all required and properly executed bonds and insurance certificates and the owner has approved the following: Construction Schedule, Erosion Control Plan, Traffic Control Plan, Project Sign (and installed), Temporary Facilities (including Engineer's Trailer), and Pre-Construction photographs/videos. "Operational" shall also mean Contractor has performed the pre-construction television sewer inspection, delivered the records of it to the Engineer and the Engineer has acknowledged the records are accurate and of use. "Operational" shall mean the temporary field office is fully functional and power, phone and internet are functioning. Only one lump sum payment divided into the two partial payments described herein shall be made to cover all mobilization/demobilization costs throughout the entire contract.

Bid Item 3 and BO3 – 6" PVC Water Main Pipe

- A. Method of Measurement: Water main pipe measured for payment shall be the number of Linear Feet installed measured along the center line of the pipe as laid including fittings.

- B. Basis of Payment:
1. The contract unit price per linear foot for water main pipe shall be full compensation for all labor, materials, and equipment necessary to complete this work including sawcut, management, removal and disposal of pavement; excavation (including rock/limerock excavation), dewatering, bedding, furnishing and installing pipe and fittings, making connections to new and existing pipes, backfill including aggregate base and subbase material, compaction, cleaning, testing, maintaining existing flows during construction of new facilities, and all else incidental thereto for which payment is not provided under other items.
  2. Payment for this work on interim requisitions shall be according to the following percentages:
    - a. Water main acceptably set in place and backfilled - 90 percent.
    - b. Water main successfully tested - 10 percent.

Bid Item 4 and BO4 – 6” PVC Water Main Tee

- A. Method of Measurement: Quantity of 6” tees to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items.

Bid Item BO5 – 6” 45° PVC Water Main Bend

- A. Method of Measurement: Quantity of 6” 45-degree bends to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items.

Bid Item 5 and BO6 – Connect to Existing 6” Water Mains

- A. Method of Measurement: Lump Sum. Quantity and locations of connections to the existing water system are estimates and may vary based on the contractor’s methods of construction. Therefore, no separate measurements will be made for connecting to the existing water system.
- B. Basis of Payment: The Lump Sum bid price shall be full compensation for furnishing and installing all materials, labor, tools, equipment, and supervision necessary for the connections to the existing water system, including excavation, backfilling, flow control, tapping, saw cutting, excavation, dewatering, furnishing and installing fittings, and all else incidental thereto for which payment is not provided under other items.

Bid Item 6 and BO7 – 6” Water Main DI MJ Gate Valve and Box

- A. Method of Measurement: Quantity of 6” gate valves and valve boxes to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing valves and fittings, backfilling, compaction, adjusting valve boxes to grade, and all else incidental thereto for which payment is not provided under other items.

Bid Item 7 and BO8 – 6” Water Main Line Stop Valve

- A. Method of Measurement: Quantity of 6” line stop valves to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing valves and fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items.

Bid Item 8 – 6” Water Main Cut-in Valve and Box

- A. Method of Measurement: Quantity of 6” cut in valves to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing valves and fittings, backfilling, compaction, adjusting valve boxes to grade, and all else incidental thereto for which payment is not provided under other items.

Bid Item 9 and BO9 – 6” Water Main Tapping Sleeve, Valve and Box

- A. Method of Measurement: Quantity of 6” tapping sleeves and valves to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing fittings, pipe cutting services, backfilling, compaction, adjusting valve boxes to grade, and all else incidental thereto for which payment is not provided under other items.

Bid Item 10 and BO10 – Fire Hydrant Assembly

- A. Method of Measurement: Quantity of Fire Hydrant Assemblies to be paid under this item shall be the number of units, Each, installed and accepted complete in place.

- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items.

Bid Item 11 and BO11 – 6” Blind Flange

- A. Method of Measurement: Quantity of Blind Flange to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items.

Bid Item 12 and BO12 – Temporary Water Main Piping

- A. Method of Measurement: Lump Sum (no separate measurement will be made for temporary piping)
- B. Basis of Payment: The Lump Sum bid price shall be full compensation for all flow maintenance/bypass pumping including furnishing and installing all plugs, pumps, piping, pipe protections, monitoring systems, etc. for complete and operable systems, and all else incidental thereto for which payment is not provided under other items.

Bid Item 13 and BO 13 – Maintenance of Traffic

- A. Method of Measurement: Maintenance of Traffic will be paid for at the Lump Sum unit price as stated in the Bid Schedule.
- B. Basis of Payment: Payment shall be Lump Sum for traffic regulation and control (maintenance of traffic) shall constitute full compensation for all traffic regulation and control efforts and including all labor, materials, equipment, signage, and supervision required to provide comprehensive and professional traffic regulation and control at all project locations. The traffic control plan, temporary pavement markings for traffic re-routing and pedestrian safety are included in this item. The lump sum shall be paid in partial payments over the course of the project, where the percentage paid is equal to the percentage of completion of the entire Contract.

Bid Item 14 and BO 14 – Erosion Control

- A. Method of Measurement: Lump Sum (no separate measurements will be made for erosion control devices)

- B. Basis of Payment: The Lump Sum bid price shall be full compensation for furnishing and installing all materials, labor, tools, equipment, and supervision necessary for the construction of silt fence and catch basin inlet protection including excavation, backfilling, and all else incidental thereto for which payment is not provided under other items. Reinstallation, maintenance, or additional silt fence required due to the Contractor's means of operations shall be considered incidental to the Lump Sum bid and no additional payment will be made.

Bid Item 15 and BO 15 – Loaming and Seeding

- A. Method of Measurement: Lump Sum.
- B. Basis of Payment: The Lump Sum bid price shall be full compensation for furnishing, installing, and maintaining vegetation/grass (through final acceptance) and shall include all materials, labor, tools, equipment, and supervision necessary for the restoration of all disturbed earthen areas. Reseeding of damaged or dead vegetation shall be considered incidental to the Lump Sum bid and no additional payment will be made.

Bid Item 16 and BO16 – Clearing and Grubbing

- A. Method of Measurement: Lump Sum.
- B. Basis of Payment: The Lump Sum bid price shall be full compensation for all clearing and grubbing necessary to complete the project and shall include all materials, labor, tools, equipment, disposal of materials, and supervision necessary for clearing and grubbing work areas.

Bid Item 17 and BO17 – Dirt or Aggregate Driveway or Pavement Repair

- A. Method of Measurement: The driveway or pavement repair measured for payment under this item shall be the number of Square Yards installed and accepted in place. This amount shall be field measured by the Owner's representative and the quantity shall be determined by multiplying the length and width.
- B. Basis of Payment: The contract unit price per square yard for driveway or pavement repair shall be full compensation for all labor, materials, equipment, and supervision necessary to complete this work including excavation and fine grading, compaction, forms, concrete, expansion joint material, reinforcement, screened gravel, saw cutting, contraction jointing, miscellaneous curbing and all other work as shown on the plans and all else incidental thereto for which payment is not provided under other items.

Bid Item BO18 – Asphalt Driveway or Pavement Repair

- A. Method of Measurement: The asphalt driveway or pavement removal and replacement measured for payment under this item shall be the number of Square Yards installed and accepted in place. This amount shall be field measured by the Owner's representative and the quantity shall be determined by multiplying the length and width.

- B. Basis of Payment: The contract unit price per square yard for asphalt driveways or pavement repair shall be full compensation for all labor, materials, equipment, and supervision necessary to complete this work including excavation and fine grading, compaction, forms, concrete, expansion joint material, reinforcement, screened gravel saw cutting, contraction jointing, miscellaneous curbing and all other work as shown on the plans and all else incidental thereto for which payment is not provided under other items.

Bid Item 18 – Concrete Driveway or Pavement Repair

- A. Method of Measurement: The concrete driveway or pavement removal and replacement measured for payment under this item shall be the number of Square Yards installed and accepted in place. This amount shall be field measured by the Owner's representative and the quantity shall be determined by multiplying the length and width.
- B. Basis of Payment: The contract unit price per square yard for concrete driveways or pavement repair shall be full compensation for all labor, materials, equipment, and supervision necessary to complete this work including excavation and fine grading, compaction, forms, concrete, expansion joint material, reinforcement, screened gravel saw cutting, contraction jointing, miscellaneous curbing and all other work as shown on the plans and all else incidental thereto for which payment is not provided under other items.

Bid Item 19 and BO19 – Short Water Service Assembly

- A. Method of Measurement: Quantity of Water Service Assemblies/Connections made on the near side of the street to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to complete the installation including excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items. Water meters and water meter boxes to be provided by the County.

Bid Item 20 and BO20 – Long Water Service Assembly

- A. Method of Measurement: Quantity of Water Service Assemblies/Connections made on the far side of the street to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to complete the installation including saw cutting, removing and disposal of pavement, excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, pavement repairs, and all else incidental thereto for which payment is not provided under other items. Water meters and water meter boxes to be provided by the County.

Bid Item 21 – Existing Replacement Short Water Service Assembly

- A. Method of Measurement: Quantity of Water Service Assemblies/Connections made on the near side of the street to be paid under this item shall be the number of units, Each, installed and accepted complete in place.
- B. Basis of Payment: Number of units shall be paid for at the unit price for each as stated in the Bid Schedule. Said unit price shall be full compensation for all labor, materials, equipment, and supervision necessary to compete the installation including excavation, dewatering, bedding, furnishing and installing fittings, backfilling, compaction, and all else incidental thereto for which payment is not provided under other items. Water meters and water meter boxes to be provided by the County.

END OF SECTION

SECTION 01200  
PROJECT MEETINGS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. To enable orderly review during progress of the work, and to provide for systematic discussion of problems, the Engineer will conduct project meetings throughout the construction period.
2. The Contractor's relations with their subcontractors and material suppliers and discussions relative thereto, are the Contractor's responsibility and are not part of project meetings content.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Persons designated by the Contractor to attend and participate in the project meetings shall have all required authority to commit the Contractor to solutions agreed upon in the project meetings.

1.4 SUBMITTALS

- A. Agenda items: To the maximum extent practicable, advise the Engineer at least 24 hours in advance of project meetings regarding all items to be added to the agenda.
- B. Minutes: The Contractor will compile minutes of each project meeting and will furnish a copy to the Engineer. The Contractor may make and distribute such other copies as they wish.

PART 2 - PRODUCTS

(No products are required in this Section.)

PART 3 - EXECUTION

3.1 MEETING SCHEDULE

- A. Except as noted below for Preconstruction Meeting, project meetings will be held monthly. Coordinate as necessary to establish mutually acceptable schedule for meetings.

3.2 MEETING LOCATION

- A. Meetings will be held at the job site in the Contractors field office, unless the Owner and/or Engineer determine that virtual meetings are applicable and appropriate for any reason (e.g., COVID, Safety and Health Plan, etc.).

1. If meetings are required by Owner/Engineer to be held virtually, Engineer will host the meetings via Microsoft Teams. All required meeting attendees are responsible for providing hardware necessary to view, share, be heard and hear content of the meeting.

### 3.3 PRECONSTRUCTION MEETING

- A. Preconstruction meeting will be scheduled within twenty days after the Effective Date of the Agreement, but before the Contractor starts work at the site. Provide attendance by authorized representatives of the Contractor and all major subcontractors. The Engineer will advise other interested parties and request their attendance.
- B. Contractor will provide the Engineer and Owner's Representative with a preliminary schedule for the work prior to the preconstruction meeting. Failure to provide a schedule will be grounds for rescheduling meeting at Engineer and Owner's discretion.
- C. Minimum agenda: Distribute data on, and discuss:
  1. Identification of key project personnel for Owner, Engineer, Contractor, funding/regulatory Agencies.
  2. Responsibilities of Owner, Engineer, the Owner's Resident Project Representative, Contractor.
  3. Channels and procedures for communications.
  4. Construction schedule, including sequence of critical work.
  5. Easements, permits.
  6. Contract Documents, including distribution of required copies of original documents and revisions.
  7. Processing of Shop Drawings and other data submitted to the Engineer for review.
  8. Processing of Requests for information (RFI), field decisions, and Change Orders.
  9. Rules and regulations governing performance of the Work, including funding/regulatory Agency requirements.
  10. Procedures for safety and first aid, security, quality control, housekeeping, and other related matters.

### 3.4 PROJECT MEETINGS

- A. Attendance: To the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout progress of the Work. The Contractor's Superintendent shall attend. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspects of the Work are involved.
- B. Minimum agenda:
  1. Review, revise as necessary, and approved minutes of previous meeting.
  2. Review progress of the Work since last meeting, including status of submittals for approval.
  3. Review schedule of work to be accomplished prior to next meeting.
  4. Discuss monthly partial payment request.

5. Review status of change order requests and Work Directive Changes.
6. Identify problems which impede planned progress.
7. Develop corrective measures and procedures to regain planned schedule.
8. Complete other current business.

END OF SECTION

SECTION 01310CONSTRUCTION SCHEDULESPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Within ten (10) days after the effective date of the Agreement between Owner and Contractor submit to the Engineer an estimated progress schedule as specified herein.
- B. Form of Schedules:
  - 1. Narrative: Completely describe the construction methods to be employed.
  - 2. Network Analysis System:
    - a. Provide a separate horizontal schedule line for each trade or operation and show concurrent and preceding activities.
    - b. Present in chronological order the beginning of each trade or operation showing duration and float time.
    - c. Scale: Identify key dates and allow space for updating and revision.
  - 3. Mathematical Analysis:
    - a. A mathematical analysis shall accompany the network diagram. A computer printout will be acceptable.
    - b. Information shall be included on activity numbers, duration, early start, late start, etc. and float times.
- C. Content of Schedules:
  - 1. Provide complete sequence of construction by activity:
    - a. Shop Drawings, Project Data and Samples:
      - i. Submittal dates.
      - ii. Dates reviewed copies will be required.
    - b. Decision dates for:
      - i. Products specified by allowances.
      - ii. Selection of finishes.
    - c. Estimated product procurement and delivery dates.
    - d. Dates for beginning and completion of each element of construction.
  - 2. Identify work of separate phases and logically grouped activities.
  - 3. Show the projected percentage of completion for each item of work as of the first day of each month.
  - 4. Provide separate sub-schedules, if requested by the Engineer, showing submittals, review times, procurement schedules, and delivery dates.
  - 5. Schedule sheets shall be printed in color on 24"x36" paper, unless a smaller size paper is allowed by the Engineer.
- D. Updating:
  - 1. Show all work activities including those already complete.
  - 2. Show all changes occurring since previous submission.
  - 3. Indicate progress of each activity, show completion dates.
  - 4. Include:
    - a. Major changes in scope.

- b. Activities modified since previous updating.
  - c. Revised projections due to changes.
  - d. Other identifiable changes.
5. Provide narrative report, including:
- a. Discussion of problem areas, including current and anticipated delay factors.
  - b. Corrective action taken or proposed.
  - c. Description of revisions that may affect schedules.
  - d. Description of activities to be performed in the next 6-week period.
  - e. Updated list of key shop drawings, project data and samples to be submitted in the next 6-week period.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1, 2, 3, and 15.

1.3 SUBMITTALS

- A. Submit updated schedules with each progress payment request.  
B. Submit 4 copies of initial and updated schedules to the Engineer.

END OF SECTION

SECTION 01320SAFETY AND HEALTH PLANPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work, as outlined herein and in the General and Special Conditions of the Contract Documents. Within 10 days after the effective date of the Agreement between Owner and Contractor, submit to the Engineer a Safety and Health Plan as specified herein. Refer to submittals section below.
2. Contractor shall comply with all applicable Laws and Regulations related to the safety of persons or property, or for the protection of persons or property from damage, injury, illness, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
3. Contractor shall designate a qualified and experienced safety representative (OSHA defined "Competent Person") at the site whose duties and responsibilities shall be the prevention of accidents and maintaining and supervising of safety precautions and programs, including a "Job Hazards Analysis".
4. The Contractor shall be solely responsible to provide all labor, equipment, and utilities sufficient to ensure no construction noise, particulates, or odors, are allowed to accumulate to levels which adversely affect health or work in, or near the construction area.

## B. Content of Safety and Health Plan:

1. Prepare complete safety and health plan in accordance with the requirements of CFR Title 29 Part 1926 - Safety and Health Regulations for Construction.
  - a. Provide documentation that Contractor's hazardous communication program is up to date.
  - b. Provide documentation that Contractor's safety training is up to date.
  - c. Prepare a project specific Safety and Health Plan addressing construction safety and protection, including but not limited to excavations, fall protection, egress, as well as provisions for construction in hazardous environmental conditions at the construction site.

## C. Updating:

1. Contractor shall be responsible for updating the Safety and Health Plan as appropriate throughout the course of the construction period.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1, 2, 3, and 15.

1.3 SUBMITTALS

- A. Submit the Contractor's site-specific Safety and Health Plan to the Engineer, in accordance with Section 01340. Submit hardcopy submittals, if required.
- B. Submit updated Safety and Health Plans as necessary during the course of the project.
- C. The Safety and Health Plan is provided “for information only” to inform the Owner, Engineer and Owner’s Resident Project Representative of the project specific safety program requirements; however, if the Safety and Health Plan incomplete (e.g., missing elements relevant to the project work), inadequate (e.g., outdated qualifications) or not project-specific, it will be returned “revise and resubmit”. Delays related to an incomplete Safety and Health Plan are the responsibility of the Contractor.
- D. The Contractor will overview the plan with the Owner (and staff), Resident Project Representative and, Engineer prior to work beginning at the project site, and subsequently when/if the safety plan is updated.
- E. Contractor's most current Safety and Health Plan shall be available at the construction site throughout the construction project.

1.4 ON-SITE COORDINATION MEETINGS

- A. Contractor shall review key aspects of Safety and Health Plan at the Pre-Construction Meeting, and subsequent on-site safety informational meeting.
- B. Contractor shall report to Engineer and Owner at each progress meeting concerning compliance with the Safety and Health Plan for the most recent construction period and new considerations and requirements for the upcoming period.
- C. Contractor shall hold weekly on-site coordination meetings with Owner’s Resident Project Representative and Owner to ensure that Owner's staff is aware of key Safety and Health Plan requirements of the current phase of construction.

END OF SECTION

SECTION 01340SUBMITTALSPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Submit all shop drawings, Manufacturers' certificates, project data, and samples required by the Specifications.

## B. General Submittals Requirements: This project shall utilize:

## 1. Submittals – Electronic via Email/FTP with Hard Copy for Record

- a. The Contractor shall submit to the Engineer an electronic submittal of shop drawings in portable document format (PDF) transmitted via email or file transfer protocol (FTP). The Engineer shall return an electronic PDF of the submittal review comments to the Contractor for distribution to subcontractors, suppliers and manufacturers. The electronic submittals shall serve as the electronic record of the project.
- b. In addition, completed shop drawings shall be provided in hard copy (paper) format, for the record, in accordance with the following requirements.
  - i. Shop drawings shall be considered “completed” once an action code of “0” or “1” has been attained, as specified below, unless otherwise directed by the Engineer.
  - ii. Once completed, the Contractor shall provide three hard copy sets (for Owner, Engineer and Resident Project Representative, respectively).
  - iii. Hard copy submittals shall be updated on a monthly basis, for those submittals completed during the preceding month.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1, 2, 3, and 15.

1.3 SHOP DRAWINGS

- A. Shop Drawings are required for each and every element of the work.
- B. Shop Drawings are generally defined as all fabrication and erection drawings, diagrams, brochures, schedules, bills of material, manufacturers data, spare parts lists, and other data prepared by the Contractor, their subcontractors, suppliers, or manufacturers which illustrate the manufacturer, fabrication, construction, and installation of the work, or a portion thereof.
- C. The Contractor shall provide a completed Contractor Submittal Certification Form (copy provided for Contractor's use at the end of this Specification Section) which shall be attached to every copy of every shop drawing and signed by the Contractor and Manufacturer (where applicable). Shop Drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawing. When it is customary to do so, when the dimensions are of particular

importance, or when so specified, the drawings shall be certified by the manufacturer or fabricator as correct for the work.

1. Each shop drawing submittal shall include a complete copy of the relevant specification section markup up to reflect “compliance” or “deviation” on an item-by-item basis.
- D. Shop Drawings shall be submitted as a complete package by specification section, unless otherwise reviewed and approved by the Engineer. It is the intent that all information, materials and samples associated with each specification section be included as a single submittal for the Engineer's review. Any deviation from this requirement, shall be requested in writing with an anticipated shop drawing breakdown/schedule prior to any associated submittal. An exception to this requirement are shop drawings for reinforcing steel, miscellaneous metals and structural steel, which shall be submitted separately for each structure unless otherwise permitted by the Engineer.
- E. The Contractor shall be responsible for the prompt and timely submittal of all shop and working drawings so that there shall be no delay to the work due to the absence of such drawings.
- F. No material or equipment shall be purchased or fabricated especially for the Contract until the required shop and working drawings have been submitted as hereinabove provided and reviewed for conformance to the Contract requirements. All such materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by said drawings.
- G. Until the necessary review has been made, the Contractor shall not proceed with any portion of the work (such as the construction of foundations), the design or details of which are dependent upon the design or details of work, materials, equipment or other features for which review is required.
- H. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from their subcontractors and returning reviewed drawings to them. Shop drawings shall be formatted to standard paper sizes to enable the Owner to maintain a permanent record of the submissions. Approved standard sizes shall be: (a) 24 inches by 36 inches; (b) 11 inches by 17 inches, and (c) 11 inches by 8-1/2 inches. Provision shall be made in preparing the shop drawings to provide a binding margin on the left hand side of the sheet. Shop drawings submitted other than as specified herein may be returned for resubmittal without being reviewed.
- I. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by their subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to confirm that the subject matter thereof conforms to the Drawings and Specifications in all respects. All drawings which are correct shall be marked with the date, checker's name, and indication of the Contractor's approval, and then shall be submitted to the Engineer.
- J. If a shop drawing shows any deviation from the Contract requirements, the Contractor shall make specific mention of the deviations in the transmittal. Shop Drawings that contain significant deviations that are not brought to the attention of the Engineer may be subject to rejection.

- K. Should the Contractor submit equipment that requires modifications to the structures, piping, electrical conduit, wires and appurtenances, layout, etc., detailed on the Drawings, Contractor shall also submit details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications.
- L. A maximum of two submissions of each Shop Drawing will be reviewed, checked, and commented upon without charge to the Contractor. Any additional submissions which are ordered by the Engineer to fulfill the stipulations of the Drawings and Specifications, and which are required by virtue of the Contractor's neglect or failure to comply with the requirements of the Drawings and Specifications, or to make those modifications and/or corrections ordered by the Engineer in the review of the first two submissions of each Shop Drawing, will be reviewed and checked as deemed necessary by the Engineer, and the cost of such review and checking, as determined by the Owner, and based upon Engineer's documentation of time and rates established for additional services in the Owner-Engineer Agreement for this Project, may be deducted from the Contractor to make all modifications and/or corrections as may be required by the Engineer in an accurate, complete, and timely fashion. Resubmittals for the sole purpose of providing written responses to review comments will not be considered a resubmittal counting towards the two submission limit.
- M. Shop Drawings that include drawings or other material that is illegible or too small may be returned without review.

#### 1.4 SAMPLES – NOT USED

#### 1.5 MANUFACTURER'S CERTIFICATES

- A. Prior to accepting the installation, the Contractor shall submit manufacturer's certificates for each item specified.
- B. Such manufacturer's certificates shall state that the equipment has been installed under either the continuous or periodic supervision of the manufacturer's authorized representative, that it has been adjusted and initially operated in the presence of the manufacturer's authorized representative, and that it is operating in accordance with the specified requirements, to the manufacturer's satisfaction. All costs for meeting this requirement shall be included in the Contractor's bid price.

#### 1.6 SUBMISSION REQUIREMENTS

- A. Accompany submittals with a transmittal cover sheet, containing:
  - 1. Date.
  - 2. Project title and number.
  - 3. Contractor's name and address.
  - 4. The sequential shop drawing number for each shop drawing, project data and sample submitted shall be:
    - a. Specification Section number followed by a dash and then a sequential number beginning with 01 (e.g., 16000-01).
    - b. Under limited situations when additional different pieces of equipment are submitted under the same specification section, those submittals shall be numbered sequentially (e.g. 05500-01, 05500-02, 05500-03, etc.).

- c. Resubmittals shall include an alphabetic suffix after the corresponding sequential number (e.g., 16000-01A).
  5. Notification of deviations from Contract Documents.
  6. Other pertinent data.
- B. A completed Contractor Submittal Certification Form shall be attached to each hardcopy and electronic PDF of each shop drawing and must include:
  1. Project name
  2. Specification Section and sequential number with alphabet suffix for resubmittal
  3. Description
  4. Identification of deviations from Contract Documents.
  5. Contractor's stamp, initialed or signed, certifying review of the submittal, verification of field measurements and compliance with Contract Documents.
  6. Where specified or when requested by the Engineer, manufacturer's certification that equipment, accessories and shop painting meet or exceed the Specification requirements.
  7. Where specified, manufacturer's guarantee.
- C. Additional Requirements for Electronic Submittals:
  1. Each individual shop drawing submittal shall be contained in one PDF.
  2. The first page of the PDF shall be the Contractor Submittal Certification Form as described above.
  3. The electronic PDF shall be **exactly** as submitted in the hardcopy.
  4. The electronic PDF shall include an electronic table of contents that is bookmarked for each section of the submittal.
  5. The electronic PDF shall be configured such that is fully searchable.
  6. PDF versions of 24x36 drawings shall be converted to 24 x 36 PDFs so as not to lose the clarity of the original drawing.
  7. Electronic PDF submittals that are not submitted in accordance with the requirements stated above will not be reviewed by the Engineer.
  8. Electronic submittals shall be transmitted via the protocol established in Part 1 above.

## 1.7 RESUBMISSION REQUIREMENTS

- A. Revise initial submittals as required and resubmit as specified for initial submittal.
- B. Indicate on submittals any changes which have been made other than those required by Engineer. All renumbering of shop drawings, relabeling of individual pieces or assemblies or relocating of pieces or assemblies to other Drawings within the submittal shall be clearly brought to the attention of the Engineer. If relabeling of individual pieces or assemblies has taken place, the labels from the previous submittal shall be indicated to assist in comparing the original and resubmitted shop drawing.
- C. All resubmittals shall include a summary of the previous submittal review comments with the vendors' written response as to how the previous comments were addressed.

1.8 ENGINEER'S REVIEW

- A. The review of shop and working drawings hereunder will be general only, and nothing contained in this specification shall relieve, diminish or alter in any respect the responsibilities of the Contractor under the Contract Documents and in particular, the specific responsibility of the Contractor for details of design and dimensions necessary for proper fitting and construction of the work as required by the Contract and for achieving the result and performance specified thereunder.
- B. The Engineer's review comments will be summarized on a Submittal Review Form, which includes an action code. A description of each action code is provided below.
  - 1. No Exceptions Taken (Status 0 on shop drawing log). The shop drawing complies with the Contract Document requirements. No changes or further information are required. Where appropriate, the submittal review form will be used to alert the Contractor, Owner and Field personnel of remaining items within that specification section that still needs to be submitted.
  - 2. Make Corrections Indicated (Status 1 on shop drawing log). The shop drawing complies with the Contract Document requirements except for minor changes, as indicated. Engineer requires that all comments will be addressed by the Contractor, unless otherwise notified in writing prior to execution of the relevant work.
  - 3. Conditional to Remarks (Status 2 on shop drawing log). The shop drawing potentially complies with the Contract Document requirements, contingent upon satisfactory resolution of review comments. Remarks will explicitly list what information needs to be resubmitted. Resubmittal from the Contractor should include a cover letter or summary which indicates how each review comment has been addressed.
  - 4. Revise and Resubmit (Status 3 on shop drawing log). The shop drawing does not comply with the Contract Document requirement as submitted, but may with changes indicated and/or submission of additional information. The entire package must be resubmitted with the necessary information and a cover letter which indicates how each review comment has been addressed and where to find the information in the resubmittal.
  - 5. Rejected (Status 4 on shop drawing log). The shop drawing does not comply with the Contract Document requirements, for the reasons indicated in the remarks, and is unacceptable.
  - 6. For Information Only (Status 5 on shop drawing log). The shop drawing review was for information only.
  - 7. In Review (Status 6 on shop drawing log). The shop drawing is currently under review.

