

**CLAYTON COUNTY WATER AUTHORITY
MORROW, GA**



PROJECT MANUAL

FOR

BID NUMBER: 2025-SW-01

**TARA BOULEVARD STORM DRAIN REHABILITATION
GEFA FUNDED PROJECT**

JANUARY 2025

ISSUED FOR BID

VOLUME 1 OF 3

**PROCUREMENT, CONTRACTING, AND GENERAL
REQUIREMENTS**

Jacobs

**CLAYTON COUNTY WATER AUTHORITY
TARA BOULEVARD STORM DRAIN
REHABILITATION**

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Paul Ladon Purcell, PE No. 19700

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ADVERTISEMENT FOR COMPETITIVE SEALED BID

Clayton County Water Authority
1600 Battle Creek Road
Morrow, Georgia 30260

Name of Project: **Tara Blvd. Storm Drain Rehabilitation**

Separate sealed Bids for the construction of **Tara Blvd. Storm Drain Rehabilitation** will be received by the Clayton County Water Authority (CCWA) at 1600 Battle Creek Road, Morrow, Georgia 30260 until 2:00 p.m. local time, the **12th day of March 2025**, and then at said office opened and read aloud. Any bids received after the specified time will not be considered.

A non-mandatory pre-bid conference for the Project will be held on **Wednesday, February 19, 2025** at 10:00 a.m. local time to discuss the Project. The meeting will be held at the CCWA Marie Barber Community Room at 1600 Battle Creek Road, Morrow, GA 30260. A virtual option will be provided via Microsoft Teams using the login information below. Attendance at the pre-bid conference is encouraged but not required.

Pre-Bid and Bid Opening Virtual Meeting – Microsoft Teams
Meeting ID: 255 359 269 077
Passcode: qf7Ea6d8
Dial in by phone
+1 912-483-5368,,675727901# United States, Savannah
Phone conference ID: 675 727 901#

A non-mandatory site visit will follow the pre-bid conference on the same date. The non-mandatory site visit will take place at 8415 Tara Blvd, Jonesboro, GA 30236 at 1:00 p.m. local time.

The Project includes, but is not limited to, the following:

- A: Replacement and repair of a failed stormwater culvert. This portion of the work includes:
 - a. Removal of remaining pieces of failed CMP stormwater culvert.
 - b. One (1) reinforced concrete drainage structure with manhole riser connecting existing box culvert to proposed 8' x 8' box culvert.
 - c. Approximately 50 linear feet of 8' x 8' reinforced concrete box culvert.
 - d. Reinforced concrete headwall and riprap channel lining at proposed culvert outlet.
 - e. Approximately 300 linear feet of excavated stormwater open channel.
 - f. The work includes activity in and adjacent to a sinkhole/washout area located at the point of culvert failure.
- B: Demolition of an existing, one-story commercial building.
- C: Temporary and permanent erosion and sediment control BMPs.

The Bidding Documents, consisting of Advertisement for Competitive Sealed Bid, Instructions to Bidders, Bid Form, Bid Bond, Construction Contract, Performance Bond, Payment Bond, General and Supplementary Conditions, Specifications, Drawings, and Addenda may be examined at the main offices of the Owner at 1600 Battle Creek Road, Morrow, Georgia.

Copies of Bidding Documents are available at <https://www.questcdn.com> upon payment of \$15.00, nonrefundable, for download and printing access. All Bidders are required to purchase a set of the Bidding Documents. All payments will be made online to QuestCDN. No partial sets will be sold. Bidders will be required to set up a QuestCDN account to access Bidding Documents including Addenda. Bidding Documents can be searched for in the Quest CDN project search bar. Contact QuestCDN at 952.233.1632 or info@questcdn.com for assistance with navigating the website and digital project information. Hard copies of Bidding Documents are the responsibility of the Bidders.

By purchasing the Bidding Documents, purchaser agrees to allow company information (company name, address, phone and email) to be published as a "planholder". The Owner is not obligated to consider a Bidder's proposal if Bidder is not on record with QuestCDN as having received a complete set of Bidding Documents from QuestCDN.

A list of planholders may be obtained by contacting CCWA Procurement at CCWA_Procurement@ccwa.us and Craig Hensley at craig.hensley@jacobs.com.

Each Bid must be submitted on the prescribed Bid Form and accompanied by Bid Security as prescribed in the Instructions to Bidders, payable to the Owner in an amount not less than 5 percent of the Bid Amount, and a letter from a surety company stating they are licensed to conduct business in the State of Georgia. Failure to supply the bond or to sign the proposal will be grounds for rejection.

In order to perform public work, the Bidder and its subcontractors, prior to award of Contract, shall hold or obtain such licenses as required by state statutes, and federal and local laws and regulations. All firms must be licensed in Georgia and have a registered agent in Georgia.

All questions related to the Project shall be submitted by email no later than 2:00 p.m., local time, on **Wednesday, February 26, 2025** to CCWA at CCWA_Procurement@ccwa.us and to Craig Hensley at craig.hensley@jacobs.com. Questions, if answered, will be addressed by Addenda to the Contract Documents via the Q&A tab on the QuestCDN website for the project. Receipt of any Addenda or amendment to this Advertisement for Bids shall be acknowledged, in writing, and shall be submitted with the Bid.

Bidders may attend the bid opening virtually using the Microsoft Teams meeting information provided above.

Owner shall make an award, if an award is made, to the lowest responsible and responsive Bidder.

The successful Bidder will be required to furnish the additional Bonds prescribed in the Contract Documents.

Owner's right is reserved to reject all Bids or any Bid not conforming to the intent and purpose of the Bidding Documents.

Dated this **22nd day of January , 2025.**

Clayton County Water Authority

Dr. Cephus Jackson, Chair

SECTION 00 21 13
INSTRUCTIONS TO BIDDERS

1.01 Instructions

- A. Bids will be received by the Clayton County Water Authority (herein called the "Owner"), at 1600 Battle Creek Road, Morrow, Georgia 30260 until 2:00 p.m., local time, **12th day of March 2025**.
- B. Each Bid must be submitted in a sealed envelope, addressed to the Clayton County Water Authority, 1600 Battle Creek Road, Morrow, Georgia 30260.
- C. Each sealed envelope containing a Bid must be plainly marked on the outside as Bid for the **Tara Blvd. Storm Drain Rehabilitation**, and the envelope should bear on the outside the name and address of the Bidder, and the Bidder's license number if applicable. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed to the Owner at 1600 Battle Creek Road, Morrow, Georgia 30260.
- D. The Owner may reject any and all Bids. Any Bid may be withdrawn prior to the above-scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. No Bidder may withdraw a Bid within 60 days after the actual date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the Owner and Bidder.
- E. The Advertisement for Competitive Sealed Bids is incorporated by reference as if fully set out herein.

1.02 Defined Terms

- A. Terms used in these Instructions to Bidder have the meanings assigned to them in the General Conditions.
- B. Certain additional terms used in the Bid Documents have the meanings indicated below which are applicable to both the singular and plural thereof:
 - 1. Bidder: One who submits a Bid to Owner as distinct from a subbidder, who submits a Bid to a Bidder. Throughout these Bidding Documents, the words Bidder and Bid will be used interchangeably with the terms Proposer and Proposal.
 - 2. Apparent Low Bidder: That Bidder whose Bids, as offered in the Bid Form, represent the lowest total as determined by the Base Bid.
 - 3. Total Base Bid Price: Includes Bid for the Lump Sum Work plus extended total for Unit Price Work and the Allowances.
 - 4. Successful Bidder: Lowest, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

1.03 Copies of Bidding Documents

- A. Copies of Bidding Documents are available at <https://www.questcdn.com> upon payment of \$15.00, nonrefundable, for download and printing access. All Bidders are required to purchase a set of the Bidding Documents. All payments will be made online to QuestCDN. No partial sets will be sold. Bidders will be required to set up a QuestCDN account to access Bidding Documents including Addenda. Project Number (eBidDoc#) to search for Bidding Documents will be provided in Addendum 1. Contact QuestCDN at 952.233.1632 or info@questcdn.com for assistance with navigating the website and digital project information. Hard copies of Bidding Documents are the responsibility of the Bidders.
- B. By purchasing the Bidding Documents, purchaser agrees to allow company information (company name, address, phone and email) to be published as a “planholder”. The Owner is not obligated to consider a Bidder's proposal if Bidder is not on record with QuestCDN as having received a complete set of Bidding Documents from QuestCDN.
- C. Complete sets of Bidding Documents must be used in preparing Bids. Neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding Documents.
- D. Bidding Documents made available on the above terms are only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

1.04 Pre-Bid Conference and Site Visits

- A. A non-mandatory pre-bid conference will be held at the time and location indicated in Section 00 11 16 Advertisement for Competitive Sealed 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.
- B. A non-mandatory site visit will be held following the pre-bid conference.
- C. Engineer will transmit to prospective Bidder of record such Addenda as Engineer considers necessary in response to questions arising during the conference. Oral statements may not be relied upon and will not be binding or legally effective.

1.05 Preparation of Bid

- A. All Bids must be made on the separate Bid form furnished with these Contract Documents. Do not write on or remove pages from the Specification book. All blank spaces for Bid prices must be filled in, in ink or typewritten, and the Bid form must be fully completed and executed when submitted. Only one copy of the Bid form is required.
- B. Bid prices must be written in both words and numerals where required; in the event of a conflict, the words shall govern.

- C. The cash allowances represent the Owner's estimate of the cost of the various products and services listed in the Bid Form as Cash Allowances. The Contract Price will be adjusted by Change Order to reflect the actual cost.
- D. Bids signed for a corporation shall have the correct corporate name thereof as listed with the Office of the Secretary of State of Georgia and shall be executed by the president, vice-president or other authorized officer of the corporation and attested by the secretary, assistant secretary, or other authorized officer of the corporation with the corporate seal affixed thereto. Bids by any other type of business entity shall be so executed as to bind that particular type of business entity to the full extent allowed under all applicable provisions of Georgia and United States law. A conditional or qualified Bid will not be accepted.
- E. The Bid shall contain an acknowledgement of receipt of all Addenda; the numbers of which shall be filled in on the Bid Form. Failure to acknowledge receipt will cause Bid to be considered in nonconformance.
- F. The address and telephone number for communications regarding the Bid shall be shown.
- G. Bidder shall comply with the Bid Form requirement for identification of Manufacturers or Suppliers of certain equipment, product, or systems.
- H. The Bid shall contain evidence of Bidder's authority and qualification to do business in the state of Georgia. Bidder's Georgia Utility Contractor license number for the state of Georgia shall also be shown on the Bid Form.

1.06 Conditions of Work

- A. The Contract Documents contain the provisions required for the construction of the Project. Information obtained from an officer, agent, or employee of the Owner, Engineer, or any other person shall not affect the risks or obligations assumed by the Contractor or relieve the Contractor from fulfilling any of the conditions of the Contract. Each Bidder is responsible for inspecting the Site and for reading and being thoroughly familiar with the Contract Documents. A Bidder shall in no way be relieved from any obligation with respect to the Bid by the failure or omission of the Bidder to be so familiar.
- B. It is each Bidder's responsibility, before submitting a Bid, to:
 - 1. Examine thoroughly the Bid Documents and other related data identified in the Bid Documents.
 - 2. Inspect the Site to become familiar with and satisfy Bidder as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the work.
 - 3. Consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the work.
 - 4. Study and carefully correlate Bidder's knowledge and observations with the Bid Documents and such other related data.

5. Promptly notify Engineer of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in or between the Bid documents and such other related documents.
- C. Reference is made to the Supplementary Conditions for identification of:
1. Those Reports, if any, of explorations and tests of subsurface conditions at the Site which have been utilized by Engineer in preparation of the Bid Documents.
 2. Those Drawings, if any, of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the site which have been utilized by Engineer in preparation of the Bid documents.
 3. Copies of such Reports and Drawings that are not included with the Bid Documents may be examined at the Clayton County Water Authority main offices at 1600 Battle Creek Road, Morrow, Georgia during regular business hours.
- D. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Contract Documents due to differing or unanticipated conditions appear in Article 5 of the General Conditions.
- E. Before submitting a Bid, each Bidder will be responsible to make or obtain such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise and which may affect cost, progress, performance, or furnishings of the work and which Bidder deems necessary to determine its Bid.
- F. On request, Owner will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.
- G. Reference is made to the General Requirements for identification of the general nature of work that is to be performed at the Site by Owner or others and that relates to work for which a Bid is to be submitted. On request, Owner will provide to each Bidder, for examination, access to or copies of contract documents (other than portions thereof related to price) for such work by others.
- H. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this article; that without exception the Bid is premised upon performing and furnishing the work required by the Bid Documents and applying the specific means, methods, techniques, sequences, or procedures of construction (if any) that may be shown or indicated or expressly required by the Bid Documents; that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bid Documents, and the written resolution thereof by Engineer is acceptable to Bidder; and that the Bid Documents

are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work and for preparing the Bid.

- I. All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout performance of the work.

1.07 Reputation of Bidder

- A. The Owner may make such investigations as it deems necessary to further determine the ability of the Bidder and its Subcontractors to perform the work. The Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request.
- B. To further demonstrate qualifications to perform the work, Bidder shall submit, within five days of Owner's request, written evidence such as financial data, previous experience, present commitments, and other such data as may be called for below.
- C. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to Contract award.
- D. Nothing indicated herein will prejudice Owner's right to seek additional pertinent information as is provided in Award of Contract.
- E. License Requirements: In order to perform public work, Bidder and its Subcontractors, where required by law, prior to award of Contract, shall hold or obtain a Utility Contractors License.
- F. Nonresident Bidders: Pursuant to Code of Georgia 48-13 the following shall be completed prior to Award:
 1. Register with Commissioner of Labor and pay fee.
 2. Execute and file with Commissioner of Labor, Bond worth 10 percent of Contract, conditioned that state and local taxes will be paid.
 3. Appoint, in writing, Secretary of State to be lawful agent upon whom all lawful process, proceedings or notices may be served.
 4. Comply with any and all other requirements of Georgia law applicable to nonresident contractors.
- G. Contractor Qualifications and Experience: The Bidder must satisfy to the reasonable satisfaction of the Owner that it possesses sufficient qualifications, experience and resources, including financial resources, to successfully perform all of its obligations under the Contract. Such experience and qualifications shall relate to both the Bidder and to any individuals it proposes to assign to the Project. In addition to the Corporate Experience Form which must be executed, notarized, and submitted with its Bid, any Bidder shall also provide such other reasonable information as may be subsequently requested by Owner in order to evaluate whether or not the Bidder is qualified and responsible to perform the Contract (see Section 00 45 13 – Bidder's Qualifications).

1.08 Bid Security

- A. Each Bid must be accompanied by a Bid Bond payable to the Owner for five percent of the project Base Bid. In the alternative, Contractor may deposit with Owner a cashier's check, certified check or cash in an amount equal to five percent of the project Base Bid, said deposit made under the same conditions as the furnishing of a surety bond. Approval of the Bid Security by Owner shall be a condition precedent to the award of the Contract
- B. Attorneys-in-fact who sign Bid Bond or Payment Bonds and Performance must file with each Bond a certified and effective dated copy of their power of attorney.

1.09 Addenda and Interpretations

- A. No interpretations of the meaning of the Contract Documents will be made orally to any Bidder. Every request for such interpretations should be made in writing and addressed to CCWA Procurement at CCWA_Procurement@ccwa.us and Craig Hensley at craig.hensley@jacobs.com. To be given consideration, such requests must be received by **2:00 p.m. on February 26, 2025** to permit written distribution of the response to all Bidders.

1.10 Material Suppliers and Subcontractors

- A. Upon execution of the Contract, Contractor shall submit to Owner the identity of all Subcontractors, Suppliers, and other person and organizations proposed for those portions of the work identified in paragraph 7.06. of the General Conditions. Information shall include an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person, or organization.
- B. If Successful Bidder declines to make a substitution of Subcontractor, Supplier, person, or organization acceptable to Owner, as required by paragraph 7.05 E. of the General Conditions, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, and other persons and organizations. Declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Supplier, other person, or organization listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in the General Conditions paragraph 7.05 B.

1.11 MBE/WBE/DBE Participation

- A. It is the policy of the Clayton County Water Authority (CCWA) to promote award of sub-agreements for goods and/or services to qualified minority, women and disadvantaged-owned businesses. Bidders are encouraged to solicit minority, women and disadvantaged-owned businesses whenever they are potential sources.

- B. Bidders are encouraged to utilize the services and assistance of the U.S. Small Business Administration (SBA), and the Office of the Department of Commerce Minority Business Development Agency (MBDA). These agencies can provide assistance in securing the names of qualified minority, women and disadvantaged-owned businesses.
- C. The Georgia Department of Transportation (DOT) has established a list of qualified Disadvantaged Business Enterprises. Information is available online at: <http://www.dot.ga.gov/PS/Business/DBE>
- D. The successful bidder will be asked to provide, along with his Request for Payment each month, a list of qualified MBE/WBE/DBE businesses utilized on this Project and dollar amounts of MBE/WBE/DBE contracts.

1.12 Nondiscrimination

- A. No Bidder or Subcontractor, nor any person on its behalf, shall refuse to hire, employ, or license, nor bar or discharge from employment, any individual between the ages of 40 and 70 years, solely upon the ground of age, when the reasonable demands of the position do not require such an age distinction, provided that individual is qualified physically, mentally, and by training and experience to perform satisfactorily the labor assigned to him or for which he applies.

1.13 Wage Rates

- A. The work under these Bid documents is to be paid for by public funds; therefore, minimum prevailing wage rates published by the state are applicable.

1.14 Contract Documents

- A. All elements of the Contract Documents except Addenda are itemized by the Tables of Contents and Index to Drawings. Each Bidder is responsible for ascertaining that the Bidder has a complete set of Documents and that each page and sheet thereof applies to the correct project and bears the correct date. Neither the Owner nor the Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.

1.15 Submission of Bids

- A. Bid Form and attachments may be photocopied for submission of Bids.
- B. Submit Bids not later than the time prescribed, at the place, and in the manner set forth in the Advertisement for Bids. Enclose Bids in an opaque sealed envelope, marked with the Project title and name and address of Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. Bids must be made on the prescribed Bid Form provided and submitted with the attachments listed below.

C. Bidders shall complete and submit the following attachments with its Bid:

1. Section 00 43 13, Georgia Bid Bond.
2. Section 00 45 19, Statement of Noncollusion.
3. Section 00 45 75, Georgia Security and Immigration Compliance Act of 2006.
4. Section 00 45 13, Bidders Qualifications.

D. Only one Bid from any individual, firm, partnership, or corporation, under the same or different names, will be considered. Should it appear to the Owner that any Bidder is interested in more than one Bid for Work contemplated, all Bids in which such Bidder is interested will be rejected.

E. Information submitted by the Bidder in the Bid process shall be subject to disclosure after Bid award in accordance with the Georgia Open Records Act. Proprietary information must be identified and be accompanied by a signed affidavit outlining the redacted information. Entire Bids may not be deemed proprietary.

1.16 Contract Award

A. Bids may be modified or 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 at any time prior to the opening of Bids.

B. If within 48 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, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further consideration on the work to be provided under the Contract Documents.

C. If the Contract is to be awarded, Owner will give Successful Bidder Notice of Award within 60 days after the day of the Bid opening.

D. Owner reserves its right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced or conditional Bids, and to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Owner also reserves the right to waive all informalities not involving price, time, or changes in the work. Discrepancies in the quantity multiplied by unit price and the extended total amount will be resolved in favor of the quantity multiplied by unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

- E. In evaluating Bids, Owner will consider the qualifications of Bidders, whether or not the Bids comply with the prescribed requirements, and unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award. Owner shall have the right to accept alternates in any order or combination, unless otherwise provided in the Bid Documents.
- F. The Contract will be awarded to the successful Bidder. The selected firm will be given written notification of being selected and the Owner reserves the right to negotiate however a contract must be executed with the selected firm prior to the beginning of the actual services. In general, the contract will comply with applicable laws and standard provisions and shall contain the following terms: Detailed scope of services, schedule for providing services, and cost of services. The Bidder to whom the award is made will be notified at the earliest possible date. The Owner reserves the right to reject any and all Bids and to waive any informality in Bids received whenever such rejection or waiver is in its interest.
- G. In the event that, after the acceptance of a Bid by the Board of Directors of the CCWA, any unsuccessful Bidder wishes to contest such action, a written "Notice of Contest" must be filed with the General Manager no later than close of business on the 5th calendar day after the selection of successful Bidder by the Board. Said Notice shall be an express condition precedent to the right of any Bidder to challenge or contest any award or to otherwise contend that it should have been awarded the contract. Failure to timely file such notice shall forever preclude the filing of a contest of the award, or any civil action in the courts of the state of Georgia or of the United States.
- H. The successful Bidder to whom the Contract is awarded will be required to execute the Contract and obtain the Performance Bond and Payment Bond in the amount not less than 100% of the contract amount required herein within 10 calendar days from the date when Notice of Award is delivered to that Bidder. Approval of the Payment Bond and Performance Bond by the Owner shall be a condition precedent to execution of the Contract by the Owner. In the event the Contract Price is adjusted by appropriate Change Order, the penal sum of the surety on the Payment Bond and the Performance Bond shall be deemed increased by like amount. The Notice of Award shall be accompanied by the Contract and Bond forms to be executed. In case of failure of the successful Bidder to execute the Contract, the Owner may at its option consider the Bidder in default, in which case the Bid Bond accompanying the Bid shall become the property of the Owner.
- I. The Owner, within 10 days of receipt of an acceptable Insurance, Performance Bond, Payment Bond and Contract signed by the successful Bidder, shall sign and return to the Bidder an executed duplicate of the Contract and the Bid Bond. Should the Owner not execute the Contract within the allowed period, the successful Bidder may give written notice of intent to withdraw the signed Contract. If 10 days after the Owner has received notice of intent to withdraw by the successful Bidder, the Owner has not executed the Contract; the Bidder may be written notice withdraw the signed Contract without further liability on the part of either party. Such notice of withdrawal shall be effective upon receipt

of the notice by the Owner, and the Owner immediately thereupon shall return to the successful Bidder the Bid Bond.

- J. The Notice to Proceed shall be issued within 30 days of Owner's receipt of the Contract executed by the Bidder. Should there be reasons why the Notice to Proceed cannot be issued within such period; the time may be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued within the allowed time or within the period mutually agreed upon, the Contractor may terminate the Contract without further liability on the part of either party.

1.17 Preconstruction Conference

- A. The attention of Bidders is particularly called to the preconstruction conference that will be held with the successful Bidder and all known subcontractors upon the issuance of a Notice to Proceed. This conference will cover provisions pertaining to schedules, payment requests, submittals, and other items related to the Contract.

1.18 Georgia Security and Immigration Compliance Act of 2006

- A. Pursuant to the Georgia Security and Immigration Compliance act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A.13-10-91 and Georgia Department of labor Rule 300-10-02 are conditions of this agreement. The Contractor further agrees that such compliance shall be attested by the Contractor and any of his subcontractors by execution of the appropriate Affidavit and Agreement included after the Agreement Form of these documents.

END OF SECTION

SECTION 00 41 00

BID FORM

ARTICLE 1 – BID RECIPIENT

- 1.01 Bid of _____ (hereinafter “Bidder”), organized and existing under the laws of the State of _____, doing business as _____ (insert “a corporation,” “a partnership,” or “an individual” or such other business entity designation as is applicable). Submitted to the Clayton County Water Authority (hereinafter “Owner”).

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS AND CERTIFICATIONS

- 2.01 In compliance with your Advertisement for Competitive Sealed Bid, Bidder hereby proposes to perform all Work for the **Tara Blvd. Storm Drain Rehabilitation** in strict accordance with the Contract Documents as enumerated in the Advertisement for Competitive Sealed Bid, within the time set forth therein, and at the prices stated below.
- 2.02 In submitting this bid, Bidder certifies that the 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.

Site Visit

(insert date)

- 2.03 By submission of this Bid, Bidder certifies, and in the case of joint Bid each party thereto certifies as to the party’s own organization that this Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor. Bidder also certifies compliance with the Instructions to Bidders.
- 2.04 In submitting this Bid, Bidder acknowledges and accepts Contractor’s representations as more fully set forth in Section 00 52 00, Agreement.
- 2.05 In submitting this Bid, Bidder certifies Bidder is qualified to do business in the state where the Project is located as required by laws, rules, and regulations or, if allowed by statute, covenants to obtain such qualification prior to contract award.
- 2.06 In submitting this Bid, Bidder accepts all terms and conditions of the Bidding Documents. Contract Execution: The undersigned Bidder agrees, if this Bid is accepted, to enter into an Agreement with Owner on the form included in the Bidding Documents to perform and furnish Work as specified or indicated in the Bidding Documents for the Contract Price derived from the Bid and within the Contract Times indicated in the Agreement and in accordance with the other terms and conditions of the Bidding documents.

- 2.07 Insurance: Bidder further agrees that the Bid amount(s) stated herein includes specific consideration for the insurance coverages specified in Section 00 72 00, General Conditions and Section 00 73 00, Supplementary Conditions.
- 2.08 Liquidated Damages: Bidder accepts the provisions in Section 00 52 00, Agreement as to liquidated damages.
- 2.09 Sales and Use Taxes: Bidder agrees to cooperate with Owner in accordance with the provisions in Section 00 73 00, Supplementary Conditions paragraph 7.10E.
- 2.10 Addenda: The Bidder hereby acknowledges that he has received the following Addenda to these Specifications (Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his Bid includes all impacts resulting from said Addenda.

Addendum No.	Date Received	Addendum No.	Date Received

ARTICLE 3 – BASIS OF BID

Bidder will complete the Work in accordance with the Contract Documents for the amount as listed below. Total bid amount shall be shown in words and numbers. In case of discrepancy, the bid amount shown in words will govern.

3.01 Bid Item 1 - Lump Sum Bid

Bidder agrees to accept as full payment for the **Lump Sum Work** proposed within the Bidding Documents, based upon the undersigned's own estimate of quantities and costs and including taxes, overhead, and profit, the following:

LUMP SUM BID PRICE: \$_____

3.02 Bid Item 2 - Cash Allowances

Bidder agrees that the following allowance, as further described in Measurement and Payment for additional work, will be furnished and paid for on a cash allowance basis.

Item	Description	Supplier	Specification *	Cash Allowance
2.1	Field and Laboratory Testing			\$10,000
2.2	Construction Verification Surveying			\$15,000
* Refer to Specification, which includes the Proposal from each Supplier regarding the scope to be supplied and/or installed under each allowance item. Contractor shall be responsible for compliance with all requirements of the Contract for all equipment and services provided under cash allowances.				

3.03 Bid Item 3 - Contingency Allowances

Bidder agrees that the following allowance, as further described in Measurement and Payment for additional work, will be furnished and paid for on a contingency allowance basis.

Item	Description	Contingency Allowance
3.1	Unforeseen Work Elements	\$200,000

Bidder acknowledges that the total of the amounts shown above are estimated amounts to be included in the Base Bid, and that final payment will be based on actual costs as determined in conformance with the Bidding Documents and as authorized by Change Order.

3.04 Total Base Bid

TOTAL BASE BID PRICE (Sum of Items 1, 2, and 3): \$_____

TOTAL BASE BID WRITTEN IN WORDS

_____ Dollars and _____ Cents

ARTICLE 4 – LIST OF SUBCONTRACTORS

4.01 The Bidder submits the following list of Subcontractors to be used in the performance of work to be done on said Project.

AREA OF SPECIALIZATION	SUBCONTRACTOR Or "Self-Perform"
_____	_____
_____	_____
_____	_____
_____	_____

- A. The list of Subcontractors and all responsibilities of all disciplines shall be based on requirements of the Contract Documents.
- B. It is understood and agreed that, if awarded a Contract, the Contractor will not make any additions, deletions, or substitutions to this list without the consent of the Owner.

ARTICLE 5 – TIME OF COMPLETION

- 5.01 Bidder agrees that the Work will be substantially complete and completed and ready for final payment in accordance with Section 00 72 00, General Conditions paragraph 15.06 on or before the dates or within the number of calendar days indicated in Section 00 52 00, Agreement.
- 5.02 Bidder accepts the provisions of the Agreement as to liquidated and special damages in the event of failure to complete the Work within the Contract Times.

ARTICLE 6 – SURETY

- 6.01 If Bidder is awarded a construction contract from this Bid, the surety who provides the Performance and Payment Bonds shall be:

_____ whose address is

Street

City

State

Zip

ARTICLE 7 – BID SUBMITTAL

7.01 This Bid submitted on _____, 20____ by:

Corporation Name: _____

(State of Incorporation)

By: _____
(Signature – Attach evidence of authority to sign)

Name and Title: _____
(Typed or Printed)

(CORPORATE SEAL)

Attest _____
(Secretary) (Date)

Georgia Utility
Contractor's License
Number: _____
(Successful Bidder will be required to hold a valid Georgia
Utility Contractor's License)

Business Address: _____

Phone No.: _____

E-mail: _____

Website: _____

END OF SECTION

SECTION 00 43 13
GEORGIA BID BOND

BOND NO. _____

KNOW ALL MEN BY THESE PRESENTS, that _____

herein after called the PRINCIPAL, and _____

a corporation duly organized under the laws of the State of _____

having its principal place of business at _____

_____ in the State of _____

and authorized to do business in the State of Georgia as SURETY, are held and firmly bound unto Clayton County Water Authority, as OWNER, hereinafter called the OBLIGEE, in the amount of five percent (5%) of the Total Bid Amount for the payment for which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the Principal is herewith submitting his or its Bid for _____ and said Bid, by reference thereto, being hereby made a part hereof.

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a Bid to the OBLIGEE for the furnishing of all labor, materials (except those to be specifically furnished by the Owner), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Bid and the documents, entitled: _____.

WHEREAS, it was a condition precedent to the submission of said Bid that a cashier's check, certified check, or Bid Bond in the amount of five percent (5%) of the Total Bid Amount be submitted with said Bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the Owner for the performance of said Contract, within 10 consecutive calendar days after written notice having been given of the award of the Contract.

NOW THEREFORE, the conditions of this obligation are such that if the PRINCIPAL within 10 consecutive calendar days after written notice of such acceptance, enters into a written Contract with the OBLIGEE and furnishes a Performance Bond and Payment Bond in an amount equal to 100 percent of the contract amount, satisfactory to the Owner, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the OBLIGEE and the SURETY herein agrees to pay said sum immediately upon demand of the OBLIGEE in good and lawful money of the United States of America, as liquidated damages for failure thereof of said PRINCIPAL.

Signed and sealed this _____ day of _____ 20_____.

PRINCIPAL

By _____

SURETY

By _____
Attorney-In-Fact

END OF SECTION

SECTION 00 45 13
BIDDERS QUALIFICATIONS

ARTICLE 1 – REQUIREMENTS

- 1.01 Per Section 00 21 13, Instructions to Bidders, paragraph 1.07.G, the Bidder must be able to demonstrate minimum contractor corporate experience as a condition of being deemed a responsible Bidder.
- A. To assess the Bidder's qualifications, a Corporate Experience Form and Project Information Forms must be submitted with the Bid.
 - B. Bidder to submit as many Project Information Forms as necessary to verify the minimum contractor corporate experience.
 - C. All questions must be answered and the data given must be clear and comprehensive.

ARTICLE 2 – SUPPLEMENTS

- 2.01 The supplement listed below, following "END OF SECTION", is part of this Specification.
- A. Corporate Experience Form
 - B. Project Information Form

END OF SECTION

CORPORATE EXPERIENCE FORM

(Page 1 of 2)

If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information desired. Attach all additional sheets to this statement. Please type all information. **This form must be notarized.**

1. Name of Bidder: _____
2. Permanent main office address, phone numbers, and email address of primary contact:

3. When organized: _____
4. If a Corporation, where incorporated: _____
5. How many years has the Bidder been engaged in the contracting business under its present firm or trade name? _____
6. General description of type of work performed by the Bidder's company: _____

7. Has the Bidder ever failed to complete any work awarded to it? If so, where and why? _____

8. Has the Bidder ever defaulted on a contract? If so, where and why? _____

9. Has the Bidder ever refused to sign a Contract at the original bid? If so, where and why? _____

CORPORATE EXPERIENCE FORM

(Page 2 of 2)

10. Names, position and years of experience of the principal members of the Bidder's organization, including officers:

Name	Position	Years of Experience
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

I, _____, certify that I am _____ of the Bidder, and that the answers to the foregoing questions and statements contained therein are true and correct.

Bidder:

By:

(name signed)

(name printed or typed)

Title:

Date:

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

Notary Public:

(name signed)

(name printed or typed)

Commission Expires:

(Date)

(SEAL)

PROJECT INFORMATION FORM

(Page 1 of 2)

Complete a "Project Information Form" for each project required to verify Bidder's corporate experience. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information desired. Attach all additional sheets to this statement. Please type all information.