CONTRACTOR SUBMITTAL CERTIFICATION FORM

PROJECT: \_\_\_\_\_ CONTRACTOR'S PROJ. NO: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ ENGINEER'S PROJ. NO: \_\_\_\_\_

ENGINEER: \_\_\_\_\_

SHOP  
DRAWING  
NUMBER:

\_\_\_\_\_  
SPECIFICATION SECTION  
OR DRAWING NO:

\_\_\_\_\_  
SEQUENTIAL NUMBER  
( & ALPHA SUFFIX FOR  
RESUBMITTAL)

DESCRIPTION: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

The above referenced submittal has been reviewed by the undersigned and I/we certify that the material and/or equipment meets or exceeds the project specification requirements with

NO DEVIATIONS

or

A COMPLETE LIST OF DEVIATIONS AS FOLLOWS:

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

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

Contractor

Manufacturer

Date: \_\_\_\_\_ Date: \_\_\_\_\_

a Any deviations not brought to the attention of the Engineer for review and concurrence shall be the responsibility of the Contractor to correct, if so directed.

b Required on all submittals

c When required by specifications Page \_\_\_ of \_\_\_

General Contractor's Stamp

END OF SECTION

## SECTION 01370

SCHEDULE OF VALUESPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Provide a detailed breakdown of the Contract Sum showing values allocated to each of the various parts of the Work, as specified herein and in other provisions of the Contract Documents.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Use required means to assure arithmetical accuracy of the sums described.
- B. When so required by the Engineer, provide copies of the subcontracts or other data acceptable to the Engineer substantiating the sums described.

1.4 SUBMITTALS

- A. The proposed schedule of values (hereinafter referred to as "SOV"), meeting the requirements outlined below, shall be submitted to the Engineer for review. The SOV shall be used as the basis for reviewing and approving payment requisitions along with determining percentages of work completed. No payment requisitions will be processed until the Engineer has taken no exceptions to the schedule of values.
- B. The SOV shall consist of a detailed breakdown of all the work within the Contract Documents, as specified herein, and shall include a sufficient number of work items to serve as an accurate basis the General Contractor's Application for Payment. Each work item shall include its prorated share of overhead and profit and subcontractor markup. The breakdown shall provide the level of detail outlined below.
  1. General Conditions:
    - a. Includes all work indicated in all specifications within Division 0 and 1.
  2. Civil and Site Work:
    - a. Includes all work indicated on the Civil (C) Drawings and all specifications within Divisions 2, 3 and 15.
  3. Line items shall be broken down into work performed by the General Contractor or a Subcontractor
  4. Provide an aggregate percentage completed calculation for each major subcontractor (e.g., site).

END OF SECTION

SECTION 01380CONSTRUCTION PHOTOGRAPHSPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Pre-Construction Record: Contractor shall take digital photographs and video to obtain a visual record of the project area prior to beginning any work at the project site.
2. Notify Engineer and Owner's Representative at least three (3) working days prior to photographing or videoing the project area so Engineer and Owner's Representative may, at their option, observe.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY

- A. Pre-Construction Record: Quality shall be such that the condition of existing pavement, curbing, driveway entrances, sidewalks, piping, lawns, landscaping, fences etc. can be readily determined.
- B. Electronic files shall be high resolution digital images in \*.jpeg format unless approved by Engineer and shall not be compressed or downsized. Electronic files shall not be less 2MB in size.

1.4 SUBMITTALS

## A. Pre-Construction Record:

1. Submit pre-construction photographs/videos in accordance with Section 01340 prior to initiating any work on-site.
- B. The quality of the photos and video are subject to approval by the Engineer and shall be no less in quality than 1080p.
  - C. Photographs and videos taken for the project and submitted are released to the Owner and Engineer for reproduction and use for records retention, governmental, commercial, and marketing purposes.

END OF SECTION

SECTION 01400  
QUALITY CONTROL

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. General Quality Control.
- B. Workmanship.
- C. Manufacturer's Instructions.
- D. Manufacturer's Certificates.
- E. Manufacturer's Field Services.
- F. Testing Laboratory Services.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY CONTROL

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

1.4 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.5 MANUFACTURERS' INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

1.6 MANUFACTURERS' CERTIFICATES

- A. When required by individual Specifications Section, submit manufacturer's certificate that products meet or exceed specified requirements.

1.7 MANUFACTURERS' FIELD SERVICES

- A. When specified in respective Specification Sections, require supplier and/or manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to make appropriate recommendations.
- B. Representative shall submit written report to Engineer listing observations and recommendations.

1.8 TESTING LABORATORY SERVICES

- A. Contractor will employ and pay for services of an Independent Testing Laboratory to perform inspections, tests, and other services wherever an Independent Testing Laboratory is required by individual specification sections.
- B. Services will be performed in accordance with requirements of governing authorities and with specified standards.
- C. Reports will present observations and test results and indicate compliance or non-compliance with specified standards and with Contract Documents. Independent Testing Laboratory will submit one copy of each report directly to each of the following: Engineer, Owner's Resident Project Representative, Contractor. Reports will be submitted within 5 days of obtaining test results. If test results indicate deficiencies, Independent Testing Laboratory shall telephone or email results to Engineer, Owner's Resident Project Representative and Contractor within 24 hours.
- D. Contractor shall cooperate with Independent Testing Laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.
- E. Contractor shall coordinate all testing work and shall notify Engineer and Independent Testing Laboratory at least 24 hours prior to performing work requiring testing services. If adequate notice is not provided, Contractor shall suspend work on that portion of the Project until testing can be performed. Such suspension will not be grounds for a claim against the Owner for delay, nor will it be an acceptable basis for an extension of time.
- F. Payment for Independent Testing Laboratory services shall be as follows:
  - 1. General: Contractor shall be responsible for scheduling and payment for all testing. Testing which is the responsibility of the Contractor will be considered an incidental item unless otherwise indicated in Section 01150, Measurement and Payment.
  - 2. Initial Testing: Contractor will pay for initial tests.
  - 3. Retesting: Costs of retesting due to non-compliance will be paid by Contractor. The cost of retesting will be determined by the Engineer and Owner will invoice Contractor for this cost. If unpaid after 60 days, the invoice amount will be deducted from the Contract Price via Change Order.
  - 4. Contractor's Convenience Testing: Inspections and tests performed for Contractor's convenience will be paid for by Contractor.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01562DUST CONTROLPART 1 - GENERAL1.1 DESCRIPTIONS

## A. Work Included:

1. Furnish and apply water or calcium chloride on the road surfaces within the construction site, when required to control dust and when directed by the Engineer.
2. When dust control is not included as a separate item in the Contract, the work shall be considered incidental to the appropriate items of the Contract.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

PART 2 - PRODUCTS2.1 MATERIALS

## A. Water for Sprinkling:

## B. Clean, free of salt, oil, and other injurious matter.

## C. Calcium Chloride:

1. Meet the requirements of AASHTO M144.

PART 3 - EXECUTION3.1 APPLICATION

## A. Water:

1. Apply water by methods approved by the Engineer.
2. Use approved equipment including a tank with gauge equipped pump and spray bar.

## B. Calcium Chloride:

1. Apply at a rate sufficient to maintain a damp surface but low enough to assure non-contamination of water courses.
2. Apply water prior to calcium chloride addition.

END OF SECTION

SECTION 01570TRAFFIC REGULATIONPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Provide all materials and perform all work necessary to completely regulate traffic in the area of Work.
2. Perform all work in such a manner as to provide safe passage at all times for the public and with a minimum of obstruction to traffic.
3. Do not close roads or streets to passage of the public without the permission of the proper authorities.
4. Uniformed officers with vehicles and flaggers (including police officers when required by law, regulations, ordinances, or as a result of poor traffic control) shall be obtained and paid for by the Contractor.

B. The local police department, state police department, and/or the or appropriate authority having jurisdiction (AHJ) will decide if safe passage is being maintained and shall have the authority to require the Contractor to take any additional steps necessary to maintain safe passage. If the Authority furnishes an inspector on the job, requires additional traffic control, or requires uniformed traffic control as a result of poor traffic control by the Contractor, the Contractor shall be responsible for all costs assessed by the AHJ. and for additional traffic control at their own expense.

C. Minimize the length of delays or traffic stoppage to the extent practicable. Maximum traffic stoppage time shall be 10 minutes.

D. Develop a project specific traffic control plan that meets the requirements of Manual of Uniform Traffic Control Devices (MUTCD) and any local and state requirements. Proposed Traffic Control Plan shall indicate signs/locations to be used. Traffic Control Plan submittal to the Engineer will be for general information only.

E. The Contractor's designated traffic control representative shall respond to all traffic safety complaints and be available to direct traffic control subcontractors the entire time work is occurring on site. If the designated representative is not on site for a period of time, another on site representative shall be designated by the Contractor for that period.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SCHEDULING WORK

A. During the Project Pre-Construction Meeting one Contractor representative will be designated as the coordinator between the Police Department and subcontracted traffic control.

- B. Variable Message Signs notifying the public of pending road closure and/or construction must be in place seven days prior to road closure or as required by the Owner.
- C. Schedule all work so that two adjacent parallel streets are not closed to passage by the public at any one time, if at all possible.
- D. Revise the plan of work if it will create a traffic hazard or an unreasonably long detour.
- E. Do not start work in any new location without the permission of the Engineer.
- F. Notify all police and fire departments of all scheduled detours and when streets are reopened.

#### 1.4 SUBMITTALS

- A. Submit a project specific traffic control plan that meets the requirements of the Manual of Uniform Traffic Control Devices (MUTCD) and any local and state requirements. The proposed Traffic Control Plan shall indicate signs/locations to be used.
- B. The proposed Traffic Control Plan is provided "for information only" to inform the Owner, Engineer and Resident Project Representative of the project specific traffic control; however, if the Traffic Control Plan is incomplete (e.g., missing elements relevant to the project work), inadequate (e.g., outdated qualifications) or not project specific, it will be returned "revise and resubmit". Delays related to an incomplete Traffic Control Plan are the responsibility of the Contractor.

### PART 2 - PRODUCTS

#### 2.1 WARNING SIGNS AND BARRICADES

- A. Traffic control (plans, methods and devices) shall be as outlined in the MUTCD as published by U. S. Department of Transportation, and any local and state requirements.
- B. Provide adequate warning signs, barricades, signal lights, flaggers/uniformed police officers, and take other necessary precautions for the safety of the public.
- C. Provide and illuminate suitable warning signs to show where construction, barricades or detours exist.
- D. Provide digital message boards at appropriate locations as determined by the local police department to maintain safe passage of traffic and work zone.
- E. Provide barricades of substantial construction and painted with a finish that increases visibility at night, as outlined in the MUTCD.
- F. Keep signal lights illuminated at all barricades and obstructions from sunset to sunrise.
- G. Maintain all necessary signs, barricades, lights, flaggers, crew and other safety precautions during authorized suspension of the Work, weekends, holidays or other times when the Work is not in progress.
- H. Contractor shall make periodic inspection throughout the day of the traffic control patterns, methods, signs and other devices to ensure that they are properly placed.

2.2 UNIFORMED POLICE OFFICER

- A. A uniformed police officer is a police officer (local, county or state) on regular or special duty dressed in uniform with the necessary high visibility vest and apparel needed for traffic control.
- B. Arrange the police detail with the local Chief of Police, County Sheriff, or State Police Captain depending on jurisdiction.

2.3 FLAG PERSON

- A. A flag person is a trained and certified individual assigned specifically to the task of directing traffic and is outfitted in the necessary high visibility vest and apparel needed for traffic control.
- B. Flag persons shall be provided by the Contractor.

PART 3 - EXECUTION

3.1 DETOURS

- A. Provide, identify and maintain suitable detours when the project, or any part thereof, is closed to public travel.
- B. When the closed part of the project is reopened, restore the detour area and any other disturbed areas to the original condition.

3.2 INCONVENIENCE TO RESIDENTS OF VICINITY

- A. Whenever a traveled way is closed, perform the Work in such a manner that local travel, residents and businesses in the vicinity of the Work will be inconvenienced as little as possible.
- B. Allow access to residents and abutting land owners along the project to driveways and other normal outlets from their property.

3.3 TRAFFIC CONTROL OFFICERS

- A. Where required by the local, county or state police departments and/or when specified, traffic control officer shall be Uniformed Police Officers.
- B. Where the local, county or state police departments do not wish to or are unable to furnish traffic control officers and/or when specified, the traffic control officers shall be flag person.

END OF SECTION

SECTION 01710  
PROJECT CLEANING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included:

1. Maintain premises and public properties free from accumulations of waste, debris, and rubbish, caused by operations.
2. At completion of work, remove waste materials, tools, equipment, machinery, and surplus materials, and clean all sight-exposed surfaces. Leave project clean and ready for use.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies: Conduct cleaning and disposal operations in accordance with all applicable local and state laws, ordinances, and code requirements.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturers.

PART 3 - EXECUTION

3.1 PERFORMANCE

A. Cleaning During Construction:

1. Execute cleaning operations to ensure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
2. Entirely remove and dispose of material or debris during the progress of the work that has washed into or has been placed in watercourses, ditches, gutters, drains, catch basins, or elsewhere as a result of the Contractor's operations.
3. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
4. At reasonable intervals during the progress of work, clean the site and dispose of waste materials, debris, and rubbish.
5. Clean interiors of buildings, when applicable, prior to finish painting, and continue to clean on an as-needed basis until buildings are ready for occupancy.
6. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw material from heights.

7. When applicable, schedule cleaning operations so that dust and other contaminants resulting from the cleaning process will not fall on wet, newly painted surfaces.
- B. Control of Hazards:
1. Store volatile wastes in covered metal containers, and remove from premises daily.
  2. Prevent accumulation of wastes which may create hazardous conditions.
  3. Provide adequate ventilation during use of volatile or noxious substances.
- C. Disposal:
1. Do not burn or bury rubbish and waste materials on project site.
  2. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
  3. Do not dispose of wastes into streams or waterways.
- D. Final Cleaning:
1. Employ experienced workers, or professional cleaners, for final cleaning.
  2. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials, from all sight-exposed interior and exterior finished surfaces.
  3. Repair, patch and touch up marred surfaces to specified finishes.
  4. Broom clean paved surfaces.
  5. Rake clean non-paved surfaces of the project site.
  6. Restore to their original condition those portions of the site not designated for alterations by the Contract Documents.

END OF SECTION

SECTION 01720PROJECT RECORD DOCUMENTSPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Keep accurate record documents for all additions, demolition, changes of material or equipment (from that shown on the Drawings), variations in work, and any other additions or revisions to the Contract (via Change Order, Work Change Directive, Field Order or Clarification).

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 MAINTENANCE OF DOCUMENTS

## A. Maintain at job site, one copy of:

1. Contract Drawings
2. Specifications
3. Addenda
4. Reviewed Shop Drawings
5. Change Orders
6. Any other modifications to the Contract
7. Field Test Reports

B. Store documents in files and racks specifically identified for Record Drawing use, that are apart from documents used for construction.

C. File documents in a logical manner indexed for easy reference.

D. Maintain documents in clean, dry, legible condition.

E. Do not use record documents for construction purposes.

F. Make documents available at all times for inspection by the Engineer and Owner, and by the end of the project, transmit these documents to the Engineer.

G. Failure to maintain current records, as specified herein, shall be grounds for withholding additional retainage from monthly partial payment requests.

1.4 RECORDING

A. Label each document "PROJECT RECORD" in large high printed letters.

B. Keep record documents current and do not permanently conceal any work until required information has been recorded.

C. General Field Recording Issues:

1. All swing ties shall be taken from existing, permanent features such as utility poles, corners of buildings and hydrants. Porches, sheds or other house additions shall be avoided as they could be torn down. A minimum of two swing ties shall be taken. Survey grade GPS coordinates are also acceptable.
2. Stations shall be recorded to the nearest foot.

3. Inverts shall be recorded to the nearest hundredth of a foot.
4. Elevations shall be recorded to the nearest hundredth of a foot.
- D. Project Record Drawings - Legibly mark Contract Drawings to record existing utilities and actual construction of all work, including but not limited to the following (where applicable):
  1. Existing Utilities
    - a. Water mains and services, water main gate valves, sewer mains and services, storm drains, culverts, steam lines, gas lines, tanks and other existing utilities encountered during construction must be accurately located and shown on the Drawings. In congested areas supplemental drawings or enlargements may be required.
    - b. Show any existing utilities encountered in plan and profile and properly labeled showing size, material and type of utility. Ties shall be shown on plan. Utility shall be drawn to scale in section (horizontally and vertically) and an elevation shall be called out to the nearest hundredth of a foot.
    - c. When existing utility lines are broken and repaired, ties shall be taken to these locations.
    - d. If existing water lines are replaced or relocated, document the area involved and pipe materials, size, etc. in a note, and with ties.
  2. Manholes, Catch Basins, Valve Pits and other structures.
    - a. Renumber structure stationing to reflect changes.
    - b. Show ties to center of structure covers or hatches.
    - c. In general, show inverts at center of structures. However, for manholes with drop structures, or steep channels (greater than 0.2' change on slope), show inverts at face of manhole.
    - d. Show inverts for other structures at the face of the structure.
    - e. Draw any new structures that are added on plan and profile.
    - f. Show any field or office redesigns.
    - g. Redraw plan if the structure's location is moved more than 5 feet in any direction. Note: It is important to show existing utilities, as outlined in Paragraph 1 above, especially if they were one reason for relocating the sewer, manholes and other structures.
    - h. Redraw profile if inverts changed by more than 6 inches.
  3. Gravity Sewer Line
    - a. Change sewer line slopes indicated on Drawings if inverts are changed.
    - b. Draw any new gravity lines that are added on plan and profile.
    - c. Show any field or office redesigns.
    - d. Redraw the sewer line profile if manhole inverts are redrawn.
    - e. Redraw the sewer line on plan corresponding to relocated manholes.
  4. Water Mains and Force Mains
    - a. Show ties to the location of all valves, bends (horizontal and vertical), tees and other fittings. The use of thrust blocks shall be recorded.
    - b. Revise elevations indicated on the Drawings to reflect actual construction.
  5. House Services
    - a. Draw all house services (even to empty lots) on plan, and show ties.
    - b. Show ties to curb stops

- c. Show ties or distances to corporations from curb stops.
    - d. The Wright-Pierce "Water Service Location" forms shall be used to record water service information. A copy of these forms shall be provided to the Owner, along with the Record Drawing Set.
  6. Septic Tanks
    - a. Show ties to center of tank covers.
    - b. Label size of septic tanks that are other than standard 1,000-gallon capacity.
    - c. The Wright-Pierce "Sanitary Sewer Service Location" forms shall be used to record septic tank information. A copy of these forms shall be provided to the Owner, along with the Record Drawing Set.
  7. Roads
    - a. Show any deviations from the design plans.
  8. Utilities
    - a. When encountered, additional utilities (e.g., gas, cable, telephone, fiber optic, etc.) shall be indicated on the Record Drawings.
- E. Specifications and Addenda - Legibly mark up 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 Change Order, Field Order, or other method.

#### 1.5 SUBMITTALS

- A. At the completion of the project, and prior to the release of retainage, deliver record documents to the Engineer.
  1. Record drawings shall be provided as a bound, red-line paper set and an electronic file (pdf format) consisting of a full scan of the bound paper set.
  2. If the Contractor provides alternate or substitute that requires revised arrangements from the Bidding Documents, the Contractor shall provide supplemental record drawings of these items in AutoCAD format.
- B. Accompany submittal with transmittal letter, in duplicate, containing:
  1. Date, project title and number.
  2. Contractor's name and address.
  3. Title and number of each record document with certification that each document is completed and accurate.
  4. Signature of Contractor, or their authorized representative.
- C. Failure to supply all information on the Project Record Drawings as specified in Part 1.3 may result in withholding final completion and in non-approval of final payments of the Contract. If Contract Time has elapsed, this shall be grounds for imposing liquidated damages.

#### 1.6 QUALITY ASSURANCE

- A. All horizontal and vertical dimensions, swing-ties, and elevations shall be accurate to within one-tenth of a foot, unless greater accuracy is specified elsewhere in the Specifications (e.g., concrete elevations, weir elevations, etc.).

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 MAINTAINING AND PROVIDING RECORDS

- A. Records shall be kept current as the work progresses.
- B. Records shall be made available for review by the Owner, Engineer, Resident Project Representative and/or Funding Agency(s) upon request.
- C. Records shall be kept current as the work progresses. Failure to maintain current records, as specified herein, shall be grounds for withholding additional retainage from monthly partial payment requests. Failure to provide records shall also be grounds for withholding of final payment and, if beyond contract time, shall be grounds for imposing liquidated damages.

END OF SECTION

SECTION 02000REFERENCED FDOT SPECIFICATIONSPART 1 - GENERAL1.1 DESCRIPTION

A. This Section covers the Florida Department of Transportation (FDOT) standard specifications and details applicable to this project and are made part of these project documents by reference herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Specification Section shall be the latest revision of any such document in effect at the bid time, unless otherwise noted. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. The 2024 edition of the *FDOT Standard Specifications for Road and Bridge Construction* (Standard Specifications) and the *FY2024-25 Standard Plans Standards* shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:

- 100, Construction Equipment – General Requirements.
- 104, Prevention, Control and Abatement of Erosion and Water Pollution.
- 105, Contractor Quality Control and General Requirements
- 107, Litter Removal and Mowing

B. Where the referenced FDOT Specifications cite "the Department," this shall be modified to "the Owner and/or Engineer" by this contract.

C. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150 Measurement and Payment* and its included Bid Schedule.

D. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

1.4 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01340 Submittals

1.5 WARRANTIES

A. Warranties shall be in accordance with the General Conditions and Supplementary Conditions.

## PART 2 - PRODUCTS

### 2.1 GENERAL

- A. The 2024 edition of the FDOT Standard Specifications for Road and Bridge Construction (Standard Specifications) and the FY 2024-25 Standard Plans shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:
- 230, Limerock Stabilized Base
  - 234, Superpave Asphalt Base
  - 285, Optional Base Course
  - 334, Superpave Asphalt Concrete
- B. Where the referenced FDOT Specifications cite "the Department," this shall be modified to "the Owner and/or Engineer" by this contract.
- C. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150 Measurement and Payment* and its included Bid Schedule.
- D. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. The 2024 edition of the FDOT Standard Specifications for Road and Bridge Construction (Standard Specifications) and Roadway and Traffic Design Standards shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:
- 160, Stabilizing
  - 230, Limerock Stabilized Base
  - 285, Optional Base Course
  - 334, Superpave Asphalt Concrete
- B. Exceptions
1. Where the referenced FDOT Specifications cite "the Department," this shall be modified to "the Owner and/or Engineer" by this Contract.
  2. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150 Measurement and Payment* and its included Bid Schedule.
  3. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

4. Section 160-2.4, Granular Subbase: Contractor may not substitute 6 inches of Granular Subbase for 12 inches of Stabilization unless such substitution is specifically indicated on the Drawings.
5. Section 160-4.2.1.2, Under tolerance in Bearing Value Requirements: no under tolerance will be acceptable.

END OF SECTION

SECTION 02050DEMOLITIONPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. The Contractor shall furnish all labor, materials, tools, equipment, and apparatus necessary and shall do all work required to complete the demolition, removal, and alterations of existing facilities as indicated on the Drawings, as herein specified, and/or as directed by the Engineer.
2. Demolition and alteration work within occupied areas shall be accomplished with minimum interference to the residents or commuters within the project area.
3. All equipment, piping, and other materials that are not to be relocated or to be returned to the Owner shall become the property of the Contractor and shall be disposed of by them, away from the site of the work and at their own expense.
4. All demolition or removal of existing structures, utilities, equipment, and appurtenances shall be accomplished without damaging the integrity of existing structures, equipment, and appurtenances to remain, to be salvaged for relocation or stored for future use.
5. Such items that are damaged shall be either repaired or replaced at the Contractor's expense to a condition at least equal to that which existed prior to the start of their work.
6. Unless otherwise indicated, all items labeled to be "removed", "demolished" or "remove/demolish" shall be removed and disposed of off-site in accordance with all Local, State and Federal Regulations.
7. The Contractor shall not collect any samples of either, Wastes, Soils, or any other site/project related materials, nor have the samples analyzed for any reason without prior written approval from the Owner or Engineer. Furthermore, the Contractor shall not hire or contract with another party or Consultant to conduct sampling of either, Wastes, Soils, or any other site/project related materials or to conduct analytical analysis.
  - a. All sampling requests are to be directed in written format to the Owner and Engineer.
  - b. By collecting unauthorized samples, the Contractor shall assume any and all financial burden of the required corrective action.
  - c. If a sample is collected and analyzed without prior written approval from the Owner or Engineer, the Contractor shall be responsible for any and all remediation required by any applicable regulatory authority arising from or related to the samples collected and analyzed, as the validity of the materials sampled, sample locations and sampling protocols utilized cannot be confirmed by the Owner's or Engineer's independent Consultant.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 UTILITIES

- A. Utility Locations:
1. Utility locations shown on the plans are approximate only, based on information supplied by the Owner.
- B. Coordination with Utilities:
1. The Contractor shall make all necessary arrangements and perform any necessary work to the satisfaction of affected utility companies and governmental divisions involved with the discontinuance or interruption of affected public utilities and services.

1.4 SUBMITTALS

- A. Schedule - Demolition:
1. Submit the proposed methods and operations of demolition to the Engineer for review prior to the start of work. Include in the schedule the coordination for shut-off, capping and continuation of utility services as required.
  2. Provide a detailed sequence of demolition and removal work to ensure the uninterrupted progress of the Owner's operations.

1.5 PROTECTIONS

- A. Ensure the safe passage of persons around the area of demolition. Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons. Erect temporary, covered passageways as required by authorities having jurisdiction.
- B. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement or collapse of structures or utilities to be demolished and adjacent facilities to remain.

1.6 DAMAGES

- A. The Contractor shall promptly repair damages caused by demolition operations to adjacent facilities at no cost to the Owner.

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 PERFORMANCE

- A. Remove and dispose of non-salvageable material in accordance with all applicable local and state laws, ordinances, and code requirements.
- B. Dispose of material daily as it accumulates.
- C. Carefully remove, store, and protect from damage all materials to be salvaged.
- D. Buildings and Adjacent Property:
1. Protect all buildings and property adjacent to equipment and utilities to be removed from damage by erecting suitable barriers or by other suitable means.
  2. Leave such buildings in a permanently safe and satisfactory condition.

- E. Maintaining Traffic:
  - 1. Ensure minimum interference with roads, streets, driveways, sidewalks, and adjacent facilities.
  - 2. Do not close or obstruct streets, sidewalks, alleys, or passageways without permission from authorities having jurisdiction.
- F. Salvage:
  - 1. Salvaged items shall be stored on site for the Owner in an acceptable location and manner.
- G. Demolition Sequence:
  - 1. The demolition sequence is to conform to the reviewed and approved project schedule, and restrictions outlined in Section 01310, Construction Schedules.

END OF SECTION

SECTION 02110CLEARING AND GRUBBINGPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Clearing and grubbing includes, but is not limited to, removal of trees, brush, stumps, wooded growth, grass, shrubs, poles, posts, signs, fences, culverts and other vegetation and minor structures; the protection of designated wooded growth; the storage and protection of minor structures and materials which are to be replaced; and the disposal of non-salvageable structures and materials, and necessary preliminary grading.

## B. Limits of Work:

1. Perform clearing and grubbing work within the areas required for construction, or as shown on the Drawings, to a depth of 12 inches below the existing grade.
2. Perform additional clearing and grubbing work within areas and to depths which, in the opinion of the Engineer, interfere with excavation and/or construction, or are otherwise objectionable.

## C. Work Not Included:

1. Clearing and grubbing work performed for the convenience of the Contractor will not be considered for payment.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

## A. Requirements of Regulatory Agencies:

1. Dispose of combustible material by burning only when permitted by and in accordance with all applicable local and state laws, ordinances and code requirements.

- B. Remove and dispose of non-salvageable structures and material in accordance with all applicable local and state laws, ordinances and code requirements.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Provide all materials required to complete the work.

- B. All timber and wood shall become the property of the Contractor unless other agreements are made between the Owner and the Contractor.

- C. Repair any damage to structures to the complete satisfaction of the Owner and Engineer.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Carefully preserve and protect from injury all trees and/or shrubs not to be removed.
- B. Right-of-way:
  - 1. Where excavation is required on public or private rights-of-way containing trees, shrubs, other growth, or any structure or construction, obtain the Engineer's direction concerning the extent to which such obstacles can be cleared or stripped prior to performing the Work.
  - 2. In all rights-of-way, remove only those particular growths or structures which are, in the opinion of the Engineer, essential for construction operations.
  - 3. All other removals or damage shall be replaced or restored at the Contractor's expense.

### 3.2 PERFORMANCE

- A. Clearing:
  - 1. Remove and dispose of all trees, brush, slash, stubs, bushes, shrubs, plants, debris and obstructions within the area to be cleared, except any areas that may be designated as "Selective Clearing", and except as otherwise shown on the Drawings or as directed by the Engineer.
  - 2. Remove all stumps unless otherwise directed by the Engineer.
  - 3. Dispose of material to be removed daily as it accumulates.
  - 4. Take special care to completely dispose of all elm trees and branches immediately after cutting either by burial in approved locations or, when permitted, by burning in areas well removed from standing elm growth.
- B. Protection of Wooded Growth:
  - 1. Fell trees toward the center of the area being cleared to protect trees and shrubs to be left standing.
  - 2. Cut up, remove and dispose of trees unavoidably falling outside the area to be cleared.
  - 3. Employ skilled workmen or tree surgeons to trim and repair all trees that are damaged but are to be left standing.
- C. Selective Clearing:
  - 1. When shown on the Drawings and when directed by the Engineer, perform selective clearing work to preserve natural tree cover.
  - 2. Perform selective clearing work only under the direction and supervision of the Engineer.
  - 3. Remove all dead and uprooted trees, brush, roots and other material which, in the opinion of the Engineer, are objectionable.
  - 4. Cut flush with the ground and remove only those trees indicated by the Engineer.
  - 5. Employ skilled workmen or tree surgeons to carefully trim all branches requiring cutting on trees to be left standing. Wood exposed as the result of removal of branches is to be left exposed to air and sunlight.
  - 6. Bituminous paint shall not be used on wood exposed as a result of branch removal, excavation around roots, or damage to tree bark.

- D. Grubbing:
  - 1. Perform grubbing work beneath new roads, driveways, walks, seeded areas and other areas and as directed by the Engineer.
  - 2. Grub out all sod, vegetation and other objectionable material to a minimum depth of 12 inches below the existing grade.
  - 3. Completely remove all stumps, including major root systems.
- E. Disposal:
  - 1. Remove from the site and dispose of material not being burned.
  - 2. Provide an approved disposal area unless otherwise specified.
- F. Burning:
  - 1. Dispose of combustible materials by burning, only if approved by local and state officials.
  - 2. Employ competent workmen to perform burning work in such a manner and at such locations that adjacent properties, trees and growth to remain, overhead cables, wires and utilities will not be jeopardized.
  - 3. Do not leave fires unguarded.
  - 4. Do not burn poison oak, poison ivy or other plants of similar nature.
  - 5. Do not use tires or other combustible waste material to augment burning.
  - 6. Burn combustible materials daily as the work progresses.
  - 7. The Contractor shall be responsible for all damage caused by burning and shall be responsible for obtaining all necessary permits for burning.

### 3.3 REPLACEMENT OF MATERIALS

- A. Paving, Curbing and Miscellaneous Material:
  - 1. Remove all paving, subpaving, curbing, gutters, brick, paving block, granite curbing, flagging and minor structures that are over the area to be filled or excavated.
  - 2. Remove and replace bituminous asphaltic and portland cement concrete in accordance with the appropriate sections of these Specifications.
  - 3. Properly store and preserve all material to be replaced in a location approved by the Engineer.
- B. Shrubs and Bushes:
  - 1. Remove, store, and replace ornamental shrubs and bushes to be preserved in accordance with accepted horticultural practices.
- C. Topsoil:
  - 1. When applicable, carefully remove, store, and protect topsoil in accordance with the appropriate section of this division.
- D. Responsibility:
  - 1. Replace, at no additional cost to the Owner, materials lost or damaged because of careless removal or neglectful or wasteful storage, disposal or use of these materials.

END OF SECTION

SECTION 02115STRIPPING AND STOCKPILING TOPSOILPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Segregate topsoil approved by the Engineer prior to excavation, trenching and grading operations and stockpile it for use in the work.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Topsoil shall consist of friable loam of at least two percent decayed organic matter (humus), free of subsoil, and reasonably free of clay lumps, brush, roots, weeds, and other objectionable vegetation, stones and similar objects larger than one (1) inch in any dimension, litter and other materials unsuitable or harmful to plant growth. It shall contain no toxic materials.
- B. The quality of the topsoil material to be used shall be subject to approval by the Engineer.

PART 3 - EXECUTION3.1 PERFORMANCE

- A. Remove topsoil from the areas that are likely to be disturbed as a result of construction operations to a depth based on the soil profile, as approved by the Engineer.
- B. Remove topsoil from all designated areas prior to the performance of normal excavation.

3.2 STORAGE

- A. Transport topsoil and deposit in storage piles convenient to the areas which are subsequently to receive the application of topsoil.
- B. Stockpile topsoil separate from other excavated materials in areas approved by the Engineer.
- C. Take all necessary precautions to prevent other excavated material and objectionable material from becoming intermixed with the topsoil before, during and after stripping and stockpiling operations.
- D. Neatly trim and grade stockpiles to provide drainage from surfaces and to prevent depressions where water may become impounded.

- E. Construct temporary erosion control devices for all stockpiled material, subject to the Engineer's approval.
- F. All loam stripped and stockpiled shall be immediately seeded with 70% Domestic/30% Perennial Rye Grass.

END OF SECTION

SECTION 02140TEMPORARY CONSTRUCTION DEWATERING SYSTEMPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. Design, furnish, operate, maintain, and remove temporary dewatering system to lower and control ground water table levels and hydrostatic pressures to permit excavation, backfill, and construction to be performed in the dry; collect and dispose of ground and surface water where necessary to complete the work.
2. Design, furnish, operate, maintain, and remove temporary treatment system for temporary dewatering system effluent prior to discharge.
3. Conduct structure monitoring, as specified herein.
4. Conduct compliance testing, as specified herein and in accordance with the requirements of the permitting authority.
5. Install and protect observation wells as needed to monitor groundwater levels during excavation and backfill activities.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SYSTEM REQUIREMENTS

- A. The Temporary Construction Dewatering System, and the locations where it is required, shall be sized and selected by the Contractor or a specialty subcontractor specializing in and having experience sizing, selecting, installing and operating dewatering systems in similar subsurface conditions for subsurface construction operations.
- B. The Temporary Construction Dewatering System shall be of sufficient size and capacity necessary to lower and maintain the ground water table to an elevation at least two feet below the lowest foundation subgrade, or bottom of pipe trench, to allow material to be excavated in a dry condition, including depressurizing the soil stratum beneath the excavation subgrade. Materials to be removed shall be sufficiently dry to permit excavation to grades shown on the Contract Drawings and to stabilize the excavation slopes where temporary excavation support systems are not required. Operate the dewatering system continuously until backfill work has been completed.
- C. Control of surface and subsurface water is part of the Temporary Construction Dewatering System requirements. Maintain adequate control so that:
  1. The stability of excavated and constructed slopes are not adversely affected by saturated soil, including water entering the prepared subbase and subgrades where underlying materials are not free draining or are subject to swelling.
  2. Erosion is controlled.
  3. Flooding of excavations or damage to structures does not occur.

## TEMPORARY CONSTRUCTION DEWATERING SYSTEM

4. Surface water drains away from excavations.
  5. Excavations are protected from becoming wet from surface water and ensure excavations are dry before additional work is undertaken.
  6. Prevent loss of fines, seepage, boils, quick conditions or softening of foundation strata.
  7. The stability of the sides and bottom of excavations are sustained during excavations. Construction operations shall be performed to dry and stable soils.
  8. Any existing dewatering wells that can affect dewatering and excavation shall be sealed below the excavation subgrade.
- D. The Contractor shall consider how the dewatering operations will affect the stability of all adjacent structures when selecting system and deployment locations.
- E. Contractor is responsible to perform additional geotechnical investigations perform the work described for the, including permitting, as deemed necessary to facilitate the design of the Temporary Construction Dewatering System and prevent damage to adjacent buildings, roads, structures, utilities and other facilities.

#### 1.4 QUALITY ASSURANCE

- A. The Temporary Construction Dewatering System, and locations where it is required, shall be selected, sized, installed, operated and monitored by the Contractor or a specialty subcontractor specializing in and having experience installing and operating dewatering systems in similar subsurface conditions for at least 5 years.
- B. Well drillers, if required, shall be licensed in the State of Florida.

#### 1.5 SUBMITTALS

- A. Provide submittals in accordance with Specification Section 01340. Engineer or FDOT (as applicable) system selection, general plan for implementation, and supporting description, and complete scaled and dimensioned layout drawings of the proposed dewatering system
- B. Provide a Temporary Construction Dewatering System Plan prepared by a Professional Engineer (as specified above) at least 30 days prior to beginning operations. This submittal shall include:
  1. Qualifications of the Temporary Construction Dewatering System Design Engineer and qualifications of the Contractor or specialty subcontractor installing and operating the system.
  2. Signed and sealed design calculations confirming the adequacy of the proposed system to manage groundwater, to eliminate pumping of fines and to prevent damage to adjacent buildings, roads, structures, utilities and other facilities.
  3. Signed and sealed, dimensioned layout drawings showing the arrangement, location, depth and size of wells, wellpoints, headers, sumps, ditches; size and location of discharge lines; pumps; standby pumps; standby power equipment; effluent treatment components, effluent disposal location, and observation wells/ piezometers.
  4. Detailed written description of dewatering methods to be employed to convey the water from site to adequate disposal, including operations, maintenance and control requirements.
  5. Estimated average, minimum and maximum pumping rates (total).
  6. Capacity and number of standby pumping equipment.

## TEMPORARY CONSTRUCTION DEWATERING SYSTEM

7. Capacity and number of standby power equipment.
  8. Treatment tankage and discharge locations.
  9. Technical data on the well screens, filter materials and gradations to demonstrate adequacy of the proposed systems to prevent migration of fines.
  10. Structure Monitoring Plan, if required.
  11. Pre-Construction and Post-Construction Survey, if required.
  12. Effluent monitoring provisions and laboratory testing methods, including sample monitoring log (flow, TSS, etc.).
  13. System removal requirements.
  14. Written approval from the Southwest Florida Water Management District for disposal of the treated water.
- C. The Temporary Construction Dewatering System submittal shall be provided concurrently with and coordinated with the submittals required by Section 02156 (Temporary Excavation Support Systems).
- D. Submit water monitoring results at the frequency required by the permitting authority. Submit structure monitoring results, if required, at the frequency specified herein. Submittal review with no exceptions taken of the Temporary Construction Dewatering System Plan shall not in any way relieve the Contractor from full responsibility for the complete and adequate design, installation and performance of the dewatering system and shall not relieve the Contractor of sole responsibility for the dewatering system as necessary to prevent damage and settlement to adjacent buildings, roads, structures, utilities and other facilities adjacent to the excavations and for the safety of people working within the excavated areas.

## PART 2 - PRODUCTS

### 2.1 MATERIALS AND EQUIPMENT

- A. Materials and equipment used in the Temporary Construction Dewatering System shall adhere to accepted industry standards.
- B. Backup equipment for the Temporary Construction Dewatering System shall be identical to the primary equipment, shall be immediately available and in operating condition at all times.
- C. Pipes and Well Screens: Schedule 40 PVC or stronger.
- D. Sand: Clean, single-size filter sand having an effective size (D10) of 0.3 to 0.5 mm with a fineness modulus of less than 4 and with no more than 4% passing a 100 sieve.
- E. Grout: Cement-bentonite grout of adequate mix proportion and consistency. Seals shall consist of bentonite pellets.
- F. Pumps, meters, hoses and controls shall be suitable for the intended purpose and application.

## PART 3 - EXECUTION

### 3.1 PERFORMANCE

- A. General:
  1. Prior to any excavation below the ground water table, place the Temporary Construction Dewatering System into continuous operation (24 hours per day, 7 days per week) to lower the water table as required until utilities and structures

## TEMPORARY CONSTRUCTION DEWATERING SYSTEM

have been satisfactorily constructed, which includes the placement of backfill materials and dewatering is no longer required.

2. The Contractor shall coordinate the dewatering system operation with existing and proposed conditions.
  3. The Temporary Construction Dewatering System Design Engineer and the Contractor shall modify the dewatering system and methods as required by actual field conditions encountered during construction, at no additional cost to the Owner. Any component of the dewatering system that malfunctions or is damaged during its operation shall be promptly repaired or replaced by the Contractor at no additional cost to the Owner.
  4. Surface areas adjacent to the excavation shall be graded and/or curbed to prevent flow of surface water into the excavation.
  5. The Contractor shall install observation wells / piezometers prior to beginning excavation work.
  6. The Contractor shall notify the Engineer 7 days prior to the dewatering system start-up.
  7. Keep work areas dewatered until all construction of new structures, pipes, and appurtenances have been substantially completed to the extent that they will not be damaged by water.
  8. Thoroughly brace, or otherwise protect against flotation, all pipelines and structures which are not stable until final grades and ground cover is established.
  9. Maintain standby, or backup, equipment and power supply throughout the duration of the dewatering operations.
  10. Prevent soil particles from entering the discharge points.
- B. Disposal of Water:
1. Dispose of water pumped or drained from the construction site in a suitable manner to avoid siltation of adjacent drainage structures and piping, wetlands or water bodies, injury to public health, damage to public and private property, and damage to the work completed or in progress.
  2. Provide suitable temporary channels for water that may flow along or across the construction site.
  3. Provide treatment as necessary to prevent discharge of contaminated ground water caused by Contractor's operations or any contaminated ground water that may pass through the Temporary Construction Dewatering System.
  4. Contractor must obtain all necessary regulatory approvals for the disposal of dewatering flows. These may include, among others, approval by the USEPA under the National Pollutant Discharge Elimination System (NPDES) program for construction activities.
- C. Temporary Underdrains:
1. When necessary, temporary underdrains may be placed in excavations.
  2. Underdrain pipe shall be perforated corrugated metal, polyethylene or P.V.C. pipe.
  3. Surround the underdrain completely and fill the space between the underdrain and the pipe or structure with free draining material.

- D. Excavation Sump Pumping:
  - 1. When necessary, and where appropriate to the geotechnical conditions encountered, excavations may be over excavated 12 to 24-inches and filled with screened stone to allow sump pumping of groundwater. Immediately cease operations if boils, loss of fines, quick conditions, softening of the ground or instability of slopes occur.
  - 2. The system shall be installed with suitable screens and filters so that pumping of fines does not occur.
- E. Well and Wellpoint System:
  - 1. If necessary, dewater the excavations and trenches with an efficient well or wellpoint system to drain the soil and prevent saturated soil from flowing into the excavated wells and area.
  - 2. Wellpoint and well systems shall be of the type designed for dewatering work and shall be installed with suitable screens and filters so that pumping of fines does not occur.
  - 3. Pumping units shall be capable of maintaining sufficient suction to handle large volumes of air and water at the same time.
- F. Removal
  - 1. Remove all equipment after the permanent installations are complete.
  - 2. All wells and piezometers shall be properly abandoned at the completion of the work, unless otherwise directed by the Temporary Construction Dewatering System Design Engineer, in accordance with requirements or guidelines in project location.

### 3.2 PRE-TREATMENT

- A. The Contractor shall provide a settling tank (or tanks) to provide pre-treatment of groundwater prior to discharge. Tanks shall be sized to provide 60-minute hydraulic retention time at the anticipated maximum sustained pumping rate. Tanks shall have an underflow baffle to collect any floatables and shall have a final overflow weir to allow for flow measurement and sample collection. The effluent weir shall be sized to allow for accurate flow measurement based on the anticipated pumping rates.
- B. Routine inspection of the settling tanks shall be carried out daily, with records maintained.
- C. Settling tanks shall be cleaned frequently to prevent excess deposition of solids which could overflow from the tank.
- D. Conduct effluent sampling requirements per the requirements of the permitting authority which is receiving the pre-treated dewatering system effluent.

### 3.3 MONITORING

- A. General:
  - 1. Contractor shall monitor the performance of the dewatering system and the groundwater level achieved throughout construction.
  - 2. Contractor shall monitor the effluent quality from the treatment system as required by the permitting authority.
  - 3. The Temporary Construction Dewatering System Design Engineer shall visit the site during the monitoring program at periodic intervals.

4. General Contractor shall maintain dewatering activities to avoid damage to and settlement of adjacent buildings, roads, structures, utilities and other facilities.
5. Contractor shall monitor the adjacent grade, buildings, roads, structures, utilities and other facilities throughout construction. Monitoring shall include the following at a minimum:
  - a. Pre-Installation Structure Elevation Survey. Survey of each structure prior to installation of dewatering system. Survey shall include digital photos of each structure and written description of existing deficiencies:
    - i. Structure Monitoring. Conduct structure monitoring as outlined below for the duration of the Temporary Construction Dewatering System operations, as outlined below:
    - iii. All monitoring points will be set at the tops of concrete (or structural steel) and will be selected by the Engineer during construction.
    - iv. A minimum of 3 monitoring points for each structure will be established. All elevations shall be to the nearest 0.001 foot.
    - v. Baseline elevations shall be established for each structure before dewatering activities commence. These elevations will be used for comparison to future elevations to determine if and what magnitude of movement has occurred.
    - vi. Elevations shall be taken at the same monitoring points for each structure at the same time on a weekly basis.
    - vii. Upon either detecting an incremental settlement of 0.005 feet, a total cumulative settlement of 0.01 feet or visible damage to any of the structures, Contractor shall proceed to the Corrective Actions specified below.
  - b. Post-Installation Structure Survey. Survey after operation of dewatering system is discontinued.

### 3.4 CORRECTIVE ACTION

- A. No movement of or damage to adjacent buildings, roads, structures, utilities and other facilities shall be allowed.
- B. If dewatering requirements are not satisfied due to inadequacy or failure of the dewatering system (loosening of the foundation strata, or instability of slopes, or damage to foundations or structures), the Contractor shall stop work and consult with the party responsible for selection of the dewatering system and resubmit a revised Temporary Construction Dewatering System submittal. The revised plan shall indicate why the system revisions are needed and indicated what change will be made to address the issues. Contractor shall perform work necessary for reinstatement of foundation soil and damaged structure resulting from such inadequacy or failure by Contractor, at no additional cost to the Owner.
- C. Damage to existing structures shall be repaired at no additional cost to the Owner.

CERTIFICATE OF COMPLIANCE

RE: Contract between  
 OWNER: \_\_\_\_\_  
 (Name)  
 and  
 CONTRACTOR: \_\_\_\_\_  
 (Name)  
 on  
 CONTRACT: \_\_\_\_\_  
 (Title)  
 \_\_\_\_\_  
 (Number) (Date)

The undersigned hereby certify that the Contractor or specialty subcontractor listed below (the "Design Engineer"):

1. Is licensed or registered to perform professional engineering work in the State of Florida (location of Project);
2. Is qualified by education and training to design the Temporary Construction Dewatering System specified in Section 02140 of the subject Contract;
3. Has previously successfully designed comparable groundwater dewatering systems;
4. Has prepared the design in full compliance with the requirements of subject contract, including all applicable laws, regulations, rules, and codes.
5. Has reviewed and coordinated the design of the Temporary Construction Dewatering System with the Temporary Excavation Support System design (specified in Section 02156); and
6. Will inspect and supervise installation of the Temporary Construction Dewatering System and will monitor the in-place system to confirm that the system is installed and functions in accordance with the design.

CONTRACTOR

SPECIALTY SUBCONTRACTOR

By: \_\_\_\_\_  
 (Signature)  
 \_\_\_\_\_  
 (Name)  
 \_\_\_\_\_  
 (Title)  
 \_\_\_\_\_  
 (Date)

By: \_\_\_\_\_  
 (Signature)  
 \_\_\_\_\_  
 (Name)  
 \_\_\_\_\_  
 (Title)  
 \_\_\_\_\_  
 (Date)

END OF SECTION

SECTION 02200EARTHWORKPART 1 - GENERAL1.1 DESCRIPTION

- A. The Work described by this Section consists of all earthwork encountered and necessary for construction of the project as indicated in the Contract Documents, and includes but is not limited to the following:
1. Excavation
  2. Backfilling and Filling
  3. Compaction
  4. Embankment Construction
  5. Grading
  6. Providing soil material as necessary
  7. Disposal of unsuitable materials
  8. Disposal of excess suitable material

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1 and 2.

1.3 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies:
1. All work shall be performed and completed in accordance with all local, state and federal regulations.
  2. The General Contractor shall secure all other necessary permits unless otherwise indicated from, and furnish proof of acceptance by, the municipal and state departments having jurisdiction and shall pay for all such permits, except as specifically stated elsewhere in the Contract Documents.
- B. Line and Grade:
1. The Contractor shall establish the lines and grades in conformity with the Drawings and maintain same to properly perform the work.
- C. Testing Methods:
1. Gradation Analysis: Where a gradation is specified the testing shall be in accordance with ASTM C117 and ASTM C136.
  2. Compaction Control:
    - a. Unless otherwise indicated, wherever a percentage of compaction for backfill is indicated or specified, it shall be the in-place density divided by the maximum density and multiplied by 100. The maximum density shall be the density at optimum moisture as determined by ASTM Standard Methods of Test for Moisture-Density Relations of Soil Using 10-lb. Hammer and 18-in. Drop, Designation D1557 (Modified Proctor), unless otherwise indicated.

- b. The in-place density shall be determined in accordance with ASTM Standard Method of Test for Density of Soil in Place by the Sand Cone method, Designation D1556, or Nuclear method Designation D6938.
- c. Wherever specifically indicated, maximum density at optimum moisture may be determined by ASTM Standard Methods of Test for Moisture Density Relations of Soils, ASTM D6938 (Standard Proctor).
- d. An Independent Testing Laboratory will be retained by the Owner to conduct all laboratory and field soil sampling and testing, and to observe earth work and foundation construction activities. Laboratory testing will consist of sieve analyses, natural water content determinations, and compaction tests. Field testing will consist of in-place field density tests and determination of water contents.

#### 1.4 SUBMITTALS

- A. Collection of samples and testing of all materials for submittals shall be performed by the Independent Testing Laboratory and paid for by the Contractor until the materials are approved by the Owner or Engineer.
- B. Submit test results in accordance with the procedure specified in the General and Supplementary Conditions.
- C. Submit test results (including gradation analysis) and source location for all borrow material to be used at least 10 working days prior to its use on the site. Contractor shall identify and provide access to borrow sites.
- D. Submit moisture density curve for each type of soil (on site or borrow material) to be used for embankment construction or fill beneath structures or pavement.

#### 1.5 TESTS

- A. The Independent Testing Laboratory shall conform to the procedures and standards listed below. Submit test results in accordance with the procedure specified in the General and Supplementary Conditions.
- B. All testing shall be performed by a qualified Independent Testing Laboratory acceptable to the Engineer and Contractor at the Contractor's expense unless otherwise indicated (see Section 01400 - Quality Control).
- C. Field density tests on embankment materials shall be as follows:
- D. Tests shall be taken on every 200 cubic yards of embankment material.
- E. Paved Areas and Building Slab Subgrade: Make at least one field density test of subgrade for every 2,000 sq. ft. of paved area or building slab, but in no case less than 3 tests. In each compacted fill layer, make one field density test for every 2,000 sq. ft. of overlaying building slab or paved area, but in no case less than 3 tests.
- F. Trenches: Field density test in trenches shall be taken at 75 linear foot intervals on every third lift.
- G. Foundation Wall Backfill: Take at least one (1) field density tests per lift per wall at locations and elevations as designated by the Engineer.
- H. In addition to the above tests the Independent Testing Laboratory will perform additional density tests at locations and times requested by the Engineer.
- I. Additional density testing will be required by the Engineer if the Engineer is not satisfied with the apparent results of the Contractor's compaction operation.

1. If the test results fail to meet the requirements of these specifications, the Contractor shall undertake whatever action is necessary, at no additional cost to the Owner, to obtain the required compaction. No allowance will be considered for delays in the performance of the work.
2. Reconciliation of re-testing costs are specified in Section 01400.

1.6 JOB CONDITIONS

A. Site Information:

1. Data on indicated subsurface conditions are not intended as representations or warranties of accuracy or continuity between soil borings. It is expressly understood that Owner and Engineer will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data are made available for the convenience of Contractor.
2. Additional test borings and other exploratory operations may be made by Contractor at no additional cost to Owner.

B. Existing Utilities and Structures:

1. The locations of utilities and structures shown on the Drawings are approximate as determined from physical evidence on or above the surface of the ground and from information supplied by the utilities. The Engineer in no way warranties that these locations are correct. It shall be the responsibility of the Contractor to determine the actual locations of any utilities or structures within the project area.

PART 2 - PRODUCTS

2.1 EARTHWORK MATERIALS

- A. suitable meeting the requirements of these specifications common borrow soil  
Aggregate Base: Shall be screened or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. Type B Aggregate for base shall not contain particles of rock that will not pass the 4 inch square mesh sieve. The gradation of the part that passes a 3-inch sieve shall meet the following grading requirements:

<u>Sieve</u> <u>Designation</u>	<u>Percent by Weight</u> <u>Passing Square Mesh Sieves</u>
	<u>Type B</u> <u>Aggregate</u>
1/2 inch	35-75
1/4 inch	25-60
No. 40	0-25
No. 200	0-5

- B. Aggregate Leveling Course and Untreated Surface Course: Shall be screened or crushed gravel consisting of hard durable particles which are free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the material shall meet the grading requirements of the following table:

<u>Sieve Designation</u>	<u>Percentage by Weight Passing Square Mesh Sieves</u>
1 inch	95-100
3/4 inch	90-100
No. 4	40-65
No. 10	10-45
No. 200	0-7

- C. Blanket Drain Material: Shall be gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. Blanket drain material shall not contain particles of rock which will not pass the 2-inch square mesh. The gradation of the part that passes a 2-inch sieve shall meet the following grading requirements:

<u>Sieve Designation</u>	<u>Percentage by Weight Passing Square Mesh Sieves</u>
2 inch	100
1/4 inch	25-70
No. 40	0-30
No. 200	0-5

The blanket drain material shall have a permeability of  $5 \times 10^{-3}$  cm/sec. or faster. Permeability supersedes gradation requirements.