Applicant Name: _____

Project Title: _____

Project Location: _____

Project Manager: _____

Superintendent: _____

Project Description: _____

Project Owner:

Owner Name: _____

Contact Person: _____

Phone Number: _____

Design Firm:

Company Name: _____

Contact Person: _____

Phone Number: _____

Construction Contract Administration:

Company Name: _____

Contact Person: _____

Phone Number: _____

PROJECT INFORMATION FORM

(Page 2 of 2)

Contract:

Bid Date: _____

Bid Price / Contract Amount: _____

Final Contract Price: _____

Contract Time

Initial: _____

Final: _____

Completion Date: _____

Explain Reasons for Variances to Contract Amount and/or Time: _____

Major Subcontractors (or state 'self-perform'):

Other: _____

Subcontractor PM: _____

Address: _____

Phone Number: _____

END OF SECTION 00 45 13

SECTION 00 45 19
CERTIFICATION OF ABSENCE OF CONFLICT OF INTEREST

(O.C.G.A. § 36-80-28)

The undersigned Contractor, who is entering into a contract or arrangement with the Clayton County Water Authority (CCWA), by signing below acknowledges and certifies to follow the requirements below:

- (1) Contractor shall avoid any appearance of impropriety and shall follow all of CCWA's policies and procedures related to the project.
- (2) Contractor discloses below any material transaction or relationship currently known to Contractor that reasonably could be expected to give rise to a conflict of interest, including, but not limited to, that of the Contractor, Contractor's employees, agents or subsidiaries. (Include past, present, or known prospective engagements, involvement in litigation or other dispute, client relationships, or other business or financial interest):

- (3) Contractor shall immediately disclose any material transaction or relationship subsequently discovered during the pendency of the contract or arrangement.
- (4) Contractor acknowledges that any violation or threatened violation of the agreement may cause irreparable injury to CCWA entitling CCWA to seek injunctive relief in addition to all other legal remedies.

NAME OF CONTRACTOR

Name of Contractor's Authorized Official

Signature of Contractor's Authorized Official

DATE

END OF SECTION

**CLAYTON COUNTY WATER AUTHORITY****FINANCE DEPARTMENT**

1600 BATTLE CREEK ROAD | MORROW, GEORGIA 30260

Phone: (770) 960-5880 | Web Site: www.ccwa.us**VENDOR INFORMATION FORM**

Purpose of this Form: The *Vendor Information Form* is used by the Clayton County Water Authority (CCWA) to add Vendors/Suppliers to its financial database system and add business designations when applicable.

Important Note: What name will appear on the Invoice? Invoice name shall be reflected on the *Vendor Information Form* and match the *W-9 Form*.

PURCHASING DATA			
NIGP CODE(s):		CCWA REQUESTING DEPARTMENT CONTACT:	
VENDOR INFORMATION			
VENDOR NAME:			
PRINCIPAL CONTACT:		EMAIL ADDRESS:	PHONE NO.
MAILING ADDRESS		REMIT TO ADDRESS	
Street		Street	
City		City	
State	Zip Code	State	Zip Code
PAYMENT REMITTANCE INFORMATION			
PAYMENT TERMS: <input type="checkbox"/> NET 30		PAYMENT TYPE: <input type="checkbox"/> PAPER CHECK <input type="checkbox"/> ACH PAYMENT (If selected, ACH Authorization Form will be e-mailed to the awarded vendor).	
BUSINESS CLASSIFICATION			
<input type="checkbox"/> CCWA SLBE <input type="checkbox"/> WBE <input type="checkbox"/> MBE <input type="checkbox"/> DBE <input type="checkbox"/> Other SBE <input type="checkbox"/> Veteran-Owned Business			

FOR OFFICE USE ONLY: CCWA Procurement & Contract Specialist shall e-mail the awarded vendor's *Vendor Information Form* and *W-9 Form* to ccwa_newvendorrequest@ccwa.us.

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**SECTION 00 45 75
CONTRACTOR AFFIDAVIT AND AGREEMENT**

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT OF 2006

- A. Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-.02 are conditions of this Agreement. The Contractor further agrees that such compliance shall be attested by the Contractor through execution of the contractor affidavit required by Georgia Department of Labor Rule 300-10-1-.07, or a substantially similar contractor affidavit. The Contractor's fully executed affidavit is attached hereto and is incorporated into this Agreement by reference herein.
- B. By initialing in the appropriate line below, the Contractor certifies that the following employee-number category as identified in O.C.G.A. § 13-10-91 is applicable to the Contractor:
1. _____ 500 or more employees.
 2. _____ 100 or more employees.
 3. _____ Fewer than 100 employees.
- C. The Contractor understands and agrees that, in the event the Contractor employs or contracts with any subcontractor or subcontractors in connection with this Agreement, the Contractor shall:
1. Secure from each such subcontractor an indication of the employee-number category as identified in O.C.G.A. § 13-10-91 that is applicable to the subcontractor.
 2. Secure from each such subcontractor an attestation of the subcontractor's compliance with O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02 by causing each such subcontractor to execute the subcontractor affidavit required by Georgia Department of Labor Rule 300-10-1-.08, or a substantially similar subcontractor affidavit. The Contractor further understands and agrees that the Contractor shall require the executed subcontractor affidavit to become a part of the agreement between the Contractor and each such subcontractor. The Contractor agrees to maintain records of each subcontractor attestation required hereunder for inspection by the Clayton County Water Authority at any time."

Contractor

Authorized Signature:

Name:

Title:

Date:

CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with [O.C.G.A. 13-10-91](#), stating affirmatively that the individual, firm, or corporation which is contracting with the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use for the duration of the contract, the federal work authorization program - EEV/Basic Pilot Program operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA), commonly known as E-Verify, in accordance with the applicability provisions established in [O.C.G.A. 13-10-91](#).

The undersigned further agrees that, in connection with the physical performance of services pursuant to this contract with the Clayton County Water Authority, the contractor will only employ or contract with subcontractor(s), who can present a similar affidavit verifying the subcontractor's compliance with [O.C.G.A. 13-10-91](#). Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the Clayton County Water Authority within five days of the subcontractor(s) presenting such affidavit(s) to the contractor.

EEV / Basic Pilot Program* User Identification Number
Enter the four to seven-digit number

Date of Authorization

Name of Contractor (Printed)

BY: Authorized Officer or Agent of Contractor (Signature)

Date

Printed Name of Contractor's Authorized Officer or Agent

Title of Authorized Officer or Agent of Contractor

SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF _____
20____.

Notary Public

My Commission Expires

SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned subcontractor verifies its compliance with [O.C.G.A. 13-10-91](#), stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____

_____ on behalf of the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use for the duration of the contract the federal work authorization program - EEV/Basic Pilot Program operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA), commonly known as E-Verify, in accordance with the applicability provisions and deadlines established in [O.C.G.A. 13-10-91](#).

The undersigned further agrees that, in connection with the physical performance of services pursuant to this contract with _____

_____ on behalf of the Clayton County Water Authority, the subcontractor will only employ or contract with sub-subcontractor(s), who can present a similar affidavit verifying the sub-subcontractor's compliance with [O.C.G.A. 13-10-91](#). The undersigned further agrees that the Subcontractor will maintain records of such compliance and provide a copy of each such verification to the Contractor within five days of the sub-subcontractor(s) presenting such affidavit(s) to the Sub-contractor.

EEV / Basic Pilot Program* User Identification Number
Enter the four to seven-digit number

Date of Authorization

Name of Sub-contractor (Printed)

Authorized Officer or Agent of Sub-contractor (Signature)

Date

Name of Sub-contractor's Authorized Officer or Agent
(Printed)

Title of Authorized Officer or Agent of Sub-contractor

SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF _____
20____.

Notary Public

My Commission Expires

SECTION 00 52 00 AGREEMENT

THIS AGREEMENT is by and between the Clayton County Water Authority (hereinafter called Owner) and _____ (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall at its own cost and expense furnish all labor, services, tools, materials, equipment, and incidentals necessary to complete all Work as specified or indicated in the Contract Documents to construct the **Tara Boulevard Storm Drain Rehabilitation**.

ARTICLE 2 – ENGINEER

- 2.01 The Project has been designed by Jacobs Engineering, which is to act as Owner's representative, assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3 – CONTRACT TIMES AND LIQUIDATED DAMAGES

3.01 Contract Time

- A. Contractor will achieve Substantial Completion and Work required on or before the date specified, or within 330 days from the date the Contract Times commence to run as provided in paragraph SC-4.01 A of the Supplementary Conditions and all Work will be finally completed and ready for payment in accordance with paragraph 15.06 of the General Conditions within 360 calendar days from the date the Contract Times commence to run.

3.02 Liquidated Damages

- A. Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 3.01 above, plus any extensions thereof allowed in accordance with Article 11 of the General Conditions. Owner and Contractor 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) Contractor shall pay Owner at the daily rate of One Thousand Five Hundred Dollars (\$1,500.00) per day for each day that expires after the time specified in Paragraph Contract Times above, for Substantial Completion until the Work is substantially complete.

- B. After Substantial Completion, if Contractor neglects, refuses, or fails to complete the remaining Work within the Contract Times or any Owner-granted extension thereof, Contractor shall pay Owner Five Hundred Dollars (\$500.00) for each day that expires after the time specified in paragraph Contract Times above for completion and readiness for final payment.
- C. Owner shall recover such liquidated damages by deducting the amount owed from the final payment or any retainage held by Owner.

ARTICLE 4 – CONTRACT PRICE

4.01 Owner shall pay Contractor for completion of the Work in accordance with the conformed Bid, which is included as an Exhibit of this Agreement, an adjusted amount equal to the sum of the amounts determined pursuant to the following.

- A. Lump Sum Bid Price: \$ _____
- B. Plus: Cash Allowance Items
 - a. Field and Laboratory Testing \$ _____
 - b. Construction Verification Surveying \$ _____
- C. Plus: Contingency Allowance Items
 - a. Unforeseen Work Elements \$ _____
- D. Total Contract Price:

_____ Dollars and
 _____ (Words)
 _____ Cents \$ _____
 _____ (Words) _____ (Figures)

ARTICLE 5 – RETAINAGE

- A. Prior to Substantial Completion, Owner shall retain from progress payments 5 percent of the value of Work completed, and 5 percent of the value of stored materials and equipment. At Substantial Completion of Work, and upon determination by Owner that the Work is reasonably satisfactory, Owner will, within 30 days after Contractor submits a request for payment of the retainage, pay the retainage to Contractor. If at the time of Substantial Completion and Contractor's request for payment of the retainage there are any remaining incomplete items, an amount equal to 200 percent of the value of each such incomplete item, as determined by Owner, shall be withheld until such item or items are completed.

ARTICLE 6 – INTEREST

- A. Monies not paid when due as provided in the Contract Documents shall bear interest at the rate to be negotiated between Owner and Contractor.

ARTICLE 7 – CONTRACTOR'S REPRESENTATIONS

7.01 In order to induce Owner to enter into this Agreement, Contractor's representation are set forth as follows:

- A. Contractor has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, general nature of work to be performed by Owner or others at the site that relates to Work required by the Contract Documents and local conditions and federal, state, and local Laws and Regulations that in any manner may affect cost, progress, performance, or furnishing of Work.
- B. Contractor has studied carefully reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 5.03 of the General Conditions, and accepts the determination set forth in the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which Contractor is entitled to rely. Contractor acknowledges that such reports and drawings are not Contract Documents.
- C. Contractor has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) examination, investigations, explorations, tests, studies, and reports (in addition to or to supplement those referred to above) which pertain to the conditions (subsurface or physical) at or contiguous to the site or otherwise and which may affect the cost, progress, performance, or furnishing of the Work as Contractor deems necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 5.03 of the General Conditions; and no additional or supplementary examinations, investigations, explorations, tests, reports, or similar information or data are or will be required by Contractor for such purposes.
- D. Contractor has reviewed and checked information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities, if any, at or contiguous to the site and has included costs as defined by paragraph 5.05 of the General Conditions.
- E. Contractor has correlated information known to Contractor and results of such observations, familiarizations, examinations, investigations, explorations, tests, studies, and reports with Contract Documents.

- F. Contractor has given Engineer written notice of conflicts, errors, ambiguities, or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of terms and conditions for performing and furnishing Work.

ARTICLE 8 – CONTRACT DOCUMENTS

8.01 The Contract Documents consist of the following:

- A. This Agreement as defined in Section 00 72 00, General Conditions paragraph 1.01.A.13
- B. Except for the Notice to Proceed, Drawings, and Addenda, these Contract Documents are also listed in the Tables of Contents and are bound in three volumes, identified as Contract Documents for construction of the **Tara Boulevard Storm Drain Rehabilitation**.
- C. The Drawings bound to the Project Manual, comprising a set entitled “Tara Boulevard Storm Drain Rehabilitation” as listed in Section 00 01 15, List of Drawing Sheets in the Project Manual.
- D. Specifications, as listed in the table of contents of the Project Manual
- E. Standard details, bound with the above-noted volumes.
- F. Addenda consisting of number 1 through _____, inclusive.
- G. Exhibits to this Agreement include:
 - a. Conformed Bid Form.
 - b. Executed Performance and Payment Bonds.
 - c. Documents submitted by Contractor prior to execution of Agreement
 - d. Statement of Noncollusion.
- H. The following, which may be delivered or issued on or after the Effective Date of the Agreement, and are not attached hereto:
 - a. Work Change Directive(s).
 - b. Change Order(s).
 - c. Field Order(s).

- 8.02 The documents listed in Paragraph 8.01 above are attached to this Agreement (except as expressly noted otherwise above). Documents not attached are incorporated by reference.
- 8.03 The Contract Documents may only be amended or supplemented as provided in the General Conditions.

ARTICLE 9 – MISCELLANEOUS

9.01 Terms

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

9.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 Successors and Assigns

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

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in six copies (two counterparts each have been delivered to Owner, Contractor, and Engineer). All portions of the Contract Documents have been signed by Owner and Contractor.

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

Owner: Clayton County Water Authority

Contractor: _____

Signature: _____

Signature: _____

Name: _____

Name: _____

Title: _____

Title: _____

Attest _____

Attest _____

Name: _____

Name: _____

Title: _____

Title: _____

Address for giving notices

Address for giving notices

1600 Battle Creek Road

Morrow, Georgia 30260

(CORPORATE SEAL)

Agent for service of process:

(If Contractor is a corporation, partnership, or limited liability company, attach evidence of authority to sign.)

(CORPORATE SEAL)

END OF SECTION

**SECTION 00 60 13.16
PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS THAT _____
_____ (as CONTRACTOR, hereinafter referred to as the "Principal"), and _____
(as SURETY COMPANY, hereinafter referred to as the "CONTRACTOR'S SURETY"), are held and firmly bound unto the Clayton County Water Authority (as OWNER, hereinafter referred to as "CCWA"), for the use and benefit of any "Claimant" as hereinafter defined in the sum of _____ Dollars (\$_____), lawful money of the United States of America, for the payment of which the Principal and the Contractor's Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered, or is about to enter, into a certain written agreement with CCWA, dated_____, which is incorporated herein by reference in its entirety (hereinafter referred to as the "CONTRACT"), for the construction of a project known as _____, (hereinafter referred to as "the PROJECT").

NOW THEREFORE, the condition of this obligation is such, that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor, services and materials used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise, to remain in full force and effect.

A "Claimant" shall be defined herein as any subcontractor, person, party, partnership, corporation or other entity furnishing labor, services or materials used or reasonably required for use in the performance of the Contract, without regard to whether such labor, services or materials were sold, leased or rented, and without regard to whether such Claimant is or is not in privity of the Contract with the Principal or any subcontractor performing work on the Project.

In the event of any claim made by the Claimant against CCWA, or the filing of a Lien against the property of CCWA affected by the Contract, the Contractor's Surety shall either settle or resolve the Claim and shall remove any such Lien by bond or otherwise as provided in the Contract.

The Parties further expressly agree that any action on this Bond may be brought within the time allowed by Georgia law for suit on contracts under seal.

IN WITNESS WHEREOF, the Principal and Contractor's Surety have hereunto affixed their corporate seals and caused this obligation to be signed by their duly authorized officers on this _____ day of _____ 20____.

(Name of Principal)

(Name of Contractor's Surety)

By: _____
Name Printed: _____
Title: _____

By: _____
Name Printed: _____
Title: _____

Attest: _____
Name: _____
Date: _____

Attest: _____
Name: _____
Date: _____

[Corporate Seal]

[Corporate Seal]

(ATTACH SURETY'S POWER OF ATTORNEY)

END OF SECTION

STATE OF GEORGIA
COUNTY OF CLAYTON

SECTION 00 60 13.a
WAIVER AND RELEASE OF LIEN AND PAYMENT BOND RIGHTS
UPON FINAL PAYMENT

The undersigned mechanic and/or materialman has been employed by the Clayton County Water Authority to furnish: _____

[describe materials and/or labor] for the construction of improvements known as: _____ [title of the project or building];
which is located in the City of _____, County of _____,
and is owned by the Clayton County Water Authority and more particularly described as follows:

[describe the property upon which the improvements were made using either a street address of the project, metes and bounds description, or the land lot district, block and lot number]: See Attachment: ☐ yes ☐ no

Upon the receipt of the sum of: \$_____, the mechanic and/or materialman waives and releases any and all liens or claims of liens it has upon the foregoing property or any rights against any labor and/or material bond on account of labor or materials, or both, furnished by the undersigned to or on account of Clayton County Water Authority for said property.

NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY DEEMED TO HAVE WAIVED AND RELEASED ANY AND ALL LIENS AND CLAIMS OF LIENS UPON THE FOREGOING DESCRIBED PROPERTY AND ANY RIGHTS REGARDING ANY LABOR OR MATERIAL BOND REGARDING THE SAID PROPERTY TO THE EXTENT (AND ONLY TO THE EXTENT) SET FORTH ABOVE, EVEN IF YOU HAVE NOT ACTUALLY RECEIVED SUCH PAYMENT, 90 DAYS AFTER THE DATE STATED BELOW UNLESS YOU FILE AN AFFIDAVIT OF NONPAYMENT PRIOR TO THE EXPIRATION OF SUCH 90 DAY PERIOD. THE FAILURE TO INCLUDE THIS NOTICE LANGUAGE ON THE FORM SHALL RENDER THE FORM UNENFORCEABLE AND INVALID AS A WAIVER AND RELEASE UNDER O.C.G.A. § 44-14-366.

JANUARY 2025

00 60 13.16a - 1

TARA BLVD. STORM
DRAIN REHABILITATION
WAIVER AND RELEASE OF LIEN AND PAYMENT
BOND RIGHTS UPON FINAL PAYMENT

COUNTERPARTS AND ELECTRONIC SIGNATURES: This Waiver may be executed in one or more counterparts, each of which will be deemed to be an original, but all of which together will constitute one and the same instrument. An executed signature page delivered via facsimile transmission or electronic signature shall be deemed as effective as an original executed signature page.

PERSONALLY, APPEARED BEFORE ME, the undersigned officer, duly authorized by law to administer oaths, comes _____ (the "Deponent"), who after first being duly sworn according to law, deposes and says under oath as follows:

1. That Deponent is the duly authorized agent and duly elected and acting officer of _____ (the "Contractor"), and is duly authorized to execute this Final Contractor's Affidavit, Lien Waiver and Indemnification (this "Affidavit") in a representative capacity on behalf of Contractor, as well as in Deponent's individual capacity, and Deponent has made diligent inquiry into and is personally familiar with and has full knowledge of all facts set forth herein.

2. That Contractor acted as the sole general contractor in charge of and directly responsible for the building and construction of all improvements (the "Work") located as reflected above (the "Property"), all of which Work was performed pursuant to the terms of that certain agreement dated _____ (the "Agreement") by and between Contractor and the Clayton County Water Authority as the owner or agent of the owner of the Property (the "Owner"). The Work includes, without limitation, all Work under or related to the Agreement and all change orders to the Agreement, and all supplemental contracts and subcontracts, whether oral or written, for any extra, additional or replacement labor or materials. Contractor is, and performed the Work as, an independent general contractor and Contractor is not an agent of Owner, and all of the Work was furnished and performed at the instance of Contractor as general contractor.

3. That the Work has been fully and finally completed in strict accordance with the terms of the Agreement, and Contractor has at all times since the commencement of the Work been in direct charge of all aspects of the Work, and Contractor has obtained a current valid permanent certificate of occupancy for the Property and the Work, and the Work has been completed within the boundary lines of the Property.

4. Upon receipt of the sum reflected above, Contractor acknowledges that Owner has paid in full to Contractor the full contract price under the Agreement (the "Contract Price"), which Contract Price includes, without limitation, all amounts and bills for all labor, materials, fixtures and supplies of any type whatsoever used in the Work. Upon receipt of these monies, all contractors, subcontractors, subcontractors of subcontractors, materialmen, suppliers and laborers will be paid in full the agreed price or reasonable value for all materials and supplies ordered, used or furnished and services and labor rendered in connection with or as a part of the Work, and none of such parties have or will have any claim, demand or lien against the Property, and all of the amounts paid by Owner to Contractor under the Agreement have been and will be used to pay for labor or materials

JANUARY 2025

00 60 13.16a - 2

TARA BLVD. STORM
DRAIN REHABILITATION
WAIVER AND RELEASE OF LIEN AND PAYMENT
BOND RIGHTS UPON FINAL PAYMENT

used in the Work when no liens or claims of lien were filed or outstanding. There are no disputes regarding the Agreement or any other contracts or subcontracts with respect to the Work or the Property, and, except for bills associated with these final monies, there are no amounts due or unpaid bills of any nature, either for labor or services related to the Work or the Property or any materials which have been or may have been placed upon, or applied or delivered to the Property, and Contractor does hereby unconditionally agree to hold harmless and indemnify Owner from and against all claims for mechanic's or materialman's liens or claims of lien, including, without limitation, any attempted foreclosure thereof, which in any way arise out of or are related to the Work or the Property, including, without limitation, any attorney's fees incurred in connection therewith.

5. That Contractor does hereby for itself, and its employees, suppliers, subcontractors, mechanics and materialmen and all other persons acting for, through, or under Contractor, waive, remise, relinquish and release all right to file or to have filed or to maintain any materialman's or mechanic's lien or liens or claim or claims against the Property or arising out of or related to the Work. This Affidavit is executed and given in favor of and for the benefit of, and may be relied upon by, Owner and each and every party legally or equitably, now or hereafter, owning or holding any interest in the Property.

6. That this Affidavit is a sworn statement made under the provisions of Official Code of Georgia Annotated Section 44-14-361.2, and is made for the purpose of inducing Owner to pay to Contractor the balance of the Contract Price pursuant to the terms of the Agreement.

GIVEN UNDER HAND AND SEAL THIS ____ DAY OF _____, 20____.

(Signature of Deponent)

(SEAL)

(Printed/Typed Name and Title)

(Witness)

(Address)

NOTARY ACKNOWLEDGMENT

Sworn to and subscribed before me, a Notary Public in and for said State and County, the Deponent, who, being personally known to the undersigned and being duly sworn and on oath deposed and said that the within and foregoing statements are true and correct this _____ day of _____, 20____.

Notary Public _____

Commission Expiration Date: _____ (NOTARY SEAL)

JANUARY 2025

00 60 13.16a - 4

TARA BLVD. STORM
DRAIN REHABILITATION
WAIVER AND RELEASE OF LIEN AND PAYMENT
BOND RIGHTS UPON FINAL PAYMENT

STATE OF GEORGIA
COUNTY OF CLAYTON

SECTION 00 60 13.16b
WAIVER AND RELEASE OF LIEN AND PAYMENT BOND RIGHTS
UPON INTERIM PAYMENT

The undersigned mechanic and/or materialman has been employed by the Clayton County Water Authority to furnish: _____

[describe materials and/or labor] for the construction of improvements known as:

_____ [title of the project or building];
which is located in the City of _____, County of _____,
and is owned by the Clayton County Water Authority and more particularly described as follows:

[describe the property upon which the improvements were made using either a street address of the project, metes and bounds description, or the land lot district, block and lot number]: See Attachment: ☐ yes ☐ no

Upon the receipt of the sum of \$ _____, the mechanic and/or materialman waives and releases any and all liens or claims of liens it has upon the foregoing described property or any rights against any labor and/or material bond through the date of _____ [date of signature] and excepting those rights and liens that the mechanic and/or materialman might have in any retained amounts, on account of labor or materials, or both, furnished by the undersigned to or on account of said contractor for said building or premises.

NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY DEEMED TO HAVE WAIVED AND RELEASED ANY AND ALL LIENS AND CLAIMS OF LIENS UPON THE FOREGOING DESCRIBED PROPERTY AND ANY RIGHTS REGARDING ANY LABOR OR MATERIAL BOND REGARDING THE SAID PROPERTY TO THE EXTENT (AND ONLY TO THE EXTENT) SET FORTH ABOVE, EVEN IF YOU HAVE NOT ACTUALLY RECEIVED SUCH PAYMENT, 90 DAYS AFTER THE DATE STATED ABOVE UNLESS YOU FILE AN AFFIDAVIT OF NONPAYMENT PRIOR TO THE EXPIRATION OF SUCH 90 DAY PERIOD. THE FAILURE TO INCLUDE THIS NOTICE LANGUAGE ON THE FORM SHALL RENDER THE FORM UNENFORCEABLE AND INVALID AS A WAIVER AND RELEASE UNDER O.C.G.A. § 44-14-366.

JANUARY 2025

00 60 13.16b - 1

TARA BLVD. STORM
DRAIN REHABILITATION
WAIVER AND RELEASE OF LIEN AND PAYMENT
BOND RIGHTS UPON INTERIM PAYMENT

COUNTERPARTS AND ELECTRONIC SIGNATURES: This Waiver may be executed in one or more counterparts, each of which will be deemed to be an original, but all of which together will constitute one and the same instrument. An executed signature page delivered via facsimile transmission or electronic signature shall be deemed as effective as an original executed signature page.

GIVEN UNDER HAND AND SEAL THIS ____ DAY OF _____, 20____.

(Signature of Deponent) (SEAL)

(Printed/Typed Name and Title)

Deponent, individually, and as duly authorized agent and duly elected and acting officer of Company.

(Company Name)

(Witness) (Address)

PERSONALLY, APPEARED BEFORE ME, a Notary Public in and for said State and County, the Deponent, who, being personally known to the undersigned and being duly sworn and on oath deposed and said that the within and foregoing statements are true and correct this ____ day of _____, 20____.

Notary Public _____

Commission Expiration Date: _____

(NOTARY SEAL)

**SECTION 00 61 13.13
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS THAT _____

_____ (as CONTRACTOR, hereinafter referred to as the
"Principal"), and _____ (as SURETY COMPANY),
hereinafter referred to as the "CONTRACTOR'S SURETY"), are held and firmly bound
unto the Clayton County Water Authority (as OWNER, hereinafter referred to as
"CCWA"), for the use and benefit of any "Claimant" as hereinafter defined in the sum of
_____ Dollars (\$ _____)
lawful money of the United States of America, for the payment of which the Principal and
the Contractor's Surety bind themselves, their heirs, executors, administrators,
successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered, or is about to enter, into a certain written
agreement with CCWA, dated _____, which is incorporated herein
by reference in its entirety (hereinafter referred to as the "CONTRACT"), for the
construction of a project known as _____

(hereinafter referred to as "the PROJECT").

NOW THEREFORE, the conditions of this obligation are as follows:

1. That if the Principal shall fully and completely perform each and all of the
terms, provisions and requirements of the Contract, including and during
the period of any warranties or guarantees required thereunder, and all
modifications, amendments, changes, deletions, additions, and alterations
thereto that may hereafter be made; and if the Principal and the Contractor's
Surety shall indemnify and hold harmless CCWA from any and all losses,
liability and damages, claims, judgments, liens, costs and fees of every
description, including but not limited to, any damages for delay, which
CCWA may incur, sustain or suffer by reason of the failure or default on the
part of the Principal in the performance of any and all of the terms,
provisions and requirements of the Contract, including all modifications,
amendments, changes, deletions, additions, and alterations thereto and
any warranties or guarantees required thereunder, then this obligation shall
be void; otherwise to remain in full force and effect;

2. In the event of a failure of performance of the Contract by the Principal, which shall include, but not be limited to, any breach of default of the Contract;
- a. The Contractor's Surety shall commence performance of its obligations and undertakings under this Bond no later than thirty (30) days after written notice from CCWA to the Contractor's Surety;
 - b. The means, method or procedure by which the Contractor's Surety undertakes to perform its obligations under this Bond shall be subject to the advance written approval of CCWA.

The Contractor's Surety hereby waives notice of any and all modifications, omissions, additions, changes and advance payments or deferred payments in or about the Contract and agrees that the obligations undertaken by this Bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, and advance payments or deferred payments. The Parties further expressly agree that any action on this Bond may be brought within the time allowed by Georgia law for suit on contracts under seal.

IN WITNESS WHEREOF, the principal and Contractor's Surety have hereunto affixed their corporate seals and caused this obligation to be signed by their duly authorized officers or attorneys-in-fact, this _____ day of _____ 20__.

(Name of Principal)

(Name of Contractor's Surety)

By: _____
Name Printed: _____
Title: _____

By: _____
Name Printed: _____
Title: _____

Attest: _____
Name: _____
Date: _____

Attest: _____
Name: _____
Date: _____

[Corporate Seal]

[Corporate Seal]

(ATTACH SURETY'S POWER OF ATTORNEY)
END OF SECTION

GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

EJCDC C-700, Standard General Conditions of the Construction Contract

(2013 Edition)

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

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

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

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

1.02 Terminology

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

“furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

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

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

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

2.05 *Initial Acceptance of Schedules*

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

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

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

3.02 *Reference Standards*

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

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
 3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.
- B. *Resolving Discrepancies:*
1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

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

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

4.02 *Starting the Work*

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

4.03 *Reference Points*

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

4.04 *Progress Schedule*

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

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

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

5.01 *Availability of Lands*

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

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste

materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

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

5.04 *Differing Subsurface or Physical Conditions*

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

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
 1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site

and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and

recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 - 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer,

or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond

signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor

to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
 - 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
 - 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 - 2. claims for damages insured by reasonably available personal injury liability coverage.
 - 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
 - 1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.

- b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial

Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

- I. *General provisions:* The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

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

6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this

Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

- C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by,

arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
 - D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

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

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

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

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

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

7.04 *"Or Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

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

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the

Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

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

7.06 *Concerning Subcontractors, Suppliers, and Others*

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

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

7.07 *Patent Fees and Royalties*

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

performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

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

7.08 *Permits*

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

7.09 *Taxes*

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

7.10 *Laws and Regulations*

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

any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

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

7.12 *Safety and Protection*

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

or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

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

7.13 *Safety Representative*

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

7.14 *Hazard Communication Programs*

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

7.15 *Emergencies*

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

7.16 *Shop Drawings, Samples, and Other Submittals*

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

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

Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

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

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

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

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or

alter others' work with the written consent of Engineer and the others whose work will be affected.

- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

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

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual

rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

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

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

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

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

9.06 *Insurance*

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

9.07 *Change Orders*

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

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

9.12 *Safety Programs*

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

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On

the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

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

10.04 *Rejecting Defective Work*

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

10.05 *Shop Drawings, Change Orders and Payments*

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

10.06 *Determinations for Unit Price Work*

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

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

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

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in

contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

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

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

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents

governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

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

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

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

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

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

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

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

ARTICLE 12 – CLAIMS

12.01 *Claims*

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

and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing

Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

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

indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

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

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

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

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

14.01 *Access to Work*

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

14.02 *Tests, Inspections, and Approvals*

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

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

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

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

14.04 *Acceptance of Defective Work*

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

14.05 *Uncovering Work*

- A. Engineer has the authority to require 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, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

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

14.07 *Owner May Correct Defective Work*

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

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

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

15.01 *Progress Payments*

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

Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

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

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

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

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

15.02 *Contractor's Warranty of Title*

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

15.03 *Substantial Completion*

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

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

15.04 *Partial Use or Occupancy*

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

15.05 *Final Inspection*

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

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

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

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

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.
- D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

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

15.08 *Correction Period*

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

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

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

exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

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

16.03 *Owner May Terminate For Convenience*

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

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

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

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

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

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Headings*

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

SECTION 00 73 00
SUPPLEMENTARY CONDITIONS

These SUPPLEMENTARY CONDITIONS amend, modify, or supplement Section 00 72 00, the STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT as prepared by the Engineers Joint Contract Documents Committee (EJCDC), Form C-700, 2013 Edition (hereinafter “the General Conditions”). To the extent these SUPPLEMENTARY CONDITIONS amend, modify or supplement the General Conditions, said SUPPLEMENTARY CONDITIONS take precedence and shall control. All provisions of the General Conditions not so amended, modified, or supplemented, shall remain in full force and effect.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 DEFINED TERMS

SC-1.01 A.8. Paragraph 1.01.A.8 of the General Conditions is amended to read as follows:

Change Order: A document, which is signed by Contractor and Owner, and by Engineer if requested by Owner, and authorizes an addition, deletion or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

SC-1.01 A.15. Paragraph 1.01.A.15 of the General Conditions is amended by the addition of the following provision:

Execution of this Agreement by Contractor constitutes an acknowledgement and agreement by Contractor that all Contract Times stated in the Contract Documents are reasonable and are of sufficient duration for the Work required to be performed within such times. Contractor acknowledges that Work on Saturdays, Sundays, or legal holidays requires the prior written approval of Owner and further requires that Contractor shall be responsible for, and shall pay, any and all overtime or extra cost incurred by Owner or Engineer resulting from such Work on Saturdays, Sundays, or legal holidays. Contractor further acknowledges that unless expressly stated otherwise, all days and times set forth in the Contract Documents are measured by calendar days.