- D. Common Borrow: Shall consist of approved material required for the construction of the work where designated. Common borrow shall be free from frozen material, perishable rubbish, peat, organic, and other unsuitable material.

<u>Sieve Designation</u>	<u>Percentage by Weight Passing Square Mesh Sieves</u>
6-inch	100
No. 200	0-5

Common borrow may be used for embankments unless otherwise indicated and provided that the material is at a moisture content suitable for compaction to the specified density. No rocks shall exceed 3/4 of the depth of the specified lift thickness.

- E. Crushed Stone: Shall be a uniform material consisting of clean, hard, and durable particles or fragments, free from vegetable or other objectionable matter, containing angular pieces, as are those which come from a mechanical crusher. Gradation requirements shall be as follows:

<u>Sieve Designation</u>	<u>Percent by Weight Passing Square Mesh Sieve</u>
1-1/2 inch	100
1 inch	95-100
1/2 inch	25-60
No. 4	0-10

- F. Screened Stone: Shall be a well graded stone consisting of clean, hard, and durable particles or fragments, free from vegetable or other objectionable matter, meeting the following gradation requirements:

<u>Sieve Designation</u>	<u>Percent by Weight Passing Square Mesh Sieve</u>
1 inch	100
3/4 inch	90-100
3/8 inch	20-55
No. 4	0-10
No. 8	0-5

- G. Select Fill (Structural Fill): Shall consist of well graded granular material free of organic material, loam, wood, trash, snow, ice, frozen soil and other objectionable material and having no rocks with a maximum dimension of over 4 inches and meeting the following gradation requirements, except where it is used for pipe bedding in which case the maximum size shall be 2 inches.

<u>Sieve Designation</u>	<u>Percent by Weight Passing Square Mesh Sieve</u>
4 inch	100
3 inch	90-100
1/4 inch	25-90
No. 40	0-30
No. 200	0-5

- H. Sand: Shall be well graded durable material free of organic matter and conform to the following gradation requirements:

<u>Sieve Designation</u>	<u>Percent by Weight Passing Square Mesh Sieve</u>
3/8 inch	100
No. 4	95-100
No. 16	50-85
No. 50	10-30

<u>Sieve Designation</u>	<u>Percent by Weight Passing Square Mesh Sieve</u>
No.100	2-10
No.200	0-5

Sand conforming to the requirement for fine aggregate in ASTM Standard Specifications for Concrete Aggregate, Designation C-33, will meet the above requirement.

## 2.2 CONCRETE

- A. If concrete is required for excess excavation, provide 3,000 psi concrete complying with requirements of Division 3.

## 2.3 FILTER FABRIC

- A. If filter fabric is required, refer to Section 02260.

## PART 3 - EXECUTION

### 3.1 INSPECTION

- A. Examine the areas and conditions under which excavating, backfilling, filling, compaction and grading are to be performed and notify the Engineer in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

### 3.2 EXCAVATION

#### A. General:

1. Excavation consists of removal and disposal of all material encountered when establishing line and grade elevations required for execution of the work.
2. The Contractor shall make excavations in such manner and to such widths as will give suitable room for building the structures or laying and jointing the piping; shall furnish and place all sheeting, bracing, and supports; shall do all cofferdamming, pumping, and draining; and shall render the bottom of the excavations firm, dry and acceptable in all respects.
3. All excavation shall be classified as either earth or rock.
  - a. Earth Excavation shall consist of the removal, hauling and disposal of all earth materials encountered during excavation including but not limited to native soil or fill, pavement (bituminous or concrete), existing sewers and manholes, ashes, loam, clay, swamp muck, debris, soft or disintegrated rock or hard pan which can be removed with a backhoe, or a combination of such materials, and boulders that do not meet the definition of "Rock" below.
  - b. Rock Excavation: Shall consist of the removal, hauling, and disposal of all rock encountered during excavation. "Rock" shall be defined as any natural compound, natural mixture that in the opinion of the Engineer can be removed from its existing position and state only by drilling and blasting, wedging, sledging, boring or breaking up with power operated

tools. No boulder, slab, or other single piece of excavated material less than two cubic yards in total volume shall be considered to be rock unless, in the opinion of the Engineer it must be removed from its existing position by one of the methods mentioned above.

4. The Contractor shall not have any right of property in any materials taken from any excavation. Do not remove any such materials from the construction site without the approval of the Engineer. This provision shall in no way relieve the Contractor of his obligations to remove and dispose of any material determined by the Engineer to be unsuitable for backfilling. The Contractor shall dispose of unsuitable and excess material in accordance with the applicable sections of the Contract Documents.
- B. Additional Excavation: When excavation has reached required subgrade elevations, notify the Engineer and Resident Project Representative who will observe the conditions.
1. If material unsuitable for the structure or paved area or pipeline (in the opinion of the Engineer) is found at or below the grade to which excavation would normally be carried in accordance with the Drawings and/or Specifications, the Contractor shall remove such material to the required width and depth and replace it with thoroughly compacted select fill, screened stone, crushed stone, or concrete as directed by the Engineer.
  2. All excavated materials designated by the Engineer as unsuitable shall become the property of the Contractor and disposed of at locations in accordance with all State and local laws and the provisions of the Contract Documents.
- C. Unauthorized Excavation: Shall consist of removal of materials beyond indicated subgrade elevations or dimensions without specific authorization of Engineer. Unauthorized excavation, as well as remedial work required by the Engineer shall be at the Contractor's expense. Remedial work required is as follows:
1. Under footings, foundation bases, or retaining walls, fill unauthorized excavation with select fill or screened stone compacted to 95%. Provide 12" minimum select fill or screened stone directly under footings. Concrete fill may be used to bring elevations to proper position, when acceptable to Engineer.
  2. If the bottom of a trench is excavated beyond the limits indicated, backfill the resulting void with thoroughly compacted screened stone, unless otherwise indicated.
  3. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Engineer.
- D. Structural Excavation:
1. Shall consist of the removal, hauling, disposal, of all material encountered in the excavation to permit proper installation of structures.
  2. Excavations for structures shall be carried to the lines and subgrades shown on the Drawings.
  3. Excavate areas large enough to provide suitable room for building the structures.
  4. The extent of open excavation shall be controlled by prevailing conditions subject to any limits designated by the Engineer.

5. Provide, install, and maintain sheeting and bracing as necessary to support the sides of the excavation and to prevent any movement of earth which could diminish the width of the excavation or otherwise injure the work, adjacent structures, or persons and property in accordance with all state and OSHA safety standards.
  6. Erect suitable fences around structure excavation and other dangerous locations created by the work, at no additional cost to the Owner.
  7. Exposed subgrade surfaces shall remain undisturbed, protected, and maintained as uniform, plane areas and shape to receive the foundation components of the structure.
    - a. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10', and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of services, other construction, and for inspection.
    - b. In excavating for footings and foundations, take care not to disturb bottom of excavation. Excavate by hand to final grade and trim bottoms to required lines and grades to leave solid base to receive the structure.
    - c. If a structure is to be constructed within the embankment, the fill shall first be brought to a minimum of 3 feet above the base of the footing. A suitable excavation shall then be made as though the fill were undisturbed earth.
- E. Trench Excavation: Shall consist of removal, hauling and disposal of all material encountered in the excavation to the widths and depths shown on the Drawings to permit proper installation of underground utilities.
1. Excavate trenches to the uniform width shown on the Drawings sufficiently wide to provide sufficient space for installation, backfilling, and compaction. Every effort should be made to keep the sides of the trenches firm and undisturbed until backfilling has been completed and consolidated.
  2. Trenches shall be excavated with approximately vertical sides between the elevation of the center of the pipe and an elevation one foot above the top of the pipe.
  3. Grade bottoms of trenches as indicated for pipe and bedding to establish the indicated slopes and invert elevations, notching under pipe joints to provide solid bearing for the entire body of the pipe, where applicable.
  4. If pipe is to be laid in embankments or other recently filled material, the material shall first be placed to the top of the fill or to a height of at least two feet above the top of the pipe, whichever is the lesser. Particular care shall be taken to ensure maximum consolidation of material under the pipe location. The pipe trench shall be excavated as though in undisturbed material.
  5. Unless otherwise specifically directed or permitted by the Engineer, begin excavation at the low end of sewer and storm lines and proceed upgrade.
  6. Perform excavation for force mains and water mains in a logical sequence.
  7. The extent of open excavation shall be controlled by prevailing conditions subject to any limits prescribed by the Engineer.

8. As the excavation progresses, install such shoring and bracing necessary to prevent caving and sliding and to meet the requirements of the state and OSHA safety standards, as outlined in the appropriate section of this Specification.
- F. Protection of Persons, Property and Utilities:
1. Barricade open excavations occurring as part of this work and post with warning lights in compliance with local and State regulations.
  2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations. Exercise extreme caution and utilize sheeting, bracing, and whatever other precautionary measures that may be required.
  3. Rules and regulations governing the respective utilities shall be observed in execution of all work. Active utilities and structures shall be adequately protected from damage, and removed or relocated only as indicated or specified. Inactive and abandoned utilities encountered in excavation and grading operations shall be removed, plugged or capped only with written authorization of the utility owner. Report in writing to the Engineer, the locations of such abandoned utilities. Extreme care shall be taken when performing work in the vicinity of existing utility lines, utilizing hand excavation in such areas, as far as practicable.
  4. Repair, or have repaired, all damage to existing utilities, structures, lawns, other public and private property which results from construction operations, at no additional expense to the Owner, to the complete satisfaction of the Engineer, the utility, the property owner, and the Owner.
- G. Use of Explosives:
1. Do not bring explosives onto site or use in work without prior written permission from authorities having jurisdiction. Contractor is solely responsible for handling, storage, and use of explosive materials when their use is permitted.
  2. All blasting shall be performed in accordance with all pertinent provisions of the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America, Inc.
- H. Stability of Excavations:
1. Slope sides of excavations to comply with all codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
  2. Maintain sides and slopes of excavations in a safe condition until completion of backfilling.
- I. Shoring and Bracing:
1. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross-braces, in good serviceable condition.
  2. Provide trench shoring and bracing to comply with local codes and authorities having jurisdiction. Refer to Specification Section 02156.
  3. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Install shoring and bracing as excavation progresses.

- J. Material Storage:
  - 1. Stockpile excavated materials which are satisfactory for use on the work until required for backfill or fill. Place, grade and shape stockpiles for proper drainage and protect with temporary seeding or other acceptable methods to control erosion.
  - 2. Locate and retain soil materials away from edge of excavations.
  - 3. Dispose of excess soil material and waste materials as herein specified.
- K. Dewatering:
  - 1. To ensure proper conditions at all times during construction, the Contractor shall provide and maintain ample means and devices (including spare units kept ready for immediate use in case of breakdowns) with which to intercept and/or remove promptly and dispose properly of all water entering trenches and other excavations (including surface and subsurface waters).
  - 2. Excavations shall be kept dry until the structures, pipes, and appurtenances to be built therein have been completed to such extent that they will not be floated or otherwise damaged. Refer to Specification Section 02140.
- L. Separation of Surface Material:
  - 1. The Contractor shall remove only as much of any existing pavement as is necessary for the prosecution of the work.
  - 2. Prior to excavation, existing pavement shall be cut where in the opinion of the Engineer it is necessary to prevent damage to the remaining road surface.
  - 3. Where pavement is removed in large pieces, it shall be disposed of before proceeding with the excavation.
  - 4. From areas within which excavations are to be made, loam and topsoil shall be carefully removed and separately stored to be used again as directed; or, if the Contractor prefers not to separate surface materials, he shall furnish, as directed, loam and topsoil at least equal in quantity and quality to that excavated.
- M. Dust Control:
  - 1. During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of streets as necessary, so as to minimize the creation and dispersion of dust. Refer to Specification Section 01562.
  - 2. If the Engineer decides that it is necessary to use calcium chloride for more effective dust control, the contractor shall furnish and spread the material, as directed.

### 3.3 BACKFILL AND FILL

- A. General:
  - 1. Backfilling shall consist of replacing material removed to permit installation of structures or utilities, as indicated in the Contract Documents.
  - 2. Filling shall consist of placing material in areas to bring them up to grades indicated on the Drawings.
  - 3. The Contractor shall provide and place all necessary backfill and fill material, in layers to the required grade elevations.
  - 4. Backfill excavations as promptly as work permits, but not until completion of the following:

- a. Acceptance by Engineer of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
  - b. Inspection, approval, and recording locations of underground utilities.
  - c. Removal of concrete formwork.
  - d. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Temporary sheet piling driven below bottom of structures shall be removed in manner to prevent settlement of the structure or utilities, or cut off and left in place if required.
  - e. Removal of trash and debris.
  - f. Permanent or temporary horizontal bracing is in place on horizontally supported walls.
  - g. Density testing having results meeting requirements specified herein.
5. In general, and unless otherwise indicated, material used for backfill of trenches and excavations around structures shall be suitable excavated material which was removed in the course of making the construction excavation. Unless otherwise specified or allowed by the Engineer the backfill and fill shall be placed in layers not to exceed 8 inches in thickness.
  6. All fill and backfill under structures and pavement, and adjacent to structures, shall be compacted crushed stone or select fill as specified or as indicated on the Drawings. The fill and backfill materials shall be placed in layers not exceeding 8 inches in thickness.
  7. All structures (including manholes) shall be placed on a 6-inch mat of screened stone unless otherwise indicated.
  8. Suitable excavated material shall meet the following requirements:
    - a. Free from large clods, silt lumps or balls of clay.
    - b. Free from stones and rock fragments with larger than 12 inch max. dimension.
    - c. Free from organics, peat, etc.
    - d. Free from frozen material.
  9. If sufficient suitable excavated material is not available from the excavations, and where indicated on the Drawings, the backfill material shall be select fill or common borrow, unless otherwise indicated, as required and as directed by the Engineer.
  10. Do not backfill with, or on, frozen materials.
  11. Remove, or otherwise treat as necessary, previously placed material that has frozen prior to placing backfill.
  12. Do not mechanically or hand compact material that is, in the opinion of the Engineer, too wet.
  13. Do not continue backfilling until the previously placed and new materials have dried sufficiently to permit proper compaction.
  14. The nature of the backfill materials will govern the methods best suited for their placement and compaction. Compaction methods and required percent compaction is covered in Compaction section.
  15. Before compaction, moisten or aerate each layer as necessary to provide a water content necessary to meet the required percentage of maximum dry density for each area classification specified.

16. Do not allow large masses of backfill material to be dropped into the excavation in such a manner that may damage pipes and structures.
  17. Place material in a manner that will prevent stones and lumps from becoming nested.
  18. Completely fill all voids between stones with fine material.
  19. Do not place backfill on or against new concrete until it has attained sufficient strength to support loads without distortion, cracking, and other damage.
  20. Deposit backfill and fill material evenly on all sides of structures to avoid unequal soil pressures.
  21. Keep stones or rock fragments with a dimension greater than two inches at least one foot away from the pipe or structure during backfilling.
  22. Leave sheeting in place when damage is likely to result from its withdrawal.
  23. Completely fill voids left by the removal of sheeting with screened stone which is compacted thoroughly.
- B. Pipe Bedding, Initial Backfill and Trench Backfill:
1. Place bedding and backfill in layers of uniform thickness specified herein, and as shown on the Drawings.
  2. Thoroughly compact each layer by means of a suitable vibrator or mechanical tamper.
  3. Install pipe bedding and initial backfill in layers of uniform thickness not greater than eight (8) inches.
  4. Deposit the remainder of the backfill in uniform layers not greater than eight inches.
  5. Provide underground utility marking tape for new utility trenches as shown on the Drawings. Refer to Section 02650 – Buried Utility Markings.
  6. Where soft silt and clay soils are encountered the trench shall be excavated six inches below the normal bedding and backfilled with 6-inches of compacted sand.
  7. Backfill trenches with concrete where trench excavations pass within 18 inches of column or wall footings and which are carried below the bottom of such footings, or which pass under wall footings. Place concrete to the level of the bottom of adjacent footings.
  8. The following schedule lists the bedding materials for various types of pipe. Refer to the pipe trench detail for dimensional requirements.

#### BEDDING REQUIREMENTS

DI or Concrete Pipe	screened stone or select fill.
PVC or PE Pipe	screened stone.

9. The following schedule lists the initial backfill requirements for various types of pipes. Refer to the pipe trench detail for dimensional requirements.

## INITIAL BACKFILL REQUIREMENTS

DI or Concrete, Pipe	Screened stone or select fill
PVC or PE Pipe	Screened stone

10. Special bedding and backfill requirements shown on the Drawings supersede requirements of this section.
  11. Where pipes or structures pass through or under the impervious core of the lagoon embankments, bedding and backfill material shall consist of the impervious embankment material. Extra care should be given to properly and thoroughly compact the bedding material around the pipe.
- C. Improper Backfill:
1. When excavation and trenches have been improperly backfilled, and when settlement occurs, reopen the excavation to the depth required, as directed by the Engineer.
  2. Refill and compact the excavation or trench with suitable material and restore the surface to the required grade and condition.
  3. Excavation, backfilling, and compacting work performed to correct improper backfilling shall be performed at no additional cost to the Owner.
- D. Ground Surface Preparation:
1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, scarify or break-up sloped surface steeper than 1 vertical to 4 horizontal.
  2. When existing ground surface has a density less than that specified under "compaction" for the particular area classification, break up the ground surface, pulverize, moisture-condition to the optimum moisture content, and compact to required depth and percentage of maximum density.

### 3.4 COMPACTION

- A. General:
1. Control soil compaction during construction to provide not less than the minimum percentage of density specified for each area classification.
- B. Percentage of Maximum Density Requirements:
1. Compact soil to not less than the following percentages of maximum dry density determined in accordance with ASTM D1557 as indicated.
    - a. Structures: Compact each layer of backfill or fill material below or adjacent to structures to at least 95% of maximum dry density (ASTM D1557).
    - b. Off Traveled Way Areas: Compact each layer of backfill or fill material to at least 90% of maximum dry density (ASTM D1557).
    - c. Walkways: Compact each layer of backfill or fill material to at least 93% of maximum dry density (ASTM D1557).
    - d. Roadways, Drives and Paved Areas: Compact each layer of fill, subbase material, and base material to at least 95% of maximum dry density (ASTM D1557).

- e. Pipes: Compact bedding material and each layer of backfill to at least 90% maximum dry density (ASTM D1557). Where backfilling with excavated material, compact to native field density.
  - f. Embankments: Compact each layer of embankment material to at least 95% of maximum dry density (ASTM D1557).
- C. Moisture Control:
- 1. Where subgrade or a layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, in quantities controlled to prevent free water appearing on surface during or subsequent to compaction operations.
  - 2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
  - 3. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory level.
- D. Embankment Compaction:
- 1. After each embankment layer has been spread to the required maximum 8-inch thickness and its moisture content has been adjusted as necessary, it shall be rolled with a sufficient number of passes to obtain the required compaction. One pass is defined as the required number of successive trips which by means of sufficient overlap will ensure complete coverage and uniform compaction of an entire lift. Additional passes shall not be made until the previous pass has been completed.
  - 2. When any section of an embankment sinks or weaves excessively under the roller or under hauling units and other equipment, it will be evident that the required degree of compaction is not being obtained and that a reduction in the moisture content is required. If at any place or time such sinking and weaving produces surface cracks which, in the judgment of the Engineer are of such character, amount, or extent to indicate an unfavorable condition, he will recommend operations on that part of the embankment to be suspended until such time as it shall have become sufficiently stabilized. The ideal condition of the embankment is that attained when the entire embankment below the surface being rolled is so firm and hard as to show only the slightest weaving and deflection as the roller passes.
  - 3. If the moisture content is insufficient to obtain the required compaction, the rolling shall not proceed except with the written approval of the Engineer, and in that event, additional rolling shall be done to obtain the required compaction. If the moisture content is greater than the limit specified, the material of such water content may be removed and stockpiled for later use or the rolling shall be delayed until such time as the material has dried sufficiently so that the moisture content is within the specified limits. No adjustment in price will be made on account of any operation of the Contractor in removing and stockpiling, or in drying the materials or on account of delays occasioned thereby.

4. If because of insufficient overlap, too much or too little water, or other cause attributable to defective work, the compaction obtained over any area is less than that required, the condition shall be remedied, and if additional rollings are ordered, they will be done at no cost to the Owner. If the material itself is unsatisfactory or if additional rolling or other means fails to produce satisfactory results, the area in question shall be removed down to material of satisfactory density and the removal, replacement, and re-rolling shall be done by the Contractor, without additional compensation.
  5. Material compaction by hand-operated equipment or power-driven tampers shall be spread in layers not more than 6 inches thick. The degree of compaction obtained by these tamping operations shall be equal in every respect to that secured by the rolling operation.
- E. Compaction Methods: The Contractor may select any method of compaction that is suitable to compact the material to the required density.
1. General: Whatever method of compacting backfill is used, care shall be taken that stones and lumps shall not become nested and that all voids between stones shall be completely filled with fine material. All voids left by the removal of sheeting shall be completely backfilled with suitable materials and thoroughly compacted.
  2. Tamping or Rolling: If the material is to be compacted by tamping or rolling, the material shall be deposited and spread in uniform, parallel layers not exceeding the uncompacted thicknesses specified. Before the next layer is placed, each layer shall be tamped as required so as to obtain a thoroughly compacted mass. Care shall be taken that the material close to the excavation side slopes, as well as in all other portions of the fill area, is thoroughly compacted. When the excavation width and the depth to which backfill has been placed are sufficient to make it feasible, and it can be done effectively and without damage to the pipe or structure, backfill may, on approval, be compacted by the use of suitable rollers, tractors, or similar powered equipment instead of by tamping. For compaction by tamping or rolling, the rate at which backfilling material is deposited shall not exceed that permitted by the facilities for its spreading, leveling, and compacting as furnished by the Contractor.
- F. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

### 3.5 GRADING:

- A. General:
1. Grading shall consist of that work necessary to bring all areas to the final grades.
  2. Uniformly grade areas within limits of work requiring grading, including adjacent transition areas.
  3. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- B. Grading Outside Building Lines:
1. Grade areas adjacent to building to drain away from structures and to prevent ponding.

2. Grade surfaces to be free from irregular surface changes, and as follows:
  - a. Lawn or Unpaved Areas: Finish grade areas to receive topsoil to within not more than 1" above or below the required subgrade elevations.
  - b. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more than 1/2" above or below the required subgrade elevation.
  - c. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 3/8" above or below the required subgrade elevation.
- C. Compaction:
  1. After grading, compact subgrade surfaces to the depth and percentage of maximum density for each area classification.
- D. Protection of Graded Areas:
  1. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
  2. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

### 3.6 BASE COURSE AND LEVELING COURSE

- A. General:
  1. Base course consists of placing the specified materials in layers to support a leveling course or paved surface, as indicated in the Drawings.
- B. Grade Control:
  1. During construction, maintain lines and grades including crown and cross-slope of base course and leveling course.
- C. Placing:
  1. Place base course on prepared subbase conforming to indicated cross-section and thickness. Maintain optimum moisture content for compacting base materials.
  2. Place leveling course on prepared base course, conforming to indicated cross-section and thickness. Maintain optimum moisture content for compaction.
- D. Shaping and Compacting:
  1. All layers of aggregate base course and leveling course shall be compacted to the required density immediately after placing. As soon as the compaction of any layer has been completed, the next layer shall be placed.
  2. The Contractor shall bear full responsibility for and make all necessary repairs to the base leveling courses and the subgrade until the full depth of the base leveling courses is placed and compacted. Repairs shall be made at no additional cost to the Owner.
  3. If the top of any layer of the aggregate base or leveling course becomes contaminated by degradation of the aggregate or addition of foreign materials, the contaminated material shall be removed and replaced with the specified material at the Contractor's expense.

END OF SECTION

SECTION 02270TEMPORARY EROSION CONTROLPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. The work under this section shall include provision of all labor, equipment, materials, and maintenance of temporary erosion control devices, as specified herein, as shown on the Drawings and as directed by the Engineer.
2. Erosion control measures shall be provided as necessary to correct conditions that develop prior to the completion of permanent erosion control devices, or as required to control erosion that occurs during normal construction operations.
3. Construction operations shall comply with all federal, state and local regulations pertaining to erosion control.
4. After awarding of or after being awarded the Contract, prior to commencement of construction activities, the Contractor will meet with the Engineer to discuss erosion control requirements and develop a mutual understanding relative to details of erosion control.

## B. Design Criteria:

1. Conduct all construction in a manner and sequence that causes the least practical disturbance of the physical environment.
2. Stabilize disturbed earth surfaces in the shortest time and employ such temporary erosion control devices, as may be necessary, until such time as adequate soil stabilization has been achieved.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SUBMITTALS

- A. The Contractor shall furnish the Engineer, in writing, his work plan giving proposed locations for storage of topsoil and excavated material, before beginning construction. A schedule of work shall accompany the work plan. Acceptance of this plan will not relieve the Contractor of his responsibility for completion of the work as specified.

PART 2 - PRODUCTS2.1 MATERIALS

## A. Baled Hay:

1. At least 14" by 18" by 30" securely tied to form a firm bale, with at least two stakes to hold the bale in place.

## B. Sand Bags:

1. Heavy cloth bags of approximately one cubic foot capacity filled with sand or gravel.

- C. Mulches:
  - 1. Loose hay, straw, peat moss, wood chips, bark mulch, crushed stone, wood excelsior, or wood fiber cellulose.
  - 2. Type and use shall be as specified by the "Maine Erosion and Sedimentation Control Best Management Practices" prepared by the Maine DEP, herein after referred to as the BMP.
- D. Mats and Nettings:
  - 1. Twisted Craft paper, yarn, jute, excelsior wood fiber mats, glass fiber and plastic film.
  - 2. Type and use shall be as specified in the BMP.
- E. Permanent Seed:
  - 1. Conservation mix appropriate to the predominant soil conditions as specified in the BMP and subject to approval by the Engineer.
- F. Temporary Seeding:
  - 1. Use species appropriate for soil conditions and season as specified in the BMP and subject to approval by the Engineer.
- G. Water:
  - 1. The Contractor shall provide water and equipment to control dust, as directed by the Engineer.
- H. Silt Fence:
  - 1. Silt Fence shall be one of the commercially available brands, meeting the following requirements:

<u>Geotextile Mechanical Property</u>	<u>Test Method</u>	<u>Minimum Permissible Value</u>
Grab Tensile Strength (both directions)	ASTM D-4632	124 pounds
Puncture Strength	ASTM D-4833	60 pounds
Apparent Opening Size	ASTM D-4751	#30
Flow Rate	ASTM D-4491	8 gal/min/ft <sup>2</sup>

- I. Erosion Control Mix Berm:
  - 1. Minimum 12" high and 24" wide berm, meeting the following requirements and as specified by the "Maine Erosion and Sedimentation Control Best Management Practices" prepared by the Maine DEP:
    - a. Organic matter content between 80-100%, dry weight
    - b. Particle size by weight shall be 100% passing a 6" screen and 70-85% passing a 3/4" screen
    - c. Organic portion must be fibrous and elongated.
    - d. Soluble salts content shall be less than 4.0 mmhos/cm.
    - e. pH should be between 5.0-8.0.

- f. Free from refuse, physical contaminants, and material toxic to plant growth such as fly ash or yard scraping.
- g. No large portions of silts, clays, or fine sands.
- h. Well-graded and may contain rocks less than 4" in diameter.