SC-1.01 A.20. Paragraph 1.01.A.20 of the General Conditions is amended to read as follows:

Engineer: The individual or entity named as such in the Agreement or any substitute or successor as subsequently identified by Owner in writing to Contractor.

SC-1.01 A.29. Paragraph 1.01.A.29 of the General Conditions is amended to read as follows:

Progress Schedule: A detailed written schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times. The Project Schedule shall be in such form and format as the Owner or Engineer may require. It shall be updated not less frequently than monthly, or as otherwise required by the Contract Documents, and it shall at all times reflect the current and existing critical path of the Work to be completed. The Owner and Contractor specifically agree that any float contained in the Progress Schedule, or any update thereof, shall belong to the Project, and in no event, shall Contractor make a claim for any alleged delay, acceleration, or early completion so long as the Project is completed within the Contract Time.

SC-1.01 A.35. Paragraph 1.01.A.35 of the General Conditions is amended by the addition of the following provision:

The Schedule of Values shall be in such form and format as the Owner or Engineer may require, and Contractor shall provide such information and data as Owner or Engineer may require to substantiate its accuracy. Contractor shall not imbalance the Schedule of Values nor artificially inflate any element thereof. The Schedule of Values shall only be used as a basis for evaluating Contractor's Applications for Payment and receipt and approval of such Schedule by Owner and Engineer are conditions precedent to payment of any sums to Contractor.

1.02 TERMINOLOGY

SC-1.02 E. Paragraph 1.02. E. of the General Conditions is amended by the addition of the following provision to be identified as Paragraph 1-02. E.5:

The words "include" or "including," as used in the Contract Documents, shall be deemed to be followed by the phrase "without limitation."

ARTICLE 2 – PRELIMINARY MATTERS

2.01 DELIVERY OF BONDS AND EVIDENCE OF INSURANCE

SC-2.01 A. Paragraph 2.01 A. of the General Conditions is amended by the addition of the following provision:

Such bonds shall be executed by a surety acceptable to Owner and shall be in such form as Owner may require. All such bonds must comply with all requirements of Georgia law.

SC-2.01 C. Paragraph 2.01 C. of the General Conditions is amended by the insertion of the following phrase at the beginning of said Paragraph:

Upon written request of Contractor, . . .

2.02 COPIES OF DOCUMENTS

SC-2.02 A. Paragraph 2.02 A. of the General Conditions is amended by the deletion of the first sentence of said Paragraph and the substitution in lieu thereof of the following:

Owner shall furnish to Contractor 1 full size copy, and one electronic copy, of the Contract Documents.

2.04 PRECONSTRUCTION CONFERENCE; DESIGNATION OF AUTHORIZED REPRESENTATIVES

SC-2.04 B. Paragraph 2.04 B. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, to the extent the policies or procedures of Owner require that any decision of Owner's authorized representative must first be approved by any officer or senior management employee of Owner, or by the Board of Directors of Owner, such decision shall not be binding or final until such approval has been issued in writing.

2.05 INITIAL ACCEPTANCE OF SCHEDULES

SC-2.05 A. Paragraph 2.05 A. of the General Conditions is amended by the addition of subparagraph 4. to read as follows:

Notwithstanding any other provision in this Paragraph 2.05, the Progress Schedule, Schedule of Submittals, and Schedule of Values shall comply with all other requirements of the Contract Documents and all must be acceptable to, and approved by, Owner.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.03 REPORTING AND RESOLVING DISCREPANCIES

SC-3.03 A.2. Paragraph 3.03 A.2 of the General Conditions is amended by the addition of the following provision:

Contractor shall have a continuing duty to read, carefully study, and compare each of the Contract Documents, the Shop Drawings and any applicable product data and shall give written notice to Engineer of any inconsistency, ambiguity, error or omission which Contractor may discover with

respect to these documents before proceeding with the affected Work. The issuance, or the express or implied approval, by Owner or Engineer of the Contract Documents, Shop Drawings, or any product data shall not relieve Contractor of the continuing duties imposed hereby. OWNER MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY NATURE TO CONTRACTOR CONCERNING THE CONTRACT DOCUMENTS. By execution of this Agreement, Contractor acknowledges that it has received, reviewed, and carefully examined the Contract Documents and has reported in writing to Engineer any inconsistencies, ambiguities, errors or omissions discovered by Contractor in said Documents.

SC-3.03 B.1. Paragraph 3.03 B.1 of the General Conditions is amended by the addition of the following subparagraph c.:

In resolving conflicts, discrepancies, or inconsistencies among any of the Contract Documents, the following hierarchy shall control: (a) as between figures given on Documents and scaled measurements, the figures shall govern; (b) as between large-scale drawings and small-scale drawings, the large-scale shall govern; (c) as between Drawings and Specifications, the requirements of the Specifications shall govern; (d) as between the General Conditions and the Supplementary Conditions, the Supplementary Conditions shall govern. Any and all such conflicts, discrepancies, or inconsistencies shall be immediately reported by Contractor in writing to Engineer.

3.04 REQUIREMENTS OF THE CONTRACT DOCUMENTS

SC-3.04 B. Paragraph 3.04 B of the General Conditions is amended by the deletion of the following language at the end of such Paragraph:

. . . and on Owner, unless it objects.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 COMMENCEMENT OF CONTRACT TIMES; NOTICE TO PROCEED

SC-4.01 A. Paragraph 4.01 A. of the General Conditions is deleted in its entirety and in lieu thereof the following is inserted:

The award of the Contract, if made, shall be to the lowest responsible bidder, or, if applicable, to the proposer whose proposal has been accepted, within ninety (90) days after the opening of bids or proposals; however, in no event shall the award be made until any required investigations are made as to the responsibility of the bidder or proposer to whom it is proposed to award the Contract. Following award and execution of this Agreement, and following receipt by Owner of the required bonds and certificates of insurance, Contractor shall commence Work within ten (10)

days from the date specified in a written Notice to Proceed issued by Owner or Engineer. The Contract Time shall commence to run upon issuance to Contractor of such Notice to Proceed.

No work shall commence prior to the issuance of the Notice to Proceed or before delivery to Owner of the required bonds and certificates of insurance. Should Owner unreasonably delay issuance of the Notice to Proceed through no fault of Contractor, Contractor's sole and exclusive remedy shall be an extension of the Contract Time to the extent the time of performance has been reasonably delayed, but in no event, and under no circumstances, shall Contractor be entitled to an increase in the Contract Price.

4.02 STARTING THE WORK

SC-4.02 A. Paragraph 4.02 A. of the General Conditions is deleted in its entirety.

4.04 PROGRESS SCHEDULE

SC-4.04 B. Paragraph 4.04 B. of the General Conditions is amended by the addition of the following provision:

Strict compliance with all requirements of this Paragraph, and with all other scheduling requirements set forth in the Contract Documents, is a condition precedent for payment to Contractor, and any failure by Contractor to strictly comply with said requirements shall constitute a material breach of this Agreement.

4.05 DELAY IN CONTRACTOR'S PROGRESS

SC-4.05 C.2. Paragraph 4.05 C. of the General Conditions is amended 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.
- b) The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:
 - i) Every workday on which one or more of the following conditions exist will be considered a "bad weather day":

- (1) Total precipitation (as rain equivalent) occurring between 7:00 p.m. on the preceding day (regardless of whether such preceding day is a workday) through 7:00 p.m. on the workday in question equals or exceeds 0.1-inch of precipitation.
 - (2) Ambient outdoor air temperature at 11:00 a.m. is equal to or less than the following low temperature threshold: 32 degrees Fahrenheit; or, at 3:00 p.m. the ambient outdoor temperature is equal to or greater than the following high temperature threshold: 100 degrees Fahrenheit.
- ii) Determination of actual bad weather days during performance of the Work will be based on the weather records measured and recorded by NOAA National Weather Service weather monitoring station at Jonesboro, GA.
 - iii) Contractor shall anticipate the number of foreseeable bad weather days per month indicated in the Foreseeable Bad Weather Days table.

Foreseeable Bad Weather Days

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	6	6	6	5	6	6	5	4	4	5	7

- iv) In each month, every bad weather day exceeding the number of foreseeable bad weather days established in the Foreseeable Bad Weather Days table will be considered as “abnormal weather conditions.” The existence of abnormal weather conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus delayed were on Contractor’s then-current Progress Schedule’s critical path for the Project.

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

5.01 AVAILABILITY OF LANDS

SC-5.01 A. Paragraph 5.01 A. of the General Conditions is amended by the addition of the following provision:

Prior to submission of its bid or proposal, Contractor shall inspect the Project site and shall include within its bid or price the cost of addressing all site conditions reasonably ascertainable from such inspection. Contractor shall also examine and inspect all easements and rights-of-way necessary for completion of its Work and shall comply with all conditions and stipulations of same. In no

event shall Contractor enter upon the property of an adjacent landowner not under the control of Owner until such time as proper easements have been obtained and filed of record. Contractor shall in no event be entitled to damages, additional compensation, or any change in the Contract Price arising out of or relating to any failure by Owner to obtain any easement or rights-of-way.

5.03 SUBSURFACE AND PHYSICAL CONDITIONS

SC-5.03 Paragraph 5.03 of the General Conditions is deleted in its entirety and in lieu thereof the following provisions are inserted:

Reports, tests, and drawings relating to the Project site are not Contract Documents. They represent information available to Engineer in the design of the Project. Any conclusions drawn from this information are the responsibility of Contractor, and neither Owner nor Engineer makes any representations or warranties concerning the accuracy or completeness of any such reports, tests or drawings. Upon written request, and to the extent available, the following reports, tests, and drawings will be made available for review by Contractor or its representatives:

- Geotechnical Engineering and Subsurface Investigation Report, Accura Engineering and Consulting Services, Inc., August 2022.

5.04 DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

SC-5.04 A.1. Paragraph 5.04 A.1. of the General Conditions is amended by the deletion of such provision.

5.06 HAZARDOUS ENVIRONMENTAL CONDITIONS AT SITE

SC-5.06 B. Paragraph 5.06 B. of the General Conditions is amended by the addition of the following language at the beginning of the first sentence thereof:

Except to the extent otherwise provided herein . . .

ARTICLE 6 – BONDS AND INSURANCE

6.01 PERFORMANCE, PAYMENT, AND OTHER BONDS

SC-6.01 A. Paragraph 6.01 A. of the General Conditions is amended by the deletion of the second sentence in said Paragraph and the insertion of the following sentence in lieu thereof;

These bonds shall remain in full force and effect for such time as provided by Georgia law or for such longer time as may be provided by the terms of said bonds

SC-6.01 B. Paragraph 6.01 B. of the General Conditions is amended by the addition of the following provision:

In addition to all other requirements set forth hereinabove, and in addition to all other insurance requirements set forth below, all bonds and policies of insurance required by the Contract Documents shall be issued by companies having a Best's rating of no less than A: VII. All such bonds and policies of insurance, as well as all required certificates of insurance, shall be executed or countersigned by a licensed resident agent of the surety or insurance company having its principal place of business in the State of Georgia, and in all ways complying with the laws of the State of Georgia.

SC-6.01 G. Paragraph 6.01 of the General Conditions is amended by the addition of subparagraph G. thereto which shall read as follows:

Upon request of Owner or Engineer, Contractor shall obtain and furnish to Owner and Engineer written consent of its performance bond surety to any Contract payment, proposed or executed Change Order, or such other action as may be taken or contemplated under the Contract Documents. Absence of such consent of surety, however, shall in no manner whatsoever relieve, release, or discharge any surety from any of its obligations under the performance bond, the payment bond, or otherwise.

6.03 CONTRACTOR'S INSURANCE

SC-6.03 K. Paragraph 6.03 of the General Conditions is amended by the addition of subparagraph K. which provides as follows:

In addition to the insurance requirements set forth hereinabove, Contractor shall comply with any additional insurance requirements as set forth in the attached Exhibit "A." In the event of any conflict between the requirements of Paragraph 6.03 as set forth hereinabove, and the requirements as set forth in Exhibit "A," the requirements of Exhibit "A" shall govern and control.

SC-6.03 I.3. Paragraph 6.03. I.3 of the General Conditions is amended by the deletion of the phrase ". . . until at least 10 days prior written notice. . ." and the substitution in lieu thereof of the following phrase:

". . . until at least 90 days prior written notice . . ."

6.05 PROPERTY INSURANCE

SC-6.05 B. Paragraph 6.05 B. of the General Conditions is amended by the deletion of the phrase ". . . until at least 10 days prior written notice. . ." and the substitution in lieu thereof of the following phrase:

“ . . . until at least 90 days prior written notice. . . ”

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 SUPERVISION AND SUPERINTENDENCE

SC-7.01 B. Paragraph 7.01 B. of the General Conditions is amended by the deletion of said paragraph in its entirety and the substitution in lieu thereof of the following provision:

At all times during the progress of the Work, Contractor shall assign an on-site, full-time, competent, and experienced superintendent to the Project who, so long as said superintendent remains in the employment of Contractor, shall not be replaced without the prior written consent of Owner. Such superintendent shall have no less than three years' experience as a superintendent on one or more projects similar in nature, size and scope to the Project. Contractor shall furnish Owner a detailed resume setting forth the qualifications of such superintendent prior to his or her assignment to the Project. The qualifications of such superintendent must be acceptable to Owner. The superintendent shall be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to, or received by, the superintendent shall be binding on Contractor.

SC-7.01 C. Paragraph 7.01 of the General Conditions is amended by the addition of subparagraph 7.01 C. which shall read as follows:

Contractor shall prepare and submit to Owner and Engineer a daily report setting forth for each day of Work the weather conditions; the number of workers present by craft; the identity of all management and supervisory personnel on site; a list of all active and inactive equipment on site; work accomplished by scheduled activity; all problems and issues impacting the Work in whole or in part; an identification of any visitors to the site; and such other information as may be relevant to the status of performance of this Agreement. This report shall be signed by the Project superintendent of Contractor or Contractor's other designated representative and shall be delivered to Owner and Engineer on or before 10:00 a.m. of the day following the day which is the subject matter of the report.

7.02 LABOR; WORKING HOURS

SC-7.02 B. Paragraph 7.02 B. of the General Conditions is amended by the deletion of the second sentence in said Paragraph and the substitution in lieu thereof of the following provision:

Contractor may perform Work outside regular business hours or on Saturdays, Sundays, or legal holidays only with the prior written consent of Owner which Owner may grant or withhold in its sole discretion. Before performing any authorized work on any of these days, or before performing

authorized work outside regular business hours, Contractor shall provide Engineer and Owner not less than seventy-two (72) hours prior written notice.

SC-7.02 B. Paragraph 7.02 B. of the General Conditions is deleted in its entirety and in lieu thereof, the following provision is inserted:

Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with the prior written consent of Owner which Owner may grant or withhold in its sole discretion. Before performing any authorized work on any of these days, or before performing authorized work outside regular working hours, Contractor shall provide Engineer and Owner not less than seventy-two (72) hours prior written notice. Regular working hours shall be defined as 7:00 AM to 7:00 PM. Working hours are not to exceed 40 hours per week without obtaining permission for overtime work from the Engineer and Owner.

7.06 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS

SC-7.06 F. Paragraph 7.06 F. of the General Conditions is amended by the deletion of the phrase "If Owner requires the replacement of any Subcontractor . . ." and in lieu thereof the substitution of the following phrase:

"If without good cause, Owner requires the replacement of any Subcontractor. . ."

SC-7.06 K. Paragraph 7.06 K. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, Contractor acknowledges and agrees that Owner or Engineer may communicate directly with Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work for the purpose of determining whether or not any of said entities have been, or are being, timely paid by Contractor or whether or not Contractor is otherwise complying with its obligations under this Agreement.

SC-7.06 L. Paragraph 7.06 L. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, Contractor shall perform not less than twenty-five percent (25%) of all on-site labor with employees of Contractor.

SC-7.06 P. Paragraph 7.06 of the General conditions is amended by the addition of subparagraph P. thereto which shall read as follows:

In the event any Subcontractor or Supplier makes claim against Contractor for any increase in the subcontract price due such Subcontractor or Supplier, or for an increase in the time to perform any of the Work, or for any other compensation or relief, Contractor shall assert any and all available contractual, legal, and equitable defenses to any such claim or claims. Such defenses include, but are not limited to, any and all notice and claim defenses arising under the applicable subcontract or supplier agreement and all defenses arising under this Agreement as incorporated therein. Contractor shall not agree to “pass through” any such claim to Owner, or to pay any such claim, if it is subject to any of the defenses as set forth hereinabove. Contractor’s duty to defend against any invalid claims includes, but is not limited to, the duty to defend such claims in a court of competent jurisdiction or in arbitration, if applicable. Failure of Contractor to defend against any invalid Subcontractor or Supplier claims as required herein shall constitute a complete and unequivocal waiver of any right of Contractor to seek reimbursement from Owner or Engineer. Contractor shall furthermore indemnify and hold Owner harmless from any and all cost and expense, including attorneys’ fees and expert witness fees and cost, incurred in defending any Subcontractor or Supplier claims to which a valid contractual, legal or equitable defense was available to Contractor.

SC-7.06 Q. Paragraph 7.06 of the General Conditions is amended by the addition of subparagraph Q. thereto which shall read as follows:

Contractor shall require all Subcontractors, Suppliers, and others performing or furnishing any of the Work to maintain insurance coverages as set forth in Exhibit “A” hereto including, but not limited to, completed operations coverage at the minimum level stated in said Exhibit. Contractor shall maintain certificates of insurance from all such entities and said certificates shall be available upon request for inspection by Owner or Engineer.

7.08 PERMITS

SC-7.08 A. Paragraph 7.08 A. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, Owner agrees that any fees for permits or licenses, or any inspection fees, obtained from, or payable directly to, Owner are waived. Contractor, however, shall pay for all other permits, licenses, and inspection fees required by any other governmental entity or agency.

7.10 LAWS AND REGULATIONS

SC-7.10 D. Paragraph 7.10 of the General Conditions is amended by the addition of subparagraph D. thereto which shall read as follows:

While not intended to be inclusive of all Laws and Regulations for which Contractor is or may be responsible, the following Laws or Regulations are included herein by reference and compliance with same by Contractor is mandated by this Agreement:

- 1) Contractor shall not pay less than the prevailing rate of wages in accordance with O.C.G.A. § 34-4-3;
- 2) Qualified employees may be relieved from work for up to two hours to vote as provided by O.C.G.A. § 21.2-404;
- 3) Contractor and its Subcontractors, as well as others for whom they are responsible, shall not engage in discrimination as prohibited by O.C.G.A. § 34-1-2 or as prohibited by any other state or federal Law or Regulation;
- 4) Contractor shall comply with all notification requirements for excavators as required by O.C.G.A. § 25-9-6;
- 5) Contractor shall register and participate in the electronic verification ("E-Verify") of work authorization operated by the United States Department of Homeland Security or any equivalent federal work authorization program. The Contractor shall verify that its employees, and the employees of its Subcontractors, are in compliance with the Immigration Reform and Control Act of 1986, as required by applicable state law, including O.C.G.A. §13-10-91 et. seq. Contractor shall provide Owner and Engineer with executed affidavits verifying such employees' compliance with the federal and state laws identified hereinabove. Contractor shall secure similar affidavits from all of its Subcontractors verifying their compliance with said federal and state laws. At all times applicable to this Agreement, and for not less than three years after final completion of the Project or for such longer time as may be required by law, Contractor shall maintain detailed records demonstrating compliance by it and its Subcontractors with these legal requirements.

SC-7.10 E. Paragraph 7.10 of the General Conditions is amended by the addition of the following subparagraph E. which shall read as follows:

Contractor shall cooperate with Owner in securing any tax refunds, credits, or rebates due Owner or in utilizing any tax exemptions available to Owner. Such cooperation shall include, but shall not be limited to, the execution of any required or necessary documentation.

7.11 RECORD DOCUMENTS

SC-7.11 A. Paragraph 7.11 A. of the General Conditions is amended by the addition of the following provision:

Receipt by Engineer of the record documents required herein is an express condition precedent for final payment to Contractor.

7.12 SAFETY AND PROTECTION

SC-7.12 H. Paragraph 7.12 of the General Conditions is amended by the addition of the following subparagraph H. which shall read as follows:

Contractor shall provide, erect, maintain and finally remove all barricades and detour signs necessary to properly protect and divert traffic. Such barricades and signs shall be illuminated at night. Contractor shall be responsible for all damage, including any damage to the Work, resulting from any failure of the signs or barricades to protect the Work or related property from traffic, pedestrians, and animals, or from other sources. All barricades shall be acceptable to Owner and same shall comply with any and all rules, regulations, or other legal mandates of any governmental authorities having applicable jurisdiction.

7.18 IDEMNIFICATION

SC-7.18 B. Paragraph 7.18 B. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, no claim whatsoever shall be made by Contractor against any officer, employee, board member, or agent of Owner, on account of anything done or alleged to be done in breach of this Agreement.

ARTICLE 8 – OTHER WORK AT THE SITE

8.03 LEGAL RELATIONSHIPS

SC-8.03 B. Paragraph 8.03 B. of the General Conditions is amended by the addition of the following provision:

Furthermore, in the event the remaining contract balance is not sufficient to satisfy the damages due Owner after the set-off provided herein, Contractor shall promptly, upon demand of Owner, pay to Owner the remaining amount necessary to compensate Owner for said damages.

SC-8.03 C. Paragraph 8.03 C. of the General Conditions is amended by the addition of the following provision:

Furthermore, in the event the remaining contract balance is not sufficient to satisfy the damages due Owner after the set-off provided herein, Contractor shall promptly, upon demand of Owner, pay the remaining amount necessary to compensate Owner for said damages.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 COMMUNICATIONS TO CONTRACTOR

SC-9.01 A. Paragraph 9.01 A. of the General conditions is amended to read as follows:

Except as otherwise provided in the Contract Documents, or unless the Owner in its discretion determines to communicate otherwise, the Owner shall issue communications to Contractor through Engineer.

9.02 REPLACEMENT OF ENGINEER

SC-9.02 A. Paragraph 9.02 A. of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

In case of termination of the Engineer, Owner may appoint a substitute Engineer whose status under the Contract Documents shall be that of the former Engineer.

9.04 PAY WHEN DUE

SC-9.04 A. Paragraph 9.04 A. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision of the Contract Documents, Owner and Contractor expressly agree that the terms of payment, payment period, and rates of interest set forth in this Agreement shall control to the exclusion of any provisions set forth in the Georgia Prompt Pay Act, O.C.G.A. § 13-11-1 et. seq. and the provisions of said Act are expressly waived.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 OWNER'S REPRESENTATIVE

SC-10.01 A. Paragraph 10.01 A of the General Conditions is amended to read as follows:

Engineer will be Owner's representative during construction unless otherwise directed in writing by Owner. Engineer shall not, however, be authorized to increase the Contract Price or the Contract Time, or to approve any Change Order, without Owner's express written consent. The duties and responsibilities of the Engineer are as set forth in the Contract Documents and will not be changed without written notice by Owner to Contractor.

10.02 VISITS TO SITE

SC-10.02 A. Paragraph 10.02 A. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, nothing contained in the Contract Documents shall limit or restrict any duty or obligation owed by Engineer to Owner arising out of, or related to, the Engineer's contract with Owner for engineering services.

10.06 DETERMINATIONS FOR UNIT PRICE WORK

SC-10.06 A. Paragraph 10.06 A. of the General Conditions is amended by the addition of the following provision;

Owner, however, shall have the express right to challenge any such determination for good cause and may submit any such challenge in accordance with the claims provisions of this Agreement.

10.07 DECISIONS ON REQUIREMENTS OF CONTRACT DOCUMENTS AND ACCEPTABILITY OF WORK

SC-10.07 A. Paragraph 10.07 A. of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

Engineer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as Engineer may determine necessary which shall be consistent with the intent and reasonably inferable from the Contract Documents. Such written clarifications shall be binding on Owner and Contractor unless either one notifies the Engineer within 10 days of receipt of same. Any dispute concerning entitlement to additional compensation or time arising out of any such clarifications or interpretations, shall be submitted for determination in accordance with the claims provisions of this Agreement. If Owner requires, Contractor shall submit any claims, disputes or other matters relating to the Work, or to the requirements of the Contract Documents, to Engineer in writing for an initial decision. Such submission, if required by Owner, shall be a condition precedent to exercise by Contractor of any other rights or remedies provided by the Contract Documents or by law or equity with respect to any such claims, disputes or other matters.

10.08 LIMITATIONS ON ENGINEER'S AUTHORITY AND RESPONSIBILITIES

SC-10.08 B. Paragraph 10.08 B. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision of this Paragraph, and notwithstanding any other provision of the Contract Documents, nothing contained in this Agreement nor in any provision of the

Contract Documents, shall limit or restrict in any manner whatsoever the duties, obligations or responsibilities of the Engineer to Owner as set forth in the contract by and between Owner and Engineer or as provided by law or equity.

SC-10.08 E. Paragraph 10.08 E. of the General Conditions is amended by the addition of the following provision:

Furthermore, it is expressly agreed that any Resident Project Representative shall not have authority to authorize any deviation from the Contract Documents or approve any substitution of materials or equipment; undertake any of the responsibilities of the Contractor, the Contractor's superintendent, or of any Subcontractor; accept submittals from anyone other than Contractor; authorize Owner to occupy the Project in whole or in part; or participate in specialized tests or inspections conducted by others except as expressly authorized by the Engineer.

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

11.09 OTHER

SC-11.09 A. Paragraph 11.09 A. is added to the General Conditions and said Paragraph shall read as follows:

Notwithstanding any other provision herein, Contractor acknowledges and agrees that some Change Orders (as determined by Owner in its discretion) shall require approval of Owner's Board of Directors. Contractor further agrees that Owner shall have not less than 60 days to submit any such Change Orders to its Board of Directors for approval or rejection. In no event and under no circumstances shall Contractor make any claim for delay, acceleration, interference, or other claim for damages, cost, or expense arising out of, or relating to, the time required to secure approval or rejection of any Change Order, so long as said approval or rejection is made by the Board of Directors within 60 days after submission of the applicable Change Order by Contractor.

ARTICLE 12 – CLAIMS

12.01 CLAIMS

SC-12.01 B. Paragraph 12.01 B. of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

Owner shall notify Contractor in writing of any claim by Owner against Contractor and Owner may furnish Engineer a copy of such notice. Within 20 days after receipt of Owner's notice of claim, Contractor shall notify Owner and Engineer in writing that (i) Contractor is in agreement with the claim in its entirety and affirms that it will execute a Change Order confirming such agreement;

or, (ii) Contractor is in agreement with the claim in part, affirms that it will execute a Change Order confirming such partial agreement, and identifies with specificity any part or parts of the claim with which it disagrees and states the facts and circumstances which it contends supports such disagreement; or, (iii) Contractor is in disagreement with the claim in its entirety and states the facts and circumstances which it contends supports such disagreement. Failure by the Contractor to respond as required herein shall constitute full and complete acceptance of Owner's claim and agreement by Contractor with same in its entirety. Any claim by Contractor against Owner shall be initiated by written notice to Owner and Engineer within seven days after occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice must be specifically identified as a "Notice of Claim." If required, such notice shall be on a form specified by Owner. Furthermore, within 20 days after submission of the notice required herein, Contractor shall submit in writing a detailed statement of the claim which shall be in such form, and which shall include such supporting documentation, as Owner or Engineer may require. Any such claim by Contractor shall be signed under oath and under penalty of perjury. Any claim shall state with specificity any damages claimed or proposed increases to the Contract Price. In the event Contractor requests any increase in the Contract Time, it shall submit, as part of its written claim, a detailed critical path method schedule showing with specificity how the critical path of the Project has been impacted as a result of the items set forth in the claim. FAILURE BY CONTRACTOR TO SUBMIT ANY CLAIM IN STRICT CONFORMITY WITH THE REQUIREMENTS OF THIS PROVISION SHALL CONSTITUTE AN ABSOLUTE AND UNEQUIVOCAL WAIVER OF SUCH CLAIM. Contractor may not reserve in any claim, or in any Change Order, any rights or remedies to make claim for additional money or time arising out of the occurrence, events, or conditions giving rise to the claim. Reservation of the right to claim future impact damages is expressly and unequivocally prohibited. Pending final resolution of any claim of Contractor or Owner, Contractor shall diligently proceed with performance of this Agreement unless directed otherwise by Owner in writing, and Owner shall continue to make payment of all sums due Contractor in accordance with this Agreement. The resolution of any claim under this Paragraph shall be documented by Change Order executed by the parties.

SC-12.01 D. Paragraph 12.01 D of the General Conditions is deleted in its entirety.

SC-12.01 E. Paragraph 12.01 E of the General Conditions is deleted in its entirety.

SC-12.01 F. Paragraph 12.01 F of the General Conditions is deleted in its entirety.

SC-12.01 G. Paragraph 12.01 G of the General Conditions is deleted in its entirety.

12.02 OTHER JURISDICTION

SC-12.02 A. Paragraph 12.02 A. is added to the General Conditions and said Paragraph shall read as follows:

The Superior Court of Clayton County, Georgia, shall have sole and exclusive jurisdiction and venue over any action arising out of, or relating to, this Agreement and the parties expressly waive jurisdiction and venue in any other court and waive any right of removal to any federal court. Furthermore, in the event Owner institutes any action against Contractor arising out of, or relating to, this Agreement, and the event Owner prevails in whole or in part in any such action, or in the event Contractor asserts any claim against Owner in any legal proceeding and such claim is determined to be invalid in whole or in part, Contractor shall pay all of Owner's costs and expense incurred in prosecuting or defending any such action or proceeding including, but not limited to, all attorneys' fees and expenses, expert and consultants' fees and expenses, and court costs.

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

13.01 COST OF THE WORK

SC-13.01 C. Paragraph 13.01 C. of the General Conditions is amended by the addition of subparagraph 6. which shall read as follows:

Notwithstanding any other provision of this Agreement, in no event, and under no circumstances, shall "costs" include, nor shall Contractor make claim for or be entitled to recover, any home office overhead expense; loss of capital; loss of profit on other projects; loss of efficiency or productivity; loss of bonding capacity; or any consequential damage of any kind or nature.

13.03 UNIT PRICE WORK

SC-13.03 F. Paragraph 13.03 of the General Conditions is amended by the addition of subparagraph F. thereto which shall read as follows:

Notwithstanding any other provision herein, in the event of any adjustment to unit prices as set forth hereinabove, such adjustment shall only apply to variations above 125 percent or below 75 percent of the estimated units set forth in the Contract Documents. Contractor shall make no claim for an increase in the Contract Time based on an increase in units unless the number of units actually installed exceeds 125 per cent of those estimated in the Contract Documents.

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

14.03 DEFECTIVE WORK

SC-14.03 B. Paragraph 14.03 B. of the General Conditions is amended by the addition of the following provision:

Furthermore, Owner shall likewise have the right to determine and reject defective work.

SC-14.03 G. Paragraph 14.03 of the General Conditions is amended by the addition of subparagraph G. thereto which shall read as follows:

Notwithstanding any other provision of this Agreement, Contractor acknowledges and agrees that any failure of Owner or Engineer to notify Contractor of defective Work, or any lack of receipt by Contractor of any such notice, shall in no manner whatsoever relieve or discharge Contractor from its obligation to perform the Work in conformity with the Contract Documents or its obligation to remove, repair, or correct defective Work.

14.06 OWNER MAY STOP THE WORK

SC-14.06 A. Paragraph 14.06 A of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

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, or Contractor otherwise is in material breach of this Agreement, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

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

15.01 PROGRESS PAYMENTS

SC-15.01 B. Paragraph 15.01 B. of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

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

of the date of the Application and accompanied by such supporting documentation as required by the Contract Documents or as may be otherwise specified by Owner or Engineer. In its Application for Payment, Contractor may request payment for 95 percent of that portion of the Contract Price properly applicable to Contract requirements properly provided, labor, materials and equipment properly incorporated in the Work, plus 95 percent of that portion of the Contract Price properly allocable to materials or equipment properly stored on-site (or elsewhere if approved in advance in writing by Owner) for subsequent incorporation in the Work, less the total amount of previous payments received from Owner. Payment for stored materials and equipment shall be conditioned upon proof of appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner. Each Application for Payment shall constitute Contractor's representation that the Work has progressed to the level for which payment is requested in accordance with the schedule of values, that the Work has been properly installed or performed in full accordance with the requirements of the Contract Documents, and the Contractor knows of no reason why payment should not be made as requested. Thereafter the Engineer shall review the Application for Payment and may also review the Work at the Project site or elsewhere to determine the quantity and quality of the Work as represented in the Application for Payment and as required by the Contract Documents. Engineer shall determine and recommend to Owner the amount owing to Contractor. Owner shall make partial payments on account of the Contract Price to Contractor within 30 days following Owner's receipt of each Application for Payment with Engineer's approval. The amount of each partial payment shall be in the amount recommended by Engineer less such amounts, if any, otherwise owing by Contractor to Owner or which Owner shall have the right to withhold as authorized by this Agreement. Any recommendation by Engineer for payment to Contractor shall not preclude Owner from the exercise of any of its rights as set forth in this Agreement. Provided, however, that at Substantial Completion of the Work and the Work being reasonably satisfactory, Owner shall withhold no more retainage, except for withholdings for any remaining incomplete items as set forth in the Contract Documents. At the discretion of Owner, and with the approval of Contractor, the retainage of any Subcontractor may be released separately as the Subcontractor completes its work. Retainage shall be invested and paid to Contractor as provided for in O.C.G.A. § 13-10-81. For purposes of this Agreement, the terms and conditions of O.C.G.A. § 13-10-80, et seq., are herein incorporated by reference and shall take precedence over, and shall control, any other terms or conditions in the Contract Documents.

SC-15.01 D. Paragraph 15.01 D. of the General Conditions is amended by the deletion of the phrase “Ten days” and the substitution in lieu thereof of the phrase “Thirty days”. Additionally, the following provision is added to said Paragraph and shall state as follows:

Within three days of receipt of payment from Owner, Contractor shall pay all Subcontractors and Suppliers whose work or products was included in the partial payment. If Owner fails to make any payment as provided herein, or as required elsewhere in the Contract Documents, interest shall accrue on any such payment, to the extent it is late, at a rate to be negotiated between Owner and Contractor.

SC-15.01 E. Paragraph 15.01 E. of the General Conditions is amended by the addition of the subparagraph 4. Thereto which shall state as follows:

In addition to the right to reduce or withhold payment as set forth hereinabove, Owner may furthermore demand return of some or all of the amounts previously paid to Contractor in order to protect Owner from the risk of loss arising from any of the items set forth in this Paragraph 15.01 E. In the event Owner makes demand upon Contractor for the return of any such amounts, Contractor shall promptly comply with such demand.

15.03 SUBSTANTIAL COMPLETION

SC-15.03 A. Paragraph 15.03 A. of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

When Contractor believes that the Work is Substantially Complete, it shall submit to Engineer and Owner a list of items to be completed or corrected prior to Final Completion. When Engineer, on the basis of an inspection, determines that the Work is in fact Substantially Complete, it will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of Owner and Contractor for Project security, maintenance, utilities, damage to Work, and insurance, and shall fix the time in which Contractor shall complete the items listed therein or any other items required for Final Completion. The Certificate of Substantial Completion shall be submitted to Owner and Contractor for their written acceptance of the responsibilities assigned to them in such certificate. Upon Substantial Completion of the Work, and after execution by both Owner and Contractor of the Certificate of Substantial Completion, Owner shall pay Contractor an amount sufficient to increase total payments to Contractor to 100 percent of the Contract Price less 200 percent of the reasonable costs as determined by Owner, with advice of the Engineer, for completing all incomplete Work, correcting and bringing into conformance all defective and nonconforming Work, handling all unsettled claims, and performing any other remaining obligations of Contractor under the Contract Documents.

SC-15.03 B. Paragraph 15.03 B. of the General Conditions is deleted in its entirety.

SC-15.03 C. Paragraph 15.03 C. of the General Conditions is deleted in its entirety.

15.04 PARTIAL USE OR OCCUPANCY

SC-15.04 A.2. Paragraph 15.04 A.2. of the General Conditions is deleted in its entirety.

15.06 FINAL PAYMENT

SC-15.06 D. Paragraph 15.06 D. of the General Conditions is amended by the addition of the following provision:

Notwithstanding any other provision herein, Owner shall not be required to make payment of amounts which are the subject of a good faith dispute by and between Owner and Contractor.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.02 OWNER MAY TERMINATE FOR CAUSE

SC-16.02 E. Paragraph 16.02 E. of the General Conditions is amended by the deletion of the following provision:

Such claims, costs, losses, and damages incurred by the Owner will be reviewed by the Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order.

SC-16.02 G. Paragraph 16.02 G. of the General Conditions is deleted in its entirety.

16.03 OWNER MAY TERMINATE FOR CONVENIENCE

SC-16.03. Paragraph 16.03 of the General Conditions is deleted in its entirety and in lieu thereof the following provision is inserted:

A. Owner may for any reason terminate performance under this Agreement by Contractor for convenience. Owner shall give written notice of such termination to Contractor specifying when termination becomes effective. Contractor shall incur no further obligations in connection with the Work and Contractor shall stop work when such termination becomes effective. Contractor shall also terminate outstanding orders and subcontracts unless instructed otherwise by Owner. Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders. Owner may direct Contractor to assign Contractor's right, title, and interest under any subcontracts to Owner or its designee. Contractor shall transfer title and deliver to Owner such completed or partially completed Work and materials, equipment for installation, parts, fixtures, information and contract rights which Contractor has or possesses.

B. Contractor shall submit a written termination claim to Owner and Engineer specifying the amounts due because of the termination for convenience together with costs, pricing, or other data as may be required by Owner or Engineer. If Contractor fails to file a termination claim within 60 days from the effective date of termination, Owner may in its sole discretion deem any such claim to be waived by Contractor, and Owner shall owe no further sums of any kind or nature to Contractor. Absent agreement to the amount due Contractor, and absent a waiver as set forth hereinabove, Owner shall pay Contractor, within 60 days after submission of a proper and verified claim, with such reasonable documentation as Owner or Engineer may require, the following amounts which shall constitute full and complete compensation to Contractor for all sums due under this Agreement, including all sums arising out of, or relating to, the termination for convenience: (1) contract prices for labor, materials, equipment and other services accepted under this Agreement; (2) reasonable costs incurred in preparing to perform and in performing the terminated portion of the Work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profits do not include anticipated profits, anticipated overhead, or consequential damages of any kind or nature); provided, however, if it appears that Contractor would not have profited, or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of any compensation shall be reduced to reflect the anticipated rate of loss, if any; (3) reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders as required hereinabove. The total sum to be paid Contractor under this Paragraph shall not exceed the Contract Price, as properly adjusted by Change Orders, reduced by the amount of payments otherwise made, and shall in no event include any duplication of payment.

C. In the event the employment of Contractor is terminated for cause pursuant to Paragraph 16.02 of this Agreement hereinabove, and in the further event it is subsequently determined by a Court of competent jurisdiction, or by an arbitrator or arbitration panel, that such termination was without cause, such termination shall thereupon be deemed and treated as a termination for convenience under this Paragraph 16.03 and the provisions of this Paragraph shall apply.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 METHODS AND PROCEDURES

SC-17.01. Paragraph 17.01 of the General Conditions is deleted in its entirety.

ARTICLE 18 – MISCELLANEOUS

18.01 GIVING NOTICE

SC-18.01 A. Paragraph 18.01 A. of the General Conditions is amended by the addition of the following subparagraph 3. which shall state as follows:

Regardless of how it is sent or delivered, written notice shall be effective for all purposes of this Agreement if same is received by an officer or designated representative of the party to whom such notice was addressed.

ARTICLE 19 – OTHER

SC-19.01 A. The General Conditions are amended by the addition of Paragraph 19.01 A. which shall read as follows:

No official of Owner who is authorized in such capacity and on behalf of Owner to negotiate, make, accept, or approve, or to take any part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the Project, shall become directly or indirectly interested personally in this Agreement or any part thereof. No officer, employee, architect, attorney, engineer or inspector of or for Owner who is authorized in such capacity and on behalf of Owner to exercise any legislative, executive, supervisory or similar functions in connection with construction of the Project shall become directly or indirectly interested personally in this Agreement or in any part thereof or in any material supply contract, subcontract, insurance contract, or any other contract pertaining to the Project.

SUPPLEMENTS

The supplement listed below, following “END OF SECTION”, is part of this Specification.

Exhibit ‘A’ – Additional Insurance Requirements

END OF SECTION

EXHIBIT "A"
ADDITIONAL INSURANCE REQUIREMENTS

1.01 In addition to any other coverage required by the Contract Documents, Contractor shall provide, and shall require its Subcontractors to provide, unless otherwise agreed by Owner in writing, the following insurance coverage:

Workers' Compensation and Employers Liability:

Workers' Compensation

Statutory Limits

Employers Liability

\$1,000,000 Each Accident

\$1,000,000 Disease Employee Limit

\$1,000,000 Each Employee

The policy will include an "Alternate Employer Endorsement" naming Owner as the Alternate Employer. The policy will be amended to provide 90 days' notice to Owner in the event of cancellation or nonrenewal. The policy will include Terrorism Peril Coverage.

Commercial General Liability:

The Policy will be on an Occurrence Form with no less than the following limits:

\$1,000,000 Per Occurrence Limit

\$1,000,000 Personal and Advertising Injury Limit

\$1,000,000 Fire Damage

\$5,000 Medical Expense Limit Per Person

\$2,000,000 General Aggregate

\$2,000,000 Products / Completed Operations – Per Occurrence and Aggregate

The policy will include the following:

- 1) Contractual Liability covering this Contract;
- 2) The policy will cover explosion, collapse and underground coverage;
- 3) The General Aggregate will be per project;
- 4) The policy will include Cross Liability (Separation of Insureds) coverage;
- 5) The policy will be amended to require 90 days' notice to Owner and Engineer in the event of cancellation or nonrenewal;
- 6) The policy will be amended by naming the Owner and Engineer as additional insureds for Primary Coverage and the Additional Insured Endorsement will cover Operations and Products and Completed Operations;
- 7) The Owner's Protective Liability policy will be in excess of this Commercial General Liability policy.
- 8) The Contractor shall furnish a certificate of continuing Products and Completed Operations coverage for a period of five years after completion or amend the current policy to include an Extended Reporting Period of five years after completion;
- 9) This policy will include Terrorism Peril Coverage.

Automobile Liability:

Automobile Liability Coverage including Owned, Hired, and Non-owned vehicles with a Combined Single Limit (CSL) of \$1,000,000. The policy will be amended to provide 90 days' notice to Owner in the event of cancellation or nonrenewal. This policy will include Terrorism Peril Coverage.

Umbrella Liability (Occurrence Form):

An Umbrella or Excess Liability policy will be provided. Such policy will be excess over Employers Liability, Commercial General Liability, and Automobile Liability. The policy will include Cross Liability (Separation of Insureds) and 90 days' notice to Owner in the event of cancellation or nonrenewal. The total limit of coverage, when combined with the underlying, will be not less than \$5,000,000 per Occurrence and Aggregate. The certificate of insurance will include a copy of the endorsement providing that the policy is excess to the underlying coverage with coverage exceptions identified. This policy will include Terrorism Peril Coverage.

Owner's Protective Liability:

The Contractor will furnish Owner's Protective Liability with a limit of \$2,000,000. Coverage should be project specific, stand-alone policy, naming project owner and principal as named insured. This policy will include Terrorism Peril Coverage.

Contractor's Pollution Liability (Occurrence Form):

The Contractor will provide a Contractor's Pollution Liability policy written on an "occurrence form" with an occurrence limit of not less than \$2,000,000 per Occurrence. The Owner, and such others as Owner shall designate, will be named as additional insureds. This policy will include Terrorism Peril Coverage.

1.02 In addition to the coverage requirements set forth hereinabove, the following insurance requirements shall be applicable unless provided otherwise in the Contract Documents:

- A. Contractor shall purchase and maintain property insurance upon the Work at the Project Site in the amount of the Contract Price, including as may be adjusted by Change Order, or for full replacement cost, whichever is greater. The property insurance shall contain no partial occupancy restriction for utilization of the Project by Owner for its intended purpose;
- B. With respect to all insurance policies and all insurance coverage required to be furnished by Contractor, Contractor shall provide Owner and Engineer prior to performing any Work on the Project certificates of insurance indicating the applicable coverage and all required endorsements. Upon request by Owner or Engineer, Contractor shall furnish a complete copy of any required policy;
- C. Unless otherwise agreed in writing, the Owner, Engineer, and Engineer's Consultants shall be named as additional insureds on all policies of insurance required to be furnished by Contractor. The additional insureds shall be listed by endorsement which shall include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of such additional insureds, and the insurance afforded to these additional insureds shall provide primary and noncontributory coverage for all claims covered thereby;
- D. To the extent any of the policies of insurance furnished by Contractor contain deductibles in any amount, Contractor shall be liable for, and shall pay, any such deductible amounts;

- E. With respect to all insurance required from Contractor by any of the Contract Documents, Contractor waives, and will require by endorsement its insurance carriers to waive, any and all rights of subrogation against Owner, Engineer and each additional named insured on any applicable policy;
- F. Nothing contained in any policy of insurance, nor any of the insurance requirements set forth in the Contract Documents, shall in any way limit, restrict, or release Contractor from any of its duties, obligations, or liabilities arising under or relating to the Contract Documents.

END OF EXHIBIT

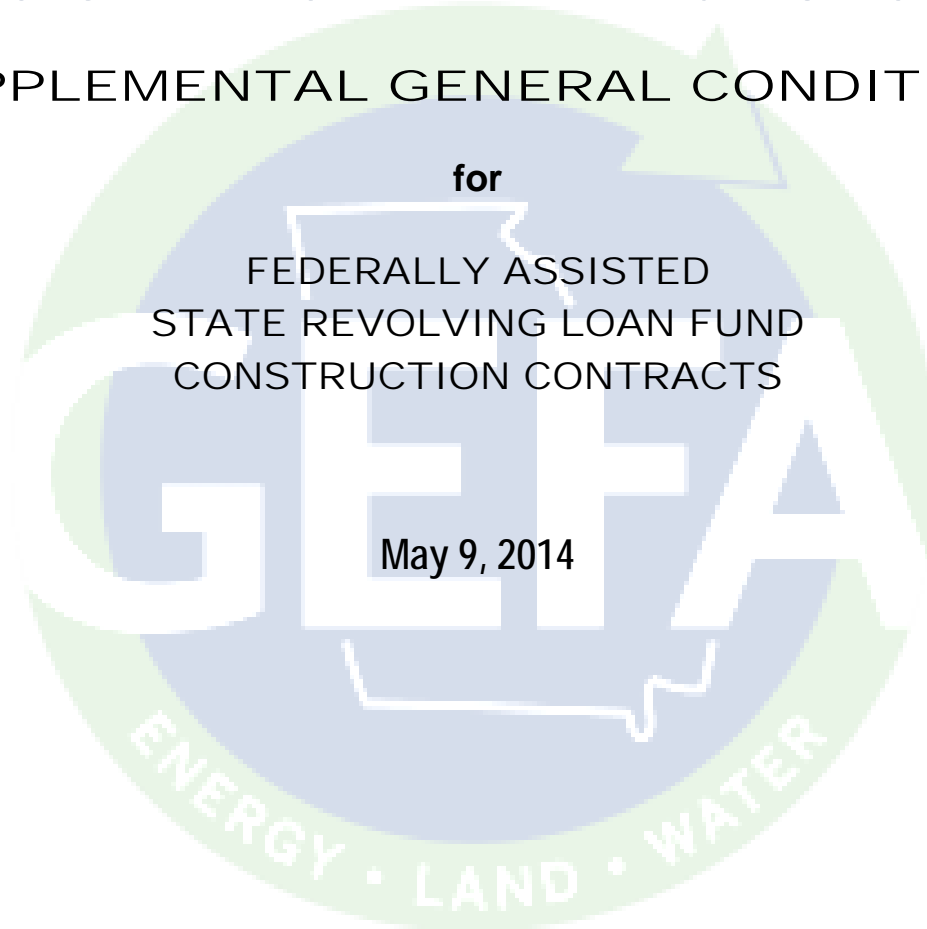
APPENDICES

APPENDIX A

**GEFA - SUPPLEMENTAL
GENERAL CONDITIONS**

GEORGIA ENVIRONMENTAL FINANCE AUTHORITY

SUPPLEMENTAL GENERAL CONDITIONS



The following standard language must be incorporated into construction contract documents and in all solicitations for offers and bids for all construction contracts or subcontracts in excess of \$10,000 to be funded in whole or in part by the Federally-assisted State Revolving Fund in the State of Georgia.

These Supplemental General Conditions shall not relieve the participants in this project of responsibility to meet any requirements of other portions of this construction contract or of other agencies, whether these other requirements are more or less stringent. The requirements in these Supplemental General Conditions must be satisfied in order for work to be funded with the State Revolving Fund.

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INSTRUCTIONS & GENERAL REQUIREMENTS

It is the policy of the State Revolving Loan Fund (SRF) to promote a fair share of subcontract, materials, equipment and service awards to small, minority, and women-owned businesses for equipment, supplies, construction, and services. Compliance with these contract provisions is required in order for project costs to be eligible for SRF funding. The fair share objective is a goal, not a quota. Failure on the part of the apparent successful bidder to submit required information to the loan recipient (Owner) may be considered by the Owner in evaluating whether the bidder is responsive to bid requirements.

THE PRIME CONTRACTOR MUST SUBMIT THE FOLLOWING ITEMS TO THE OWNER:

A. Before beginning the work of any contract:

- 1) **DBE Compliance Form and related documentation.** The Owner must submit this information to the Georgia Environmental Finance Authority (GEFA) to demonstrate compliance with Disadvantaged Business Enterprise (DBE) requirements. GEFA concurrence is recommended prior to award of the construction contract and is required prior to commencement of any SRF-funded construction. (Pages GEFA-4&5)
- 2) **Certification Regarding Equal Employment Opportunity.** This form is required for the Prime Contractor and for all subcontractors. The Prime Contractor form should be submitted with the DBE Compliance Form, and the subcontractor forms should be submitted as the subcontracts are executed. (Page GEFA-9)
- 3) **Certification Regarding Debarment, Suspension, & Other Responsible Matters.** This form is required for the Prime Contractor and for all subcontractors. The Prime Contractor form should be submitted with the DBE Compliance Form and the subcontractor forms should be submitted as the subcontracts are executed. (Page GEFA-10)
- 4) ***EPA Form 6100-2 DBE Subcontractor Participation Form.** This form gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the Prime Contractor, how much the DBE subcontractor was paid, and any concerns the DBE subcontractor might have. The Prime Contractor must provide this form to each DBE subcontractor. The DBE subcontractor can, as an option, complete and submit this form to the GEFA DBE Coordinator, who will also forward the form to the EPA DBE Coordinator. (Page GEFA-11)
- 5) ***EPA Form 6100-3 DBE Subcontractor Performance Form.** This form captures the description of work to be performed by an intended DBE subcontractor and the price of the work. This form is to be provided by the Prime Contractor to each DBE subcontractor and submitted with the DBE Compliance Form. (Page GEFA-12)
- 6) ***EPA Form 6100-4 DBE Subcontractor Utilization Form.** This form captures intended or anticipated use of an identified DBE subcontractor by the Prime Contractor and the estimated dollar amount of the work. This form is to be completed by the Prime Contractor and submitted with the DBE Compliance Form. (Page GEFA-13)

*** 6100 FORMS ARE NOT REQUIRED WHEN ALL OF THE WORK IS SELF-PERFORMED BY THE PRIME CONTRACTOR.**

B. During the performance of the contract:

- 7) **Changes to Subcontractors Form.** If any changes, substitutions, or additions are proposed to the subcontractors included in previous GEFA concurrences, the Owner must submit this information to GEFA for prior concurrence in order for the affected subcontract work to be eligible for SRF funding. (Page GEFA-14)
- 8) **DBE Annual Report.** The Owner must submit this information to GEFA no later than October 20th of any year that the construction contract is active. (Page GEFA-15)
- 9) **Certified Payrolls.** These should be submitted to the Owner weekly for the Prime Contractor and all subcontractors. The Owner must maintain payroll records and make these available for inspection. Use Department of Labor form WH-347 or a similar form that contains all of the information on the Department of Labor.

THE OWNER MUST SUBMIT INFORMATION FOR GEFA REVIEW AND CONCURRENCE TO:

Georgia Environmental Finance Authority
Attention: DBE Compliance Coordinator
233 Peachtree Street, N.E.
Harris Tower, Suite 900
Atlanta, Georgia 30303
(404)584-1000; (404)584-1069 (fax)
dbe_compliance@gefa.ga.gov

DBE COMPLIANCE FORM

ALL INFORMATION OUTLINED ON THIS FORM IS REQUIRED FOR DBE COMPLIANCE REVIEW. THE PROPOSED PRIME CONTRACTOR AND OWNER SHOULD ENSURE THAT THIS INFORMATION IS COMPLETE PRIOR TO SUBMITTAL.

Loan Recipient _____

SRF Loan Number _____

PRIME CONTRACTOR'S AND OWNER'S CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this firm has met and will continue to meet the conditions of this construction contract regarding DBE solicitation and utilization. I further certify that criteria used in selecting subcontractors and suppliers were applied equally to all potential participants and that EPA Forms 6100-2 and 6100-3 were distributed to all DBE subcontractors.

(Prime Contractor signature)

Date _____

(Printed name and title)

I certify that I have reviewed the information submitted on and with this form and that it meets the requirements of the Owner's State Revolving Fund loan contract.

(Signature of Owner or Owner's representative)

Date _____

(Printed name and title)

CONTACT INFORMATION

Owner contact _____

Owner phone number & email _____

Consulting Engineer contact _____

Consulting Engineer phone number & email _____

Proposed Prime Contractor _____

Prime Contractor contact _____

Prime Contractor phone number & email _____

Proposed total contract amount \$ _____

Proposed total MBE participation \$ _____ Percentage _____ Goal: 4.0 percent

Proposed total WBE participation \$ _____ Percentage _____ Goal: 4.0 percent

CONTINUED ON NEXT PAGE

Please submit the following with the DBE Compliance Form:

- 1) List of all committed and uncommitted subcontractors by trade, including company name, address, telephone number, contact person, dollar amount of subcontract, and DBE/MBE/WBE status.
- 2) Indicate in writing if no solicitations were made because the Prime Contractor intends to use only its own forces to accomplish the work.
- 3) Proof of certification by EPA, SBA, DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA criteria) for each subcontractor listed as a DBE, MBE, or WBE.
- 4) Documentation of solicitation efforts for prospective DBE firms, such as fax confirmation sheets, copies of solicitation letters and e-mails, printout of online solicitations, printouts of online search results and copies and affidavits of publication in newspapers or other publications. (see also, **"Six Good Faith Efforts"**, page GEFA-7).
 - a. The Prime Contractor shall use the necessary resources to identify and directly solicit no less than 3 certified MBE firms and 3 certified WBE firms to bid in each expected subcontract trade or area. If a diligent and documented search of the recommended directories does not identify 3 potential certified MBE firms and 3 potential certified WBE firms, then the Prime Contractor shall post an advertisement in the Owner's local legal organ, the Owner's official website, a regional newspaper in a larger community in the proximity, the Prime Contractor's website, or some other appropriate resource.
 - b. The Prime Contractor is encouraged to follow-up each written, fax, or e-mail solicitation with at least 1 logged phone call.
 - c. Whenever possible, post solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- 5) Written justification for not selecting a certified DBE subcontractor that submitted a low bid for any subcontract area.
- 6) Certification By Proposed Prime Contractor or Subcontractor Regarding Equal Employment Opportunity (GEFA-9)
- 7) Certification By Proposed Prime or Subcontractor Regarding Debarment, Suspension, and Other Responsible Matters. (GEFA-10)
- 8) *EPA Form 6100-3 DBE Subcontractor Performance Form for all DBE subcontracts. (GEFA-12)
- 9) *EPA Form 6100-4 DBE Subcontractor Utilization Form for all DBE subcontracts. (GEFA-13)

*6100 forms are not required when all of the work is self-performed by the prime contractor.

END OF DBE COMPLIANCE FORM



DBE COMPLIANCE CHECKLIST

THE PRIME CONTRACTOR MUST SUBMIT THE FOLLOWING ITEMS TO THE OWNER BEFORE THE WORK BEGINS:

Loan Recipient _____

SRF Loan Number _____

Include in Package Submittal

PRIME CONTRACTOR ONLY	TOTAL CONTRACT AMOUNT	
ALL SUBCONTRACTORS, INCLUDING DBE FIRMS	TRADE	AMOUNT
ALL SUBCONTRACTORS, INCLUDING DBE FIRMS	TRADE	AMOUNT
DBE SUBCONTRACTORS ONLY	TRADE	AMOUNT
DBE SUBCONTRACTORS ONLY	TRADE	AMOUNT
PRIME CONTRACTOR ONLY (Not applicable if self-performing all work, with no subcontracting)		

1. **DBE Compliance Form.** The Owner must sign and submit this information to the Georgia Environmental Finance Authority (GEFA) to demonstrate compliance with DBE requirements. GEFA concurrence is recommended prior to award of the construction contract and is required prior to commencement of any SRF-funded construction. (Pages GEFA-4&5)

2. **Certification Regarding Equal Employment Opportunity.** This form is required for the Prime Contractor and for all subcontractors. The Prime Contractor's form should be submitted with the DBE Compliance Form and the subcontractors' forms should be submitted as the subcontracts are executed. (Page GEFA-9)

3. **Certification Regarding Debarment, Suspension, & Other Responsible Matters.** This form is required for the Prime Contractor and for all subcontractors. The Prime Contractor's form should be submitted with the DBE Compliance Form and the subcontractors' forms should be submitted as the subcontracts are executed. (Page GEFA-10)

4. **EPA Form 6100-2 DBE Subcontractor Participation Form.** This form gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from Prime Contractor, how much the DBE subcontractor was paid, and any other concerns the DBE subcontractor might have. The Prime Contractor must provide this form to each DBE subcontractor. The DBE subcontractor can, as an option, submit this form to the GEFA DBE Coordinator, who will forward the form to the EPA DBE Coordinator. (Page GEFA-11)

5. **EPA Form 6100-3 DBE Subcontractor Performance Form.** This form captures an intended DBE subcontractor's description of work to be performed for the Prime Contractor and the price of the work. This form is to be provided by the Prime Contractor to each DBE subcontractor and submitted with the DBE Compliance Form. (Page GEFA-12)

6. **EPA Form 6100-4 DBE Subcontractor Utilization Form.** This form captures the Prime Contractor's intended use of an identified DBE subcontractor and the estimated dollar amount of the work. This form is to be completed by the Prime Contractor and submitted with the DBE Compliance Form (Page GEFA-13)

Uncommitted Trades

--	--	--	--

Documentation of Good Faith Efforts

Newspaper ads		Internet Websites	Fax Confirmation	Copies of Solicitation Emails/letters	Copies of phone logs
PROOF OF CERTIFICATION FOR EACH SUBCONTRACTOR LISTED AS A DBE, MBE, OR WBE					

SIX GOOD FAITH EFFORTS

These good faith efforts are required methods to ensure that DBEs have the opportunity to compete for procurements funded by EPA financial assistance dollars. Such good faith efforts are described as follows:

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. This will include placing DBEs on solicitation lists and soliciting them whenever there are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the resources, services, and assistance of the Department of Transportation (DOT), Small Business Administration (SBA), and the Minority Business Development Agency of the Department of Commerce (MBDA).
6. If the Prime Contractor awards subcontracts, it must take the steps described in items (1) through (5) listed above.

Please note that DBEs, MBEs, and WBEs must be certified by EPA, SBA, or DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA's). DBEs must be certified in order to be counted toward the Prime Contractor's MBE/WBE goals. "Self-certified" DBE subcontractors will not be counted toward the Prime Contractor's MBE/WBE goals. Depending upon the certifying agency, a DBE may be classified as a DBE, a Minority Business Enterprise (MBE), or a Women's Business Enterprise (WBE).

The Prime Contractor must employ and document the **Six Good Faith Efforts** for all subcontracts, even if the Prime Contractor has achieved the fair share objectives.

The documentation of solicitations for the **Six Good Faith Efforts** must be detailed in order to allow for satisfactory review. Such documentation might include fax confirmation sheets, copies of solicitation letters/emails, printouts of the online solicitations, printouts of online search results and affidavits of publication in newspapers or other publications. The Prime Contractor is encouraged to follow up each written, fax, or e-mail solicitation with at least 1 logged phone call.

The Prime Contractor should attempt to identify and solicit DBEs in the geographic proximity of the project before soliciting those located farther away.

If a DBE subcontractor fails to complete work under the subcontract for any reason, the Prime Contractor must notify the Owner in writing prior to any termination and must employ the Six Good Faith Efforts described above if using a replacement subcontractor. Any proposed changes from the approved DBE subcontractor list must be reported to the Owner and to GEFA on the *Changes to Approved Subcontractors Form* (GEFA-14) prior to initiation of the action. EPA Forms Nos. 6100-3 and 6100-4 must also be submitted to GEFA for new DBE subcontracts.

RESOURCES FOR IDENTIFYING DBE SUBCONTRACTORS

RESOURCES FOR IDENTIFYING DBE SUBCONTRACTOR'S FOR DIRECT SOLICITATION:

Georgia Department of Transportation (GDOT)
Disadvantaged Business Enterprise Program
(404) 631-1972

http://tomcat2.dot.state.ga.us/ContractsAdministration/uploads/rptDBE_Directory_CA_New.pdf

City of Atlanta, Georgia
Office of Contract Compliance
(404) 330-6010
<http://pro.prismcompliance.com/>

DeKalb County, Georgia
Office of Purchasing and Contracting
(404) 371-4730
<http://www.co.dekalb.ga.us/purchasing/pdf/supplierList.pdf>

Fulton County, Georgia
Purchasing and Contract Compliance
(404) 612-5800
http://www.fultoncountyga.gov/plugins/content/external_links/frameset.php?url=http%3A%2F%2Fwww.occfultoncountyga.com%2FDirectory%2FMBEDirectoryExternal.aspx

Metropolitan Atlanta Rapid Transit Authority (MARTA)
Disadvantaged Business Enterprise Program
(404) 848-4656
<http://www.itsmarta.com/vendor-opportunities.aspx>

United States Environmental Protection Agency
http://www.epa.gov/osbp/dbe_team.htm
Teree Henderson
National DBE Program Coordinator
(202) 566-2222
henderson.teree@epa.gov

Georgia Environmental Finance Authority
DBE Compliance Coordinator
(404) 584-1000
www.gefa.ga.gov
db_compliance@gefa.ga.gov

NOTES:

- (1) The Prime Contractor shall use the necessary resources to identify and directly solicit no less than 3 certified MBE firms and 3 WBE firms to bid in each expected subcontract area or trade.
- (2) If a diligent and documented search of the recommended directories does not identify 3 potential certified MBE firms and 3 potential certified WBE firms, then the Prime Contractor shall post an advertisement in the Owner's local legal organ, the Owner's official website, a regional newspaper in a larger community in the proximity, the Prime Contractor's website, or some other appropriate resource. Whenever possible, post solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- (3) Expenditures to a DBE that acts merely as a broker or passive conduit of funds, without performing, managing, or supervising the work of its subcontract in a manner consistent with normal business practices may not be counted.
- (4) The Prime Contractor should attempt to identify and first solicit DBEs in the geographic proximity of the project before soliciting those located farther away.
- (5) Contact the GEFA DBE Compliance Coordinator at (404) 584-1000 or db_compliance@gefa.ga.gov for further assistance or resources.

**CERTIFICATION BY PROPOSED PRIME CONTRACTOR OR SUBCONTRACTOR
REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**

Proposed Prime Contractor
Proposed Subcontractor

This certification is required pursuant to Executive Order 11246, Part II, Section 203 (b), (30 F.R. 12319-25). Any bidder or prospective prime contractor, or any of the proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicated that the prime or subcontractor has not filed a compliance report due under applicable instruction, such contractor shall be required to submit a compliance report.

(1) Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.
YES _____ NO _____

(2) Compliance Reports were required to be filed in connection with such contract or subcontract.
YES _____ NO _____ (If YES, state what reports were filed and with what agency.)

(3) Bidder has filed all compliance reports due under applicable instructions, including SF-100 (EEO-1 Report).
YES _____ NO _____ (If NO, please explain in detail.)

The information above is true and complete to the best of my knowledge and belief. (A willfully false statement is punishable by law – U.S. Code, Title 18, Section 1001.)

PRINTED NAME & TITLE OF AUTHORIZED REPRESENTATIVE OF CONTRACTOR OR SUBCONTRACTOR

SIGNATURE OF AUTHORIZED REPRESENTATIVE

DATE

**CERTIFICATION BY PROPOSED PRIME CONTRACTOR OR SUBCONTRACTOR
REGARDING
DEBARMENT, SUSPENSION, AND OTHER RESPONSIBLE MATTERS**

Proposed Prime Contractor
Proposed Subcontractor

Under Executive Order 12549 individuals or organizations debarred from participation in Federal Assistance Programs may not receive an assistance award under federal program or sub-agreement there under for \$25,000 or more. Accordingly each recipient of a State loan or a contract (engineering or construction) awarded under a loan must complete the following certification (see 40 CFR 32.510).

The prospective participant certifies to the best of its knowledge and belief that it and its principals;

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause of default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. (A willfully false statement is punishable by law – U.S. Code, Title 18, Section 1001.)