J. Filter Sock

- 1. Minimum diameter of 12" woven or non-woven geosynthetic fabric filled with erosion control mix meeting the following requirements and as specified by the "Maine Erosion and Sedimentation Control Best Management Practices" prepared by the Maine DEP:
  - a. Organic matter content between 80-100%, dry weight
  - b. Particle size by weight shall be 100% passing a 6" screen and 70-85% passing a 3/4" screen
  - c. Organic portion must be fibrous and elongated.
  - d. Soluble salts content shall be less than 4.0 mmhos/cm.
  - e. pH should be between 5.0-8.0.
  - f. Free from refuse, physical contaminants, and material toxic to plant growth such as fly ash or yard scraping.
  - g. No large portions of silts, clays, or fine sands.
  - h. Well-graded and may contain rocks less than 4" in diameter.

K. Catch Basin Inlet Protection

- 1. Inserts/Filter Sacks
  - a. Catch basin inserts/filter sacks made of woven geotextile with rebar lifting handles.
  - b. Seam strength that meets the following requirements (ASTM D-4884):

Parameter	MARV	Units
Maximum Load	852	Lbs
Maximum Strength	1280	Lb/ft

- c. Fabric strength that meets the following requirements (ASTM D-4884):

Property	Test Method	Units	MARV
Grab Tensile	ASTM D-4632	Lbs	281 x 170
Grab Elongation	ASTM D-4632	%	16 x 7
CBR Puncture	ASTM D-6241	Lbs	1005
Trapezoid Tear Strength	ASTM D-4533	Lbs	85 x 61
UV Resistance @ 500 Hours	ASTM D-4355	%	96
AOS	ASTM D-4751	U.S. Sieve	40
Flow Rate	ASTM D-4491	GPM/ft	38.5
Permittivity	ASTM D-4491	Sec. <sup>-1</sup>	0.51

2. Strawbales

- a. Surround perimeter of catch basin inlet with straw bales.
- b. Stake and embed strawbales 4 inches in ground.
- c. Not applicable for use on impervious surfaces.

3. Concrete Blocks
  - a. 8-inch standard cement blocks placed on their side around the inlet and wrapped in geotextile fabric.
  - b. Blocks shall be surrounded by ¾-inch minimum and 2-inch maximum clean crushed stone.
  - c. Not applicable on slopes of more than 5%.
4. Silt Fence with Gravel
  - a. Silt fence may be placed around the perimeter of a catch basin and surrounded by ¾-inch minimum and 2-inch maximum clean crushed stone.
5. Sand-Filled Bags
  - a. Sand-filled bags butted together around the perimeter of the catch basin inlet.
  - b. Bags should be staggered and create a berm with a height no less than 12 inches.

## 2.2 CONSTRUCTION REQUIREMENTS

- A. Temporary Erosion Checks:
  1. Temporary erosion checks shall be constructed in ditches and other locations as necessary.
  2. Baled hay, sand bags or siltation fence may be used in an arrangement to fit local conditions.
- B. Temporary Berms:
  1. Temporary barriers shall be constructed along the toe of embankments when necessary to prevent erosion and sedimentation.
- C. Temporary Seeding:
  1. Areas to remain exposed for a time exceeding 3 weeks shall receive temporary seeding as indicated below:

<u>Season</u>	<u>Seed</u>	<u>Rate</u>
Summer (5/15 - 8/15)	Sudangrass	40 lbs/acre
Late Summer/Early Fall (8/15 - 9/15)	Oats	80 lbs/acre
Fall (9/15 - 10/1)	Annual Ryegrass	40 lbs/acre
Winter (10/1 - 4/1)	Winter Rye	112 lbs/acre
Spring (4/1 - 7/1)	Mulch w/Dormant Seed	80 lbs/acre*
	Oats	80 lbs/acre
	Annual Ryegrass	40 lbs/acre

\* seed rate only

- D. Silt Fence shall be supported by posts and installed per the manufacturer's recommendations.
  1. A trench 6-inches in width and 6-inches in depth should be excavated to toe in the bottom of the silt fence. The trench should be backfilled after the silt fence is installed.

- E. Mulch All Areas Receiving Seeding:
  - 1. Use either wood cellulose fiber mulch (750 lbs/acre); or straw mulch with chemical tack (as per manufacturer's specifications). Wetting for small areas may be permitted. Biodegradable netting is recommended in areas to be exposed to drainage flow.
- F. Erosion control matting for slopes and ditches shall be anchored with pegs and/or staples per manufacturer's recommendations. Contractor shall provide matting along the flowline of all ditches and swales having a longitudinal slope in excess of 0.01 ft/ft, and on all slopes in excess of 3(H) to 1(V).

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Temporary Erosion Checks:
  - 1. Temporary erosion checks shall be constructed in ditches and at other locations designated by the Engineer. The Engineer may modify the Contractor's arrangement of silt fences, bales and bags to fit local conditions.
  - 2. Baled hay, silt fences, or sandbags, or some combination, may be used in other areas, as necessary, to inhibit soil erosion.
  - 3. Siltation fence shall be located and installed as shown on plans or as required to comply with all Federal, State and Local Regulations.
  - 4. Sedimentation ponds shall be sited and constructed to the grades and dimensions as shown on the Drawings and will include drainage pipe and an emergency spillway.
- B. Erosion control matting for slopes and ditches shall be installed where indicated on the Drawings and as required to stabilize the soil until permanent vegetative stabilization is established.
- C. Maintenance:
  - 1. Erosion control features shall be installed prior to excavation wherever appropriate. Temporary erosion control features shall remain in place and shall be maintained until a satisfactory growth of grass is established. The Contractor shall be responsible for maintaining erosion control features throughout the life of the construction contract. Maintenance will include periodic inspections by the Owner or Engineer for effectiveness of location, installation and condition with corrective action taken by the Contractor, as appropriate.
- D. Removing and Disposing of Materials:
  - 1. When no longer needed, material and devices for temporary erosion control shall be removed and disposed of upon approval by Engineer.
  - 2. When removed, such devices may be reused in other locations, provided they are in good condition and suitable to perform the erosion control for which they are intended.
  - 3. When dispersed over adjacent areas, the material shall be scattered to the extent that it causes no unsightly conditions nor creates future maintenance problems.
  - 4. Sedimentation basins, if no longer required, will be filled in, the pipe removed, the surface loamed and grass cover shall be established.

END OF SECTION

SECTION 02419  
GRAVEL SURFACING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This work shall consist of furnishing and placing one or more courses of granular material on a prepared surface in accordance with the specifications in reasonably close conformity with the lines, grades, thicknesses and typical cross sections, as shown on the plans or established by the Engineer.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SUBMITTALS

- A. Refer to 02200 – Earthwork for required material submittals.

PART 2 - PRODUCTS

2.1 ROADWAY GRAVEL

- A. Roadway gravel shall be aggregate subbase-gravel and/or aggregate base-gravel as described in these Specifications.

PART 3 - EXECUTION

3.1 PLACING

- A. If the required compacted depth of roadway gravel exceeds 9 inches the courses shall be constructed in 2 or more layers of approximately equal thicknesses. The maximum completed thickness of any roadway gravel layer shall not exceed 9 inches.
- B. Each layer of aggregate shall be placed over the full width of the section. When conditions restrict operations over the full width, the Engineer may authorize the Contractor to place less than full width layers. When the Contractor places material to complete the full width, the exposed edge of the previously placed aggregate shall be cleaned of all contamination before additional roadway gravel is placed adjacent thereto.
- C. The material as spread shall be well mixed with no pockets of either fine or coarse material. Segregation of large or fine particles will not be allowed.

3.2 SHAPING AND COMPACTING

- A. Compaction of each layer of aggregate subbase and roadway gravel shall continue until a density of not less than 95 percent of the maximum density has been achieved for the full width of the layer. The maximum density shall be determined in accordance with AASHTO T-180, Method D. Field density tests will be made by the sand cone method in accordance with AASHTO T-191 or at the option of the Owner's Representative, by use of Nuclear devices in accordance with ASTM D6938 or by the water balloon test methods in accordance with ASTM-D2167.
- B. The surface of each layer shall be maintained during compaction operations in such manner that a uniform texture is produced and the aggregate firmly keyed. The moisture content of the material shall be maintained at the proper percent to attain the required compaction.

3.3 SURFACE TOLERANCE

- A. The completed surface of the designated course shall be shaped and maintained to a tolerance, above or below the required cross-sectional shape, of 1/2 inch.

END OF SECTION

SECTION 02485LOAMING & SEEDINGPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, place, and test topsoil, seed, lime, and fertilizer where shown on the drawings and protect and maintain seeded areas disturbed by construction work, as directed by the Engineer.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SUBMITTALS AND TESTING

## A. Seed:

1. Furnish the Engineer with duplicate signed copies of a statement from the vendor, certifying that each container of seed delivered to the project site is fully labeled in accordance with the Federal Seed Act and is at least equal to the specification requirements.
2. This certification shall appear in, or with, all copies of invoices for the seed.
3. The certification shall include the guaranteed percentages of purity, weed content and germination of the seed, and also the net weight and date of shipment. No seed may be sown until the Contractor has submitted the certificates and certificates have been approved.
4. Each lot of seed shall be subject to sampling and testing, at the discretion of the Engineer, in accordance with the latest rules and regulations under the Federal Seed Act.

## B. Topsoil:

1. Inform the Engineer, within 30 days after the award of the Contract, of the sources from which the topsoil is to be furnished.
2. Obtain representative soil samples, taken from several locations in the area under consideration for topsoil removal, to the full stripping depth.
3. Have soil samples tested by an independent soils testing laboratory, approved by the Engineer, at the Contractor's expense.
4. Have soil samples tested for physical properties and pH (or lime requirement), for organic matter, available phosphoric acid, and available potash, in accordance with standard practices of soil testing.
5. Approval, by the Engineer, to use topsoil for the work will be dependent upon the results of the soils tests.

## C. Lime &amp; Fertilizer:

1. Furnish the Engineer with duplicate copies of invoices for all lime and fertilizer used on the project showing the total minimum carbonates and minimum percentages of the material furnished that pass the 90 and 20 mesh sieves and the grade furnished.

2. Each lot of lime and fertilizer shall be subject to sampling and testing at the discretion of the Engineer.
3. Sampling and testing shall be in accordance with the official methods of the Association of Official Agricultural Chemists.
4. Upon completion of the project, a final check may be made comparing the total quantities of fertilizer and lime used to the total area seeded. If the minimum rates of application have not been met, the Engineer may require the Contractor to distribute additional quantities of these materials to meet the minimum rates.

#### 1.4 DELIVERY, STORAGE & HANDLING

##### A. Seed:

1. Furnish all seed in sealed standard containers, unless exception is granted in writing by the Engineer.
2. Containers shall be labeled in accordance with the United States Department of Agriculture's rules and regulations under the Federal Seed Act in effect at the time of purchase.

##### B. Fertilizer:

1. Furnish all fertilizer in unopened original containers.
2. Containers shall be labeled with the manufacturer's statement of analysis.

#### 1.5 JOB CONDITIONS

##### A. Topsoil:

1. Do not place or spread topsoil when the subgrade is excessively wet or dry, or in any condition otherwise detrimental, in the opinion of the Engineer, to the proposed planting or to proper grading.

##### B. Seeding:

1. Planting Seasons: The recommended seeding time is from April 1 to September 15. The Contractor may seed at other times. Regardless of the time of seeding, the Contractor shall be responsible for each seeded area until it is accepted.
2. Weather Conditions:
  - a. Do not perform seeding work when weather conditions are such that beneficial results are not likely to be obtained, such as drought, excessive moisture, or high winds.
  - b. Stop the seeding work when, in the opinion of the Engineer, weather conditions are not favorable.
  - c. Resume the work only when, in the opinion of the Engineer, conditions become favorable, or when approved alternate or corrective measures and procedures are placed into effect.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

##### A. Seed:

1. Provide the grass seed mixture approved by the Engineer, having the following composition:
  - a. Park Mixture:
    - i. 50 percent Creeping Red Fescue

- ii. 30 percent Kentucky Bluegrass
      - iii. 20 percent Annual Ryegrass
      - iv. Add 1 pound White or Dutch Clover per acre
      - v. No weed seeds allowed
    - b. Roadside Mixture:
      - i. 50 percent Creeping Red Fescue
      - ii. 15 percent Kentucky Bluegrass
      - iii. 5 percent White Clover
      - iv. 2 percent Red Top
      - v. 3 percent Birdsfoot Trefoil
      - vi. 25 percent Annual Ryegrass
      - vii. Add 1 pound of White or Dutch Clover per acre
      - viii. No weed seeds allowed
    - c. Lawn Areas:
      - i. Kentucky 31 Fescue                      25 percent
      - ii. Chewing Fescue                         15 percent
      - iii. Creeping Red Fescue                 15 percent
      - iv. Pennfine Perennial Rye               25 percent
      - v. Lynn Perennial Rye                     10 percent
      - vi. Common Annual Rye                   10 percent
      - vii. No weed seeds allowed
  - 2. Do not use seed which has become wet, moldy, or otherwise damaged in transit or during storage.
- B. Topsoil:
- 1. Fertile, friable, natural topsoil typical of the locality, without admixture of subsoil, refuse or other foreign materials and obtained from a well-drained site. Mixture of sand, silt, and clay particles in equal proportions.
  - 2. Free of stumps, roots, heavy of stiff clay, stones larger than 1-inch in diameter, lumps, coarse sand, weeds, sticks, brush or other deleterious matter.
  - 3. Not less than 4 percent nor more than 20 percent organic matter.
  - 4. Topsoil depth shall be 4-inches, unless otherwise indicated.
- C. Lime:
- 1. Provide lime which is ground limestone containing not less than 85% of total carbonate and of such fineness that 90% will pass a No. 20 sieve and 50% will pass a No. 100 sieve.
  - 2. Coarser materials will be acceptable provided the specified rates of application are increased proportionately on the basis of quantities passing a No. 100 sieve. No additional payment will be made to the Contractor for the increased quantity.
- D. Fertilizer:
- 1. Provide a commercial fertilizer approved by the Engineer.
  - 2. Provide fertilizer containing the following minimum percentage of nutrients by weight:
    - a. 10% Available phosphoric acid
    - b. 10% Available potash
    - c. 10% Available nitrogen (75% of the nitrogen shall be organic)

## PART 3 - EXECUTION

### 3.1 PREPARATION

#### A. Equipment:

1. Provide all equipment necessary for the proper preparation of the ground surface and for the handling and placing of all required materials.
2. Demonstrate to the Engineer that the equipment will apply materials at the specified rates.

#### B. Soil: Perform the following work prior to the application of lime, fertilizer or seed.

1. Scarify the subgrade to a depth of 2 inches to allow the bonding of the topsoil with the subsoil.
2. Apply topsoil to a depth of 4 inches or as directed on areas to be seeded.
3. Trim and rake the topsoil to true grades free from unsightly variations, humps, ridges or depressions.
4. Remove all objectionable material and form a finely pulverized seed bed.

### 3.2 PERFORMANCE

#### A. Grading:

1. Grade the areas to be seeded as shown on the Drawings or as directed by the Engineer.
2. Leave all surfaces in even and properly compacted condition.
3. Maintain grades on the areas to be seeded in true and even conditions, including any necessary repairs to previously graded areas.

#### B. Placing Topsoil:

1. Uniformly distribute and evenly spread topsoil on the designated areas.
2. Spread the topsoil in such a manner that planting work can be performed with little additional soil preparation or tillage.
3. Correct any irregularities in the surface resulting from topsoiling or other operations to prevent the formation of depressions where water may stand.
4. Thoroughly till the topsoil to a depth of at least 3 inches by plowing, harrowing, or other approved method until the condition of the soil is acceptable to the Engineer. The surface shall be cleared of all debris and or stones one inch or more in diameter.

#### C. Placing Fertilizer:

1. Distribute fertilizer uniformly at a rate determined by the soils test over the areas to be seeded.
2. Incorporate fertilizer into the soil to a depth of at least 3 inches by discing, harrowing, or other methods acceptable to the Engineer.
3. The incorporation of fertilizer may be a part of the tillage operation specified above.
4. Distribution by means of an approved seed drill equipped to sow seed and distribute fertilizer at the same time will be acceptable.

#### D. Placing Lime:

1. Uniformly distribute lime immediately following or simultaneously with the incorporation of fertilizer.
2. Distribute lime at a rate determined from the pH test, to a depth of at least 3 inches by discing, harrowing, or other methods acceptable to the Engineer.

- E. Seeding:
1. Fine rake and level out any undulations or irregularities in the surface resulting from tillage, fertilizing, liming or other operations before starting seeding operations.
  2. Hydroseeding:
    - a. Hydroseeding may be performed where approved and with equipment approved by the Engineer.
    - b. Sow the seed over designated areas at a minimum rate of 5 pounds per 1000 square feet.
    - c. Seed and fertilizing materials shall be kept thoroughly agitated in order to maintain a uniform suspension within the tank of the hydroseeder.
    - d. The spraying equipment must be designed and operated to distribute seed and fertilizing materials evenly and uniformly on the designated areas at the required rates.
  3. Drill Seeding:
    - a. Drill seeding may be performed with approved equipment having drills not more than 2 inches apart.
    - b. Sow the seed uniformly over the designated areas to a depth of 1/2 inch and at a rate of 5 pounds per 1,000 square feet.
  4. Broadcast Seeding:
    - a. Broadcast seeding may be performed by equipment approved by the Engineer.
    - b. Sow the seed uniformly over the designated areas at a rate of 5 pounds per 1,000 square feet.
    - c. Sow half the seed with the equipment moving in one direction and the remainder of the seed with the equipment moving at right angles to the first sowing.
    - d. Cover the seed to an average depth of 1/2 inch by means of a brush harrow, spike-tooth harrow, chain harrow, cultipacker, or other approved devices.
    - e. Do not perform broadcast seeding work during windy weather.
- F. Compacting:
1. Seeded areas must be raked lightly after sowing unless seeding is to be directly followed by application of an approved mulch.
  2. Compact the entire area immediately after the seeding operations have been completed.
  3. Compact by means of a cultipacker, roller, or other equipment approved by the Engineer weighing 60 to 90 pounds per linear foot of roller.
  4. If the soil is of such type that a smooth or corrugated roller cannot be operated satisfactorily, use a pneumatic roller (not wobbly wheel) that has tires of sufficient size to obtain complete coverage of the soil.
  5. When using a cultipacker or similar equipment, perform the final rolling at right angles to the prevailing slopes to prevent water erosion, or at right angles to the prevailing wind to prevent dust.

### 3.3 PROTECTION & MAINTENANCE

- A. Protection:
1. Protect the seeded area against traffic or other use.

2. Erect barricades and place warning signs as needed.
- B. Maintenance:
1. At the time of the first cutting, set mower blades two inches high. All lawns shall receive at least two mowings before acceptance. Coordinate schedule for mowing with Engineer.
  2. Maintenance shall also include all temporary protection fences, barriers and signs and all other work incidental to proper maintenance.
  3. Maintain grass areas until a full stand of grass is indicated, which will be a minimum of 45 days after all seeding work is completed, and shall not necessarily related to Substantial Completion of the General Contract.
  4. Protection and maintenance of grass areas shall consist of watering, weeding, cutting, repair of any erosion and reseeding as necessary to establish a uniform stand for the specified grasses, and shall continue until Acceptance by the Engineer of the work of this section. It shall also include the furnishing and applying of such pesticides as are necessary to keep grass areas free of insects and disease. All pesticides shall be approved by Engineer prior to use.

3.4 ACCEPTANCE

- A. At final acceptance of the project all areas shall have a close stand of grass with no weeds present and no bare spots greater than three inches (3") in diameter over greater than five percent (5%) of the overall seeded area.

END OF SECTION

SECTION 02501REMOVAL & REPLACEMENT OF PAVINGPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included:
  - 1. Remove bituminous and/or portland cement pavement, and replace aggregate base and subbase, pavement binder course and surface course, including temporary pavement, within the area(s) shown on the Drawings and as directed by the Engineer.
  - 2. Keep pavement removal to a minimum width suitable for the required construction.
  - 3. Replace pavement markings to the permanent paving to be the same as prior to pavement removal.
- B. Work Not Included: Removal and replacement of paving for the convenience of the Contractor will not be considered for payment.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Materials: Use only bituminous pavement furnished by a bulk bituminous concrete producer regularly engaged in the production of hot mixed, hot laid bituminous concrete.
- B. Equipment: Provide, maintain and operate pavers, dump trucks, tandem, 3-wheel and pneumatic tired rollers well suited to the mixtures being placed. Provide, maintain and operate hand equipment as required. When applicable, provide, maintain and operate trimming equipment and materials.
- C. Mix Requirements, Method of Placement and Compaction: Florida Department of Transportation (FDOT) -Standards, for mixing, placing and compacting bituminous concrete are applicable to this work

PART 2 - PRODUCTS2.1 MATERIALS

- A. Provide all materials in accordance with Section 02000 FDOT Referenced Specifications or the applicable section of these contract documents.

PART 3 - EXECUTION3.1 PERFORMANCE

- A. Use construction methods as specified in Section 02000 FDOT Referenced Specifications or the applicable section of these contract documents.

- B. Pavement Removal:
  - 1. General:
    - a. Exercise extreme care in the removal of pavement so that pavement will not be unnecessarily disturbed or destroyed.
    - b. Mechanically cut pavement to be removed to a straight, vertical line, unless otherwise directed in writing by the Engineer.
    - c. All pavement removed shall remain the property of the Owner and shall be stockpiled at locations acceptable to or designated by the Owner at no additional cost to the Owner.
- C. Pavement Replacement:
  - 1. Aggregate Subbase and Base Courses:
    - a. Construct the aggregate subbase and base courses in accordance with Section 02000 FDOT Referenced Specifications.
  - 2. Bituminous Tack Coat (When Applicable): Apply an emulsified asphalt tack coat to curb faces and pavements whenever the surface of the preceding pavement will not promote adequate bond. Generally, a tack coat is not required for pavement laid immediately after the final rolling of the underlying course. Tack coat will be required to bond at joints. Apply at a rate of .05 to .15 gallons per square yard uniformly distributed over the surface to be paved or jointed. Excess tack or fat spots will not be permitted.
  - 3. Bituminous Concrete, Binder and Surface Courses shall be in accordance with Section 02000 FDOT Referenced Specifications.
- D. Reset all manholes to finished grade as required at no additional cost to the Owner.

END OF SECTION

SECTION 02621POLYVINYL CHLORIDE (PVC) PRESSURE PIPEPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, install, and test all polyvinyl chloride (PVC) pipe and fittings of the sizes and types and in the locations shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

## A. Standards:

1. ASTM 1784 - Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride ) (CPVC) Compounds.
2. NSF 14 - Plastics Piping System Components and Related Material.
3. AWWA C900- Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. Through 12 in., for Water Distribution.
4. AWWA C905 - Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 in. through 36 in..
5. CSA B137.3 - Rigid Poly (Vinyl Chloride) (PVC) Pipe for Pressure Application.
6. AWWA C605 for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.
7. ASTM D3139 - Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
8. ASTM F477 - Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
9. UNI-B-3 - Polyvinyl Chloride (PVC) Pressure Pipe (Complying with AWWA Standard C-900).
10. ASTM F1674 - Recommended Performance Specification for Joint Restraint Devices for Use with Polyvinyl Chloride (PVC) Pipe.
11. AWWA M23 - PVC Pipe - Design and Installation
12. NSF/ANSI Standard 61 Drinking Water System Components: All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" material in compliance with NSF 372.

- B. Product Marking:
  - 1. Each unit of PVC pipe shall be marked with the manufacturer's name, nominal pipe size and size base, PVC cell classification or material code, dimension ratio or standard dimension ratio, product type, pressure class, standard specification designation, production record code, and certification seals. Identification markings shall remain legible during normal handling, storage, and installation.
- C. Quality Assurance Testing
  - 1. The Contractor shall submit the manufacturer's certification that all delivered materials comply with quality standards required by AWWA C900, Section 3.1; and AWWA C905, Section 4.0. The manufacturer's certification shall list the tests conducted and the standards applicable to that test.
  - 2. Pipe shall be third party tested to meet requirements of CSA B137.3 or equivalent.
  - 3. All materials which come in contact with water, including lubricants, shall be evaluated, tested and certified for conformance with NSF/ANSI Standard 61.
- D. Warranty:
  - 1. The manufacturer shall provide a warranty against defects resulting from faulty workmanship or materials.

#### 1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Specifications.
- B. Submit manufacturer's "Certification of Conformance" that pipe and fittings and other piping appurtenances meet or exceed the requirements of these Specifications.
- C. Submit manufacturers installation instructions and specifications for all fittings, couplings, adapters, saddles, etc.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. PVC Class Water Pipe:
  - 1. Pipe shall be by one manufacturer.
  - 2. Pipe shall be made to cast iron (CI) outside diameters.
  - 3. All PVC Pipe shall be cell classification 12454B (ASTM D1784), DR 18 and AWWA Standard C900.
  - 4. Linear feet of each design and size shall be provided as shown on the drawings.
  - 5. Pipe shall be furnished with integral bell and factory beveled spigot.
  - 6. Pipe Lengths: Laying lengths of 20 feet, or as shown on the Drawings.
  - 7. Manufacturer:
    - a. Ipex
    - b. JM Eagle
    - c. Or equal
- B. Gaskets and Lubricants:
  - 1. Elastomeric gaskets shall be furnished by the PVC pipe manufacturer with each length of elastomeric-gasket bell-end pipe. Provide rubber gaskets in sufficient quantity to allow for loss.

2. Gaskets and Lubricants intended for use with PVC pipe and couplings shall be made from materials that are compatible with the plastic material and with each other when used together. The material shall not support the growth of bacteria nor adversely affect the potable quality of the water that is to be transported.
  3. Provide nitrile gaskets for joints within 50 feet of buried petroleum product tanks or in other areas where contaminated soils are encountered.
  4. Lubricant shall be NSF listed.
- C. Joints:
1. Provide couplings of the same quality as the pipe that will maintain tight joints when subjected to the same hydrostatic tests designated for the pipe.
  2. Adapters: When applicable, furnish and install adapters for connecting polyvinyl chloride pipe to pipes constructed from other material.
  3. Provide suitable adapters for connections to equipment and other piping systems.
- D. Fittings:
1. Fittings shall be of ductile iron as specified in Section 02616.
- E. Restraint Devices:
1. Furnish and install restraint devices as required.
  2. Provide joint restraint manufactured for use with PVC pipe. Provide certification from PVC pipe manufacturer recommending use of proposed restraint devices on their pipe.
  3. Restraint devices for PVC pipe shall incorporate a series of machined serrations (not "as cast") on the inside diameter to provide positive restraint, exact fit and 360o contact and support of the pipe wall. Restraint devices shall be manufactured of high strength ductile iron, ASTM A536, Grade 65-45-12. Connecting bolts shall be of high strength, low alloy material in accordance with ANSI/AWWA C111/A21.11.
  4. The restraint devices shall not use wedges, set screws, or radial pads.
  5. All restraint devices shall carry a water working pressure rating equivalent to the full rated pressure of the PVC pipe they are installed on, with a minimum 2:1 safety factor in any nominal pipe size. In addition, they shall meet or exceed the requirements of ASTM F1674, Recommended Performance Specification for Joint Restraint Devices for Use with Polyvinyl Chloride (PVC) Pipe. Notarized certification from the manufacturer of the restraint device shall be provided with submittals.
  6. Restraint devices shall consist of a split restraint ring incorporating the serrations specified above.
    - a. For bell and spigot joints, the split restraint ring shall be installed on the spigot, connected to a solid back-up ring seated behind the bell. The solid back-up ring shall have a beveled leading edge to assure exact fit behind the pipe bell.
  7. Manufacturers:
    - a. For bell and spigot joints of PVC pipe: Uni-Flange Block Buster 1350, or equal.
    - b. For mechanical joint fittings: Uni-Flange Block Buster 1300, or equal.