PRINTED NAME & TITLE OF AUTHORIZED REPRESENTATIVE OF CONTRACTOR OR SUBCONTRACTOR

SIGNATURE OF AUTHORIZED REPRESENTATIVE

DATE

_____ I am unable to certify to the above statements. My explanation is as follows:

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form**

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services , Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: ___ DOT ___ SBA ___ Other: _____		Meets/ exceeds EPA certification standards? ___ YES ___ NO ___ Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract.

An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package.

Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity:			

I have identified potential DBE certified subcontractors	___ YES	___ NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue
on back
if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

CHANGES TO APPROVED SUBCONTRACTORS FORM

Loan Recipient _____ SRF Loan Number _____

CERTIFICATIONS:

I certify that the information submitted on and with this form is true and accurate and that this firm has met and will continue to meet the conditions of this construction contract regarding DBE solicitation and utilization. I further certify that criteria used in selecting subcontractors and suppliers were applied equally to all potential participants.

(Prime Contractor signature) Date _____

(Printed name and title)

I certify that I have reviewed the information submitted on and with this form and that it meets the requirements of the Owner's State Revolving Fund loan contract.

(Signature of Owner or Owner's representative) Date _____

(Printed name and title)

GENERAL INFORMATION:

- 1) If an approved subcontractor is terminated or replaced, please identify this company and briefly state reason.

Subcontractor Name::	Trade
Reason Terminated or Replaced	

- 2) For new or additional subcontractors, list name, trade, address, telephone number, contact person, dollar amount of subcontract, and DBE status.

New Subcontractor Name and Contact Person	Trade
Address	Telephone Number
Dollar Amount	DBE Status

- 1) Attach proof of certification by EPA, SBA, DOT (or by state, local, Tribal, or private entities whose certification criteria match EPA's) for each subcontractor listed as a DBE, MBE, or WBE.
- 2) Attach documentation of Six Good Faith Efforts solicitation effort for all new subcontracts.
- 3) Provide justification for not selecting any certified DBE subcontractor that submitted a low bid for any subcontract area.
- 4) For each subcontractor, attach certifications regarding Equal Employment Opportunity (GEFA-9) and certifications regarding Debarment, Suspension, and Other responsible Matters (GEFA-10)

DBE ANNUAL REPORT
FORM (5700-52A)

This form must be completed by recipients of federal financial assistance for procurement of supplies, equipment, construction or services. SRF loan recipients are required to submit this report to GEFA by the 20th of October for the previous period of October 1 through September 30. Please submit a "negative" report even if \$0 is the amount paid to MBE/WBE subcontractors during the reporting period.

ANNUAL REPORT FORM (5700-52A)			
1. PRIME CONTRACTOR		2. REPORTING PERIOD (Complete date using current year.) Period Ending (September 30, _____)	
3. SUBMIT TO: Georgia Environmental Finance Authority Attention: DBE Compliance Coordinator 233 Peachtree Street, N.E. Harris Tower, Suite 900 Atlanta, Georgia 30303 dbe_compliance@gefa.ga.gov		4. LOAN RECIPIENT (Name, Address and Telephone)	
5. LOAN RECIPIENT (OWNER) REPORTING CONTACT	PHONE:	6. TYPE OF FEDERAL FINANCIAL ASSISTANCE PROGRAM (Check one) CWSRF _____ DWSRF _____	7. SRF LOAN NUMBER
8. CONTRACTOR NAME & TOTAL CONSTRUCTION CONTRACT AMOUNT		9. ACTUAL DOLLAR AMOUNT PAID TO MBE/WBE SUBCONTRACTORS THIS PERIOD \$ MBE _____ \$ WBE _____ NEGATIVE REPORT (\$0) ____	
10. RECIPIENT'S MBE/WBE GOALS MBE 4.0 % WBE 4.0 %		11. TOTAL DOLLARS SPENT THIS PERIOD MBE \$ _____ WBE \$ _____ NON MBE/WBE \$ _____ TOTAL \$ _____	
12. NAME & TITLE OF AUTHORIZED REPRESENTATIVE OF LOAN RECIPIENT (OWNER).		13. SIGNATURE OF AUTHORIZED REPRESENTATIVE OF LOAN RECIPIENT.	14. DATE
MBE/WBE PAYMENTS MADE DURING PERIOD			
NAME & ADDRESS of DBE (SUB)CONTRACTOR (indicate if MBE or WBE firm)		TOTAL DOLLAR AMOUNT PAID & DATE PAID \$ _____ DATE _____	

SPECIAL PROVISIONS

- (a) The Prime Contractor is required to pay its subcontractors in accordance with the Georgia Prompt Payment Act (OCGA 13-11).
- (b) The Prime Contractor is required to insert the entirety of the Davis Bacon contract requirements into all subcontracts
- (c) Sewer line and water line crossing of all roads and streets shall be done in accordance with the Georgia Department of Transportation (D.O.T.) Policies and Procedures and must comply with the Ga. D.O.T. Standard Specifications, Construction of Roads and Bridges, 1993 Edition.
- (c) Construction shall be carried out so as to prevent bypassing of wastewater flow and to prevent interruption of drinking water treatment during construction. EPD must receive written notification prior to any reduction in the level of treatment and must approve all temporary modifications to the treatment process prior to the activity.
- (d) Erosion and Sedimentation Control shall be accomplished in accordance with the Georgia Erosion and Sedimentation Control Act of 1975 as currently amended and NPDES General Permits (Storm Water from Construction Sites). See also www.gaepd.org and www.gaswcc.georgia.gov for information regarding permits.
- (e) Use of Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in conformance with State and local regulations as appropriate.
- (f) It is the duty of the Prime Contractor, the Owner and the Engineer to ensure the construction of the project, including the letting of contracts in connection therewith, shall comply with all applicable laws and regulations and requirements of the United States of America or any agency thereof, the state of Georgia or any agency thereof, territorial, or any local government laws or political subdivision and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- (g) EPD, EPA, and GEFA shall have access to the site and the project work at all times.

BONDS

Bonding requirements for Contracts of \$100,000 or less are contained in the General Conditions. Bond requirements of contracts in excess of \$100,000 are:

1. Bid guarantee equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid.
2. Performance bond equal to 100 percent of the contract price and;
3. Payment bond equal to 100 percent of the contract price. Bonds must be obtained from companies holding Certificates of Authority as acceptable sureties, issued by the U.S. Treasury.

SPECIAL NOTICE TO BIDDERS

By the submission of this bid, each bidder acknowledges that he understands and agrees to be bound by the equal opportunity requirements of EPA regulations (40 CFR Part 8, particularly Section 8.4 (b)), which shall be applicable throughout the performance of work under any contract awarded pursuant to this solicitation. Each bidder agrees that if awarded a contract, it will similarly bind contractually each subcontractor. In implementation of the foregoing policies, each bidder further understands and agrees that if awarded a contract, it must engage in affirmative action directed at promoting and ensuring equal employment opportunity in the workforce used under the contract (and that it must require contractually the same effort of all subcontractors whose subcontracts exceed \$10,000.00). The bidder understands and agrees that "affirmative action" as used herein shall constitute a good faith effort to achieve and maintain minority employment in each trade in the on-site workforce used on the project.

EQUAL EMPLOYMENT OPPORTUNITY NOTICE

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the Equal Opportunity Clause which is included in the nondiscrimination Provision and Labor Standards, EPA Form 5720-4 and the Standard Federal Equal Employment Opportunity (EEO) Construction Contract Specifications set forth herein.
2. The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	4.0 percent
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Goals for female participation for each trade	4.0 percent
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These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minority and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation to the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical area where the contract is to be performed giving the state, county and city, if any).

EEO Construction Contract Specifications (Executive Order 11246)

EEO Specifications:

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Program, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form, 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7(a) through (p) of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trained programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7(b) above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations 7(a) through (p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7(a) through (p) of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes

a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Davis-Bacon and Related Acts

Labor Standards Provisions for Federally Assisted Contracts

Contract Provision for Contracts in Excess of \$2,000.

(1) Minimum wages.

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

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

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, <http://www.dol.gov/whd/govcontracts/dbra.htm> (E-tools)

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

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

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

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

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

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

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

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

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

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

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly

payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/forms> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

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

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

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

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

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

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

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

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

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

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

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

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

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the

meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

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

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

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

Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

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

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

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

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

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job

(5) Compliance Verification:

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors' use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must provide a report of compliance to the Georgia Environmental Finance Authority detailing compliance efforts and results. This report will be submitted with or prior to the loan recipient's first request for funding of construction costs, prior to final disbursement of funds from the loan, and as requested by the GEFA during the project.

(f) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB coordinator and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/whd/america2.htm>.

INSERT WAGE RATE DETERMINATION HERE

Wage Rates (for *Heavy Construction*) are state/county specific can be found at:

<http://www.dol.gov/whd/govcontracts/dbra.htm>

Sample Payroll Form (WH-347) is found at:

<http://www.dol.gov/whd/forms/wh347.pdf>

Labor Standards Interview Form (SF-1445) is found at:

<http://www.gsa.gov/portal/forms/download/115910>

Davis-Bacon (WH-1321) poster is found at:

<http://www.dol.gov/whd/regs/compliance/posters/fedprojc.pdf>
(English)

<http://www.dol.gov/whd/regs/compliance/posters/davispan.pdf>
(Spanish)

Fair Labor Standards Act Minimum Wage poster is found at:

<http://www.dol.gov/whd/regs/compliance/posters/minwagebwp.pdf>
(English)

<http://www.dol.gov/whd/regs/compliance/posters/minwagespbwP.pdf>
(Spanish)

“EEO Is the Law” poster is found at:

http://www.eeoc.gov/employers/upload/eeoc_self_print_poster.pdf
(English)

http://www.eeoc.gov/employers/upload/eeoc_self_print_poster_spanish.pdf
(Spanish)

“EEO Is the Law” poster supplement is found at:

http://www.eeoc.gov/employers/upload/eeoc_gina_supplement.pdf
(English)

http://www.eeoc.gov/employers/upload/eeoc_gina_supplement_spanish.pdf
(Spanish)

OSHA poster is found at:

<http://www.osha.gov/Publications/osh3165low-res.pdf>
(English)

<http://www.osha.gov/Publications/osh3167.pdf>
(Spanish)

CERTIFIED PAYROLL REVIEW CHECKLIST

(This is a *recommended Certified Payroll Review Checklist for the Owner's use.*)

CONTRACT ID City of CW/DWSRF#00 - 000	PRIME CONTRACTOR/SUBCONTRACTOR X Construction
GENERAL WAGE DECISION AND DATE (Insert number & date)	PAYROLL PERIOD ENDING

INSTRUCTIONS: This checklist is to be used in conjunction with projects requiring Davis-Bacon Wage Rates and compliance reviews. All certified payrolls are to be date stamped upon receipt from the prime contractor.

Payroll Information Checklist:

- _____ Prime Contractor's or subcontractor's name and address
- _____ Contract ID numbers (GEFA SRF No.)
- _____ Week ending.
- _____ Project location.

- _____ Employee ID or Last 4 digits of Social Security Number
 - _____ Social Security Number removed
 - _____ Employee's work classification
 - _____ Identification of OJTs, apprentices and program levels (%) on payrolls.
 - _____ Verify that OJT and Apprentice Program documentation is in project files.

- _____ Daily and weekly employee hours worked in each job classification.
 - _____ Daily and weekly employee overtime (or premium) hours worked
 - _____ Total weekly hours worked on all jobs (prevailing and non-prevailing wage).
 - _____ Base rate shown for each employee, overtime (or premium) rate shown when worked.
 - _____ Verify correct wage rates are being paid.
 - _____ Verify overtime is being paid correctly (over 40 hrs/wk, and Time and a half)
 - _____ Week's gross wages
 - _____ Week's itemized deductions.
 - _____ Week's net wages paid

- _____ Compliance statement attached.
 - _____ Method of fringe benefit payment described by checking either box (4)(a) or (4)(b).
 - _____ Fringe benefit package information in file and updated as needed (if 4(a) is checked)
 - _____ Exceptions explanation for fringe benefit (4)(c).
 - _____ Signature.

Compliance Review Checklist (for field reviews):

- _____ Verify work classifications reported are consistent with the work performed.
- _____ Compare payrolls with wage rate interviews when conducted.
- _____ Compare number of employees and hours worked with project documentation.

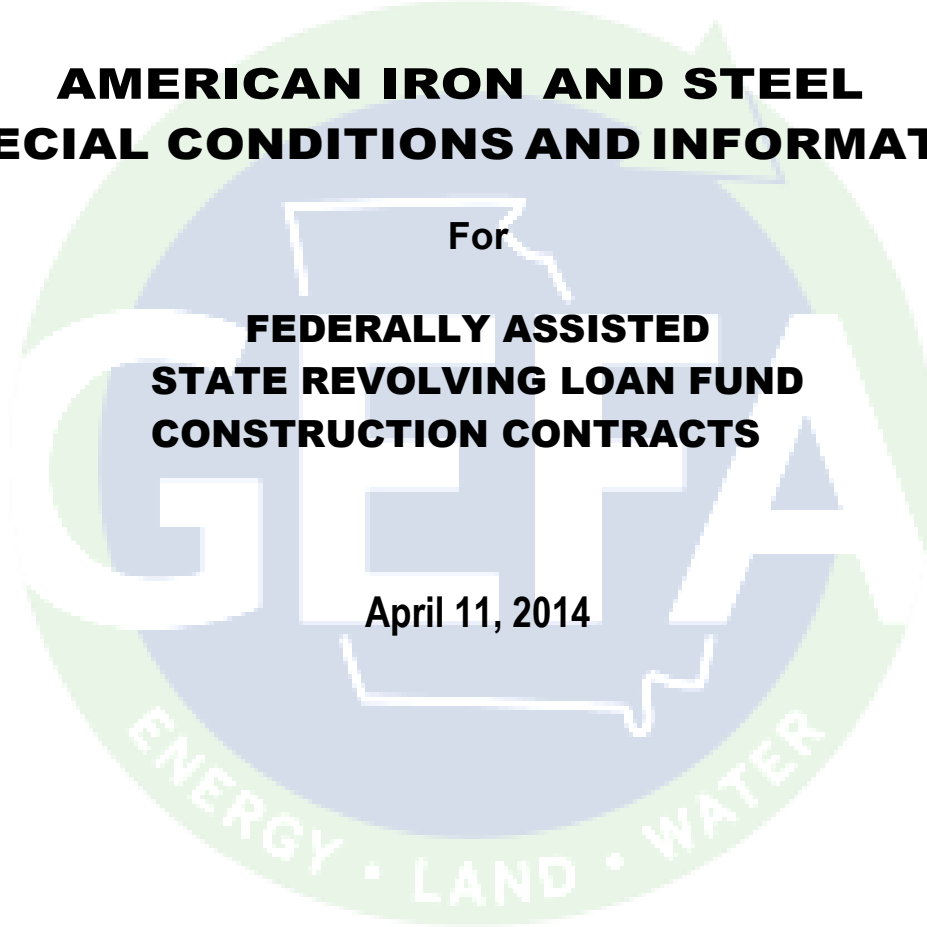
REVIEWED BY:	DATE
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APPENDIX B

**AMERICAN IRON AND STEEL
SPECIAL CONDITIONS AND
INFORMATION**

GEORGIA ENVIRONMENTAL FINANCE AUTHORITY

AMERICAN IRON AND STEEL SPECIAL CONDITIONS AND INFORMATION



The following standard language must be incorporated into construction contract documents and in all solicitations for offers and bids for all construction contracts or subcontracts to be funded, in whole or in part, through the Federally-assisted State Revolving Fund in the State of Georgia for projects subject to the American Iron and Steel requirements.

These Special Conditions shall not relieve the participants in this project of responsibility to meet any requirements of other portions of this construction contract or of other agencies, whether these other requirements are more or less stringent. The requirements in these Special Conditions must be satisfied in order for work to be funded with the State Revolving Fund.

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Appendix 3 – P.L. 113-76, Consolidated Appropriations Act, 2014	GEFA/AIS-11

GENERAL REQUIREMENTS

These Special Conditions are based on guidance provided by the United States Environmental Protection Agency (EPA). Public Law 113-76, the Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel" (AIS) requirement that requires State Revolving Loan Fund (SRF) assistance recipients to use iron and steel products that are produced in the United States for projects in this project. A copy of Section 436 of the Act is found in Appendix 3.

The products and materials subject to these requirements will be defined in Appendix 1 of these special conditions.

The Owner must maintain documentation of compliance with the AIS requirements. The documentation that the Owner maintains will be subject to review and audit by representatives of the state of Georgia, the EPA, the EPA Office of the Inspector General, and other federal authorities.

The Prime Contractor must provide certifications of compliance for all products subject to AIS requirements to the Owner prior to requesting payments for those products. The Owner or the Engineer may require certifications of compliance with submittals and shop drawings for these products as part of the submittal review process.

All manufacturing processes for a covered iron or steel product, as further defined in Appendix 1, must take place in the United States. If a covered product is taken out of the US for any part of the manufacturing process, it becomes foreign source material.

The EPA recommends the use of a step certification process to document the locations of the manufacturing processes involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer, processor, etc.) of the iron and steel products certifies that its step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification should include the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Attached in Appendix 2 is a sample step certification.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor, or contractor, may provide a certification asserting that all manufacturing processes for the product and for its iron and steel components occurred in the United States. The EPA states that additional documentation may be needed if the certification lacks important information and recommends step certification as the best practice. A sample final manufacturer certification is attached in Appendix 2.

The Prime Contractor may document that incidental and generally low cost components, as defined in Appendix 1, are compliant with AIS requirements under the De Minimis Waiver issued by the EPA. For these items, the Contractor must provide the Owner with documentation of costs for these items, including invoices, and a report of types and categories of materials to which the waiver is applied, the total cost of incidental components covered by the waiver for each category, and the calculations by which the total cost of materials incorporated into the project was determined. A sample De Minimis report is attached in Appendix 2.

Contractor, supplier, and manufacturer records are subject to review and audit by the EPA, its Inspector General, and other federal authorities.

Failure to comply with these requirements may delay, limit, or prevent the disbursement of SRF funds to the Owner. Violations of AIS requirements will require correction by the Contractor as determined by the Owner and Engineer, including replacement of deficient products with compliant products and compensation for costs and other damages that may result. Violations may also subject the Owner, the Contractor, and suppliers to other enforcement actions within the discretion of the EPA and other federal authorities.

The Act permits EPA to issue waivers for a case or category of cases in which EPA finds (1) that applying these requirements would be inconsistent with the public interest; (2) iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent. The Contractor should notify the Owner and Engineer immediately if it finds that a waiver may be required.

By submitting a bid for this project and by executing this construction contract, the Contractor acknowledges to and for the benefit of the Owner and the state of Georgia that it understands that the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund or the Drinking Water State Revolving Fund and that Federal law authorizing these Funds contains provisions commonly known as "American Iron and Steel" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and the state of Georgia that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Owner or the state of Georgia. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or the state of Georgia to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or the state of Georgia resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the state of Georgia or any damages owed to the state of Georgia by the Owner). The Owner and the Contractor agree that the state of Georgia, as a lender to the Owner for the funding of its project, is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the state of Georgia.

Appendix 1 – Definitions

For purposes of the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) projects that must comply with the AIS requirement, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the project:

Lined or unlined pipes or fittings;
Manhole Covers;
Municipal Castings (defined in more detail below);
Hydrants;
Tanks;
Flanges;
Pipe clamps and restraints;
Valves;
Structural steel (defined in more detail below);
Reinforced precast concrete (defined in more detail below); and
Construction materials (defined in more detail below).

Product primarily of iron or steel: The product must be made of greater than 50% iron or steel, measured by cost. If one of the listed products is not made primarily of iron or steel, United States (US) provenance is not required, except as required for reinforced precast concrete. If a product is composed of more than 50% iron or steel, but is not listed in Section 436 (a) (2) of the Act, it is not required to be produced in the US. Alternatively, the iron or steel in such a product can be sourced from outside the US.

Steel: An alloy that includes at least 50 percent iron and between 0.02 and 2 percent carbon and may include other elements. Other alloys of iron are not required to be produced in the US.

Produced in the United States: Production in the US of the iron or steel products used in the project requires that all manufacturing processes, including application of coatings, must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives. All manufacturing processes includes processes such as melting, refining, forming, rolling, drawing, finishing, fabricating and coating. Further, if a domestic iron and steel product is taken out of the US for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components do not have to be of domestic origin.

Municipal Castings: Municipal castings are cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings include access hatches, ballast screen, benches, bollards, cast bases, cast iron hinged hatches, cast iron riser rings, catch basin inlets, cleanout/monument boxes, construction covers and frames, curb and corner guards, curb openings, detectable warning plates, downspout shoes, drainage grates, frames & curb inlets, inlets, junction boxes, lampposts, manhole covers, rings & frames, risers, meter boxes, steel hinged hatches, steel riser rings, trash receptacles, tree grates, tree guards, trench grates, and valve boxes.

Structural Steel: Structural steel is rolled flanged shapes, having at least one dimension of their cross-section 3 inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees and zees. Other shapes include H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

Reinforced Precast Concrete: While reinforced precast concrete may not be at least 50% iron or steel, in this particular case, the reinforcing rebar must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin. If the reinforced concrete is cast at the construction site, the reinforcing rebar is considered to be a construction material and must be produced in the US.

Construction Materials subject to AIS: Construction materials are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered “structural steel”. This includes, but is not limited to, the following products: welding rods, wire rod, bar, angles, concrete reinforcing bar, wire, wire cloth, wire rope and cables, tubing, framing, joists, trusses, fasteners (i.e., nuts and bolts), decking, grating, railings, stairs, access ramps, fire escapes, ladders, wall panels, dome structures, roofing, ductwork, surface drains, cable hanging systems, manhole steps, fencing and fence tubing, guardrails, doors, gates, and screens.

Construction Materials not subject to AIS: Mechanical and/or electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

The following examples, including their appurtenances necessary for their intended use and operation, are NOT considered construction materials: pumps, motors, gear reducers, drives, variable frequency drives (VFDs), mixers, blowers/aeration equipment, compressors, meters, electric/pneumatic/manual accessories used to operate valves (such as valve actuators), gates, motorized screens (such as traveling screens), sensors, controls, switches, supervisory control and data acquisition (SCADA), membrane bioreactor systems, membrane filtration systems, filters, clarifiers and clarifier mechanisms, rakes, grinders, disinfection systems, dewatering equipment, presses (including belt presses), conveyors, cranes, HVAC (excluding ductwork), water heaters, heat exchangers, generators, cabinetry and housings (such as electrical boxes/enclosures), lighting fixtures, electrical conduit, emergency life systems, metal office furniture, shelving, laboratory equipment, and analytical instrumentation.

Items temporarily used during construction, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel. For example, trench boxes or scaffolding are not considered construction materials subject to AIS requirements.

Incidental Components compliant with AIS under the De Minimis Waiver: This waiver permits the use of de minimis incidental components that may otherwise be prohibited under AIS. These de minimis items may cumulatively comprise no more than a total of 5 percent of the total cost of the materials used in and incorporated into the project. The cost of an individual item may not exceed 1 percent of the total cost of the materials used in and incorporated into the project.

These items are miscellaneous, generally low-cost components that are essential for, but incidental to, the construction and are permanently incorporated into the project. For many of these incidental components, the country of manufacture and the availability of alternatives are not always readily or reasonably identifiable prior to procurement in the normal course of business. For other incidental components, the country of manufacture may be known, but the miscellaneous character in conjunction with the low cost, individually and in total, as typically procured in bulk, mark them as properly incidental. Examples of incidental components include small washers, screws, fasteners (i.e., nuts and bolts), miscellaneous wire, corner bead, ancillary tube.

Examples of items that are not incidental and are not covered by the De Minimis Waiver include significant process fittings (i.e., tees, elbows, flanges, and brackets), distribution system fittings and valves, force main valves, pipes for sewer collection and/or water distribution, treatment and storage tanks, large structural support structures.

Items covered as compliant under this waiver must be documented in a report to the Owner to demonstrate that they are both incidental and that they fall within the cost allowances of this waiver. The costs of these items must be documented by invoices. The report must include a listing of types and categories of materials to which the waiver is applied, the total cost of incidental components covered by the Waiver for each category, and the calculations by which the total cost of materials incorporated into the project was determined.

Appendix 2 – Sample Certifications

Step Certification

The following information is provided as a sample letter of step certification for American Iron and Steel compliance. Documentation must be provided on company letterhead. This is to be provided by each handler (supplier, fabricator, manufacturer, processor, etc.). Each time a step in the manufacturing process takes place, the handler delivers its work along with a certification of its origin.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Step Certification for Project (Insert project name and SRF number)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

List of items, products and/or materials:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

Appendix 2 – Sample Certifications

Final manufacturer certification

The following information is provided as a sample letter of the final manufacturer to certify American Iron and Steel compliance for the entire manufacturing process. Documentation must be provided on company letterhead.

Date

Company Name
Company Address
City, State Zip

Subject: American Iron and Steel Certification for Project (Insert project name and SRF number)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement of P.L. 113-76 and as mandated in EPA's State Revolving Fund Programs.

List of items, products and/or materials:

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

Appendix 2 – Sample Certifications Contractor De Minimis Report

Owner: (Owner Name)

SRF Project No: (SRF Number)

Project Description: (Contract title or brief description)

Date: (Date of report)

Submitted by (name & title): (Contractor representative)
Company Name

LIST OF MATERIALS COST OR CATEGORIES OF MATERIALS PERMANENTLY INCORPORATED INTO THE PROJECT

Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00
Category or Item	\$1,000.00

Total Permanent Materials **\$10,000.00**

1 % of total material cost	\$100.00	Maximum cost for individual item waived
5 % of total material cost	\$500.00	Maximum cumulative cost for category waived

LIST OF MATERIALS COST COMPLIANT OR CATEGORIES OF MATERIALS (Yes/No) COVERED BY DE MINIMIS WAIVER

Category or Item	\$100.00	Yes
Category or Item	\$100.00	Yes
Category or Item	\$100.00	Yes
Category or Item	\$100.00	Yes
Category or Item	\$100.00	Yes
Total De Minimis Items	\$500.00	Yes

INVOICES ATTACHED FOR DE MINIMIS ITEMS.

Appendix 3 – P.L. 113-76, Consolidated Appropriations Act, 2014

The Act states:

Sec. 436 (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.

(2) In this section, the term “iron and steel products” means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the “Administrator”) finds that—

(1) applying subsection (a) would be inconsistent with the public interest;

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

(e) The Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out the provisions described in subsection (a)(1) for management and oversight of the requirements of this section.

(f) This section does not apply with respect to a project if a State agency approves the engineering plans and specifications for the project, in that agency’s capacity to approve such plans and specifications prior to a project requesting bids, prior to the date of the enactment of this Act.

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DIVISION 01
GENERAL REQUIREMENTS

**SECTION 01010
SUMMARY OF WORK**

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Work to be performed under this Contract consists of furnishing and installing all labor, materials, tools, equipment and incidentals required to complete the Work.
- B. All Work shall be as specified and in accordance with the Clayton County Water Authority standards.

1.02 PROJECT LOCATION

- A. The Work of this Contract is located in the Clayton County, Georgia, as shown in the Drawings included as part of the Technical Specifications.

1.03 SCOPE OF WORK

- A. The Work of this Contract is outlined in the Technical Specifications and generally includes the following:
 - 1. Construction services for demolishing existing structures and pavement, installing storm pipes, culverts, wingwalls, inlet and outlet protection, and pavement repair and resurfacing.
 - 2. Coordination with existing utilities and relocating, as necessary.
 - 3. Abandonment of existing utilities including water lines, sewers, storm drains, and/or appurtenances.
 - 4. Furnishing and installing new utilities and appurtenances, as required.
 - 5. Installing and transferring service connections, where required.
 - 6. Connecting new utilities to existing, where required.
 - 7. Plantings on the Project Site.
 - 8. Temporary and permanent erosion and sedimentation control.
 - 9. Traffic control during construction.
 - 10. Right-of-way restoration, including pavement replacement.
 - 11. The work includes activity in and adjacent to a sinkhole/washout area located at the point of failure for an existing stormwater culvert.
 - 12. All associated miscellaneous work, including site restoration and cleanup.
- B. The Contractor shall furnish and install all labor, materials, equipment and incidentals which are reasonable and properly inferable and necessary for the proper completion of the Work, whether specifically indicated in the Contract Documents or not.

- C. The Contractor shall perform the Work complete, in place and ready for continuous service and shall include repairs, replacements and restoration required as a result of all damages that occur as a result of construction under this Contract.

1.04 WORK COORDINATION

- A. The Contractor shall coordinate his/her work with all public and private utilities. The Contractor shall ensure that all utilities in each street are field marked by the utility owner or designated agent prior to beginning any excavation in that street.
- B. The Contractor shall also coordinate his/her work with Owners of private and public property where access is required for the performance of the Work. Legal access will be acquired and provided by the CCWA Representative.

1.05 CONDITIONS OF THE SITE

- A. The Contractor shall make all necessary investigations to determine the site conditions in the Project area and any unique features that may affect the prosecution of the Work.
- B. The Contractor will be held responsible for any damage to and for maintenance and protection of existing utilities and structures.

1.06 PARTIAL OCCUPANCY

- A. The existing facilities or pipelines to which these improvements are being made or connected to will remain in operation during construction.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01020 DEFINITIONS

PART 1 GENERAL

1.01 DEFINED TERMS

- A. *Abandonment* - Shall mean the permanent termination of the use of, or of service from in or on, a facility.
- B. *Acceptance* - The formal written acceptance by the CCWA of the fully and finally completed Work.
- C. *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.
- D. *Addenda* - Revisions to the Proposal Documents issued by the CCWA prior to opening of the Bid.
- E. *Agreement* - The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
- F. *Agreement* - The written agreement for the performance of and payment for the Work, which includes by reference and is a part of the Agreement Documents, executed on behalf of the CCWA and the Contractor, also called CCWA-Contractor Agreement.
- G. *Agreement Documents* - Includes this Agreement and its Exhibits, Appendices, Work Orders, Change Orders, Documentation, Drawings, and Specifications, including:
 - 1. Construction Services Agreement.
 - 2. General Scope of Services.
 - 3. Compensation and Fee Schedule.
 - 4. Work Orders.
 - 5. Legislation.
 - 6. Supplement Conditions and Technical Specifications.
 - 7. Additional Contract Documents.
 - 8. Office of Contract Compliance.
 - 9. Insurance and Bonding Requirements.
- H. *Agreement Price* - The price or prices for the Work or items of Work set forth in the Bid.

- I. *Agreement Term* - "The meaning is set forth in Article 2, unless otherwise expressly amended or changed, pursuant to the CCWA's authorized approval in conformance with the CCWA of Atlanta Code of Ordinances and applicable law.
- J. *AMR System* - The Automatic Meter Reading (AMR) system being used by the CCWA.
- K. *Applicant* - Shall mean any person, company or corporation who intends or plans to request for water services for a new development.
- L. *Application for Payment* - The form approved by the CCWA that is to be used by Contractor in requesting progress payments or final payment, together with such supporting documentation as is required in the Agreement Documents. The Application for Payment may also be called Payment Application or Progress Payment.
- M. *Approved, Directed, Ordered, Or Their Derivatives* - Approved, as directed, or ordered by the Engineer or the CCWA, unless otherwise clearly indicated.
- N. *Asbestos* - Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
- O. *Bid* - The offer or bid of the Bidder submitted in the prescribed manner on the prescribed form setting forth the prices for the Work to be performed together with supplemental information as required by the Agreement Documents.
- P. *Bidder* - Any person, firm, partnership, corporation or any combination thereof submitting a Bid for the Work.
- Q. *Bidding Documents* - The Bidding Requirements and the proposed Contract Documents (including all Addenda).
- R. *Bidding Requirements* - The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
- S. *Bonds* - "Bid, Performance Bonds, Payment Bonds, and other instruments of security furnished by Contractor and its surety in accordance with the Agreement Documents.

Bond means a written instrument of surety approved by the CCWA with a valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title One of the United States Code as security to the CCWA, on behalf of a Bidder or the Contractor, to guaranty faithful performance of acts, duties or obligations under the Contract Documents and includes the following.

Bid Bond means the security instrument furnished with a Bid to guaranty that, if the Bidder is awarded the Contract, the Bidder will execute the Agreement within the time specified in the Bidding Documents.

Payment Bond means the security instrument furnished by the Contractor and its surety on the Payment Bond Form as a guaranty that Contractor will pay in full all bills and accounts for materials and labor used in the Work. "

- T. *Change* - Any change in the Work authorized by the CCWA's Authorized Representative, including Field Changes, Work Authorizations or Change Orders.
- U. *Change Directive* - A written order prepared by the Owner and signed by the Owner directing a Change in the Work prior to or absent an agreement or adjustment, if any, in the Agreement Price or Agreement Time, or both.
- V. *Change Order* - The meaning is set forth in Specification 01260 Contract Modifications and Procedures.
- W. *CCWA* - Shall mean the Clayton County Water Authority, and shall include all agencies, establishments or officials of the government of the County. The CCWA may also be referred to from time to time as the "Owner."
- X. *CCWA Representative* - The meaning is set forth in Clayton County Water Authority or duly authorized representative assigned to administer the technical aspects of the Agreement.
- Y. *CCWA-Contractor Agreement* - The written agreement for the performance of and payment for the Work executed on behalf of the Clayton County Water Authority and the Contractor, which is both a part of the Agreement Documents and includes all Agreement Documents by reference. The CCWA-Contractor Agreement may also be called "Agreement."
- Z. *CCWA's Contractor* - Shall mean the legally authorized representative of the Clayton County Water Authority, a private contractor, or other concerned agency performing Work under a direct Agreement with the CCWA.
- AA. *Claim* - Any demand, contention, or assertion seeking additional time or money under the terms of this Agreement. Claims by the Contractor must be made in writing and contain all of the following or such Claims are released: (a) a narrative statement describing the amount and bases of the Claim; (b) the precise number of days claimed as a result of any delay; and (c) a detailed calculation of the precise amount of additional compensation claimed with all required supporting Documentation.
- BB. *Construction* - Shall mean the actual site preparation, building and all related Work, including facility relocation and adjustments.

- CC. *Construction Easement/Temporary Easement* - Any space or area dedicated to the CCWA or other entity for the purpose of utilities or location of utilities for a specific period of time.
- DD. *Construction Equipment* - Equipment used in the performance of the Work but not incorporated therein.
- EE. *Contract* - The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
- FF. *Contract Documents* - The Agreement Documents referenced above.
- GG. *Contract Price* - The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement.
- HH. *Contract Times* - The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
- II. *Contractor* - Any firm, partnership, corporation, joint venture, LLC or any combination thereof who enters into a contractual Agreement with the CCWA. This excludes Subcontractors/Sub-consultants.
- JJ. *Cost of the Work* - The sum of all costs necessarily incurred and paid by Contractor in the proper performance of the Work.
- KK. *Customer* - The authorized representative of the entity which owns the private water service line to which the Water Service being constructed will be connected.
- LL. *CPM Schedule* - A logic tied computerized network schedule incorporating all elements of the Work, prepared and updated in accordance with the requirements of the Special Conditions, subject to approval of the CCWA.
- MM. *Day* - A calendar day of 24 hours lasting from midnight one day to midnight the next day.
- NN. *Design Clarification Memoranda* – Correspondence issued by the Owner to the Contractor providing clarifying details to the Contract.
- OO. *Designer* - Shall refer to the firm licensed to practice engineering in the State of Georgia that seals the plans and specifications prior to bid.

- PP. *Detector Check* - A specific type of check valve used on a fire service line to prevent water from flowing backwards from a facility into a water distribution system.
- QQ. *Documentation* - The meaning is set forth in Article 4.
- RR. *Drawings* - Include, without limitation: all renderings, technical and design drawings, specifications, plans, layouts, diagrams, illustrations, descriptions, calculations, schedules, graphs, performance charts, Shop Drawings; as-built drawings; all graphic or pictorial material needed to show locations, dimensions, elevations, sections, and details; all documents necessary to fix and describe the size, quality and composition of the Project (or parts thereof); supplier operating and maintenance manuals, recommended spare parts lists, documents required to support permitting and licensing, and any other data pertinent to operation of the Project.
- SS. *Effective Date of the Agreement* - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- TT. *Emergency Work* - Work to be performed by the Contractor which poses an imminent threat to the public health, safety, general welfare or the CCWA's water or wastewater system.
- UU. *Engineer* - shall refer to the firm licensed to practice engineering in the State of Georgia that seals plans and specifications prior to bid.
- VV. *Equipment* - Equipment incorporated or to be incorporated in the Work.
- WW. *Field Change* - A Change in Work that includes changes or adjustments to quantities or budget items but does not include a Change in the overall Agreement Price, overall Agreement Time or use of allowance items, which is required as a result of field conditions that require such adjustments. A Field Change does not include a Work Authorization, a Change Order or a Change Directive and is agreed upon and executed by an authorized CCWA representative and the Contractor.
- XX. *Field Order* - A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- YY. *Field Test Records* - The body of information collected by the Contractor during construction containing Quality Control and other technical verifications specific to the Contract.

- ZZ. *Final Completion* - Point in time where the CCWA has confirmed to the Contractor in writing that the Services required by a Work Order have achieved Substantial Completion, Contractor has completed all punch-list items associated with a Work Order, and Contractor has provided all Documentation required by the Agreement Documents and Work Orders for Final Completion.
- AAA. *Final Payment* - The final amount of compensation due under a Work Order or this Agreement (as applicable) and shall not become due until Contractor satisfies all of the requirements of the Agreement Documents.
- BBB. *Force Account* - A method of payment, other than lump sum or unit price, for Work ordered by Change Order and paid for in accordance with force account procedures.
- CCC. *GDOT* - The Georgia Department of Transportation.
- DDD. *GEFA* - Georgia Environmental Finance Authority
- EEE. *General Conditions* - The General Conditions of the Agreement for construction that govern the rights, duties, and obligations of the parties.
- FFF. *General Requirements* - Sections of Division 01 of the Specifications. The General Requirements are applicable to all Sections of the Specifications and to the entire Work.
- GGG. *Hazardous Environmental Condition* - The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
- HHH. *Hazardous Waste* - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- III. *Inspector* - The authorized representative of the CCWA assigned to make detailed inspection of any or all portions of the Work or Materials thereof.
- JJJ. *Laws and Regulations; Laws or Regulations* - Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- KKK. *Liens* - Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

LLL. *Liquidated Damages* - Amounts shall be as stipulated in the Agreement. Liquidated damages shall apply to the Contract Times for the Project. Liquidated Damages shall be both additive and cumulative. Liquidated Damages shall end upon Substantial Completion, Completion of the Work associated with each Milestone Date, and upon final completion of the Work.

MMM. *Long Side* - A term which identifies that the water main to which a Meter or Detector Check is connected is located on the opposite side of the road as the Meter or Detector Check. In this situation the Water Service Line which connects the Meter or Detector Check to the water main is often referred to as a long side water service line or a long side service line.

NNN. *Materials* - Materials incorporated or to be incorporated in the Work unless otherwise clearly indicated.

OOO. *Milestone* - A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

PPP. *Minimum Quantity* - One dollar (\$1.00) in United States Currency, which is the minimum amount of Services that shall be ordered by the CCWA pursuant to this Agreement.

QQQ. *Modifications* - Binding changes, addenda, revisions, or the like, to the Work or the Agreement Documents, including Changes to Work made by Change Order, Work Authorization, Field Change or Change Directive as required by GC-41.

RRR. *Notice of Award* - The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

SSS. *Notice of Intent or Letter of Intent to Award* - The written notice of the acceptance of the Bid from the CCWA to a Bidder.

TTT. *Notice to Proceed ("NTP")* - Written communication issued by the CCWA to Contractor authorizing it to proceed with the Work and establishing the date of commencement of the Agreement time and on which Contractor shall start to perform its obligations in accordance with the Agreement Documents.

UUU. *Owner* - Same as "CCWA" above.

VVV. *Parts* - Any equipment, supplies, parts, etc., provided by the CCWA or a CCWA Third Party Service Provider to the Contractor.

WWW. *PCBs* - Polychlorinated biphenyls.

XXX. *Permanent Easement* - Any space or area dedicated to the CCWA or other entity for the purpose of constructing and/or maintain existing or future utilities.

YYY. *Petroleum* - Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees F and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils."

ZZZ. *Plans* - That portion of the Agreement Documents describing in Drawings, the shapes, outlines, dimensions, characteristics, scope and other similar requirements governing the Work, or portions thereof, prepared by the Designer and including revisions thereto. The term is used interchangeably with the word "Drawings" and includes without limitation Standard Details and Drawings.

AAAA. *Progress Schedule* - A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

BBBB. *Project* - Project(s) specifically identified in Work Orders issued pursuant to this Agreement.

CCCC. *Project Manual* - The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

DDDD. *Project Site* - The location where the Work Order is being performed.

EEEE. *Public Space/Public Right-of-Way* - Shall mean the area between private property lines under the jurisdiction of the CCWA, county, state or federal government, including, but not limited to, an alley, roadway, median, sidewalk, public way, or any combination thereof.

FFFF. *Punch List* - Shall mean the lists prepared by the CCWA's Representative or Design Consultant prior to Substantial Completion and through Final Completion indicating items of Work not in accordance with the requirements of the Contract Documents and which must be performed, corrected and accomplished prior to acceptance of the Work.

GGGG. *Quality Assurance* - Shall mean the procedure or procedures performed by the Owner to ensure conformity to the Contract Documents.

- HHHH. *Quality Control* - Shall mean the procedure or procedures performed by the Contractor to ensure that quality parameters outlined in the Contract documents are being fully met.
- III. *Radioactive Material* - Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- JJJJ. *Record Drawings* - The latest detailed representation of all installed water facilities associated with the Work for use by the Owner with all necessary information included to effectively operate and maintain the system.
- KKKK. *Replacement Facility* - Shall mean that facility, meeting the Department's current standards, which will be constructed or provided, as a consequence of the rearrangement of an existing facility or portion thereof.
- LLLL. *Request for Information* - A formal inquiry from the Contractor to the CCWA requesting additional information or clarification to the Contract.
- MMMM. *Resident Engineer* - The CCWA's Engineer who is assigned to the Site or any part thereof.
- NNNN. *Resident Project Representative* - The authorized representative of Engineer who may be assigned to the Site or any part thereof.
- OOOO. *Responsive Bid* - A Bid which is accurate and complete with respect to Bid schedules and information submitted relative to the technical qualifications and financial responsibility and is able to comply with Equal Opportunity and other requirements of the Agreement Documents.
- PPPP. *Samples* - Shall mean physical examples furnished by Contractor, which illustrate materials, equipment or workmanship. Approved Samples in conformance with the Contract Documents establish the standards of the Work.
- QQQQ. *Schedule of Submittals* - A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
- RRRR. *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.
- SSSS. *Scope of Services* - See "Work."

- TTTT. *Services* - The specific tasks and activities to be performed by Contractor as identified in a Work Order issued pursuant to this Agreement, as well as all ancillary and incidental tasks and activities not expressly identified in a Work Order but which are reasonably necessary to be performed in order to complete the tasks and activities expressly identified in a Work Order.
- UUUU. *Shop Drawings* - Shall mean drawings, diagrams, illustrations, schedules or other data illustrating the Work, and all illustrations, brochures, standard schedules, performance charts, specifications, instructions, diagrams, and other information prepared by a Subcontractor, Supplier, vendor or manufacturer and submitted by Contractor as required in the Contract Documents.
- VVVV. *Short Side* - A term which identifies that the water main to which a Meter or Detector Check is connected is located on the same side of the road as the Meter or Detector Check. In this situation the Water Service Line which connects the Meter or Detector Check to the water main is often referred to as a short side water service line or a short side service line.
- WWWW. *Sidewalk Area* - Shall mean that portion of a street between the curb lines and the adjacent property lines intended primarily for the use of pedestrians whether paved or in use.
- XXXX. *Site* - The areas required for the performance of the Work.
- YYYY. *Special Conditions* - Terms which supplement items covered in General Conditions.
- ZZZZ. *Specifications, Technical Specifications* - Shall mean those portions of the Contract Documents consisting of written technical descriptions, provisions or requirements of the Work to be performed under the Contract Documents, including, but not limited to, the quantities or quality of materials, equipment, construction systems or applications. Standards for specifying materials or testing that are cited in the Specifications are part of the Contract Documents.
- AAAAA. *Standards* - Shall mean those current Standards of Engineering analysis and design, including Installation and Material Specifications, which the CCWA utilizes in the design and construction of its own projects.
- BBBBB. *State* - The State of Georgia.
- CCCCC. *Subcontractor* - An individual, firm, corporation or any combination thereof having a direct contract with Contractor for the performance of a part of the Work at the Site.

DDDDD. *Submittals* - All administrative documents, Shop Drawings, Samples, product data, manufacturer's literature, quality control documents, design related documents, record documents, contract close-out documents, and/or any other specified document prepared or assembled by or for Contractor and submitted by Contractor to the Owner and/or Engineer.

EEEE. *Substantial Completion* - As applicable to a Work Order, means that point in time in which the Services that are the subject of a Work Order are capable of being used for their intended purpose and comply with all of the requirements of Article 9, the Specifications, and the other Agreement Documents.

FFFF. *Successful Bidder* - The Bidder submitting a responsive Bid to whom Owner makes an award.

GGGG. *Supplementary Conditions* - That part of the Contract Documents which amends or supplements these General Conditions.

HHHH. *Supplier* - Any individual, firm, or corporation who supplies Material or Equipment for the Work (including that fabricated to a special design) but who does not perform or provide significant labor at the Site.

IIII. *Temporary Facility* - Shall mean a facility constructed for whatever purpose and not intended to be permanent.

JJJJ. *Third Party CCWA Service Provider* - An entity which provides services to the CCWA and who is connected or associated with the Work being performed by the Contractor, but for whom the Contractor is not responsible.

KKKK. *Total Sum* - The total maximum amount of compensation for which all Work Orders may potentially be issued pursuant to this Agreement. Contractor's entitlement to payment under this Agreement shall not exceed the Total Sum.

LLLL. *Transfer Meter Service* - A designation used to identify that an existing Water Service which is connected to an existing water main is to be transferred to a different water main. Typically this involves abandoning the existing Water Service and constructing a new Water Service that taps into a new water main.

MMMMM. *Underground Facilities* - All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

NNNNN. *Unit Price Work* - Work to be paid for on the basis of unit prices.

OOOOO. *Utility* - Shall mean and include all public, private, or cooperatively owned lines, facilities and systems for producing, transmitting or distributing communications, power, electricity, heat, gas, oil, crude products, water, steam, waste, storm water, and other similar commodities, such as public owned fire and police signal systems, which directly or indirectly serve the public or any part thereof.

PPPPP. *Water Mains* - Physical structures, located primarily underground, composed of pipe and fittings designed to convey potable water.

QQQQQ. *Water Service* - A piping system which extends from a CCWA water main to the point of connection with a private water service line, including all piping, equipment, and appurtenances associated with providing water to a customer. A Water Service includes, but is not limited to, the tapping sleeve and gate valve or curb cock; the Water Service Line, a Meter and/or Detector Check with all associated appurtenances (e.g. gate valves, bypass, Detector Check bypass assembly, etc.); and the Meter Box, Meter Vault or Detector Check Vault.

RRRRR. *Water Service Line* - The piping which extends from the water main to the point of connection with a private water service line.

SSSSS. *Work* - All the Services specified, indicated, shown, or contemplated by the Agreement Documents and applicable Work Orders, as well as the furnishing by Contractor of all materials, equipment, labor, methods, processes, construction, manufacturing, tools, plants, design, supplies, power, water, transportation and any other things necessary or incidental to complete such Services in accordance with the Agreement Documents and applicable Work Orders that will ensure a functional and complete Project(s).

TTTTT. *Work Authorization* - A Change in Work that adds, changes or removes scope of work from the Agreement but does not include a change in Agreement Time or Agreement Price; or the utilization of an allowance or contingency item, as permitted and defined by the Agreement documents. A Work Authorization does not include a Change Order, a Field Change or a Change Directive and is agreed upon and executed by an authorized CCWA representative and the Contractor.

UUUUU. *Work Change Directive* - A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

VVVVV. *Work Order* - An order executed by the CCWA, substantially in the form and substance provided in Exhibit A to this Agreement that specifies the Services to be provided by Contractor to the CCWA, the agreed amount of payment for such Services, and the time limitations for completing the Services.

WWWWW. *Work Order Commencement Date* - The date identified in a notice to proceed and/or a Work Order issued by the CCWA, which instructs the Contractor to start the performance of Services required by a Work Order. The times for Substantial Completion and Final Completion will be measured from the Work Order Commencement Date.

XXXXX. *Work Product* - The meaning is set forth in Article 6.

YYYYY. *Working Days* - Generally, Monday, Tuesday, Wednesday, Thursday, and Friday; however, on some projects, Saturday and/or Sunday may be considered working days, if specified as working days by the CCWA. Holidays are not considered Working Days.

ZZZZZ. *Written Notice* - A written statement transmitted from one party to an authorized representative of another party.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01040 COORDINATION

PART 1 GENERAL

1.01 SUMMARY

- A. Coordinate execution of the Work with subcontractors and the CCWA Representative as required to maintain operation of the existing facilities and satisfactory progress of the Work.
- B. The CCWA Representative may require a written explanation of the Contractor's plan for accomplishing separate phases of the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 CUTTING AND PATCHING

- A. Carefully fit around, close up, repair, patch, and point around the work specified herein to the satisfaction of the Contractor.
- B. Do not cut or alter the work of any subcontractor, except with the written consent of the subcontractor whose work is to be cut or altered, or with the written consent of the Contractor. All cutting and patching or repairing made necessary by the negligence, carelessness or incompetence of the Contractor or any of its subcontractors, shall be done by, or at the expense of, the Contractor and shall be the responsibility of the Contractor.

3.02 COORDINATION

- A. The Contractor shall consult with the CCWA Representative on a daily basis while performing demolition, excavation, or any other alteration activity. No water or sewer function, utility or structure shall be altered, shut off or removed unless approved in advance, and in writing, by the CCWA Representative. The Contractor shall give the CCWA Representative at least 48 hours advanced notice, in writing, of the need to alter, shut off or remove such function.
- B. Coordinate the Work with the CCWA Representative and revise daily activities if needed so as to not adversely affect system operations. Such revisions in the proposed work schedule will be accomplished with no additional compensation to the Contractor.

3.03 CCWA REPRESENTATIVE'S RESPONSIBILITIES

- A. All existing water system valves shall be located, uncovered as necessary and operated by the CCWA Representative.

3.04 PROTECTION AND RESTORATION OF WORK AREA

- A. General: Return all items and all areas disturbed, directly or indirectly by work under these Specifications, to their original condition or better, as quickly as possible after work is completed.
 - 1. The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum.
 - 2. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of underground facilities, ditches, and disturbed areas shall be accomplished on a daily basis as work is completed. Finishing, dressing, and grassing shall be accomplished immediately thereafter, as a continuous operation within each area being constructed and with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.
 - 3. Handwork, including raking and smoothing, shall be required to ensure that the removal of roots, sticks, rocks, and other debris is removed in order to provide a neat and pleasing appearance.
 - 4. The CCWA Representative shall be authorized to stop all work by the Contractor when restoration and cleanup are unsatisfactory and to require appropriate remedial measures.
- B. Man-made Improvements: Protect, or remove and replace, all fences, walkways, mail boxes, pipe lines, drain culverts, power and telephone lines and cables, property pins and other improvements that may be encountered in the Work.
- C. Cultivated Growth: Do not disturb cultivated trees or shrubbery unless approved by the CCWA Representative. Any such trees or shrubbery which must be removed shall be heeled in and replanted under the direction of an experienced nurseryman.
- D. Cutting of Trees: Do not cut trees for the performance of the work except as absolutely necessary. Protect trees that remain in the vicinity of the work from damage from equipment. Do not store spoil from excavation against the trunks. Remove excavated material stored over the root system of trees within 30 days to allow proper natural watering of the root system. Repair any damaged tree over 3-inches in diameter, not to be removed, under the direction of an experienced nurseryman. All trees and brush that require

removal shall be promptly and completely removed from the work area and disposed of by the Contractor. No stumps, wood piles, or trash piles will be permitted on the Work Site.

- E. Disposal of Rubbish: Dispose of all materials cleared and grubbed during the construction of the Project in accordance with the applicable codes and rules of the appropriate county, state and federal regulatory agencies.
- F. Swamps and Other Wetlands:
 - 1. The Contractor shall not construct permanent roadbeds, berms, drainage structures or any other structures which alter the original topographic features within the easement.
 - 2. All temporary construction or alterations to the original topography will incorporate measures to prevent erosion into the surrounding swamp or wetland. All areas within the easement shall be returned to their original topographic condition as soon as possible after work is completed in the area. All materials of construction and other non-native materials shall be disposed by the Contractor.
 - 3. The Contractor shall provide temporary culverts or other drainage structures, as necessary, to permit the free migration of water between portions of a swamp, wetland or stream which may be temporarily divided by construction.
 - 4. The Contractor shall not spread, discharge or dump any fuel oil, gasoline, pesticide, or any other pollutant to adjacent swamps or wetlands.

3.05 WATER FOR CONSTRUCTION PURPOSES

- A. All water required for construction shall be furnished by the CCWA. It shall be available by connecting to the CCWA's water system at a point approved by the CCWA Representative. There shall be installed in every connection to the CCWA's water supply, a backflow preventer hydrant meter, supplied by CCWA. The Contractor shall meter all water usage. The Contractor shall notify the CCWA Representative one week in advance prior to connecting to the water system.
- B. A total of the metered water used shall be submitted to the CCWA Representative with each monthly application for payment.

3.06 EXISTING UTILITIES AND OBSTRUCTIONS

- A. The Contractor shall call the Utilities Protection Center (UPC) (800-282-7411) as required by Georgia Law (O.C.G.A. Sections 25-9-1 through 25-9-13) and shall call all utilities, agencies or departments that own and/or operate utilities in the vicinity of the construction work site at least 72 hours (three business days) prior to construction to verify the location of the existing utilities.
- B. Existing Utility Locations: The following steps shall be exercised to avoid interruption of existing utility service.
 - 1. Provide the required notice to the utility owners and allow them to locate their facilities according to Georgia law. Field utility locations are valid for only 10 days after original notice. The Contractor shall ensure, at the time of any excavation that a valid utility location exists at the point of excavation.
 - 2. Expose the facility, for a distance of at least 200 feet in advance of pipeline construction, to verify its true location and grade. Repair, or have repaired, any damage to utilities resulting from locating or exposing their true location.
 - 3. Avoid utility damage and interruption by protection with means or methods recommended by the utility owner.
 - 4. Maintain a log identifying when phone calls were made, who was called, area for which utility relocation was requested and work order number issued, if any. The Contractor shall provide the CCWA Representative an updated copy of the log bi-weekly, or more frequently if required.
- C. Conflict with Existing Utilities
 - 1. Horizontal Conflict: Horizontal conflict shall be defined as when the actual horizontal separation between a utility, main, or service and the proposed improvement does not permit safe installation by the use of sheeting, shoring,
 - 2. tying-back, supporting, or temporarily suspending service of the parallel or crossing facility. The Contractor may propose an alignment change of the proposed improvement to avoid horizontal conflicts if the new alignment remains within the available right-of-way or easement, complies with regulatory agency requirements and after a written notification to and acknowledgement of the CCWA Representative. Where such realignment is denied by the CCWA Representative, the Contractor shall arrange to have the utility, main, or service relocated.

3. Vertical Conflict: Vertical conflict shall be defined as when the actual vertical separation between a utility, main, or service and the proposed improvement does not permit the crossing without immediate or potential future damage to the utility, main, or service. The Contractor may change the proposed grade of the proposed improvement to avoid vertical conflicts if the changed grade maintains adequate cover and complies with regulatory agencies requirements after written notification to and acknowledgement of the CCWA Representative. Where such relocation is denied by the CCWA Representative, the Contractor shall arrange to have the utility, main, or service relocated.
- D. Electronic Locator: The Contractor shall have available, at all times, an electronic pipe locator and a magnetic locator, in good working order, to aid in locating existing pipe lines or other obstructions.
- E. Water and Sewer Separation:
 1. Water mains should maintain a minimum 10 foot edge-to-edge separation from sewer lines, whether gravity or pressure. If the main cannot be installed in the prescribed easement or right-of-way and provide the 10 foot separation, the separation may be reduced, provided the bottom of the water main is a minimum of 18 inches above the top of the sewer. Should neither of these two separation criteria be possible, the water main shall be installed below the sewer with a minimum vertical separation of 18 inches.
 2. The water main, when installed below the sewer, shall be encased in concrete with a minimum 6-inch concrete thickness to the first joint in each direction. Where water mains cross the sewer, the pipe joint adjacent to the pipe crossing the sewer shall be cut to provide maximum separation of the pipe joints from the sewer.
 3. No water main shall pass through, or come in contact with, any part of a sanitary sewer manhole.

3.07 PIPE DISTRIBUTION

- A. Pipe shall be distributed and placed in such a manner that will not interfere with traffic.
- B. Distribution and stringing of pipe along the route will be limited to the total length which will be installed in one work day/work shift. The CCWA Representative reserves the right to reduce the distance in residential and commercial areas based on the effects of the pipe distribution on the adjacent property owners.

- C. No street or roadway may be closed for unloading of pipe without first obtaining permission from the proper authorities. The Contractor shall furnish and maintain proper warning signs and obstruction lights for the protection of traffic along highways, streets and roadways upon which pipe is distributed.
- D. No distributed pipe shall be placed inside drainage ditches.
- E. Distributed pipe shall be placed as far as possible from the roadway pavement, but no closer than 5 feet from the roadway pavement, as measured edge-to-edge.

3.08 CONSTRUCTION OPERATIONS

- A. The Contractor shall ensure that all work areas and roadways are free from excess excavated material, debris, mud, soil, rocks, etc. at the end of each work day. Contractor shall be responsible for sweeping all areas at the end of each work day.

END OF SECTION

**SECTION 01050
PROJECT MEETINGS**

PART 1 GENERAL

1.01 SCOPE

- A. Work under this section includes all scheduling and administering of pre-construction and progress meetings as herein specified and necessary for the proper and complete performance of this Work.
- B. Owner Responsibilities: Make physical arrangements for the meetings.
- C. Engineer Responsibilities:
 - 1. Scheduling.
 - 2. Preside at meetings.
 - 3. Record minutes and include significant proceedings and decisions.
 - 4. Distribute copies of the minutes to participants.
- D. In lieu of in-person meetings, the Owner has the option to host virtual meetings via Teams, Zoom, WebEx, or something comparable. Instructions will be sent out prior to the virtual meeting.

1.02 PRE-BID MEETING

- A. A pre-bid meeting will be held at the time and place to be designated in the Instructions to Bidders.
- B. The Engineer will be available to discuss the Project and answer pertinent questions. No oral interpretation will be made as to the meaning of the Documents. Interpretation, if deemed necessary by the Engineer, will be in the form of an Addendum to the Contract Documents.

1.03 PRECONSTRUCTION CONFERENCE

- A. The CCWA Representative shall schedule the preconstruction conference prior to the issuance of the Notice-to-Proceed.
- B. The preconstruction conference may be held virtually.
- C. Representatives of the following parties are to be in attendance at the meeting:
 - 1. Owner.
 - 2. Engineer.

3. Contractor's project staff including at a minimum the project manager, field superintendent, quality control coordinator, subcontractor coordinator.
 4. Major subcontractors.
 5. Representatives of governmental or regulatory agencies when appropriate.
- D. The agenda for the preconstruction conference shall consist of the following as a minimum:
1. Distribute and discuss a list of major subcontractors and a tentative construction schedule.
 2. Critical work sequencing.
 3. Designation of responsible personnel and emergency telephone numbers.
 4. Processing of field decisions and change orders.
 5. Adequacy of distribution of Contract Documents.
 6. Schedule and submittal of Shop Drawings, product data and samples.
 7. Pay request format, submittal cutoff date, pay date and retainage.
 8. Procedures for maintaining record documents.
 9. Use of premises, including office and storage areas and Owner's requirements.
 10. Major equipment deliveries and priorities.
 11. Safety and first aid procedures.
 12. Security procedures.
 13. Housekeeping procedures.
 14. Work hours.
 15. General regard for community relations.

1.04 PROGRESS MEETINGS

- A. Progress meetings will be held monthly during the performance of the Work of this Contract. Additional meetings may be called as progress of work dictates.
- B. Progress meetings may be held virtually.
- C. Engineer will preside at meetings and record minutes of proceedings and decisions. Engineer will distribute copies of minutes to participants.
- D. Attendance:
1. Owner.
 2. Engineer.
 3. Contractor's project staff including at a minimum the project manager, field superintendent, quality control coordinator, subcontractor coordinator, and safety representative.

4. Subcontractors, only with Engineer's approval or request, as pertinent to the agenda.
5. Representatives of governmental or other regulatory agencies as appropriate.

E. Minimum Agenda:

1. Review and approve minutes of previous meetings.
2. Review work progress since last meeting.
3. Review work progress planned for the next period.
4. Status of Overall Project Schedule, identify problems which impede planned progress.
5. Review Contractor's corrective measures and procedures to regain plan schedule.
6. Review Contractor's revision to the construction schedule.
7. Review submittal schedule.
8. Review Request for Information process.
9. Review Change Management items and status of individual Change documents.
10. Review Notices, Punch lists, and project coordination issues.
11. Note field observations, problems and decisions.
12. Review testing and quality control measures and associated issues.
13. Complete other current business.
14. Schedule next progress meeting.

1.05 QUALITY CONTROL AND COORDINATION MEETINGS

- A. Scheduled by the Engineer on a regular basis and as necessary to review test and inspection reports, and other matters relating to quality control of Work and work of other Contractors.
- B. Attendees will include:
 1. Contractor's project staff including at a minimum the project manager, superintendent, quality control coordinator, subcontractor coordinator.
 2. Subcontractors and Suppliers, as necessary.
 3. Engineer's representatives.

1.06 PRE-INSTALLATION MEETINGS

- A. When required in individual Specification sections, convene at Site prior to commencing Work of that section.
- B. Require attendance of entities directly affecting, or affected by, Work of that section.
- C. Notify the Engineer 4 days in advance of meeting date.

- D. Provide suggested agenda to Engineer to include reviewing conditions of installation, preparation and installation or application procedures, and coordination with related Work and work of others.

1.07 OTHER MEETINGS

- A. In accordance with Contract Documents and as may be required by the Owner or Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01055
CONSTRUCTION STAKING**

PART 1 GENERAL

1.01 SCOPE

- A. Construction staking shall include all of the surveying work required to layout the Work and control the location of the finished Project. The Contractor shall have the full responsibility for constructing the Project to the correct horizontal and vertical alignment.
- B. The Contractor shall assume all costs associated with rectifying work constructed in the wrong location.
- C. Work under this section also includes surveying work required to prepare Record Drawings as specified herein.

1.02 QUALITY ASSURANCE

- A. The Contractor shall hire, at the Contractor's own expense, a Surveyor with current registration in the State of Georgia, acceptable to the CCWA Representative, to provide project construction staking and confirmation of the vertical and horizontal alignment.
- B. Any deviations shall be confirmed by the Contractor prior to construction of that portion of the Project.

1.03 SUBMITTALS

- A. Submit name and address of Registered Surveyor to Engineer.
- B. On request of the Engineer submit documentation to verify accuracy of construction staking.
- C. Submit Record Drawings in accordance with PART 3 of the section.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 PROJECT CONDITIONS

- A. The CCWA Representative may order changes to the location of some of the components of the Project or provide clarification to questions regarding the correct alignment.

B. The CCWA Representative may provide the following:

1. One vertical control point on the Project Sites.
2. A minimum of two horizontal control points on the Project Sites.

3.02 GENERAL

A. From the information to be provided as indicated in paragraph 3.01 above, the Contractor shall:

1. Be responsible for establishing GPS control coordinate control system, setting reference points and/or offsets, establishment of baselines, and all other layout, staking, and all other surveying required for the construction of the Project.
 - a. The horizontal position of all points shall be referenced to the North American datum of 1983 (1986 adjustment) in the Georgia State Plane West 1002 Coordinate System.
 - b. The vertical position of all points shall be referenced to the North American Vertical datum of 1988.
 - c. All coordinate values shall be delivered as grid coordinates in US Survey Feet.
 - d. The minimum data accuracy required for all record drawings shall be plus or minus 0.10 USFT (one tenth of one foot).
2. Safeguard all reference points, stakes, grade marks, horizontal and vertical control points, and shall bear the cost of re-establishing same if disturbed.
3. Stake out the limits of construction to ensure that the Work does not deviate from the indicated limits.
4. Stake out the pipeline horizontal and vertical alignment.
5. Be responsible for all damage done to reference points, baselines, center lines and temporary bench marks, and shall be responsible for the cost of re-establishment of reference points, baselines, center lines and temporary bench marks as a result of the operations.
6. Maintain a complete, accurate log of all control and survey work as it progresses.

B. Baselines shall be defined as the line to which the location of the Work is referenced, i.e., edge of pavement, road centerline, property line, right-of-way or survey line.

3.03 STAKING PRECISION

A. The precision of construction staking shall match the precision of components location indicated on the Contractor's design drawings. Staking of utilities shall be done in accordance with standard accepted practice for the type of utility.

- B. The precision of construction staking required shall be such that the location of the water main or sewer or storm drain can be established for construction and verified by the Contractor. Where the location of components of the water main or sewer or storm drain, (i.e., fittings, valves, manholes, road crossings, etc.) are not dimensioned, the establishment of the location of these components shall be based upon scaling these locations from the Contractor's design drawings with relation to readily identifiable land marks, i.e. survey reference points, power poles, manholes etc.
- C. Paved Surfaces: The Contractor shall establish a reference point for establishing and verifying the paving subgrade and finished grade elevations. Any variance with grades shown on the Contractor's design drawings shall be identified and confirmed by the Contractor and prior to constructing the base.
- D. The Contractor's attention is directed to Section 01040, Coordination.