## PART 3 - EXECUTION

### 3.1 INSPECTION

- A. Carefully inspect all materials at the time of delivery and just prior to installation
- B. Carefully inspect all pipe and fittings for defects, such as weak structural components, that adversely affect the execution and quality of work. Also examine materials for deviations beyond allowable tolerances for pipe clearances.
- C. Immediately remove all rejected material from the construction site.

### 3.2 RECEIVING, STORAGE, AND HANDLING

- A. Receiving:
  - 1. Inspect the shipment of PVC prior to unloading for indications of the load shifting in transit, having been subjected to rough handling, or has broken packaging. If such indication exists, the Contractor should inspect each piece as it is unloaded. The Contractor is responsible for ensuring that there has been no damage or loss. Mark damaged material carefully, note damaged or missing items on the delivery receipt, and provide for further inspection by carrier or carrier's representative.
  - 2. Reorder any material that is needed to make up for missing or damaged items.
  - 3. Unload the pipe in full shipping units as shipped, using the appropriate mechanical equipment. Store pipe on level ground.
  - 4. Units of pipe should not be lifted with single cables or chains. The shipping unit frames or banding around units should not be used as lifting points. Use straps and spreaders looped under the load.
  - 5. If unloading by hand, the length behind the pipe being unloaded should be held in place with wooden chocks. Lighter pipes may be carefully handed down from the top of the load, but heavier pipes will require the use of ropes and skids. Individual lengths of pipe should not impact on each other as they are unloaded or stockpiled, especially in very cold weather.
- B. Storage:
  - 1. Store pipe on level ground.
  - 2. Pipe should be stored if possible in the shipping unit packages provided by the manufacturer. When unit packages are stacked, ensure that the weight of the upper unit does not cause deformation to pipe in the lower unit. Do not stack more than 2 shipping units high. The weight of the unit should be borne by the dunnage rather than the pipe. Supports should be evenly spaced to prevent pipe bending.

### 3.3 INSTALLATION

- A. Jointing:
  - 1. The assembly of the gasketed joints should be performed as recommended by the pipe manufacturer. When gaskets are not factory installed, use only gaskets that are designed for and supplied with the pipe. Insert gaskets as recommended by the manufacturer.

2. Clear each pipe length, gasket, the bell and spigot, or coupling, and any fittings of all debris, grease, grit or before installing. Inspect the gasket, pipe spigot bevel, gasket groove, and sealing surfaces for damage or deformation; and do not use any components damaged or deformed.
  3. Lubricants should be applied as specified by the pipe manufacturer. Damage to the gaskets or the pipe may result from the use of unapproved lubricants. Use only lubricant supplied by the pipe manufacturer for use with gasketed PVC pipe in potable water systems.
  4. Provide and use coupling pullers, or bar and block, for jointing the pipe when required.
  5. Ensure correct concentric alignment of pipe prior to joining. Shove home each length of pipe against the pipe previously laid and hold securely in position.
  6. Do not pull or cramp joints.
  7. If joints are to be assembled in cold-weather conditions, factory-installed gaskets may be removed and taken to a heated truck cab or shelter to restore the gasket's flexibility prior to joint assembly. Not all factory-installed gaskets are field removable. Gasket removal shall only be permitted with the consent of the pipe manufacturer and the Engineer.
  8. For joining PVC to fittings, use gaskets recommended by PVC manufacturer.
- B. Joining to Ductile Iron Fittings:
1. Cutting:
    - a. Use a hand saw or pipe cutter with blades (not rollers).
    - b. Examine all cut ends for possible cracks caused by cutting.
    - c. The cut shall be square, and provide a smooth end at a right angle to the longitudinal axis of the pipe. Pipe spigot ends shall be deburred, beveled, and re-marked with insertion line as required.
  2. Cleaning:
    - a. Clean immediately before assembly. Factory-installed gaskets should not be removed for cleaning.
  3. Assembly:
    - a. Follow PVC pipe manufacturer's instructions for assembly to ductile iron fittings.
- C. Pipe joint deflection:
1. Push on joints:
    - a. Limit maximum joint deflection to Manufacturers recommendations. 1.5° for 16-inch diameter; 2.5° for 12-inch diameter.
- D. Fabrication:
1. Tapped Connections:
    - a. Make all tapped connections as shown on the Drawings or as required by the Engineer.
    - b. Make all connections watertight and of adequate strength to prevent pull out.
    - c. Provide saddles for all connections. See Specification Section 02654.
    - d. Follow manufacturer's recommendations when tapping pipe.

END OF SECTION

SECTION 02628HIGH DENSITY POLYETHYLENE PIPE AND FITTINGSPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, install and test all polyethylene pipe, pipe fittings and appurtenances of the type(s) and size(s) and in the location(s) as shown on the Drawings and as herein specified.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Pressure rating or pressure class of pipe as shown on the Drawings or specified herein.
- B. Standards:
1. ANSI/AWWA C901-02: Standard for Polyethylene (PE) Pressure Pipe and Tubing, ½" (13 mm) through 3" (76 mm) for Water Service.
  2. AWWA C 906-99: Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4" (100 mm) through 63" (1,575 mm) for Water Distribution and Transmission.
  3. ASTM D 2657-07: Standard Practice for Heat Joining Polyolefin Pipe and Fittings.
  4. ASTM D 2683-14: Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing.
  5. ASTM D 2837-13e1: Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products.
  6. ASTM D 3261-15: Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing.
  7. ASTM D 3350-14: Standard Specification for Polyethylene Plastic Pipe and Fittings Materials.
  8. ASTM F 1055-16: Standard Specification for Electrofusion type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and tubing.
  9. NSF/ANSI-61-2003e: Standard for Drinking Water Systems Components - Health Effects, NSF International, Ann Arbor, MI. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" material in compliance with NSF 372.
  10. CSA B 137.1-2002: Polyethylene Pipe, Tubing, and Fittings for Cold-Water Pressure Services.
  11. ASTM F2164, Standard Practice for Field Leak Testing of Polyethylene (PE) Piping Systems Using Hydrostatic Pressure.

12. Manufacturers of high density polyethylene pipe, fittings, adapters, and couplings must be certified under ISO 9000, Quality Management Systems - Fundamentals and Vocabulary, International Organization for Standardization (ISO), Geneva, Switzerland.
  13. 49 CFR 192 subpart F, 192.281, selected requirements for plastic joints; 192.282, requirements for qualifying joining procedures; 192.285, specifies qualifying persons to make joints; and 192.287, specifies inspection of joints.
  14. Fusion Operators: Operators shall meet the minimum qualification requirements outlined in 49 CFR 192 subpart F, 192.285 and shall have documented experience with successful butt fusion of pipe larger than 24-inch diameter.
  15. Joint Fusion Data: Fusion plate temperature (°F), interfacial fusion pressure (psi), interfacial contact fusion time (sec.), and cooling time (min.) shall be recorded by data logger for computer download or recorded by the operator(s) in a field book for each joint fusion completed.
  16. Pipe deemed damaged or unacceptable to the Engineer shall be replaced at no additional cost to the Owner. Pipe shall be adequately protected during storage to prevent external damage to the pipe side wall or ends. Pipe with gouged side walls will be rejected by the Engineer.
  17. Exterior pipe markings shall include the nominal pipe diameter, SDR, and rated working pressure.
- C. Acceptable Pipe and Fitting Supplier/Manufacturers:
1. PolyPipe, Inc. "PW Pipe"
  2. KWH Pipe, "Sclairpipe"
  3. Performance Pipe
  4. "Isco-Pipe"
  5. "Poly-Cam"
  6. "Friatec"
  7. Vari-Tech "Performance Pipe"
  8. Independent Pipe Products, Inc.
  9. Or approved equal.

#### 1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that pipe and fittings and other piping appurtenances meet or exceed the requirements of these Specifications.
- C. Submit experience statement for operator(s) to complete the pipe fusion to demonstrate the minimum experience and qualification requirements described in paragraph 1.2.B.14.
- D. Following pipe construction, submit joint fusion data in an electronic spreadsheet format as a record to document joint fusion quality control.
- E. Submit manufacturers installation instructions and specifications for all fittings, couplings, adapters, saddles, etc.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Pipes shall be either Iron Pipe Size (IPS) or Ductile Iron Pipe Size (DIPS) with SDR ratings as indicated in the pipe schedule.
- B. Polyethylene compounds utilized in the manufacture of products furnished under this specification shall be listed in PPI TR-4, with a minimum cell classification of PE 445574C for PE 4710 materials, as defined in ASTM D3350. Pipe shall be in conformance with AWWA C901, AWWA C906, or CSA B137.1. They shall have a PPI recommended Hydrostatic Design Basis (HDB) of 1600 psi (PE4710) at a temperature of 73.4°F (23°C).
- C. All materials which come in contact with water, including lubricants, shall be evaluated, tested and certified for conformance with NSF/ANSI Standard 61.
- D. Clean re-work material of the same type grade, and cell classification generated from the manufacturer's own pipe and fitting production may be used by the same manufacturer as long as the pipe, tubing and fittings produced meet all the requirements of AWWA C901, AWWA C906, or CSA B137.1.
- E. Pipe and tubing furnished under this specification shall be manufactured using compounds complying with the requirements above. Dimensional and performance characteristics shall conform to the requirements of AWWA C901, AWWA C906, or CSA B137.1.
- F. The polyethylene compound shall be suitably protected against degradation by ultraviolet light by means of carbon black, well dispersed in a concentration of not less than 2%.
- G. The polyethylene resin compound shall have a resistance to environmental stress cracking as determined by procedure detailed in ASTM D 1693 with sample preparation by procedure C of ASTM D 4703 of not less than 40 hours.
- H. Pipe shall be homogeneous throughout and free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
- I. Polyethylene fittings shall have the same pressure rating as the pipe itself for all pressurized pipeline applications.
- J. Polyethylene fittings shall be molded style for diameters up to 12 inches and fabricated style for diameters larger than 12 inches.

2.2 PIPE SCHEDULE

PIPE IDENTIFICATION	DIA. (inches)	SDR	IPS/DIPS	WORKING PRESSURE RATING (PSI)	DE-BEAD REQUIRED INSIDE PIPE
ETFM	14, 16	11	IPS	200	No
ETGM	18, 14	17	IPS	125	No

2.3 ADAPTERS AND COUPLINGS (AS APPLICABLE)

- A. Polyethylene Mechanical Joint Adapter
  - 1. For joining IPS or DIPS size polyethylene pipe to any ANSI\AWWA C153 ductile iron fitting and valve.

2. Molded from NSF listed PE 4710 resin.
  3. Adaptor shall meet requirements of AWWA C901, 906.
  4. Adaptor kit to include anchor fitting, epoxy coated ductile iron retainer gland ring, gasket, and long tee-bolts, and rubber gasket.
  5. Provide stainless steel stiffeners as necessary.
- B. Polyethylene Flanged Adapter
1. For joining IPS or DIPS size polyethylene pipe to ANSI B16.1, ANSI B16.5, or ANSI A21.10 (AWWA C110) flange as required.
  2. Molded from NSF listed PE 4710 resin.
  3. Adaptor kit to include epoxy coated ductile iron backing ring, gasket, and long tee-bolts, and rubber gasket.
  4. Adaptor shall meet requirements of AWWA C901, 906.
- C. Polyethylene Wall Anchor
1. For restraining polyethylene pipe in cast-in-place concrete headwall.
  2. Molded from NSF listed PE 4710 resin.
  3. Pressure rating and size shall be the same as the required pipe and fitting SDR.
  4. IPS or DIPS to match required pipe size.
- D. Polyethylene Electrofusion Coupling
1. For joining plain ends of polyethylene pipe where butt fusion is not practical as approved by the Engineer.
  2. Molded from NSF listed PE 4710 resin or fabricated from pipe meeting NSF requirements with an integral heating element and electrical leads to connect the heating element power supply.
  3. Pressure rating and size shall be the same as the required pipe and fitting SDR.
- E. Polyethylene Electrofusion Saddle
1. For installation corporation stops in HDPE pipe for water service connection or manual air release valve.
  2. Molded from NSF listed PE 4710 resin with an integral heating element and electrical leads to connect the heating element power supply.
  3. Pressure rating and size shall be the same as the required pipe and fitting SDR.
- F. Threaded HDPE Transition Adapter, Unions, and Threaded Adapters
1. For joining polyethylene pipe to threaded fittings and valve ends (NPT).
  2. HDPE end of transition adapters be SDR rated to match required pipe SDR.
  3. HDPE end of transition adapters shall be molded from NSF listed PE 4710 resin.
  4. All metallic materials shall be constructed of Type 316 Stainless Steel.
  5. Coupling transition end shall be Male NPT.
  6. IPS or DIPS to match required pipe size.
- G. Blind Flanges
1. Molded from NSF listed PE 4710 resin.
  2. Pressure rating and size shall be the same as the required pipe and fitting SDR.

## 2.4 FABRICATION

- A. Thermal Butt-Fusion:
1. Join the pipe to itself, or to the polyethylene fittings or to the flange connections by means of thermal butt-fusion.

2. Have all fusion performed by personnel trained by the pipe supplier or other qualified persons, using tools approved by the pipe supplier.
  3. The polyethylene fittings and flanged connections to be joined by thermal butt-fusion shall be from the same type, grade and class of polyethylene compound as the polyethylene pipe unless otherwise approved.
  4. Joint strength must be equal to that of the adjacent pipe.
- B. Socket Fusion (When Applicable)
1. Join the pipe to socket type fittings by means of socket fusion
  2. Have all fusion performed by personnel trained by the pipe supplier or other qualified persons, using tools approved by the pipe supplier.
  3. The polyethylene fittings to be joined by thermal socket-fusion shall be from the same type, grade and class of polyethylene compound as the polyethylene pipe unless otherwise approved.
- C. Electrofusion (When Applicable)
1. Applies to the installation of electrofusion couplings and saddles.
  2. Have all fusion performed by personnel trained by the pipe supplier or other qualified persons, using tools approved by the pipe supplier.
  3. The coupling or saddle shall be joined using heat created by electric current from a control box.
  4. Install clamps to hold the fitting in place during the fusion process.
- D. Flanged Joints
1. Flange joining of sections of pipe is allowed to facilitate the pipe installation process as approved by the Engineer.
  2. Joints shall include full face gaskets.
  3. Flange bolts shall be tightened to the same torque value and tightening pattern recommended by the manufacturer.
  4. Flange bolts and nuts shall be Type 316 stainless steel and have tensile strength equivalent to SEA Grade 3.
  5. Use flat Type 316 stainless steel washers between the nut and backup ring.
  6. Retighten bolts to the manufacturer recommended torque value after an hour to offset the effects of compression set.
- E. Mechanical Connections: The mechanical connections of the polyethylene pipe to auxiliary equipment shall be in accordance with the pipe suppliers written instructions.

## PART 3 - EXECUTION

### 3.1 INSTALLATION OF PIPES AND FITTINGS

- A. Install joint and transition adapters in accordance with the manufacturer's recommendations.
- B. Refer to the drawings and Section 02200 for additional bedding and backfill requirements.
- C. Joining surfaces must be clean and dry.
- D. Pipe must not be dumped, dropped, pushed or rolled into the trench. Provide appropriate equipment to lift move and lower the pipe into the trench as necessary.
- E. Install pipe and fittings in accordance with the Marine Installations Chapter of PPI Handbook of Polyethylene Piping and C906 (4 in. to 63 in. diameter).

### 3.2 TESTING

#### A. Joint Quality

1. 12" diameter and smaller - On each day butt fusions are to be made, the first fusion of the day shall be a trial fusion. The trial fusion shall be allowed to cool completely, then fusion test straps shall be cut out. The test strap shall be 12" or 30 times the wall thickness in length (minimum) and 1" or 1.5 times the wall thickness in width (minimum). Bend the test strap until the ends of the strap touch. If the fusion fails at the joint, a new trial fusion shall be made, cooled completely and tested. Butt fusion of pipe to be installed shall not commence until a trial fusion has passed the bent strap test.
2. Pipes larger than 12" diameter - Visual inspection of the joint shall be the primary indicator of joint quality. Specific visual inspection criteria shall be provided by the pipe and fitting manufacturer. The v-groove between the bends shall be uniform around the circumference of the pipe and both sides of the bead shall have uniform thickness and height indicating proper pipe alignment during the fusion process.
3. All fused joints shall be visually inspected by qualified fusion operators and the Engineer during construction to assure uniform alignment and beading.

B. Leak Test: Refer to [ Section 02675 / 02755/ 15050 ] for testing requirements.

END OF SECTION

SECTION 02640SERVICE SADDLESPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish and install service saddles of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. All service saddles of the same type shall be manufactured by one manufacturer.
- B. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" material in compliance with NSF 372.
- C. Qualifications of Manufacturer: Products shall have proven reliable in similar installations over a reasonable number of years.

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that service saddles meet or exceed the requirements of these Specifications.
- C. Submit manufacturers installation instructions and specifications for all service saddles.

PART 2 - PRODUCTS2.1 MATERIALS

- A. For cast iron, ductile iron and asbestos cement (AC) pipe.
1. Body casting - wrap around design constructed of ductile iron (ASTM A 536).
  2. Gasket - 3½ inch diameter constructed of Buna-N, grooved to conform to pipe surface and bonded in place.
  3. Straps and bolts - low alloy steel conforming to AWWA C800.
  4. Washers and nuts - heavy hex nuts and washers constructed low alloy steel conforming to AWWA C800.
  5. Double strap required.
  6. Acceptable manufacturer.
    - a. Romac (style 202S).
    - b. Smith Blair (Model 317)
    - c. Ford Meter Box Company (Model FCD202)
    - d. Or equal.

- B. For C900 PVC and HDPE (minimum SDR26) pipe.
  - 1. Body casting - wrap around design constructed of ductile iron (ASTM A 536) with nylon fused coating 10-12 mils.
  - 2. Gasket - 3½ inch diameter constructed of Buna-N, grooved to conform to pipe surface and bonded in place.
  - 3. Bands and bolts - welded 2" wide straps (14 gauge) and 5/8 inch treaded bolt combination constructed of Type 304 (18-8) stainless steel. Welds shall be passivated.
  - 4. Washers and nuts - heavy hex nuts and washers constructed of 18-8 stainless steel.
  - 5. Double band required.
  - 6. Acceptable manufacturer.
    - a. Romac (style 202NS for PVC and style 202N for HDPE).
    - b. Smith Blair (Model 317)
    - c. Ford Meter Box Company (Model FC202)
    - d. Or equal.
- C. For other type(s) of pipe – confirm with Engineer.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install at locations shown on the Drawings and as specified by the pipe manufacturer and saddle manufacturer.
- B. Check for leaks prior to backfilling as appropriate.
- C. Tap pipe with tools and by methods specifically furnished by pipe manufacturer.
- D. For PVC, HDPE and AC pipe use tapping machine with smooth strap retainer (chains or other devices that may gouge or score the pipe shall not be used).

END OF SECTION

SECTION 02641GATE VALVESPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, install and test gate valves of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. All gate valves of same type and style shall be manufactured by one manufacturer.
- B. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" material in compliance with NSF 372.
- C. Acceptable Manufacturers:
1. American Flow Control
  2. Kennedy/McWane
  3. Clow/McWane
  4. Mueller
  5. Or approved equal.

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that valves meet or exceed the requirements of these Specifications.
- C. Submit manufacturers installation instructions and specifications for all valves.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Waterworks type NRS valves (AWWA):
1. Valve Body, bonnet and stuffing box - Cast iron (ASTM A126 C1B), or Ductile iron (ASTM A536), coated inside and out with fusion bonded epoxy meeting AWWA C550. Face-to-face dimensions shall comply with ANSI B16.10 and flanges to comply with ANSI B16.1.
  2. Resilient Wedge - Ductile iron wedge with bonded EPDM or Nitrile (Buna-N/NBR) rubber covering.
  3. Stem - Manganese bronze, ASTM B584
  4. Stuffing box O-rings
    - a. Two O-rings, each nitrile rubber.
    - b. Capable of changing under pressure.

5. Wedgenut - Bronze, ASTM B62 or Manganese bronze, ASTM B584
6. Bolting - stainless steel Type 18-8 (304 SS), ASTM F593, GP1 bolts and nuts
7. End Connections
  - a. Buried valves – gasketed and bolted mechanical joints in conformance with AWWA standards for appropriate pipe material.
  - b. Exposed valves in buried structures – flanged and bolted joints in conformance with ANSI/ASME B16.1 and AWWA standards for appropriate pipe material. Bolts shall be 304 stainless steel.
8. Operation
  - a. Buried valves – 2-inch square nut, cast iron, ASTM A126, C1B or ductile iron, ASTM A536. Gear actuator is required if rim pull is greater than 40 ft-lbs. Offset gear required if needed based on valve position and bury depth. Gate box required. Provide a sufficient of tee-handle valve wrenches for operation valves of various depths.
  - b. Exposed valves in buried structures
    - i. Handwheel. Gear actuator is required if rim pull is greater than 40 ft-lbs.
    - ii. Floor stand actuators where indicated on the Drawings
    - iii. Floor boxes where indicated on the Drawings.
  - c. Opening Direction – counterclockwise (open left)
9. Water working pressure: 250 psi
10. Standards - valves shall meet or exceed AWWA C509, latest edition.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install in accordance with manufacturer’s written instructions.
- B. Install valves with stem position vertical.
- C. Valve box vertical and centered over operating nut.
- D. Valve box supported during backfilling and maintained vertical.
- E. Install and test in accordance with AWWA C500 and AWWA C-509 or AWWA C515, latest revision.
- F. For PVC or PE main, install anchor rods around the valve body or through the mounting lugs and embed the rods in concrete beneath the valve.

#### 3.2 ADJUSTING

- A. Valve Boxes: Top of valve box shall be adjusted to be flush with final grade.

END OF SECTION

SECTION 02642CORPORATION STOPSPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish and install corporation stops of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. All corporation stops shall be manufactured by one manufacturer.
- B. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" or "No Lead" material where specified in compliance with NSF 372.
- C. Qualifications of Manufacturer: Products have proven reliable in similar installations over a reasonable number of years.
- D. Acceptable Manufacturers:
1. Ford Meter Box Company Inc.
  2. A. Y. MacDonald Manufacturing Company
  3. Mueller Company
  4. Or equivalent

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturers product data and installation instructions.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Ball style corporation valve conforming to AWWA C 800. Valve shall have solid one-piece tee head and stem, dual o-rings in the stem, coated brass ball with no metal-to-metal contact, and integral or secured ends to prevent unintentional disassembly.
- B. Constructed of "Lead free" brass in compliance with NSF 372, NSF 61 and Safe Drinking Water Act Section 1417. Lead free fittings shall contain less than 0.25% lead on a weighted average and installed using flux and solder containing not more than 0.2% lead. **[NTS: Check with client to see if they require "No Lead". If they do, delete previous paragraph and use the following.]** Constructed of "No Lead" brass in compliance with NSF 372, NSF 61 and Safe Drinking Water Act Section 1417. **No Lead fittings shall contain less than 0.09% lead on a weighted average and installed using flux and solder containing not more than 0.2% lead.**

- C. Inlet shall have AWWA standard thread (a.k.a. Mueller or “CC” thread).
- D. Outlet shall be copper pipe packed joint (CPPJ) or approved restrained grip joint
- E. Working pressure of 300 psi shall be required.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install at locations shown on the Drawings and as specified in accordance with manufacturer's instructions.
- B. Check and adjust all corporation stops for smooth operation.

END OF SECTION

SECTION 02643CURB STOPSPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish and install curb stops of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. All curb stops shall be manufactured by one manufacturer.
- B. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" or "No Lead" material where specified in compliance with NSF 372.
- C. Qualifications of Manufacturer: Products shall have proven reliable in similar installations over a reasonable number of years.
- D. Acceptable Manufacturers:
1. Ford Meter Box Company
  2. A.Y. MacDonald
  3. Mueller Company
  4. Or equivalent

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturers product data and installation instructions.

PART 2 - PRODUCTS2.1 PRODUCT CONSTRUCTION

- A. Ball style valve conforming to AWWA C 800. Valve shall have solid one-piece tee head and stem, dual o-rings in the stem, coated brass ball with no metal-to-metal contact, ring lock to lock stem solidly into the body and non-directional seats to support the valve and assure watertight.
- B. Constructed of "No Lead" brass in compliance with NSF 372, NSF 61 and Safe Drinking Water Act Section 1417. No Lead fittings shall contain less than 0.09% lead on a weighted average and installed using flux and solder containing not more than 0.2% lead.
- C. Inlet and outlet shall be copper pipe packed joint (CPPJ) type or approved restrained grip joint.
- D. Working pressure of 300 psi shall be required.
- E. Valve shall open [ **left / right** ].

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install at locations shown on the Drawings and in accordance with manufacturer's instructions.

3.2 ADJUSTMENTS

A. Check and adjust all curb stops for smooth operation.

END OF SECTION

SECTION 02644HYDRANT ASSEMBLIESPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish and install hydrant assemblies of the type(s) and size (s) and in the locations (s) shown on the Drawings and as specified herein.
- B. Hydrant Assemblies consist of:
  - 1. Hydrant anchoring tee, swivel tee or standard tee, as required.
  - 2. 6 inch gate valve and valve box.
  - 3. 6 inch hydrant branch piping.
  - 4. Hydrant.
  - 5. Drainage material.
  - 6. Thrust blocking and joint bracing.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Hydrants shall conform to AWWA C502 and all hydrants shall be from one manufacturer.
- B. Gate valves shall conform to AWWA C5090 (Resilient-Seated Gate Valves for Water Supply).
- C. Fire hydrant valves shall be approved by Levy County fire officials.
- D. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" material in compliance with NSF 372.
- E. Acceptable Manufacturers:
  - 1. Mueller Company, Decatur, Illinois.
  - 2. Or approved equal.

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that all hydrant assemblies meet or exceed the requirements of these Specifications.
- C. Submit manufacturers installation instructions and specifications for all hydrant assemblies.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Fire Hydrants:
  - 1. Dry barrel type with a 5 inch minimum valve opening.

2. Two (2) 2-1/2 inch hose connections and one (1) 4-1/2 inch pumper connection.
    - a. 2-1/2 inch outlets: 60o V threads, 7-1/2 threads to the inch, external threads 3-1/16 inches, O.D. National Standard threads.
    - b. 4-1/2 inch outlet: 4 threads to the inch, external threads 5-3/4 inches, O.D. National Standard threads.
    - c. Supply adapters if existing fire fighting equipment does not match the threads specified above.
  3. 150 pounds working pressure and 300 pounds hydrostatic test pressure.
  4. Working parts shall be bronze and open counterclockwise unless otherwise specified.
  5. Designed with standpipe breaking ring or breakable sections.
  6. Supply one (1) collision repair kit for every twenty-five (25) hydrants installed.
  7. Caps shall be attached to hydrant body by chains.
  8. Hydrants shall be self-draining type.
  9. Hydrants shall comply with AWWA Standard C502, "Fire Hydrants for Ordinary Water Works Services," and shall be equipped with a minimum of one pumper outlet nozzle 4 1/2 inches in diameter and two hose nozzles 2 1/2 inches in diameter.
- B. Gate Valves: Waterworks type non-rising stem AWWA valve for buried service.
- Valve Boxes:
1. Cast iron, minimum thickness 3/10 inch with the word "WATER" cast in covers.
  2. Be of such length as required without full extensions.
  3. As specified in this Division.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install hydrants as shown in the details and using manufacturer's written instructions.
- B. Hydrants shall be installed plumb and in true alignment with the connection pipes to the water main. They shall be securely braced against the end of the trench with concrete thrust blocks.
- C. No hydrant assembly shall be backfilled until approved by the Engineer.
- D. Provide drainage material and thrust blocks as shown.
- E. Provide barrel extensions as required for hydrant to be installed at proper grade.
- F. Provide finish paint on all exposed surfaces. Color shall meet Owner's requirements as approved by the Engineer.
- G. Hydrant placement is to be a minimum of six feet and a maximum of nine feet from the curb or paved road surface, unless otherwise approved.