3.04 RECORD DRAWINGS

A. Water Mains:

1. The Contractor shall submit record drawings which show the final installed location of water mains and survey data for all installed pipe, valves and fittings, appurtenances, and service connections 3 inches in diameter and greater. Coordinates (x, y, and z) shall be obtained for each joint of pipe, valve, fitting, and appurtenance.
2. In addition, the location of all valves and fittings and main tap location for service connections 3 inches in diameter and greater shall be indicated by at least 2 ties (measured distances) from permanent fixed objects within the public right of way, as accepted by the CCWA Representative, to allow the CCWA Representative to locate the water main and components in the future without the use of GPS instruments.

B. Sewers and Storm Drains:

1. The Contractor shall submit record drawings which show the final installed location of the sewer and storm drain and survey data for all installed sewer and storm drain pipe, tunnel and casing limits and service connections. Survey data shall consist of final coordinates for all manholes, catch basins, tunnel and casing limits and service connections and invert elevations for all manholes, catch basins and other structures.
2. In addition, the location or station of all sewer service connection tie-in points to the main line sewer shall be indicated on the Contractor's design drawings, as accepted by the CCWA Representative, to allow the CCWA Representative to locate the service connections in the future without the use of GPS instruments.

- C. The record drawings shall also indicate the horizontal and vertical location, dimensions and materials of all utilities encountered during excavation.
- D. One PDF of Record Drawings shall be furnished to the Owner for review. Each record drawing shall be stamped with the name of the Contractor, signed and dated by the Contractor's Project Manager and signed.

END OF SECTION

SECTION 01060
REGULATORY REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE

- A. Permits and Responsibilities: The Contractor shall be responsible for complying with all applicable federal, state, county and municipal laws, codes and regulations, in connection with the prosecution of the Work and for obtaining all permits including but not limited to NPDES permits for storm water discharges from the Work Site.
- B. Permits and applications for this project are identified in PART 3 of this section.
- C. The Contractor shall comply with all requirements of the permitting authority, whether permits were obtained by the Contractor or not.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 NPDES PERMITS FOR STORM WATER DISCHARGES

- A. The Contractor shall comply with the provisions of the Authorization to Discharge under the National Pollutant Discharge Elimination System, Storm Water Discharges Associated with Construction Activity for Infrastructure Construction Projects, Georgia Environmental Protection Division General Permit No. GAR 100002, including but not limited to filing permit applications, filing Notice of Intent (NOI), filing Notice of Termination (NOT), performing inspections and monitoring and performing record keeping as required.

3.02 COUNTY LANE CLOSURE PERMITS

- A. Contractor, will submit permit applications to the County's Transportation Department for all lane closures required for completion of the project. Refer to Section 01550, Traffic Regulation.

3.03 OTHER PERMITS

- A. The Contractor shall submit applications for and obtain all other permits required in conjunction with completion of the Work.

3.04 GENERAL

- A. The Contractor shall pay for all remaining permits, fees and licenses required for construction of the Project.
- B. The Contractor shall examine all permits and conform to the requirements contained therein, including the purchase of additional bonds or insurance as specified therein, and such requirements are hereby made a part of this Contract as though the same were set forth herein. Failure to examine the permit and agreement applications will not relieve the Contractor from compliance with the requirements stated therein.

END OF SECTION

SECTION 01070 ABBREVIATIONS

PART 1 GENERAL

1.01 THE REQUIREMENT

- A. The following is a partial list of typical abbreviations which may be used in the Specifications, and the organizations to which they refer:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACIFS	American Cast Iron Flange Standards
AFBMA	Anti-Friction Bearing Manufacturer's Association
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standard Institute
API	American Petroleum Institute
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
CCWA	Clayton County Water Authority

CEMA	Conveyor Equipment Manufacturer's Association
CRSI	Concrete Reinforcing Steel Institute
DIPRA	Ductile Iron Pipe Research Association
Fed Spec	Federal Specifications
GEFA	Georgia Environmental Finance Authority
GDOT	Georgia Department of Transportation
IEEE	Institute of Electrical and Electronic Engineers
IPCEA	Insulated Power Cable Engineers Association
ISO	Insurance Services Offices
NBS	National Bureau of Standards
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
OSHA	Occupational Safety and Health Act
PCI	Precast Concrete Institute
UL	Formerly Underwriters Laboratories, Inc.
USGS	United States Geological Survey

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01091 CODES AND STANDARDS

PART 1 GENERAL

1.01 DESCRIPTION

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

1.02 STANDARD ORGANIZATIONS

- A. Piping and Valves:
 - ACPA American Concrete Pipe Association
 - ANSI American National Standards Institute
 - ASME American Society of Mechanical Engineers
 - AWWA American Water Works Association
 - CISPI Cast Iron Soil Pipe Institute
 - DIPRA Ductile Iron Pipe Research Association

FCI	Fluid Controls Institute
MSS	Manufacturers Standardization Society
NCPI	National Clay Pipe Institute
NSF	National Sanitation Foundation
PPI	Plastic Pipe Institute
B. Materials:	
AASHTO	American Association of State Highway and Transportation Officials
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
C. Painting and Surface Preparation:	
NACE	National Association of Corrosion Engineers
SSPC	Steel Structures Painting Council
D. Aluminum:	
AA	Aluminum Association
AAMA	American Architectural Manufacturers Association
E. Steel and Concrete:	
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
CRSI	Concrete Reinforcing Steel Institute
NRMA	National Ready-Mix Association
PCA	Portland Cement Association
PCI	Pre-stressed Concrete Institute

F. Welding:

ASME	American Society of Mechanical Engineers
AWS	American Welding Society

G. Government and Technical Organizations:

APHA	American Public Health Association
APWA	American Public Works Association
ASCE	American Society of Civil Engineers
ASQC	American Society of Quality Control
ASSE	American Society of Sanitary Engineering
CFR	Code of Federal Regulations
CSI	Construction Specifications Institute
EPA	Environmental Protection Agency
FS	Federal Specifications
ISEA	Industrial Safety Equipment Association
ISO	International Organization for Standardization
ITE	Institute of Traffic Engineers
MUTCD	Manual of Uniform Traffic Control Devices
NBFU	National Board of Fire Underwriters
NFPA	National Fluid Power Association
NBS	National Bureau of Standards
OSHA	Occupational Safety and Health Administration
SPI	Society of the Plastics Industry, Inc.
USDC	United States Department of Commerce
WEF	Water Environment Federation

H. Roadways:

AREMA American Railway Engineering and Maintenance-of-Way Association

GDOT Georgia Department of Transportation

I. Plumbing:

AGA American Gas Association

PDI Plumbing Drainage Institute

SPC SBCC Standard Plumbing Code

J. Equipment:

AFBMA Anti-Friction Bearing Manufacturers Association, Inc.

AGMA American Gear Manufacturers Association

OPEI Outdoor Power Equipment Institute, Inc.

PTI Power Tool Institute, Inc.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01200
MEASUREMENT AND PAYMENT**

PART 1 GENERAL

1.01 SUMMARY

A. Section includes:

1. Items listed in this section refer to and are the same pay items listed in the Bid Form and constitute all pay items for completing the Work.
2. Compensation for all services, items, materials, and equipment shall be include in prices stipulated for lump sum and unit price pay items listed in this Section and included in the Contract.
3. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, bonds, insurance, or other requirements of the General Conditions, Supplementary Conditions, General Requirements, and other requirements of the Contract Documents.
4. Each lump sum and unit bid price shall include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

B. Related Sections:

1. Payments to Contractor: Refer to General Conditions, Supplementary Conditions, and Agreement.
2. Changes to Contract Price: Refer to General Conditions, Supplementary Conditions, and Section 01260, Contract Modification Procedures.
3. Schedule of Values: Refer to General Conditions, Supplementary Conditions, and Section 01298, Schedule of Values.

1.02 ENGINEER'S ESTIMATE OF QUANTITIES

- A.** Engineer's and Owner's estimated quantities for unit price pay items, as listed in the Bid Form, are approximate only and are included solely for the purpose of comparison of Bids. Owner does not expressly or by implication agree that the nature of the materials encountered below the surface of the ground or the actual quantities of material encountered or required will correspond therewith and reserves the right to increase or decrease any quantity or to eliminate any quantity as Owner may deem necessary.

Contractor will not be entitled to any adjustment in a unit bid price as a result of any change in an estimated quantity and agrees to accept the aforesaid unit bid prices as complete and total compensation for any additions caused by changes or alterations in the Work ordered by Owner.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Contractor shall include all additional Work items, services, goods, resources, and manpower necessary for installation of the Work to provide a completely functional system in accordance with the Contract Documents. Contractor shall include these costs associated with providing a completely functional system within the listed items on the Bid Form and as specified herein.
- B. No separate or additional payment shall be made for the requirements contained in the General or Special Conditions of the Contract Documents. The cost for complying with these requirements shall be included in the unit price bid for the items to which they pertain.
- C. No separate or additional payment shall be made for the requirements contained in the individual specification sections contained in the Technical Specifications of these Contract Documents. The cost for complying with these requirements shall be included in the unit price bid for the items to which they pertain.
- D. No separate or additional payment shall be made for mobilization and demobilization of the Project Site. The cost for mobilization and demobilization shall be included in the unit price bid for the items to which it pertains.
- E. Bid Items:
 - 1. Bid Item 1: Lump Sum:
 - a. Mobilization/Demobilization will be limited to two percent of the bid total and will be paid in two payments. Payment will constitute full compensation for all costs associated with mobilization and demobilization of equipment as directed by Engineer of the Project. First payment shall be for mobilization up to a maximum of 50 percent of total lump sum amount upon Engineer's verification that the Contractor has fully provided all necessary labor, equipment, materials, staging areas, signage, project signs, detour signs, administrative items, etc. necessary to commence the work per General Conditions and Technical Specifications. The second payment shall be the remainder of the total lump sum amount which shall be remitted upon satisfactory demobilization and restoration of the various project areas upon completion of the work, provision of all project record documentation and any other close-out type of documentation required at the end of the Contract. Request for demobilization payment shall be included with the Application for Final Payment following Final Completion and acceptance by the Engineer and Owner.

- b. Permit: The Contractor shall obtain and pay for all remaining construction permits and licenses and the payment shall be included with the Application for Payment following Substantial Completion, or another schedule accepted by Engineer. Permitting fees shall be included as part of the Permitting payment item under this Contract. A list of possible permits required to be obtained by the Contractor (but not limited to) is as follows:
 - 1) Traffic Control Permit(s).
 - 2) Utility Permit(s).
 - 3) Haul Route Permit(s).
 - 4) Street Closure Permit(s).
 - 5) Land Disturbance Permit(s).
 - 6) Demolition and Demo Related Permit(s).
 - c. Performance Bond: Contractor shall apply for payment in the first application for payment pending the Contractor submittal of the bonds during the bid. The Contractor shall provide this bond during bid as surety bond issued by an insurance company or a bank as a guarantee for satisfactory completion of the Project.
 - d. Payment Bond: Contractor shall apply for payment in the first application for payment pending the Contractor submittal of the bonds during the bid. The Contractor shall provide this bond during bid as surety bond to guarantee that its subcontractors and material suppliers on the Project will be paid.
2. Bid Item 2: Cash Allowances:
- a. Cash allowances will be administered in accordance with the General Conditions.
 - b. Any unspent cash allowances remaining at final completion shall revert to the Owner.
 - c. Cash allowances are further described below:
 - 1) Bid Item 2.1 – Field and Laboratory Testing: Allow the amount provided in the Bid for Field and Laboratory Testing authorized by the Owner.
 - 2) Bid Item 2.2 – Construction Verification Survey: Allow the amount provided in the Bid for Construction Verification Survey authorized by the Owner.
3. Bid Item 3: Contingency Allowances:
- a. Contingency allowances will be administered in accordance with the General Conditions.
 - b. Any unspent contingency allowances remaining at final completion shall revert to the Owner.

- c. Unforeseen Work Elements shall be accomplished by increasing resources on the Project so as not to impact the overall Project Schedule. Time extensions will not be given for Owner-directed Work unless the new Work can be shown to directly impact the critical path of the Project. Contingency allowances are further described below:
- 1) Bid Item 3.1 – Unforeseen Work Elements: Allow the amount provided in the Bid for additional Work authorized by the Owner that is outside the original scope of work of this Contract.
 - 2) Unforeseen Work Elements may include but are not limited to:
 - i. Payment for Payment for all work shall be in accordance with Owner agreed-upon unit price items and shall be full compensation for all labor, materials, and equipment required to furnish, install, construct, restore in kind and test the Work covered under the unit price bid item. Work for which there is no price schedule item will be considered incidental to the Work and no additional compensation shall be allowed.
 - ii. Payment will be made only for the actual quantities of Work performed in compliance with the Drawings and Specifications. The Contractor will be paid an amount equal to the approved quantity times the applicable unit price. Any unused balance of the unit price work shall revert to the CCWA upon completion of the Project.
 - iii. Payment shall include pick-up and return delivery of materials that are indicated to be provided by the CCWA, items unused or items to be salvaged.
 - iv. Remove CMP, All Sizes: Measurement for payment for removal of abandoned storm lines shall be on a linear foot basis. Payment will constitute full compensation for all work necessary for removal of existing culvert, including all labor, material and equipment including but not limited to excavation, removal of the existing culvert, backfilling, compaction, testing, and cleanup. Work shall be in accordance with Section 02 41 00, Demolition.
 - v. Remove Asphalt: Measurement for payment for pavement removal shall be per square yard. Payment will be full compensation for furnishing all labor, tools, and equipment necessary for pavement removal consisting of breaking up, milling, and removal of all types of gravel, bituminous and concrete pavements, shoulders, driveways, sidewalks, trench drains and islands, including base courses and underdrains, as

indicated on the Drawings or as directed by the Engineer.

- vi. Remove Headwall/Wingwall and Chain Link Fence: Measurement for payment for removal of headwall/wingwall and chain link fence shall be on lump sum basis. Payment will constitute full compensation for all work necessary for removal of existing walls and footers, including all labor, material and equipment including but not limited to excavation, removal of the existing wall and footer, backfilling, compaction, testing, and cleanup.
- vii. Remove Debris: Measurement for payment for debris removal shall be on a per cubic yard basis. Payment will constitute full compensation for all work necessary for debris; i.e. rubble, bricks, broken concrete, crushed CMU, in accordance with the Drawings and Specifications, including, but not limited to, labor, materials and equipment. Work shall be completed in accordance with Section 02 41 00, Demolition.
- viii. Clearing and Grubbing: Measurement for payment for clearing and grubbing shall be on a per acre basis. Payment will constitute full compensation for all work necessary for the removal and disposal of trees, snags, roots, logs, brush, shrubs, and rubbish from the surface of the ground plus grubbing to a sufficient depth as determined by the Engineer, of all surface debris, surface boulders and loose rock, trash, structures, stumps, and roots on or near the surface of the ground and understood by generally accepted engineering practice not to be suitable for construction as indicated on the Drawings, specified in these Specifications, or as recommended by the Engineer. Work shall be completed in accordance with Section 31 10 00, Site Clearing.
- ix. Remove Concrete Manhole: Measurement for payment for concrete manhole removal shall be on each basis. Payment will constitute full compensation for all work necessary for concrete manhole removal with excavation, removal of existing structure, compacted backfill, and proper disposal of manhole materials

- x. Tree Removal: Measurement for payment will be per caliber inch for the type classification category of clearing. The classification of per caliber inch will be measured at 4 feet from the base of the tree. Clearing may be achieved with hand equipment, bush hog, wood chipper(s), skidders or dozers. Payment will constitute full compensation for easement clearing, including, but not limited to labor, equipment, transportation, tools, disposal and other related procedures and materials necessary to remove trees 12 inches and greater.
- xi. Install Construction Exit: Measurement for payment will be per each (EA) for construction exits suitably installed and maintained per the Manual for Erosion and Sediment Control of Georgia, latest edition. Payment will constitute full compensation for all costs associated with construction exits, including installation, maintenance, repair, and removal. Note: Construction exits are required to conform to the specific dimensions in the Manual for Erosion and Sediment Control of Georgia, latest edition. Construction exits installed to lesser dimension than those required shall be paid on a pro-rated basis accordingly.
- xii. Install Silt Fence, Type C: Measurement for payment of Sediment Barrier will be on a per linear foot basis. Payment will constitute full compensation for all work necessary to install all types of sediment barriers, including, but not limited to, the material purchase, delivery to the Work Site, onsite storage, delivery to the work areas, surface preparation, placement and cleanup, labor and equipment required for the handling and installation of sediment barriers in accordance with the requirements of the Manual for Erosion and Sediment Control in Georgia, current version. Work shall be completed in accordance with Section 01 57 13, Temporary Erosion and Sedimentation Control.
- xiii. Install Temporary Seeding: Measurement for payment for seeding will be per square yard basis. Payment shall constitute full compensation for all labor, materials and equipment necessary to complete seeding, including ground preparation, furnishing and placing all mulch, seed, fertilizer and water to create a satisfactory stand. Work shall be completed in accordance with Section 01 57 13, Temporary Erosion and Sedimentation Control.

- xiv. Install Permanent Seeding: Measurement for payment for seeding will be per square yard basis. Payment shall constitute full compensation for all labor, materials and equipment necessary to complete seeding, including ground preparation, furnishing and placing all mulch, seed, fertilizer and water to create a satisfactory stand. Work shall be completed in accordance with Section 32 92 00, Turf and Grasses.
- xv. Erosion Control Mats, Slope: Measurement for payment for erosion control mats, slope will be per square yard basis. Payment shall constitute full compensation for all labor, materials and equipment necessary to complete erosion control mat according to the Drawings and Specifications, including ground preparation.
- xvi. Install Riprap: Measurement for payment for rip rap will be per square yard basis. Payment shall constitute full compensation for all labor, materials and equipment necessary to complete erosion control mat according to the Drawings and Specifications, including ground preparation. Work shall be completed in accordance with Section 31 37 00, Riprap.
- xvii. Install Plastic Filter Fabric: Measurement for payment for plastic filter fabric will be per square yard basis. Payment shall constitute full compensation for all labor, materials and equipment necessary to complete bedding for erosion control mat according to the Drawings and Specifications, including ground preparation. Work shall be completed in accordance with Section 31 32 19.16, Geotextile and 31 37 00, Riprap.
- xviii. Install Inlet Sediment Trap: Measurement for payment of Inlet Sediment Trap will be on a per each basis. Payment will constitute full compensation for all work necessary to install inlet sediment protection, including, but not limited to, the purchase, delivery to the Work Site, onsite storage, delivery to the work areas, surface preparation, placement and cleanup, labor and equipment required for the handling and installation of inlet sediment traps in accordance with the requirements of the Manual for Erosion and Sediment Control in Georgia, current version.

- xix. Install Fence: Measurement for payment for furnishing all labor, materials and incidentals required to furnish and install fence, gates and appurtenances as shown on the Drawings and Specifications. Fence shall be in accordance with Section 02711, Chain Link Fence and Gates. The Contractor shall also furnish all labor and materials, equipment and miscellaneous items necessary for the removal and reinstallation of existing chain link fence and gates as required for construction of the Project.
- xx. Traffic Control: The Contractor shall bid lump sum amount for Traffic Control as specified in Section 01550, Traffic Control. The amount bid shall include any requirements for off-duty police traffic control, as well as design, submittal review, operation and maintenance manual submission, storage handling or testing costs specified in Section 1550, Traffic Control. The Owner will pay the Contractor for Traffic Control in equal monthly installments. Each installment will equal the lump sum bid amount for Item 4.16 prorated over the term of the Contract. Payment will constitute full compensation for all work necessary to provide Traffic Control in accordance with the Drawings and Specifications, including, but not limited to, labor and equipment, during the preceding month.
- xxi. Install Headwalls/Wingwalls, Precast: Measurement for payment for precast headwall/wingwall shall be per lump sum basis. Payment shall be full compensation for furnishing all labor, materials and supplies, and equipment for installation of complete wall assemblies. Work includes, but not limited to, excavation and site preparation, purchase and delivery to the Work Site of new precast concrete wall assembly complete. Payment for footer/foundation to be compensated under a separate bid item.
- xxii. Install Storm Sewer, RCP, All Sizes, Class III: Measurement for payment for reinforced concrete pipe will be per linear foot basis. Payment shall be full compensation for furnishing all labor, tools, equipment, materials and incidentals necessary to complete the installation in accordance with the Drawings and Specifications, including saw-cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, connections to manholes/junction boxes/inlets, flow diversion, trench foundation, culvert, backfill material, backfilling

- compaction, dewatering, testing and associated work complete in place.
- xxiii. Install Precast Concrete Box Culvert: Measurement for payment for double culvert will be per linear foot basis. Payment shall be full compensation for furnishing all labor, tools, equipment, materials and incidentals necessary to complete the installation in accordance with the Drawings and Specifications, including saw-cutting asphalt pavement, excavation, removal and disposal of asphalt or concrete pavements and excavated material, excavation support system, utility support system, connections to manholes/junction boxes/inlets, flow diversion, trench foundation, culvert, backfill material, backfilling compaction, dewatering, testing and associated work complete in place.
- xxiv. Creek Flow Control: The amount for Creek Flow Control shall include but not limited to any requirements for creek flow control, such as pumping systems, dikes, levees, cofferdams, diversion, and drainage channels as necessary to maintain the areas free from water and to protect areas to be occupied by permanent work from water damage. Compensation includes but not limited to removing temporary work after they have served their purpose. The Owner will pay the Contractor for Creek Flow Control in equal monthly installments. Each installment will equal the Owner approved amount for "Creek Flow Control" prorated over the term of the Contract.
- a) Payment will constitute full compensation for all work necessary to provide creek flow control in accordance with the Drawings and Specifications, including, but not limited to, labor and equipment, during the preceding month.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01260
CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 THE REQUIREMENT

- A. Section includes:
 - 1. General Conditions and Supplementary Conditions provision expansion, including the following:
 - a. Requests for interpretation.
 - b. Field Orders.
 - c. Work Change Directives.
 - d. Proposal requests.
 - e. Change Proposals.
 - f. Change Orders.

1.02 ADMINISTRATIVE REQUIREMENTS

- A. Submit Contract modification documents to Engineer's contact person and address in the Contract Documents.
- B. Retain at Contractor's office and at the Site complete copy of each Contract modification document and related documents, and Engineer's response.

1.03 REQUEST FOR INTERPRETATION

- A. General:
 - 1. Submit written or electronic requests for interpretation to Engineer. Contractor and Owner may submit requests for interpretation.
 - 2. Submit request for interpretation to obtain clarification or interpretation of the Contract Documents. Report conflicts, errors, ambiguities, and discrepancies in the Contract Documents using requests for interpretation.
 - 3. Do not submit request for interpretation when other form of communication is appropriate, such as submittals, requests for substitutions or "Or-equals", notices, ordinary correspondence, or other form of communication. Improperly prepared or inappropriate requests for interpretation will be returned without response or action.

B. Procedure:

1. Submit electronic copy of each request for interpretation.
2. Engineer will provide timely review of requests for interpretation. Allow sufficient time for review and response.
3. Engineer will maintain log of requests for interpretation. Copy of log will be provided upon request.
4. Engineer will provide written response to each request for interpretation. One copy of Engineer's response will be distributed to:
 - a. Contractor.
 - b. Owner.
 - c. Engineer.
 - d. Resident Project Representative (RPR).

C. If Engineer requests additional information to make an interpretation, provide information requested within 10 days, unless Engineer allows additional time, via correspondence referring to request for interpretation number.

D. If Contractor or Owner believes that a change in the Contract Price or Contract Times or other change to the Contract is required, notify Engineer in writing before proceeding with the Work associated with the request for interpretation.

E. Submit each request for interpretation on a form acceptable to Engineer.

1. Number each request for interpretation as follows: Numbering system shall be the Contract number and designation followed by a hyphen and three-digit sequential number.
2. In space provided on form, describe the interpretation requested. Provide additional sheets as necessary. Include text and sketches as required in sufficient detail for Engineer's response.
3. When applicable, request for interpretation shall include Contractor's recommended resolution.

1.04 FIELD ORDERS

A. General:

1. Field Orders, when required, will be initiated and issued by Engineer.
2. Field Orders authorize minor variations in the Work but do not change the Contract Price or Contract Times.
3. Field Orders will be in the form of Engineers Joint Contract Documents Committee (EJCDC) document C-942, "Field Order" or other Engineer's accepted form.
4. Engineer will maintain a log of Field Orders issued.

B. Procedure:

1. Electronic copies of Field Orders will be maintained, stored, and distributed by electronic construction document management system.
2. If Contractor or Owner believes that a change in the Contract Price or the Contract Times or other change to the Contract is required, immediately notify Engineer in writing before proceeding with the Work associated with the Field Order.
3. If the Field Order is unclear, submit request for interpretation.

1.05 WORK CHANGE DIRECTIVE

A. General:

1. Work Change Directives, when required, order additions, deletions, or revisions to the Work.
2. Work Change Directives do not change the Contract Price or Contract Times but are evidence that the parties to the Contract expect that the change ordered or documented by the Work Change Directive will be incorporated in subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.
3. Work Change Directives will be in the form of EJCDC document C-940, "Work Change Directive" or other Engineer's accepted form.

B. Procedure:

1. Three originals of Work Change Directive signed by Owner and Engineer will be furnished to Contractor, who shall promptly sign each original Work Change Directive and, within 5 days of receipt, return all originals to Engineer.
2. Original, signed Work Change Directives will be distributed as follows:
 - a. Contractor: One original.
 - b. Owner: One original.
 - c. Engineer: One original.
3. One copy of each Work Change Directive will be distributed to: Resident Project Representative (RPR).
4. When required by Engineer, document for the Work performed under each separate Work Change Directive, for each day, the number and type of workers employed and hours worked; equipment used including manufacturer, model, and year of equipment, and number of hours; materials used, receipts for and descriptions of materials and equipment incorporated into the Work, invoices and labor and equipment breakdowns for Subcontractors and Suppliers, and other information required by Owner or Engineer, in a format acceptable to Engineer. Submit this documentation to Engineer as a Change Proposal.

1.06 PROPOSAL REQUESTS

A. General:

1. Proposal requests may be initiated by Engineer or Owner.
2. Proposal requests are for requesting the effect on the Contract Price and the Contract Times and other information relative to contemplated changes in the Work. Proposal requests do not authorize changes or variations in the Work, and do not change the Contract Price or Contract Times or terms of the Contract.
3. Proposal requests will be furnished using the proposal request form included with this section.

B. Procedure:

1. One copy of each signed proposal request will be furnished to Contractor with one copy each to:
 - a. Owner.
 - b. Engineer.
 - c. Resident Project Representative (RPR).
2. Submit request for interpretation to clarify conflicts, errors, ambiguities, and discrepancies in proposal request.
3. Upon receipt of proposal request, Contractor shall prepare and submit a Change Proposal, in accordance with this Section, for the proposed Work described in the proposal request.

1.07 CHANGE PROPOSAL

A. General: Submit written Change Proposal to Engineer in response to each proposal request, and when Contractor believes a change in the Contract Price or Contract Times or other change to the terms of the Contract is required.

B. Procedure:

1. Submit to Engineer one original and one copy of each Change Proposal with accompanying documentation, and simultaneously submit two copies to Owner. Submit each Change Proposal with separate letter of transmittal.
2. Engineer will review Change Proposal and either request additional information from Contractor or provide to Owner recommendation regarding approval of the Change Proposal.
3. When Engineer requests additional information to render a decision, submit required information within 5 days of receipt of Engineer's request, unless Engineer allows more time. Submit the required information via correspondence that refers to Change Proposal number.

4. Upon completing review, one copy of Engineer's written response, if any, will be distributed to:
 - a. Contractor.
 - b. Owner.
 - c. Engineer.
 - d. Resident Project Representative (RPR).
 5. If Change Proposal is recommended for approval by Engineer and approved by Owner, a Change Order will be issued.
 6. If parties do not agree on terms for the change, Owner or Contractor may file a Claim against the other, in accordance with the General Conditions and the Supplementary Conditions.
- C. Each Change Proposal shall be submitted on a Change Proposal form acceptable to Engineer.
1. Number each Change Proposal as follows: Numbering system shall be the Contract number and designation followed by a hyphen and three-digit sequential number.
 2. Example: First Change Proposal for the General Contract for Project named "Contract 23" would be, "Proposal No. 23-001".
 3. In space provided on form:
 - a. Describe scope of each proposed change. Include text and sketches on additional sheets as required to provide detail sufficient for Engineer's review and response. If a change item is submitted in response to proposal request, write in as scope, "In accordance with Change Proposal Request No." followed by the proposal request number. Provide written clarifications, if any, to scope of change.
 - b. Provide justification for each proposed change. If change is in response to proposal request, write in as justification, "In accordance with Change Proposal Request No." followed by the proposal request number.
 - c. List the total change in the Contract Price and Contract Times for each proposed change.
 - d. Unless otherwise directed by Engineer, attach to the Change Proposal detailed breakdowns of pricing (Cost of the Work and Contractor's fee) including:
 - 1) List of Work tasks to accomplish the change.
 - 2) For each task, labor cost breakdown including labor classification, total hours per labor classification, and hourly cost rate for each labor classification.
 - e. Construction equipment and machinery to be used, including manufacturer, model, and year of manufacture, and number of hours for each.

- f. Detailed breakdown of materials and equipment to be incorporated into the Work, including quantities, unit costs, and total cost, with Supplier's written quotations.
- g. Breakdowns of the Cost of the Work and fee for Subcontractors, including labor, construction equipment and machinery, and materials and equipment incorporated into the Work, other costs, and Subcontractor fees.
- h. Breakdown of other costs eligible, in accordance with the General Conditions and the Supplementary Conditions.
- i. Other information required by Engineer.
- j. Contractor's fees applied to eligible Contractor costs and eligible Subcontractor costs.

1.08 CHANGE ORDERS

A. General:

- 1. Change Orders will be recommended by Engineer and signed by Owner, and Contractor, to authorize additions, deletions, or revisions to the Work, or changes to the Contract Price or Contract Times.
- 2. Change Orders will be in the form of EJCDC document C-941, "Change Order" or other Engineer's accepted form.

B. Procedure:

- 1. Three originals of each Change Order will be furnished to Contractor, who shall sign each original Change Order and return all originals to Engineer within 5 days of receipt.
- 2. Engineer will sign each original Change Order and forward them to Owner.
- 3. Owner will sign each original Change Order and forward to the funding agency.
- 4. After approval and signature of all parties, three executed original copies will be returned to Engineer. Engineer will distribute as follows:
 - a. Contractor: One original.
 - b. Owner: One original.
 - c. Engineer: One original.
- 5. One copy of each Change Order will be distributed to:
 - a. Resident Project Representative (RPR).

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SCHEDULE

- A. 2013 EJCDC Form C-942, Field Order.

- B. 2013 EJCDC Form C-940, Work Change Directive.
- C. 2013 EJCDC Form C-941, Change Order.

END OF SECTION

SECTION 01297
PROGRESS PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Administrative and procedural requirements for progress payment to the Contractor by the Owner.
- B. Related Section: Section 01700, Closeout Requirements.

1.02 ADMINISTRATIVE REQUIREMENTS

- A. General: Contractor's request for payment shall be in accordance with the Agreement, General Conditions and Supplementary Conditions, and the Specifications.
- B. Procedure:
 - 1. Review with Resident Project Representative (RPR) quantities and the Work proposed for inclusion in each progress payment. Application for Payment shall cover only the Work and quantities recommended by the RPR.
 - 2. Submit to Engineer one electronic original of each complete Application for Payment and other documents to accompany the Application for Payment.
 - 3. Engineer will act on request for payment in accordance with the General Conditions and Supplementary Conditions.
- C. Requirements:
 - 1. Use AIA forms G702 and G703 for Application for Payment. Application for Payment details and format must be suitable to the Engineer and Owner.
 - 2. Completed Application for Payment form, including summary/signature page, progress estimate sheets, and stored materials summary. Progress estimate sheets shall have the same level of detail as the Schedule of Values.
 - 3. Stored materials summary shall differentiate onsite stored materials from offsite stored materials. For Contractor to receive payment for offsite stored materials, in addition to requirements of paragraph 1.2.C.3 below, RPR must verify Contractor is in possession of materials.

4. For materials and equipment not incorporated in the Work but suitably stored, submit documentation in accordance with the General Conditions and Supplementary Conditions. Legibly indicate on invoice or bill of sale the specific materials or equipment included in the payment request and corresponding bid/payment item number for each.
 5. An updated Progress Schedule meeting the requirements of Section 01310, Scheduling the Work shall accompany each Application for Payment.
 6. Beginning with the second Application for Payment, Interim and/or Final Waiver and Release forms are required to be submitted with each Application for Payment.
 7. For payment requests that include payment for Work under an allowance, submit documentation acceptable to Owner of the authorization of allowance Work.
 8. For payment requests (other than request for final payment) that include reduction or payment of retainage in an amount greater than that required in the Contract Documents, submit on form acceptable to Owner consent of surety to partial release or reduction of retainage.
- D. Requirements for request for final payment are in the General Conditions, as modified by the Supplementary Conditions, and Section 01770, Closeout Procedures.