#### 3.2 CLEANING

- A. Clean all hydrants of concrete, etc. and repaint as necessary to the satisfaction of the Engineer.

END OF SECTION

SECTION 02646VALVE BOXESPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish and install valve boxes of type(s) and size(s) and in the locations shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. All valve boxes shall be manufactured by one manufacturer.
- B. Qualifications of Manufacturer: Products to have been proven reliable in similar installations over a reasonable number of years.
- C. Acceptable Manufacturers:
  - 1. Tyler
  - 2. Quality Water Products
  - 3. Bibby-Ste-Croix
  - 4. McWane
  - 5. Or Equivalent

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that all valve boxes meet or exceed the requirements of these Specifications.
- C. Submit manufacturers installation instructions and specifications for all valve boxes.

PART 2 - PRODUCTS2.1 MATERIALS

- A. The valve box shall be ductile iron or cast iron, slip type two-piece integral base, 5-1/4 inch shaft. Top section with flanges.
- B. The cover shall be ductile iron or cast iron, with the word "Water" cast in cover.
- C. Valve boxes shall be suitable for the application surface loading and valve size.
- D. Belled Base Section.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Installation as shown on the Drawings and/or as specified herein.
1. When installation is complete, no pressure shall be exerted by valve box on the water main or on the valve.
  2. Be of such length as required without full extension. Minimum lap 6 inches.

END OF SECTION

SECTION 02648TAPPING SLEEVES & VALVESPART 1 - GENERAL1.1 DESCRIPTION

- A. Work Included: Furnish, install and test tapping sleeves and valves of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of "Lead-free" material in compliance with NSF 372.
- B. Manufacturers of tapping sleeves shall have a minimum of 10 years of experience manufacturing similar products.
- C. Acceptable Manufacturers:
1. Romac Industries, Inc.
  2. JCM Industries (Model 415 for PCCP pipe)
  3. Smith-Blair
  4. Ford Meter Box Company
  5. Or equivalent.

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturers product data and installation instructions.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Valves: Shall be resilient wedge gate valve with mechanical joint inlet by mechanical joint outlet with non-rising stem and operator type as specified in Section 02641.
- B. Tapping Sleeves for use on cast iron, ductile iron, PVC or AC:
1. NSF-61 certified. (Not required if not potable water application)
  2. Tapping sleeve shall be full circumferential seal, heavy duty all stainless steel sleeve with triangular sidebar lugs and removeable stainless steel bolts.
  3. Shell & Sidebar lugs – heavy gauge type 304 or 304L stainless steel, full GMAW and GTAW welds, full chemical passivation of all welds for corrosion resistance.
  4. Outlet – Full type 304 stainless steel outlet, mechanical joint (AWWA C-111/ANSI 21.11) to mate with standard mechanical joint gate valve.

5. Test Plug – provide ¾” test plug in outlet neck to allow pressure testing of sleeve before tapping.
  6. Nuts and Bolts – Type 304 stainless steel, coated to prevent galling.
  7. Working pressure: 4”–12” @ 250 psi, 14”–24” @ 200 psi, 26”–30” @ 150 psi.
- C. Tapping Sleeves for use on precast concrete cylinder pipe:
1. NSF-61 certified coatings.
  2. Tapping sleeve shall be fabricated steel with epoxy coating designed to reinforce the pipe and provide easy installation with maximum safety factor.
  3. Tapping sleeve shall have a separate body and tapping gland to reinforce the pipe prior to removal of prestress wire.
  4. Outlet gasket shall be a broad cross section gasket with hydrodynamic lip to provide initial seal that increases with increased line pressure.
  5. Tapping sleeve shall be equipped with load bearing set screws on the gland flange to transfer any load on the outlet from the steel cylinder and onto the sleeve.
  6. Grout Seal Assembly – provide grout seal assembly under the sleeve to facilitate fitting oversize, undersize, or out-of-round pipe.
  7. Nuts, Bolts and Straps – Type 316 stainless steel, coated to prevent galling.
- D. Gasket: Virgin Neoprene (SBR) or Buna-N (NBR) type full circumferential gasket suitable for potable water.
- E. Valve Boxes: As specified in Section 02646.
- F. Acceptable Manufacturers:
1. Romac SST III -MJ.
  2. JCM Model 439.
  3. Smith-Blair Model 665 w/ MJ outlet.
  4. Ford FTSS w/ MJ outlet.
  5. Or equivalent.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Tapping Sleeve and Valve:
1. Confirm the outside diameter of the pipe matches the range specified for the tapping sleeve. Contractor shall create a template of the outside of outside diameter of the pipe surface per manufacturer’s recommendations.
  2. Thoroughly clean and disinfect the exterior pipe surface. A suitable NSF approved lubricant should be used on rough surface pipe to assure proper seal.
  3. Outlet shall be set horizontally, and sleeve shall be squarely centered on the main to be tapped. Confirm that the valve is in proper alignment by checking the distance between flange faces on all sides is equal.
  4. Support shall be provided under the sleeve and valve during the tapping operation.
  5. Pressure test the tapping sleeve before installing the tap.
  6. Thrust blocks shall be provided under and behind all tapping sleeves.
  7. After completing the tap, the valve shall be flushed to ensure the valve seat is clean.

8. Boxes shall be set vertically and adequately supported squarely over the operating nut.
- B. Installation shall be made under pressure and tapping machine shall be furnished by a Specialty Contractor with a minimum of 5-years of experience installing similar sized pressurized taps.
- C. Installation on PCCP pipe shall be in accordance with AWWA Manual M-9.

3.2 ADJUSTING

- A. Valve Boxes: Top of valve box shall be adjusted to be flush with final grade.

END OF SECTION

SECTION 02649TRACER WIREPART 1 - GENERAL1.1 DESCRIPTION

- A. Install electrically continuous tracer wire with access points as described herein to be used for locating non-metallic pipe with an electronic pipe locator after installation.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SUBMITTALS

- A. Manufacturer's materials specifications

1.4 QUALITY ASSURANCE

- A. All system components specified herein shall be furnished by a single Manufacturer who regularly engages in the production of this type of equipment. The Manufacturer shall be responsible for the performance and warranty of the entire system provided under this section.
- B. Qualifications of Manufacturers: The Manufacturer shall have a minimum of 10 years of experience in the design and manufacture of the specified systems.
- C. Acceptable Manufacturers:
  - 1. Copperhead Industries
  - 2. Seton
  - 3. Or equivalent
- D. Project Design: Attention is directed to the fact that the Drawings are based on Copperhead Industries as listed in this Section.

1.5 PROJECT CONDITIONS

- A. Service Laterals on public property - Trace wire must terminate at an approved grade level/inground trace wire access box, located at the edge of the road right-of-way, and out of the roadway.
- B. Service Laterals on private property - Trace wire must terminate at an approved above-ground trace wire access box, affixed to the building exterior directly above where the utility enters the building, at an elevation not greater than 5 vertical feet above finished grade, or terminate at an approved grade level/in-ground trace wire access box, located within 2 linear feet of the building being served by the utility.
- C. Hydrants – Trace wire must terminate at an approved above-ground trace wire access box, properly affixed to the hydrant grade flange. (affixing with tape or plastic ties shall not be acceptable)

- D. Long-runs, in excess of 500 linear feet without service laterals or hydrants - Trace wire access must be provided utilizing an approved grade level/in-ground trace wire access box, located at the edge of the road right-of-way, and out of the roadway. The grade level/in-ground trace wire access box shall be delineated using a minimum 48" polyethylene marker post, color coded per APWA standard for the specific utility being marked.

## PART 2 - PRODUCTS

### 2.1 MATERIAL

- A. Tracer wire for open trench installations shall be 10-gauge minimum copper clad steel wire (CCS) with thermoplastic insulation recommended for direct burial. (Copperhead #1030-HS, APHS High Strength BoreTough Series Tracer Wire #APHS-1001, or equal).
- B. All mainline trace wires must be interconnected in intersections, at mainline tees and mainline crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. (Copperhead #LCS1030, Pro-Line Safety Tracer-Lock Connector #TL-LUG-SS, or equal). At Crosses, the four wires shall be joined using a 4-way connector. Use of two 3-way connectors with a short jumper wire between them is an acceptable alternative. Wire connectors shall be watertight and provide electrical continuity.
- C. Direct bury wire connectors shall include 3-way lockable connectors and mainline to lateral lug connectors specifically manufactured for use in underground trace wire installation. Connectors shall be dielectric silicon filled to seal out moisture and corrosion, and shall be installed in a manner so as to prevent any uninsulated wire exposure. (Copperhead #3WB-01, King Innovation DryConn Direct Bury Lug Plus #90750, or equal).
- D. Tracer wire color shall be blue for all water construction and green for all wastewater construction.
- E. Tracer wire access boxes or test stations shall be heavy duty in-ground boxes with cast iron lids color coded to identify use. Non-Roadway access boxes shall be light-duty grade level boxes (Copperhead # LD14\*TP or equal). Concrete/Driveway boxes shall be standard grade level boxes (Copperhead #CD14\*TP 14" or equal). Fire hydrant access boxes shall be above ground two terminal boxes with 1" conduit (Copperhead Cobra #T3-75-F or equal).
- F. Trace wire must be properly grounded at all dead ends/stubs. Grounding of trace wire shall be achieved by use of a drive-in magnesium grounding anode rod with a minimum of 20-feet of #14 red HDPE insulated copper clad steel wire connected to anode (minimum 0.5 lb.) specifically manufactured for this purpose, and buried at the same elevation as the utility (Copperhead #ANO-14 or equal).

## PART 3 - EXECUTION

### 3.1 GENERAL REQUIREMENTS

- A. Tracer wire shall be installed on PVC and HDPE mains, laterals, and services. The wire shall be installed in such a manner as to be able to properly trace all water mains without loss or deterioration of signal or without the transmitted signal migrating off the tracer wire.
- B. Trace wire shall be installed in the same trench for open trench installation, inside bored holes if horizontal directional drilling and inside casing if cased pipe installation for all non-metallic pipelines. It shall be secured to the pipe as required to ensure that the wire remains adjacent to the pipe. The trace wire shall be securely bonded together at all wire joints with an approved watertight connector to provide electrical continuity, and it shall be accessible at all new water valve boxes.
- C. At all valve box connections, tracer wire shall be installed inside the valve box with tracer wire clips to hold the tracer wire to one side to avoid interference when valve wrench is used. Tracer wire clips shall be Vait Products Gate Valve Box Tracer Wire Clips or approved equal.
- D. At all hydrant connections, tracer wire shall be installed inside a magnetized tracer box directly adjacent to the hydrant. Tracer boxes shall be heavy duty cast lid boxes with 5-inch top flange and color coded lid to match utility located. Lids shall be directly connected to tracer wire and not require removal of the lid for connection of locator device. Tracer boxes shall be Copperhead SnakePit Roadway Boxes or approved equal.
- E. At the point of connection between cast or ductile iron water mains, with any non-iron water main, the tracer wire shall be properly connected to the iron pipe with a cad weld or approved equivalent. Tracer wire welds shall be completely sealed with the use of an approved mastic type sealer specifically manufactured for underground use. Mastic shall be applied in a thick coat a minimum of ½-inches thick and shall be protected from contamination by the backfill material with the use of a plastic membrane.
- F. Tracer wire shall be laid flat and securely affixed to the pipe at 10-foot intervals. The wire shall be protected from damage during the execution of the works. No breaks or cuts in the tracer wire or tracer wire insulation shall be permitted. At water service saddles, the tracer wire shall not be allowed to be placed between the saddle and the water main. Except for approved spliced-in connections, tracer wire shall be continuous and without splices from valve box to valve box.
- G. At all non-metallic pipe ends, a minimum, of 6 feet of tracer wire shall be extended beyond the end of the pipe, coiled and secured for future connections. The end of the tracer wire shall be spliced to the wire of a six-pound magnesium or zinc anode and is to be buried at the same elevations as the water main.
- H. For horizontal directional drilling, auguring or boring installations, two tracer wires shall be installed with the pipe and connected to the tracer wire at both ends, or cad welded to the existing iron pipe at both ends.

- I. Spliced connections between the main line tracer wire and branch connection tracer wire shall only be allowed at water main tees, crosses or at iron or copper water services where a portion of the branch connection water main or water service is replaced with a non-iron or non-copper material. The branch connection tracer wire shall be a single tracer wire properly spliced to the main line tracer wire. Where the existing branch connection is neither iron nor copper, then the new branch connection tracer wire shall be properly spliced to the existing tracer wire on the branch connection.
- J. At all repair locations where there is existing tracer wire, the tracer wire shall be properly reconnected and spliced as outlined above.

### 3.2 TERMINATION/ACCESS

- A. All tracer wire termination points shall utilize an approved tracer wire access box specifically manufactured for this purpose.
- B. All grade-level/in-ground boxes shall be properly identified with “sewer” or “water” cast into the cap and color coded.
- C. A minimum of 2 feet of excess/slack wire is required at all tracer wire access boxes after meeting final elevation.
- D. All tracer wire access boxes must include a manually interruptible conductive/connective link between the terminals for the tracer wire connection and the terminal for the grounding anode wire connection.
- E. A drive-in grounding anode rod is required at each termination/access point installed at pipe elevation. Anode rod shall have factory applied grounding anode wire for connection to access box. Grounding anode wire shall be connected to the identified terminal on all access boxes.

### 3.3 TESTING REQUIREMENTS

- A. Contractor shall perform a continuity test on all trace wire in the presence of the Engineer or the Engineers’ representative. If the trace wire is found to be not continuous after testing, Contractor shall repair or replace the failed segment of the wire.

### 3.4 MEASUREMENT

- A. There is no separate payment for the supply and installation of tracer wire on any construction or installation of non-ductile iron water main by the Contractor. The Contractor shall consider the supply and installation of the tracer wire incidental to all construction of non-ductile mains.

END OF SECTION

SECTION 02650BURIED UTILITY MARKINGSPART 1 - GENERAL1.1 DESCRIPTION

## A. Work Included:

1. This work shall consist of providing and installing utility line markings above all buried lines installed as part of this contract and replacing existing markings disturbed as part of this contract. Buried utilities are indicated on the Civil.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturer's "Certification of Conformance" that utility markings meet or exceed the requirements of these Specifications.
- C. Submit manufacturers specifications for utility markings.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Materials and color shall be in accordance with latest AASHTO specifications for pipe and utility marking.
- B. Marking tape color shall be in accordance with latest American Public Works Association (APWA) Uniform Color Code and American National Standards Institute ANSI Standard Z535.1, Safety Color Code specifications for buried utility marking as noted in the Schedule below.
  1. Schedule

Marker Color	Buried Utility
Blue	Potable Water & Associated lines
Green	Sanitary Sewers, Storm Drain and other Drain lines
Orange	Telecommunication, signal, alarm
Purple	Reclaimed, Recycled, Irrigation Water and Slurry Lines
Red	Electric Power lines cables conduits and lighting cables
Yellow	Gas, Oil, Steam, Petroleum or Gaseous Material Lines

2. Warning Information shall be in Black Letters with typical wording of:
  - a. "CAUTION: BURIED (NAME OF UTILITY LINE) BELOW"
- C. For ferrous pipe material use 0.004" minimum polyethylene film; 6" wide clearly marking type of buried utility.

- D. For non-ferrous pipe material (e.g. Concrete, PVC, PE, etc.) use detection tape composite of polyethylene and metallic core 6" wide clearly marking type of buried utility.
- E. Seton Identification Products, New Haven, CT, Utility Safeguard LLC or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Marking tape shall be installed over utility lines centerline and buried 24" below grade.
- B. Markings damaged during opening of trench shall be reinstalled with 2' overlap at broken sections.

END OF SECTION

SECTION 02655COUPLINGS & CONNECTORS FOR BURIED APPLICATIONSPART 1 - GENERAL1.1 DESCRIPTION

- A. Furnish and install couplings and connectors of the type and size in the location shown on the Drawings and as specified herein.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Divisions 1 and 2.

1.3 QUALITY ASSURANCE

- A. Minimum pressure rating equal to that of the pipeline in which they are to be installed.
- B. Couplings and connectors, other than those specified herein, are subject to the Engineer's approval. Acceptable Manufacturers:
  - 1. Romac Industries
  - 2. Krausz
  - 3. Smith Blair
  - 4. Ford Meter Box Company
  - 5. Or Equal
- C. Reference Standards:
  - 1. AWWA C104 – Cement-Mortar Lining for Ductile-Iron Pipe and Fittings
  - 2. AWWA C111 – Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
  - 3. AWWA C116 – Protective Fusion-Bonded Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings
  - 4. AWWA C153 – Ductile-Iron Compact Fittings
  - 5. AWWA C213 – Fusion-Bonded Epoxy Coatings and Linings for Steel Water Pipe and Fittings
  - 6. AWWA C219 – Bolted, Sleeve-Type Couplings for Plain-End Pipe
  - 7. All components in contact with potable water, or water being processed to become potable water, shall be compliant with NSF 61 and shall be constructed of “Lead-free” material in compliance with NSF 372.

1.4 SUBMITTALS

- A. Submit shop drawings in accordance with the applicable section of Division 1 and the General Conditions of the Construction Contract.
- B. Submit manufacturers product data and installation instructions.

PART 2 - PRODUCTS2.1 MATERIALS

- A. All Couplings and Connectors:
  - 1. Gasket Materials: Composition suitable for exposure to the liquids to be contained within the pipes.
  - 2. Diameters to properly fit the specific types of pipes on which couplings and connectors are to be installed.
- B. Sleeve Type Transition Couplings (for 4 – 12” pipe size)
  - 1. Buried Non-Restrained Couplings:
    - a. Two top facing bolt design
    - b. Fusion bonded epoxy Ductile iron center sleeve, end rings and bolt guides. Ductile iron meeting or exceeding ASTM A536, Grade 65-45-12.
    - c. Two wedge-section EPDM or NBR rubber gaskets compounded for water service. NSF-61 certified for potable water service.
    - d. Ductile iron heat treated grippers, 304 stainless steel draw hooks, and reinforced nylon ramp runners.
    - e. Nuts and bolts shall be 304 Stainless Steel with rolled thread and anti-galling compound.
    - f. Couplings shall be long barrel type.
    - g. Coupling shall be fusion bonded epoxy coated meeting AWWA C213 and NSF-61 standards for potable water applications.
    - h. Acceptable Manufacturers:
      - i. Romac Industries – Macro HP™
      - ii. Krausz – Hymax® 2
      - iii. Smith Blair – Model 421
      - iv. Or Equal
  - 2. Buried Restrained Couplings:
    - a. Two top facing bolt design
    - b. Fusion bonded epoxy steel or ductile iron center sleeve and end rings.
    - c. Two wedge-section EPDM or NBR rubber gaskets compounded for water service and NSF-61 certified.
    - d. 304 Stainless Steel bridge or Armor over gasket in expansion zone.
    - e. Nuts and bolts shall be 304 Stainless Steel with rolled thread and anti-galling compound.
    - f. Couplings shall be long barrel type.
    - g. Coupling shall be fusion bonded epoxy coated meeting AWWA C213 and NSF-61 standards for potable water applications
    - h. Acceptable Manufacturers:
      - i. Romac Industries – Alpha™
      - ii. Krausz – Hymax Grip
      - iii. Smith Blair – Pipe Lock Coupling
      - iv. Or Equal
- C. Solid Sleeve Couplings
  - 1. Solid sleeves shall be ductile iron with mechanical joint ends.
  - 2. Couplings shall meet AWWA/ANSI C-153/A21.53 and C-111/A21.11 for joints, and C-104/A21.4 for cement lining in sizes 3"-24".

## COUPLINGS &amp; CONNECTORS FOR BURIED APPLICATIONS

3. Nuts and bolts shall be ductile iron low alloy steel per ANSI/AWWA A21.11/C-111.
  4. Acceptable Manufacturers:
    - a. Romac – Model 501
    - b. Smith Blair – Model 441.
    - c. Ford – Model FC1 or FC2A
    - d. Or Equal
- D. Mechanical Joint Adaptors (Foster Adaptor® – Infact Corporation)
1. Required to connect fittings and valves with mechanical joints
  2. Ductile iron construction mechanical joint bolt pattern.
  3. Bolts and nuts shall meet AWWA C-111.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Sleeve Type Couplings:
1. Thoroughly clean pipe ends a minimum of 12-inches from the ends prior to installing couplings and use soapy water as a gasket lubricant.
  2. Slip an end ring and gasket over each pipe and place the center sleeve centered over the joint.
  3. Insert the other pipe length into the center sleeve the proper distance.
  4. Press the gaskets and end rings evenly and firmly into the center sleeve flares.
  5. For two-bolt systems, insert or tighten the bolts, finger tighten and progressively tighten nuts on the top of the coupling with a torque wrench applying the torque recommended by the manufacturer. For multiple bolt systems, insert or tighten the bolts, finger tighten and progressively tighten diametrically opposite nuts around the coupling with a torque wrench applying the torque recommended by the manufacturer.
  6. Insert and tighten the tapered threaded lock pins as needed.
- B. Install thrust rods, supports, and other provisions to properly support pipe weight and axial equipment loads.

END OF SECTION

SECTION 02675CLEANING, TESTING AND DISINFECTION OF WATER MAINSPART 1 - GENERAL1.1 DESCRIPTION

- A. The work of this section includes the furnishing of all labor, tools, equipment and materials and performing all operations necessary for the flushing, pressure testing, leakage testing, and chlorination of water mains as specified herein and as required to complete the work.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

- A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1 and 2.

1.3 QUALITY ASSURANCE

- A. Standards (as applicable):
1. All work shall be in accordance with this specification and AWWA C651. Where conflicts appear between these specifications and AWWA C651 the more stringent requirement shall apply.
  2. Chlorine solution for disinfecting water mains and appurtenances shall be made from either liquid sodium hypochlorite, or solid calcium hypochlorite, which shall conform to the latest AWWA B300 Standard for Hypochlorite.
  3. Chlorine test kits shall be as described in the current edition of AWWA M12 - Simplified Procedures for Water Examination.
  4. Disposal of chlorinated water as per AWWA C651, Appendix B.

1.4 COORDINATION

- A. Use of water will only be as approved and coordinated by the Owner.
- B. All flushing, pressure and leakage testing, and chlorinating shall be done by the Contractor in the presence of the Engineer and in the presence of the Owner or Owner's Representative in accordance with the requirements of the local and state plumbing codes and the appropriate Sections of these Specifications, at no additional cost to the Owner.

PART 2 - PRODUCTS2.1 MATERIALS

- A. Each temporary blow-off shall consist of a corporation cock, type K copper tubing and a curb stop, each of not less than 1-inch diameter.
- B. A pumping unit or proportionate feeder suitable for delivering a hypochlorite solution to the isolated main shall be provided. The unit used shall prevent chlorine solution from flowing back into the existing system.

PART 3 - EXECUTION3.1 GENERAL

- A. Thoroughly clean all piping prior to testing. Remove all dirt, dust, oil, grease, and other foreign material. Exercise care while cleaning to avoid damage to linings and coatings.
- B. Supply all labor, equipment, materials, gages, and pumps required to conduct the tests. The drawings do not detail taps, gages, plugs and other related materials required to perform testing. These materials are the responsibility of the Contractor.
- C. Flushing, testing, and chlorinating of the mainline shall closely follow main laying work. As the mainline is installed, it shall be tested approximately every 1,000 feet, or between line valves, whichever is less. Should the mainlines fail to be flushed, tested, and chlorinated as specified, the main laying work shall be suspended until the flushing, testing, and chlorinating is done.
- D. Final acceptance of the water main shall be based on successful (negative) results of bacteriological tests, which shall be done on samples taken from the main following chlorination and final flushing. Locations of samples shall be determined by the Engineer.
- E. The testing and related procedures described herein, shall be performed in the order listed.
- F. The Contractor, with the assistance of the Owner, shall fill mains as slowly as practicable so as not to cause dirty water and serious pressure drops within the existing system.

3.2 FLUSHING

- A. All new water mains, and existing water mains that have been drained and cut-into for making connections, shall be thoroughly flushed prior to pressure or leakage testing or final chlorination. Flushing shall be accomplished by partially opening and closing valves, hydrants, and blowoffs, several times, under expected line pressure, with flow velocities of not less than 3 feet per second, in the main. The size and number of hydrant outlets and/or main taps to provide the required flow (at 40 psi residual pressure) is as follows:

Minimum Required Flow and Openings Required to Flush Water Mains  
(Assuming 40 psi Residual Pressure in Water Mains)

Main Diameter (in.)	Flow Required to Produce 3 fps in Main (gpm)	Minimum Size of Taps (in.)	Hydrant Outlets Number	Hydrant Outlets Size (in.)
4	120	15/16	1	2-1/2
6	265	1-3/8	1	2-1/2
8	470	1-7/8	1	2-1/2
10	735	2-5/16	1	2-1/2
12	1,055	2-13/16	1	2-1/2
16	1,880	3-5/8	2	2-1/2

1. If less than a 40-psi residual is available in the main, with the size tap shown above then a larger, or more tap(s) or hydrant outlets will be required, as determined by the Engineer.
2. The length of time for flushing, at or above the minimum allowable velocity, shall be computed to allow a minimum of 3 times the total volume of water in the main to be flushed to waste. Flushing shall be done in the presence of the Engineer.

### 3.3 AIR REMOVAL

- A. Following flushing, and before applying the specified test pressure, air shall be completely expelled from the mains, valves, and hydrants. After all air has been expelled, the air blowoffs can be closed, and the test pressure applied.

### 3.4 PRESSURE TEST

- A. All new water mains, or any sections thereof, shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure that will exist at the point of testing, or 150 psi, whichever is greater. Test pressures shall meet the following requirements:
  1. Be of at least 2-hour duration.
  2. Be not less than 1.25 times the expected system working pressure at the highest point along the test section.
  3. Not exceed main or thrust-restraint design pressures.
  4. Not vary by more than + 5 psi for the duration of the test.
  5. Not exceed 2-times the rated pressure of the valves or hydrants when the pressure boundary includes closed valves or hydrants. Valves shall not be operated in either direction at differential pressure greater than the rated pressure.
  6. Not exceed 1.5-times the rated pressure of the valves when the pressure boundary of the test section includes closed butterfly valves or resilient seated gate valves.
- B. Each section of main shall be slowly raised to the specified test pressure for two separate periods. The first period shall be for 15-minutes, after which the pressure shall be allowed to drop slowly back to system pressure. The pressure shall then be slowly raised again to the specified test pressure and maintained for 2-hours. The test pressure shall be based on the elevation of the lowest point of the main, in the test section and shall be corrected to the elevation of the test gauge, as directed by the Engineer. The test pressure shall be applied by means of a pump connected to the main, in an approved manner, and which will prevent any backflow into the existing system. Valves shall not be operated in either the closing or opening direction, at differential pressure greater than the rated pressure.
- C. Any exposed main, fittings, valves, hydrants and joints shall be carefully examined during the test. Any damaged or defective main, fittings, hydrants, or valves discovered following, or as a result of the pressure test shall be repaired or replaced with sound material. If faulty materials are removed and replaced, the pressure testing procedure shall be repeated.

3.5 LEAKAGE TEST

- A. Leakage testing shall be conducted concurrently with the pressure test.
- B. Leakage is defined as the quantity of water that must be pumped into the new main during the test, or any section thereof, required to maintain pressure within 5 psi of the starting test pressure. Leakage shall be recorded to the nearest one-tenth of a gallon. The Contractor shall employ qualified personnel throughout the testing. Leakage shall not be measured by a drop in pressure over a period of time.
- C. Leakage in the test section must be less than an amount determined as follows:

$$L = \frac{SD(P^{0.5})}{148,000}, \text{ where}$$

- L = allowable gallons of leakage per hour
- S = the length of main tested, in feet
- D = the nominal main diameter in inches
- P = the average test pressure during the test, in psi

- D. The leakage formula is based allowable leakage of 11.65 gallons per day, per mile of main, per inch (nominal) of main diameter, at a pressure of 150 psi. Allowable leakage under various conditions is shown below.

Allowable Leakage (gph) per 1,000 Feet of Mainline

Average Test Pressure(psi)	Nominal Diameter (inches)						
	6	8	10	12	16	20	24
250	0.64	0.85	1.07	1.28	1.71	2.14	2.56
225	0.61	0.81	1.01	1.22	1.62	2.03	2.43
200	0.57	0.76	0.96	1.15	1.53	1.91	2.29
175	0.54	0.72	0.89	1.07	1.43	1.79	2.15
150	0.50	0.66	0.83	0.99	1.32	1.66	1.99
125	0.45	0.60	0.76	0.91	1.21	1.51	1.81
100	0.41	0.54	0.68	0.81	1.08	1.35	1.62

- 1. If the mainline under test contains sections of various diameters, the allowable leakage will be the sum of the computed leakage for each size.
- 2. When testing against closed metal seated valves, an additional leakage shall be allowed per closed valve of 0.0078 gallons per hour, per inch of nominal valve diameter.
- 3. When hydrants are in the test section, the test shall be made against the closed hydrant(s).
- E. Acceptance shall be determined on the basis of allowable leakage. If leakage in any test is greater than that specified, the Contractor shall locate and make repairs as necessary until the leakage is within the specified allowance.
  - 1. All visible leaks are to be repaired regardless of the amount of leakage.

2. All water mains shall be pressure and leakage tested in the presence of the Engineer, in order to qualify for acceptance.

### 3.6 CHLORINATION

- A. The method of chlorination shall be the Continuous Feed Method as described hereinafter. Chlorination procedures will not be allowed until acceptable flushing and pressure testing has been performed and accepted. The continuous feed method consists of the following steps:
  1. Prior to the application of chlorine, confirm that valves are closed to prevent back-feeding chlorine solution into the existing system.
  2. At a point not more than 10 feet downstream from the beginning of the new main, fill the main with chlorinated potable water, having an initial concentration of 25 mg/l free chlorine residual.
    - a. Water from the existing distribution system or other approved source of supply shall flow at a constant measured rate, into the new main. In the absence of a meter, the rate may be approximated by measuring the discharge rate at the end of the test section with a pito-gauge or by measuring the time to fill a container of known volume.
  3. The application of chlorine solution shall continue until the entire main is filled with water having 25 mg/l of free available chlorine. To assure that 10 mg/l free chlorine residual concentration is achieved throughout the test section, the Contractor shall measure chlorine concentration at regular intervals.
- B. The amount of chlorine required to obtain a concentration of 25 mg/l per 100 feet of various diameter mains is as follows.

#### Chlorine Required to Obtain 25 mg/l per 100 feet of Various Diameters

Main Diameter (inches)	Sodium Hypochlorite (gallons)				Calcium Hypochlorite (ounces)
	5% Available Chlorine	10% Available Chlorine	12.5% Available Chlorine	15% Available Chlorine	65% Available Chlorine
4	0.03	0.02	0.02	0.01	0.02
6	0.08	0.04	0.03	0.03	0.75
8	0.13	0.07	0.06	0.06	1.30
10	0.20	0.10	0.09	0.07	2.10
12	0.28	0.15	0.12	0.10	2.90
16	0.50	0.25	0.22	0.17	5.30
20	0.80	0.40	0.34	0.28	8.40
24	1.30	0.60	0.50	0.40	12.00

1. The above quantities are to be added to a sufficient quantity of water, dissolved, and mixed. The solution shall be injected into the main as specified.

2. The quantities shown are based on concentrations of available chlorine by volume. Extended or improper storage may have caused a loss of available chlorine.
- C. The chlorinated water shall be retained in the main for a minimum of 24-hours. At the end of this 24-hour period, retest portions of the main to confirm that a minimum of 10 mg/l free available chlorine residual exists in the main. If the residual chlorine is less than 10 mg/L, acceptable bacteria results may not be obtained.
- D. All water main disinfection shall be performed in the presence of the Engineer and potentially the regulatory agency, in order to qualify for acceptance.

### 3.7 FINAL FLUSHING OF CHLORINATED WATER

- A. After the initial 24-hour period, the heavily chlorinated water shall be flushed from the main until chlorine measurements show the concentration in water leaving the main is no higher than that generally prevailing in the system.
- B. The Contractor shall obtain approval of location(s) for discharging the heavily chlorinated water, which will result from the chlorination procedures. Great care shall be exercised in the selection of the rate of flow and the discharge points, in order to minimize complaints, and damage to public or private property.
- C. The heavily chlorinated water shall be suitably and thoroughly neutralized prior to disposal into the environment. In no case shall chlorinated or neutralized water be discharged directly into a water body. If necessary, state, federal, and local regulatory agencies should be contacted to determine special provisions for the disposal of heavily chlorinated water.

### 3.8 BACTERIOLOGICAL TESTS

- A. After final flushing and before the water main is placed in service, water samples shall be collected twice (at least 16-hours apart) by the Engineer or Owner and tested for bacteriological quality in accordance with standard methods. Water samples shall show the absence of coliform organisms and background bacteria.
- B. If, during construction, trench water has entered the main, or if in the opinion of the Engineer excessive quantities of dirt or debris have entered the main, bacteriological samples shall be taken at intervals of approximately 200 feet and shall be identified as to location. Samples shall be taken of water that has stood in the main for at least 24-hours after final flushing has been completed.
- C. Samples shall be obtained through a corporation cock and copper tubing installed by the Contractor.
- D. The Engineer or Owner shall deliver samples to a laboratory approved by the Department of Health Services for bacterial analysis. The Owner shall pay for the cost of analysis. Only after each consecutive sample is approved shall the mains be incorporated into the water system. In the event that positive reports of contamination are received, the mains shall be flushed and chlorinated as many times as may be necessary to obtain approved (negative) results.

### 3.9 RE-CHLORINATION

- A. If the initial chlorination fails to produce satisfactory bacteriological samples, the main shall be re-flushed and re-sampled. If re-sampling fails to produce acceptable results, the main shall be re-chlorinated until satisfactory results are obtained.

3.10 CHLORINATION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS

- A. Trench Treatment. If during excavation the trench is either wet or filled with water, it is recommended that liberal quantities of hypochlorite tablets be applied to open trench areas to lessen the danger from pollution.
- B. The interior of all main and fittings used in making a repair shall be swabbed or sprayed with a 1 percent hypochlorite solution before they are installed.
- C. If valve and hydrant locations permit thorough flushing toward the work location from both directions, it shall be done. Flushing shall be started as soon as the repairs are completed and shall be continued until discolored water is eliminated.
- D. Slug Chlorination. Where practical and in addition to the procedures above, a section of main in which the break is located shall be isolated. All service connections shall be shut off, and the section flushed and chlorinated by the Slug Chlorination method. This method allows the chlorine dose to be increased to as much as 300 mg/l, and the contact time reduced to as little as 1-hour. After chlorination, the section shall be properly flushed until discolored water is eliminated and the water is free of noticeable chlorine odor.
- E. Bacteriological samples shall be taken after repairs. If the direction of flow is unknown, samples shall be taken on each side of the main break. If positive samples are recorded, daily sampling shall be continued until two consecutive negative samples are recorded.

END OF SECTION

**APPENDIX A**  
**Public Construction Bond**

West's Florida Statutes Annotated

Title XVIII. Public Lands and Property (Chapters 253-278)

Chapter 255. Public Property and Publicly Owned Buildings (Refs & Annos)

West's F.S.A. § 255.05

## 255.05. Bond of contractor constructing public buildings; form; action by claimants

### Currentness

(1) A person entering into a formal contract with the state or any county, city, or political subdivision thereof, or other public authority or private entity, for the construction of a public building, for the prosecution and completion of a public work, or for repairs upon a public building or public work shall be required, before commencing the work or before recommencing the work after a default or abandonment, to execute and record in the public records of the county where the improvement is located, a payment and performance bond with a surety insurer authorized to do business in this state as surety. A public entity may not require a contractor to secure a surety bond under this section from a specific agent or bonding company.

(a) The bond must state on its front page:

1. The name, principal business address, and phone number of the contractor, the surety, the owner of the property being improved, and, if different from the owner, the contracting public entity.
2. The contract number assigned by the contracting public entity.
3. The bond number assigned by the surety.
4. A description of the project sufficient to identify it, such as a legal description or the street address of the property being improved, and a general description of the improvement.

(b) Before commencing the work or before recommencing the work after a default or abandonment, the contractor shall provide to the public entity a certified copy of the recorded bond. Notwithstanding the terms of the contract or any other law governing prompt payment for construction services, the public entity may not make a payment to the contractor until the contractor has complied with this paragraph. This paragraph applies to contracts entered into on or after October 1, 2012.

(c) The bond shall be conditioned upon the contractor's performance of the construction work in the time and manner prescribed in the contract and promptly making payments to all persons defined in [s. 713.01](#) who furnish labor, services, or materials for the prosecution of the work provided for in the contract. A claimant may apply to the governmental entity having charge of the work for copies of the contract and bond and shall thereupon be furnished with a copy of the contract and the recorded bond. The claimant shall have a cause of action against the contractor and surety for the amount due him or her, including unpaid finance charges due under the claimant's contract. Such action may not involve the public authority in any expense.

(d) When the work is done for the state and the contract is for \$100,000 or less, no payment and performance bond shall be required. At the discretion of the official or board awarding such contract when such work is done for any county, city, political subdivision, or public authority, a person entering into such a contract that is for \$200,000 or less may be exempted from executing the payment and performance bond. When such work is done for the state, the Secretary of Management Services may delegate to state agencies the authority to exempt any person entering into such a contract amounting to more than \$100,000 but less than \$200,000 from executing the payment and performance bond. If an exemption is granted, the officer or official is not personally liable to persons suffering loss because of granting such exemption. The Department of Management Services shall maintain information on the number of requests by state agencies for delegation of authority to waive the bond requirements by agency and project number and whether any request for delegation was denied and the justification for the denial.

(e) Any provision in a payment bond issued on or after October 1, 2012, furnished for public work contracts as provided by this subsection which further restricts the classes of persons protected by the bond, which restricts the venue of any proceeding relating to such bond, which limits or expands the effective duration of the bond, or which adds conditions precedent to the enforcement of a claim against the bond beyond those provided in this section is unenforceable.

(f) The Department of Management Services shall adopt rules with respect to all contracts for \$200,000 or less, to provide:

1. Procedures for retaining up to 5 percent of each request for payment submitted by a contractor and procedures for determining disbursements from the amount retained on a pro rata basis to laborers, materialmen, and subcontractors, as defined in [s. 713.01](#).
2. Procedures for requiring certification from laborers, materialmen, and subcontractors, as defined in [s. 713.01](#), before final payment to the contractor that such laborers, materialmen, and subcontractors have no claims against the contractor resulting from the completion of the work provided for in the contract.

The state is not liable to any laborer, materialman, or subcontractor for any amounts greater than the pro rata share as determined under this section.

(g) 1. The amount of the bond shall equal the contract price, except that for a contract in excess of \$250 million, if the state, county, municipality, political subdivision, or other public entity finds that a bond in the amount of the contract price is not reasonably available, the public owner shall set the amount of the bond at the largest amount reasonably available, but not less than \$250 million.

2. For construction-management or design-build contracts, if the public owner does not include in the bond amount the cost of design or other nonconstruction services, the bond may not be conditioned on performance of such services or payment to persons furnishing such services. Notwithstanding paragraphs (c) and (e), such a bond may exclude persons furnishing such services from the classes of persons protected by the bond.

(2)(a) 1. If a claimant is no longer furnishing labor, services, or materials on a project, a contractor or the contractor's agent or attorney may elect to shorten the time within which an action to enforce any claim against a payment bond must be commenced by recording in the clerk's office a notice in substantially the following form:

NOTICE OF CONTEST OF CLAIM  
AGAINST PAYMENT BOND

To: ... (Name and address of claimant) ...

You are notified that the undersigned contests your notice of nonpayment, dated....., ....., and served on the undersigned on ....., ....., and that the time within which you may file suit to enforce your claim is limited to 60 days after the date of service of this notice.

DATED on ....., .....

Signed: ... (Contractor or Attorney) ...

The claim of a claimant upon whom such notice is served and who fails to institute a suit to enforce his or her claim against the payment bond within 60 days after service of such notice is extinguished automatically. The contractor or the contractor's attorney shall serve a copy of the notice of contest on the claimant at the address shown in the notice of nonpayment or most recent amendment thereto and shall certify to such service on the face of the notice and record the notice. After the clerk records the notice with the certificate of service, the clerk shall serve, in accordance with s. 713.18, a copy of such recorded notice on the claimant and the contractor or the contractor's attorney. The clerk of the court shall charge fees for such services as provided by law.

2. A claimant, except a laborer, who is not in privity with the contractor shall, before commencing or not later than 45 days after commencing to furnish labor, services, or materials for the prosecution of the work, serve the contractor with a written notice that he or she intends to look to the bond for protection. If the payment bond is not recorded before the commencement of work or before the recommencement of work after a default or abandonment as required by subsection (1), the claimant may serve the contractor with such written notice up to 45 days after the date that the claimant is served with a copy of the bond. A claimant who is not in privity with the contractor and who has not received payment for furnishing his or her labor, services, or materials shall serve a written notice of nonpayment on the contractor and a copy of the notice of nonpayment on the surety. The notice of nonpayment must be under oath and served during the progress of the work or thereafter but may not be served earlier than 45 days after the first furnishing of labor, services, or materials by the claimant or later than 90 days after the final furnishing of the labor, services, or materials by the claimant or, with respect to rental equipment, later than 90 days after the date that the rental equipment was last on the site of the improvement and available for use. Any notice of nonpayment served by a claimant who is not in privity with the contractor which includes sums for retainage must specify the portion of the amount claimed for retainage. An action for the labor, services, or materials may not be instituted against the contractor or the surety unless the notice to the contractor and notice of nonpayment have been served, if required by this section. Notices required or permitted under this section must be served in accordance with s. 713.18. A claimant may not waive in advance his or her right to bring an action under the bond against the surety. In any action brought to enforce a claim against a payment bond under this section, the prevailing party is entitled to recover a reasonable fee for the services of his or her attorney for trial and appeal or for arbitration, in an amount to be determined by the court or arbitrator, which fee must be taxed as part of the prevailing party's costs, as allowed in equitable actions. The time periods for service of a notice of nonpayment or for bringing an action against a contractor or a surety are measured from the last day of furnishing labor, services, or materials by the claimant and may not be measured by other standards, such as the issuance of a certificate of occupancy or the issuance of a certificate of substantial completion. The negligent inclusion or omission of any information in the notice of nonpayment that has not prejudiced the contractor or surety does not constitute a default that operates to defeat an otherwise valid bond claim. A claimant who serves a fraudulent notice of nonpayment forfeits his or her rights under the bond. A notice of nonpayment is fraudulent if the claimant has willfully exaggerated the amount unpaid, willfully included a claim for work not performed or materials not furnished for the subject improvement, or prepared the notice with such willful and gross negligence as to amount to a willful exaggeration. However, a minor mistake or error in a notice of nonpayment, or a good faith dispute as to the amount unpaid, does not constitute a willful exaggeration that operates to defeat an otherwise valid claim against the bond. The service of a fraudulent notice of nonpayment is a complete defense to the claimant's claim against the bond. The notice of nonpayment under this subparagraph must include the following information, current as of the date of the notice, and must be in substantially the following form:

NOTICE OF NONPAYMENT

To: ... (Name of contractor and address) ...

... (Name of surety and address) ...

The undersigned claimant notifies you that:

1. Claimant has furnished ... (describe labor, services, or materials) ... for the improvement of the real property identified as ... (property description).... The corresponding amount unpaid to date is \$..., of which \$... is unpaid retainage.

2. Claimant has been paid to date the amount of \$... for previously furnishing ... (describe labor, services, or materials) ... for this improvement.

3. Claimant expects to furnish ... (describe labor, services, or materials) ... for this improvement in the future (if known), and the corresponding amount expected to become due is \$... (if known).

I declare that I have read the foregoing Notice of Nonpayment and that the facts stated in it are true to the best of my knowledge and belief.

DATED on ....., .....

... (Signature and address of claimant) ...

STATE OF FLORIDA

COUNTY OF .....

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of  physical presence or sworn to (or affirmed) by  online notarization this .... day of ....., ... (year) ..., by ... (name of signatory) ....

... (Signature of Notary Public--State of Florida) ...

... (Print, Type, or Stamp Commissioned Name of Notary Public) ...

Personally Known ..... OR Produced Identification .....

Type of Identification Produced

(b) When a person is required to execute a waiver of his or her right to make a claim against the payment bond in exchange for, or to induce payment of, a progress payment, the waiver may be in substantially the following form:

**WAIVER OF RIGHT TO CLAIM AGAINST THE PAYMENT BOND**

**(PROGRESS PAYMENT)**

The undersigned, in consideration of the sum of \$\_\_\_\_, hereby waives its right to claim against the payment bond for labor, services, or materials furnished through (insert date) to (insert the name of your customer) on the job of (insert the name of the owner), for improvements to the following described project:

**(description of project)**

This waiver does not cover any retention or any labor, services, or materials furnished after the date specified.

DATED ON \_\_\_\_\_, \_\_\_\_.

(Claimant)

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

(c) When a person is required to execute a waiver of his or her right to make a claim against the payment bond, in exchange for, or to induce payment of, the final payment, the waiver may be in substantially the following form:

**WAIVER OF RIGHT TO CLAIM AGAINST THE PAYMENT BOND (FINAL PAYMENT)**

The undersigned, in consideration of the final payment in the amount of \$\_\_\_\_, hereby waives its right to claim against the payment bond for labor, services, or materials furnished to (insert the name of your customer) on the job of (insert the name of the owner), for improvements to the following described project:

**(description of project)**

DATED ON \_\_\_\_\_, \_\_\_\_.

(Claimant)

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

(d) A person may not require a claimant to furnish a waiver that is different from the forms in paragraphs (b) and (c).

(e) A claimant who executes a waiver in exchange for a check may condition the waiver on payment of the check.

(f) A waiver that is not substantially similar to the forms in this subsection is enforceable in accordance with its terms.

(3) The bond required in subsection (1) may be in substantially the following form:

**PUBLIC CONSTRUCTION BOND**

Bond No. (enter bond number)

BY THIS BOND, We \_\_\_\_\_, as Principal and \_\_\_\_\_, a corporation, as Surety, are bound to \_\_\_\_\_, herein called Owner, in the sum of \$\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated \_\_\_\_, \_\_\_\_, between Principal and Owner for construction of \_\_\_\_, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON \_\_\_\_, \_\_\_\_.

(Name of Principal)

By (As Attorney in Fact)

(Name of Surety)

(4) The payment bond provisions of all bonds required by subsection (1) shall be construed and deemed statutory payment bonds furnished pursuant to this section and such bonds shall not under any circumstances be converted into common law bonds.

(5) In addition to the provisions of chapter 47, any action authorized under this section may be brought in the county in which the public building or public work is being constructed or repaired. This subsection shall not apply to an action instituted prior to May 17, 1977.

(6) All payment bond forms used by a public owner and all payment bonds executed pursuant to this section by a surety shall make reference to this section by number, shall contain reference to the notice and time limitation provisions in subsections (2) and (10), and shall comply with the requirements of paragraph (1)(a).

(7) In lieu of the bond required by this section, a contractor may file with the state, county, city, or other political authority an alternative form of security in the form of cash; a money order; a certified check; a cashier's check; or a domestic corporate bond, note, or debenture as authorized in s. 625.317. Any such alternative form of security is for the same purpose and subject to the same conditions as those applicable to the bond required by this section. The appropriate state, county, city, or other political subdivision shall determine the required value of an alternative form of security.

(8) When a contractor has furnished a payment bond pursuant to this section, he or she may, when the state, county, municipality, political subdivision, or other public authority makes any payment to the contractor or directly to a claimant, serve a written demand on any claimant who is not in privity with the contractor for a written statement under oath of his or her account showing the nature of the labor or services performed and to be performed, if any; the materials furnished; the materials to be furnished, if known; the amount paid on account to date; the amount due; and the amount to become due, if known, as of the date of the statement by the claimant. Any such demand to a claimant who is not in privity with the contractor must be

served on the claimant at the address and to the attention of any person who is designated to receive the demand in the notice to contractor served by the claimant. The failure or refusal to furnish the statement does not deprive the claimant of his or her rights under the bond if the demand is not served at the address of the claimant or directed to the attention of the person designated to receive the demand in the notice to contractor. The failure to furnish the statement within 30 days after the demand, or the furnishing of a false or fraudulent statement, deprives the claimant who fails to furnish the statement, or who furnishes the false or fraudulent statement, of his or her rights under the bond. If the contractor serves more than one demand for statement of account on a claimant and none of the information regarding the account has changed since the claimant's last response to a demand, the failure or refusal to furnish such statement does not deprive the claimant of his or her rights under the bond. The negligent inclusion or omission of any information deprives the claimant of his or her rights under the bond to the extent that the contractor can demonstrate prejudice from such act or omission by the claimant. The failure to furnish a response to a demand for statement of account does not affect the validity of any claim on the bond being enforced in a lawsuit filed before the date the demand for statement of account is received by the claimant.

(9) On any public works project for which the public authority requires a performance and payment bond, suits at law and in equity may be brought and maintained by and against the public authority on any contract claim arising from breach of an express provision or an implied covenant of a written agreement or a written directive issued by the public authority pursuant to the written agreement. In any such suit, the public authority and the contractor shall have all of the same rights and obligations as a private person under a like contract except that no liability may be based on an oral modification of either the written contract or written directive. Nothing herein shall be construed to waive the sovereign immunity of the state and its political subdivisions from equitable claims and equitable remedies. The provisions of this subsection shall apply only to contracts entered into on or after July 1, 1999.

(10) An action, except an action for recovery of retainage, must be instituted against the contractor or the surety on the payment bond or the payment provisions of a combined payment and performance bond within 1 year after the performance of the labor or completion of delivery of the materials or supplies. An action for recovery of retainage must be instituted against the contractor or the surety within 1 year after the performance of the labor or completion of delivery of the materials or supplies; however, such an action may not be instituted until one of the following conditions is satisfied:

(a) The public entity has paid out the claimant's retainage to the contractor, and the time provided under [s. 218.735](#) or [s. 255.073\(3\)](#) for payment of that retainage to the claimant has expired;

(b) The claimant has completed all work required under its contract and 70 days have passed since the contractor sent its final payment request to the public entity; or

(c) At least 160 days have passed since reaching substantial completion of the construction services purchased, as defined in the contract, or if not defined in the contract, since reaching beneficial occupancy or use of the project.

(d) The claimant has asked the contractor, in writing, for any of the following information and the contractor has failed to respond to the claimant's request, in writing, within 10 days after receipt of the request:

1. Whether the project has reached substantial completion, as that term is defined in the contract, or if not defined in the contract, if beneficial occupancy or use of the project has occurred.

2. Whether the contractor has received payment of the claimant's retainage, and if so, the date the retainage was received by the contractor.

3. Whether the contractor has sent its final payment request to the public entity, and if so, the date on which the final payment request was sent.

If none of the conditions described in paragraph (a), paragraph (b), paragraph (c), or paragraph (d) is satisfied and an action for recovery of retainage cannot be instituted within the 1-year limitation period set forth in this subsection, this limitation period shall be extended until 120 days after one of these conditions is satisfied.

(11) When a contractor furnishes and records a payment and performance bond for a public works project in accordance with this section and provides the public authority with a written consent from the surety regarding the project or payment in question, the public authority may not condition its payment to the contractor on the production of a release, waiver, or like documentation from a claimant demonstrating that the claimant does not have an outstanding claim against the contractor, the surety, the payment bond, or the public authority for payments due on labor, services, or materials furnished on the public works project. The surety may, in a writing served on the public authority, revoke its consent or direct that the public authority withhold a specified amount from a payment, which shall be effective upon receipt. This subsection applies to contracts entered into on or after October 1, 2012.

(12) Unless otherwise provided in this section, service of any document must be made in accordance with [s. 713.18](#).

#### Credits

Added by Laws 1915, c. 6867, § 1; Rev.Gen.St.1920, § 3533; Laws 1925, c. 10035, § 1; Comp.Gen.Laws 1927, § 5397; Laws 1959, c. 59-491, § 1; Laws 1963, c. 63-437, § 1; Laws 1971, c. 71-47, § 1; Laws 1977, c. 77-40, §§ 1, 2; Laws 1977, c. 77-78, § 1; Laws 1977, c. 77-81, § 1; Laws 1980, c. 80-32, § 1; Laws 1980, c. 80-54, § 1; Laws 1982, c. 82-196, § 1; Laws 1984, c. 84-288, § 2; Laws 1985, c. 85-130, § 2; Laws 1988, c. 88-397, § 2; Laws 1990, c. 90-109, § 21. Amended by Laws 1991, c. 91-162, § 4, eff. May 28, 1991; Laws 1992, c. 92-279, § 176, eff. July 1, 1992; Laws 1992, c. 92-286, § 2, eff. Oct. 1, 1992; Laws 1993, c. 93-96, § 1, eff. April 25, 1993; Laws 1994, c. 94-322, § 5, eff. May 31, 1994; Laws 1995, c. 95-148, § 849, eff. July 10, 1995; Laws 1995, c. 95-196, § 25, eff. June 8, 1995; Laws 1997, c. 97-219, § 1, eff. Oct. 1, 1997; Laws 1998, c. 98-135, § 1, eff. July 1, 1998; Laws 1999, c. 99-6, § 20, eff. June 29, 1999; Laws 1999, c. 99-13, § 33, eff. June 29, 1999; Laws 1999, c. 99-345, § 4, eff. July 1, 1999; Laws 1999, c. 99-386, § 2, eff. June 18, 1999; Laws 2001, c. 2001-118, § 2, eff. May 31, 2001; Laws 2001, c. 2001-211, § 3, eff. July 1, 2001; Laws 2005, c. 2005-218, § 1, eff. June 14, 2005; Laws 2005, c. 2005-227, § 1, eff. Oct. 1, 2005; Laws 2005, c. 2005-230, § 13, eff. Oct. 1, 2005; Laws 2007, c. 2007-159, § 1, eff. July 1, 2007; Laws 2007, c. 2007-221, § 1, eff. July 1, 2007; Laws 2012, c. 2012-211, § 2, eff. Oct. 1, 2012; Laws 2019, c. 2019-94, § 1, eff. Oct. 1, 2019; Laws 2020, c. 2020-173, § 2, eff. Oct. 1, 2020; Laws 2023, c. 2023-226, § 1, eff. Oct. 1, 2023.

West's F. S. A. § 255.05, FL ST § 255.05

Current with laws, joint and concurrent resolutions and memorials in effect from the 2025 Special Session C and through May 2, 2025, of the 2025 first regular session.

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