1.03 SUPPLEMENTS

- A. The supplements listed below, following “END OF SECTION”, are part of this specification.
1. Interim Waiver and Release Upon Payment.
 2. Waiver and Release Upon Final Payment.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

STATE OF GEORGIA
COUNTY OF CLAYTON

INTERIM WAIVER AND RELEASE UPON PAYMENT

The undersigned mechanic and/or materialman has been employed by the Clayton County Water Authority to furnish _____
_____ [describe materials and/or labor];
for the construction of improvements known as: _____
[title of the project or building]; which is located in the City of _____, County of
_____, and is owned by the Clayton County Water Authority at the following address:

and more particularly described by the following metes and bounds description, land lot district,
or block and lot number:

See Attachment: ☐ yes ☐ no

Upon the receipt of the sum of: \$ _____,
the undersigned mechanic and/or materialman waives and releases any and all liens or claims of
liens it has upon the foregoing described property through the date signed below and excepting
those rights and liens that the mechanic and/or materialman might have in any retained amounts,
on account of labor or materials, or both, furnished by the undersigned to or on account of said
contractor for said building or premises.

In addition to the release and waiver of all liens or claims of lien as set forth hereinabove,
upon receipt of the aforesaid payment, the undersigned agrees and acknowledges that it has
been paid in full all sums due for labor or materials furnished for the aforesaid Project (save and
except for any retained amounts which may have been withheld by the Clayton County Water
Authority) as of the date of this Interim Waiver and Release Upon Payment. The undersigned
does furthermore waive and release any and all other claims it has, or may have, against the
Clayton County Water Authority or against its officers, directors, agents, employees, or others

acting on its behalf, arising out of, or related to construction of the Project, including but not limited to, the furnishing of any work or materials for the aforesaid Project save and except for any claim for the payment of any retained amounts previously withheld by said Authority.

The undersigned herein represents and affirms that the proceeds previously received from the said Authority pursuant to any prior Application for Payment have been applied on account to discharge the undersigned's legitimate obligations associated with such Application for Payment.

NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY DEEMED TO HAVE BEEN PAID IN FULL THE AMOUNT STATED ABOVE, EVEN IF YOU HAVE NOT ACTUALLY RECEIVED SUCH PAYMENT, 60 DAYS AFTER THE DATE STATED ABOVE UNLESS YOU FILE EITHER AN AFFIDAVIT OF NONPAYMENT OR A CLAIM OF LIEN PRIOR TO THE EXPIRATION OF SUCH 60 DAY PERIOD.

(L.S.)
(Signature of Deponent)

(Printed/Typed Name and Title)

Deponent, individually, and as duly authorized agent and duly elected and acting officer of Contractor

(Company Name)

PERSONALLY APPEARED BEFORE ME, a Notary Public in and for said State and County, the Deponent, who, being personally known to the undersigned and being duly sworn and on oath deposed and said that the within and foregoing statements are true and correct this _____ day of _____, 20____.

Notary Public _____

Commission Expiration Date: _____ (NOTARY SEAL)

(Witness)

(Address)

STATE OF GEORGIA
COUNTY OF CLAYTON

WAIVER AND RELEASE UPON FINAL PAYMENT

The undersigned mechanic and/or materialman has been employed by the Clayton County Water Authority to furnish _____

_____ [describe materials and/or labor];

for the construction of improvements known as: _____

[title of the project or building]; which is located in the City of _____, County of

_____, and is owned by the Clayton County Water Authority at the following address:

and more particularly described by the following metes and bounds description, land lot district, or block and lot number:

See Attachment: ☐ yes ☐ no

Upon the receipt of the sum of: \$ _____,
the mechanic and/or materialman waives and releases any and all liens or claims of liens or any right against any labor and/or material bond it has upon the foregoing described property.

THE MECHANIC AND/OR MATERIALMAN WAIVES AND RELEASES ANY AND ALL LIENS OR CLAIMS OF LIENS IT HAS UPON THE FOREGOING DESCRIBED PROPERTY OR ANY RIGHTS AGAINST ANY LABOR AND/OR MATERIAL BOND ON ACCOUNT OF LABOR OR MATERIALS, OR BOTH, FURNISHED BY THE UNDERSIGNED TO OR ON ACCOUNT OF SAID CONTRACTOR FOR SAID PROPERTY.

NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY DEEMED TO HAVE BEEN PAID IN FULL THE AMOUNT STATED ABOVE, EVEN IF YOU HAVE NOT ACTUALLY RECEIVED SUCH PAYMENT, 60 DAYS AFTER THE DATE STATED ABOVE UNLESS YOU FILE EITHER AN AFFIDAVIT OF NONPAYMENT OR A CLAIM OF LIEN PRIOR TO THE EXPIRATION OF SUCH 60 DAY PERIOD.

IN ADDITION TO THE RELEASE AND WAIVER OF ALL LIENS AND CLAIMS OF LIEN AS SET FORTH HEREINABOVE, UPON RECEIPT OF THE AFORESAID FINAL PAYMENT, THE UNDERSIGNED AGREES AND ACKNOWLEDGES THAT IT HAS BEEN PAID IN FULL ALL SUMS DUE FOR LABOR OR MATERIALS FURNISHED FOR THE AFORESAID PROJECT. THE UNDERSIGNED FURTHERMORE HEREIN WAIVES AND RELEASES ANY AND ALL OTHER CLAIMS OF EVERY KIND AND NATURE THAT IT HAS, OR MAY HAVE, AGAINST THE AUTHORITY, OR ITS AGENTS OR REPRESENTATIVES, ARISING OUT OF, OR RELATED TO, THE CONSTRUCTION OF THE PROJECT, INCLUDING BUT NOT LIMITED TO, ANY CLAIMS FOR PAYMENT FOR LABOR OR MATERIALS FURNISHED FOR THE PROJECT.

PERSONALLY APPEARED BEFORE ME, the undersigned attesting officer, duly authorized by law to administer oaths (the "Deponent"), who being duly sworn according to law, deposes and says on oath:

1. That Deponent is the duly authorized agent and duly elected and acting officer of _____ (the "Contractor"), and is duly authorized to execute this Final Contractor's Affidavit, Lien Waiver and Indemnification (this "Affidavit") in a representative capacity on behalf of Contractor, as well as in Deponent's individual capacity, and Deponent has made diligent inquiry into and is personally familiar with and has full knowledge of all facts set forth herein.

2. That Contractor acted as the sole general contractor in charge of and directly responsible for the building and construction of all improvements (the "Work") located as reflected above (the "Property"), all of which Work was performed pursuant to the terms of that certain agreement dated _____ (the "Agreement") by and between Contractor and the Clayton County Water Authority as the owner or agent of the owner of the Property (the "Owner"). The Work includes, without limitation, all Work under or related to the Agreement and all change orders to the Agreement, and all supplemental contracts and subcontracts, whether oral or written, for any extra, additional or replacement labor or materials. Contractor is, and performed the Work as, an independent general contractor and Contractor is not an agent of Owner, and all of the Work was furnished and performed at the instance of Contractor as general contractor.

3. That the Work has been fully and finally completed in strict accordance with the terms of the Agreement, and Contractor has at all times since the commencement of the Work been in direct charge of all aspects of the Work, and Contractor has obtained a current valid permanent

certificate of occupancy for the Property and the Work, and the Work has been completed within the boundary lines of the Property.

4. Upon receipt of the sum reflected above, Contractor acknowledges that Owner has paid in full to Contractor the full contract price under the Agreement (the "Contract Price"), which Contract Price includes, without limitation, all amounts and bills for all labor, materials, fixtures and supplies of any type whatsoever used in the Work. Upon receipt of these monies, all contractors, subcontractors, subcontractors of subcontractors, materialmen, suppliers and laborers will be paid in full the agreed price or reasonable value for all materials and supplies ordered, used or furnished and services and labor rendered in connection with or as a part of the Work, and none of such parties have or will have any claim, demand or lien against the Property, and all of the amounts paid by Owner to Contractor under the Agreement have been and will be used to pay for labor or materials used in the Work when no liens or claims of lien were filed or outstanding. There are no disputes regarding the Agreement or any other contracts or subcontracts with respect to the Work or the Property, and, except for bills associated with these final monies, there are no amounts due or unpaid bills of any nature, either for labor or services related to the Work or the Property or any materials which have been or may have been placed upon, or applied or delivered to the Property, and Contractor does hereby unconditionally agree to hold harmless and indemnify Owner from and against all claims for mechanic's or materialman's liens or claims of lien, including, without limitation, any attempted foreclosure thereof, which in any way arise out of or are related to the Work or the Property, including, without limitation, any attorney's fees incurred in connection therewith.

5. That Contractor does hereby for itself, and its employees, suppliers, subcontractors, mechanics and materialmen and all other persons acting for, through, or under Contractor, waive, remise, relinquish and release all right to file or to have filed or to maintain any materialman's or mechanic's lien or liens or claim or claims against the Property or arising out of or related to the Work. This Affidavit is executed and given in favor of and for the benefit of, and may be relied upon by, Owner and each and every party legally or equitably, now or hereafter, owning or holding any interest in the Property.

6. That this Affidavit is a sworn statement made under the provisions of Official Code of Georgia Annotated Section 44-14-361.2, and is made for the purpose of inducing Owner to pay to Contractor the balance of the Contract Price pursuant to the terms of the Agreement.

_____(L.S.)
(Signature of Deponent)

(Printed/Typed Name and Title)

Deponent, individually, and as duly authorized agent and duly elected and acting officer of Contractor

(Company Name)

PERSONALLY APPEARED BEFORE ME, a Notary Public in and for said State and County, the Deponent, who, being personally known to the undersigned and being duly sworn and on oath deposed and said that the within and foregoing statements are true and correct this _____ day of _____, 20_____.

Notary Public _____

Commission Expiration Date: _____ (NOTARY SEAL)

(Witness)

(Address)

SECTION 01298 SCHEDULE OF VALUES

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. General requirements for preliminary and final Schedule of Values.
2. Schedule of Values and the Progress Schedule updates specified in Section 01310, Construction Progress Schedule, shall be basis for preparing each Application for Payment. Schedule of Values may be used as a basis for negotiating price of changes, if any, in the Work.

1.02 ADMINISTRATIVE REQUIREMENTS

A. General Requirements:

1. Schedule of Values shall include breakdown of costs for materials and equipment, installation, and other costs used in preparing the Bid by Contractor and each Subcontractor. List purchase and delivery costs for materials and equipment for which Contractor may apply for payment as stored materials.
2. Include separate amounts for each Specification section in the Contract Documents by structure, building, and work area. If Record Documents are not updated on a monthly basis, the Owner as its sole discretion has the right to delay the Contractor's payment without penalty.
3. Identify each line item with a unique number corresponding to the associated Specification section. List sub-items of major products or systems, as appropriate or when requested by Engineer. The unique identifier shall precede the Schedule of Values' written description and have no more than 32 characters.
4. Include in Schedule of Values unit price payment items with their associated quantity. Provide in the Schedule of Values detailed breakdown of unit prices when required by Engineer.
5. Include in Schedule of Values itemized list of Work for each major part of the Contract, for each payment item specified in Section 00 72 00, General Conditions, paragraph 1.05 Site Conditions B. 6.
6. Sum of individual values shown on the Schedule of Values shall equal the total of associated payment item. Sum of payment item totals in the Schedule of Values shall equal the Contract Price.

B. Specific Requirements:

1. Include in each line item a directly proportional amount of Contractor's overhead and profit. Do not include overhead and profit as separate item(s).
2. Include separate line item for each lump sum item, each allowance, and for each unit price item.
 - a. Mobilization/Demobilization will be limited to 2 percent of the Contract Price and will be paid in two payments. Mobilization up to a maximum of 50 percent of total lump sum amount upon Engineer's verification that the Contractor has fully provided to commence the Work such as all necessary labor, equipment, materials, staging areas, signage, Project signs, per General Conditions and Special Conditions. And for Demobilization the remaining total lump sum amount shall be paid after successful completion of the project. Document for Engineer the activities included in mobilization and demobilization line item.
 - b. The lump sum line items for Performance and Payment bonds shall not each exceed 2 percent of the bid total. This may be applied for in the first Application for Payment pending the Contractor submittal of the bonds during the bid.
 - c. The Contractor shall include under permitting pay item, all costs for processing permits. Payment for these costs shall be requested in Application for Payment on a schedule accepted by Engineer. Payment shall be per the actual expenses incurred by the Contractor after approval by the Engineer.
3. Costs for submittals, operations and maintenance manuals, field testing, and training of operations and maintenance personnel shall be as follows, unless otherwise accepted by Engineer:
 - a. Up to 3 percent of total cost of each item (including overhead and profit), including materials and equipment, and installation, may be apportioned to testing and included in the Application for Payment following Engineer's acceptance of the associated written Site testing report(s).
 - b. The Contractor is to submit the record drawings in the latest ACAD version in addition to the hard copies that the Owner will receive.

- C. Preliminary Schedule of Values: Submit preliminary Schedule of Values to Engineer for initial review. Contractor shall incorporate Engineer's comments into the Schedule of Values and resubmit to Engineer. Engineer may require corrections and re-submittals until Schedule of Values is acceptable.

D. Time Frame for Submittals:

1. Submit preliminary Schedule of Values within 10 days of date that the Contract Times commence running in accordance with the Notice to Proceed.
2. Submittal of the Schedule of Values shall be in accordance with the General Conditions. Engineer will not accept Applications for Payment without an acceptable Schedule of Values.
3. When required by Engineer, promptly submit updated Schedule of Values to include cost breakdowns for changes in the Contract Price.

1.03 SUBMITTALS

A. Submit the following:

1. Electronic copy of preliminary Schedule of Values.
2. Electronic copy of Schedule of Values.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01300 SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 DESCRIPTION

- A. This section specifies the general methods and requirements of submissions applicable to the following work-related Submittals: Shop Drawings, Product Data, Samples, Requests for Information, Construction Schedules, Work Plan, and Submittal Schedules as defined in Section 01020, Definitions. Detailed submittal requirements are specified in the technical specifications sections. All submittals shall be clearly identified by reference to specification section, Paragraph, Drawing No. or Detail as applicable. Submittals shall be clear and legible and of sufficient size for sufficient presentation of data.

1.02 GENERAL PROCEDURES FOR SUBMITTALS

- A. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the Work. Submittal entries to be input into E-builder or as directed by the CCWA's Authorized Representative.

1.03 SHOP DRAWINGS, WORKING DRAWINGS, PRODUCT DATA, SAMPLES, RECONSTRUCTION VIDEO

- A. Shop Drawings:
 - 1. Shop Drawings, as defined above, and as specified in individual work Sections include, but are not necessarily limited to, custom-prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, special wiring diagrams, coordination drawings, individual system or equipment inspection and test reports including performance curves and certifications, as applicable to the Work.
 - 2. Within 14 days of the Notice to Proceed, the Contractor shall submit an anticipated log of all Shop Drawings to the Engineer for review and approval to ensure the timely execution of work.

3. Layout drawings prepared specifically for the Project shall have a plan scale of not less than 1/4 inch equals 1 foot.
4. All Shop Drawings submitted by subcontractors for approval shall be sent directly to the Contractor for checking. The Contractor shall be responsible for their submission at the proper time so as to prevent delays in delivery of materials.
5. The Contractor shall check all subcontractors' Shop Drawings regarding measurements, size of members, materials, and details to satisfy himself/herself that they conform to the intent of the Drawings and Specifications. Shop Drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission thereof.
6. All details on Shop Drawings submitted for approval shall show clearly the relation of the various parts to the main members and lines of the structure, and where correct fabrication of the Work depends upon field measurements, such measurements shall be made and noted on the Drawings before being submitted for approval.
7. For electronic submittals, drawings and the necessary data shall be submitted electronically to the Owner or Owner's Representative as specified below.
 - a. Submittal documents shall be in color to facilitate use of red line markups. All electronic files shall be in Portable Document Format (PDF) as generated by Adobe Acrobat Professional Version 7.0 or higher. The PDF file(s) shall be fully indexed using the Table of Contents, searchable with thumbnails generated. PDF images must be at a readable resolution. For most documents, they should be scanned or generated at 300 dots per inch (dpi). Use of higher resolution is acceptable with the Owner or Owner's Representative approval.
 - b. Optical Character Recognition (OCR) capture must be performed on these images so that text can be searched, selected and copied from the generated PDF file.
 - c. The PDF documents shall have a bookmark created in the navigation frame for each major entry ("Section" or "Chapter") in the Table of Contents. Thumbnails shall be generated for each page or graphic in the PDF file.
8. The opening view for each PDF document shall be as follows:
 - a. Initial View: Bookmarks and Page.
 - b. Magnification: Fit in Window.
 - c. The file shall open to Contractor's transmittal letter, with bookmarks to the left. The first bookmark shall be linked to the Table of Contents.
 - d. PDF document properties shall include the submittal number for the document title and Contractor's name for the author.

- e. Electronic submittal file sizes shall be limited to 10 MB. When multiple files are required for a submittal the least number of files possible shall be created.
- f. Contractor shall post submittals and retrieve the Owner or Owner's Representative's submittal review comments through the Project Web site accessible through the Internet. Instruction on procedures for posting and retrieving submittals will be provided after award of the Contract.

B. Product Data:

- 1. Product data as defined above, and as specified in individual sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing and printed product warranties, as applicable to the Work.
- 2. Where manufacturer's publications in the form of catalogs, brochures, illustrations or other data sheets are submitted such submittals shall specifically indicate the item for which approval is requested. Identification of items shall be made electronically or in ink. Submittals showing only general information are not acceptable. All submittals shall be provided in English.

C. Working Drawings:

- 1. When used in the Contract Documents, the term "Working Drawings" shall be considered to mean the Contractor's plans for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, groundwater control systems, pedestrian bridges, temporary traffic and signage plans, forming and false work; and for such other work as may be required for construction but does not become an integral part of the Project.
- 2. Working drawings shall be prepared and sealed by a registered Professional Engineer, currently licensed to practice in the State of Georgia. The Contractor shall submit a letter of certification from the Professional Engineer stating that he/she has prepared the designs and has verified that the materials/ equipment have been installed as designed. No Working Drawings or calculations/computations relating

to the Working Drawings shall be submitted to the CCWA's Authorized Representative unless specifically requested in writing.

- D. Samples: Samples as defined above and as specified in individual Sections, include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols and units of work to be used by the CCWA's Authorized Representative or Owner for independent inspection and testing, as applicable to the Work.
- E. Pre-Construction Photos/Video Recording: Submit Pre-Construction Photos/Video Recording per Section 01320, Construction Photography.
- F. Test Reports: Submit test reports to CCWA's Authorized Representative and follow all requirements per Section 01410, Testing Laboratory Services.
- G. Record Drawings: Submit Record Drawings per Section 01720, Record Documents.

1.04 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall review Shop Drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with the specifications.
- B. Each Shop Drawing, sample and product data submitted by the Contractor shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the Contractor: "Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved Shop Drawings and all Contract requirements." Shop Drawings and product data sheets 11-inch by 17-inch and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. The cover sheet shall fully describe the packaged data and include a listing of all items within the package. Provide to the CCWA's Authorized Representative a copy of each submittal transmittal sheet for Shop Drawings, product data and samples at the time of submittal of said drawings, product data and samples to the CCWA and/or CCWA's Authorized Representative.

- C. Each submittal shall be transmitted by a standard transmittal sheet which shall fully describe the transmitted data and include a listing of all items within the submittal.
- D. The Contractor shall utilize a 10-character submittal identification numbering system in the following manner:
1. The first character shall be a D, S, P, M, or R, which represents Shop/Working Drawing and other Product Data (D), Sample (S), Preliminary Submittal (P), Operating/Maintenance Manual (M), or Request for Information (R).
 2. The next five digits shall be the applicable specification section Number.
 3. The next three digits shall be the numbers 001-999 to sequentially number each initial separate item or drawing submitted under each specific section number.
 4. The last character shall be a letter, A-Z, indicating the submission, or resubmission of the same Drawing, i.e., "A=1st submission, B=2nd submission, C=3d submission, etc. A typical submittal number would be as follows:
- D-03300-008-B
- D = Shop Drawing
- 03300 = Specification section for Concrete
- 008 = The eighth initial submittal under this specification section
- B = The second submission (first resubmission) of that particular Shop Drawing
- E. Notify the CCWA and/or CCWA's Authorized Representative in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
- F. Shop Drawings shall be submitted as a single complete package for any operating system and shall include all items of equipment and any mechanical units involved or necessary for the functioning of such system.

- G. The review and approval of Shop Drawings, samples or product data by the CCWA and/or CCWA's Authorized Representative shall not relieve the Contractor from his/her responsibility with regard to the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the CCWA's Authorized Representative will have no responsibility, therefore. Where errors, deviations, and/or omissions are discovered at a later date in any of the submittals, the CCWA's Authorized Representative's prior review of the submittals does not relieve the Contractor of the responsibility for correcting all errors, deviations, and/or omissions.
- H. No portion of the Work requiring a Shop Drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or onsite construction accomplished which does not conform to approved Shop Drawings and data shall be at the Contractor's risk. The CCWA will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- I. Project work, materials, fabrication, and installation shall conform with approved Shop Drawings, applicable samples, and product data.

1.05 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other Contractor.
- B. Each submittal, appropriately coded, will be returned within 30 calendar days following receipt of submittal by the CCWA and/or CCWA's Authorized Representative.
- C. Number of submittals required:
 - 1. Shop Drawings as defined in Paragraph 1.02.A: Five copies.
 - 2. Product Data as defined in Paragraph 1.02.B: Five copies.
 - 3. Samples: Submit the number stated in the respective specification sections.
- D. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The Project title and number.
 - 3. Contractor identification.
 - 4. The names of:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.

5. Identification of the product, with the specification section number, page and paragraph(s).
 6. Field dimensions, clearly identified as such.
 7. Relation to adjacent or critical features of the Work or materials.
 8. Applicable standards, such as ASTM or Federal Specification numbers.
 9. Contractor certification statement and identification of deviations from Contract Documents.
 10. Identification of revisions on resubmittals.
 11. An 8-inch by 3-inch blank space for Contractor and CCWA stamps.
- E. Facsimiles or copies of facsimiles will not be accepted as submittals.
- F. After review of shop and working drawings, CCWA and/or CCWA's Authorized Representative will return four copies of the submittal to the Contractor.

1.06 REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- A. The review of Shop Drawings, data, and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
1. As permitting any departure from the Contract requirements;
 2. As relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;
 3. As approving departures from details furnished by the CCWA and/or CCWA's Authorized Representative, except as otherwise provided herein.
- B. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- C. If the Shop Drawings, data or samples as submitted describe variations and show a departure from the Contract requirements which CCWA and/or CCWA's Authorized Representative finds to be in the interest of the CCWA and to be so minor as not to involve a change in Contract Price or time for performance, the CCWA and/or CCWA's Authorized Representative may return the reviewed drawings without noting an exception.

D. Submittals will be returned to the Contractor under one of the following codes:

1. Code 1 - “APPROVED” is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
2. Code 2 - “APPROVED AS NOTED”. This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
3. Code 3 - “APPROVED AS NOTED/CONFIRM”. This combination of codes is assigned when a confirmation of the notations and comments IS required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the CCWA’s Authorized Representative within 15 calendar days of the date of the CCWA’s Authorized Representative's transmittal requiring the confirmation.
4. Code 4 - “APPROVED AS NOTED/RESUBMIT”. This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the CCWA’s Authorized Representative within 15 calendar days of the date of the CCWA’s Authorized Representative's transmittal requiring the resubmittal.
5. Code 5 - “NOT APPROVED” is assigned when the submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised
6. to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
7. Code 6 - “COMMENTS ATTACHED” is assigned where there are comments attached to the returned submittal which provide additional data to aid the Contractor.
8. Code 7 - “RECEIPT ACKNOWLEDGED” is assigned to acknowledge receipt of a submittal that is not subject to the CCWA’s Authorized Representative’s review and approval, and is being filed for informational purposes only. This code is generally used in acknowledging receipt of means and methods of construction work plans, field conformance test reports, and health and safety plans.
9. Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data. Code 7 will be used as may be necessary.

- E. Resubmittals will be handled in the same manner as the initial submittals. On resubmittals, the Contractor shall direct specific attention, in writing on the letter of transmittal and on resubmitted Shop Drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the CCWA's Authorized Representative, on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any work done because of this type of revision that is not in accordance to the Contract Documents as may be required by the CCWA's Authorized Representative.
- F. Partial submittals will not be reviewed. The CCWA's Authorized Representative will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor, and will be considered "Not Approved" until resubmitted. The CCWA's Authorized Representative may, at his/her option, provide a list or mark the submittal directing the Contractor to the areas that are incomplete.
- G. Repetitive Review:
 - 1. Shop Drawings and other submittals will be reviewed no more than twice at the CCWA's expense. All subsequent reviews will be performed at times convenient to the CCWA's Authorized Representative and at the Contractor's expense, based on the CCWA and/or CCWA's Authorized Representatives then prevailing rates. The Contractor shall reimburse the CCWA for all such fees invoiced to the CCWA by the CCWA's Authorized Representative. Submittals are required until approved.
 - 2. Any need for more than one resubmission, or any other delay in obtaining CCWA's Authorized Representative's review of submittals, will not entitle Contractor to extension of the Contract Time.
- H. If the Contractor considers any correction indicated on the Shop Drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the CCWA's Authorized Representative at least 7 working days prior to release for manufacture.
- I. When the Shop Drawings have been completed to the satisfaction of the CCWA's Authorized Representative, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the CCWA's Authorized Representative.

- J. Request for Information (RFI) shall be submitted on a standard form provided by the CCWA's Authorized Representative. RFI's shall indicate their importance to the timely completion of the Project. RFI's will be processed as a Shop Drawing with 7 days allowed for review time.

1.07 DISTRIBUTION

- A. Distribute reproductions of approved Shop Drawings and copies of approved product data and samples, where required, to the Job Site file and elsewhere as directed by the CCWA's Authorized Representative. Number of copies shall be as directed by the CCWA's Authorized Representative but shall not exceed six.

1.08 SCHEDULES

- A. Provide all schedules required in Section 01310, Construction Progress Schedule

1.09 CONSTRUCTION PHOTOGRAPHS

- A. The General Contractor shall engage a competent photographer to take photographs at the locations and at such stages of the construction as directed by the CCWA's Authorized Representative. At a minimum, photos shall be taken prior to construction to document existing conditions, during construction to show monthly progress, and after construction is complete. Digital photos shall be submitted monthly in an electronic format.

1.10 PROFESSIONAL ENGINEER (P.E.) CERTIFICATION FORM

- A. If specifically required in other sections of these specifications, the Contractor shall submit an Engineering Certification issued by a Professional Engineer licensed in the State of Georgia for each item required, in the form attached to this Section, completely filled in and stamped.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

(P.E. CERTIFICATION FORM ATTACHED)

END OF SECTION

P.E. CERTIFICATION FORM

The undersigned hereby certifies that he/she is a Professional Engineer registered in the State of Georgia and that he/she has been employed by (Name of Contractor) _____

_____ to design _____

in accordance with Specification Section _____ for the (Name of Project) _____

_____. The undersigned further certifies that

he/she has performed the design of the _____

_____, that said design is in conformance with all applicable local, state and federal codes, rules, and regulations, and that his/her signature and P.E. stamp have been affixed to all calculations and drawings used in, and resulting from, the design.

The undersigned hereby agrees to make all original design drawings and calculations available to the

(Insert Name of County) _____

_____ or CCWA's representative within the immediate five working days following written request by the CCWA.

P.E. Name

Signature

Address

Contractor's Name

Signature

Title

Address

SECTION 01310 SCHEDULING THE WORK

PART 1 GENERAL

1.01 SCOPE

- A. This section describes the scheduling and progress reporting requirements of the Contract. The primary objectives of the requirements of this section are:
 - 1. To assist CCWA representative and Engineer in evaluating the progress of the Work.
 - 2. To provide for optimum coordination and sequencing of the Work by the CCWA's representative, Contractor, and any related work or services provided by other parties which may affect the Project.
 - 3. To permit the timely prediction or detection of events or occurrences that might affect the timely prosecution of the Work.

1.02 GENERAL SCHEDULING REQUIREMENTS

- A. The Work of this Contract shall be planned, scheduled, executed, and reported using the critical path method (CPM). Through the Mobilization/Project Management/Demobilization bid item, the Contractor shall purchase and use the following software program to develop its Schedule Submittal:
 - 1. Primavera Engineering and Construction, version to be specified by the Engineer.
- B. A comprehensive schedule shall be developed by the Contractor and submitted to the Engineer for review prior to commencement of said work. Upon acceptance by the Engineer, the schedule will be merged into the CCWA's representative's overall schedule.
- C. At a minimum, the schedule shall include the activities for each asset as deemed appropriate to clearly illustrate and document the Work. The activities listed below are repetitive for the same type of rehabilitation when organized on an asset basis and generally considered standard industry practice. This set of standard activities will be used to harmonize multiple rehabilitation Contracts by the CCWA representative and shall not be revised or in text or grouping without approval from the Engineer.

Planning and Administrative Activities by Contract Type:

Description	Contract Type
Bond & Insurance Submittal	ALL
Product Submittals	ALL
Permits	ALL
Right of Entry Acquisition	N/A
72 Hour Disruption Notice	N/A
Door Hanger Notification	N/A
Application for Payment Submission	ALL
Application for Payment Review	ALL
Project Record Submittals	ALL
Project Closeout Document Submittals	ALL

Construction Activities by Rehabilitation Type:

Description	Rehab Type
Pre-Construction Survey	ALL
Locate Existing Utilities	N/A
Install Access Road	ALL
Install/ Maintain/ Remove Traffic Control	ALL
Install/ Maintain/ Remove Bypass Pumping	ALL
Pre-CCTV Existing Pipeline	N/A
Rehabilitate Service Laterals	N/A
Precondition Existing Pipeline	N/A
Install Liner/ Reinstall Services	N/A
Install Launch Pit/ PB / Reinstall Services	N/A
Install New Pipeline/ Reinstall Services	N/A
Post CCTV Review	N/A
Post CCTV Submission	N/A
Manhole Rehabilitation	N/A
Test New Installation	ALL
Site Restoration	ALL
Pavement Replacement	ALL
Asphalt Pavement Milling & Topping	N/A

Milestones by Contract Type:

Description	Contract Type
Contract Execution	ALL
Notice to Proceed	ALL
Pre-construction Meeting	ALL
(" ") Public Information Meeting	ALL
Trial Test Methodology Acceptance	ALL
Culvert (" ") Substantial Completion	ALL
Culvert (" ") Final Completion	ALL
Contract Substantial Completion	ALL
Contract Final Completion	ALL

- D. The Schedule Submittal, as defined herein, shall represent the Contractor's commitment and intended plan for completion of the Work in compliance with the Contract completion date and interim milestone dates specified. The Schedule Submittal shall take into account all foreseeable activities to be accomplished by any separate consultants or the CCWA representative, and interface dates with utility companies, the CCWA representative's operations, and others. The Schedule Submittal shall anticipate all necessary manpower and resources to complete the Work within the dates set forth.
- E. Once reviewed and accepted by the Engineer, the Schedule Submittal will become the Schedule of Record.
- F. The Contractor is responsible for determining the sequence of activities, the time estimates of the detailed reconnaissance/investigative and rehabilitation activities, as well as the means, methods, techniques and procedures to be employed. The schedule shall clearly indicate the proposed sequence of work. The Schedule of Record shall represent the Contractor's best judgement of how it will execute the Work in compliance with the Contract requirements. The Contractor shall ensure that Schedule of Record is current and accurate and is properly and timely monitored, updated and revised as Project conditions and the Contract Documents may require.
- G. The CCWA representative will work with the Contractor to assign and schedule the Work in a logical and efficient manner. However, all items in this Contract shall be priced such that each item can be assigned independently or combined at the CCWA representative's sole discretion, in regard to both quantity and scope. There shall be no consideration of any claim for extra payment arising from a decision by the CCWA representative to assign potential work items under this Contract in any combination or in combination with another Contract utilizing alternate technologies.

1.03 SCHEDULE SUBMITTALS

- A. The Contractor shall submit the qualifications of the scheduler(s) proposed to be used on the Project immediately after NTP. The scheduler(s) is subject to the approval of the Engineer. The Contractor shall use the services of a scheduler(s) who has verifiable training and credentials in preparing and maintaining a computerized CPM Construction Schedule using Primavera software as specified herein. The qualifications of the scheduler(s) should be a minimum of 4 years' experience in Project scheduling for civil, structural, architectural, or related engineering disciplines. The scheduler(s) should have direct experience developing, maintaining, updating, modifying Project schedules utilizing Primavera products, ideally Primavera Engineering and Construction. The cost for providing a qualified scheduler(s) shall be included in the Project Control Tools bid item.

- B. Within 30 days from receipt of Notice to Proceed, a baseline/comprehensive schedule shall be submitted by the Contractor to the Engineer for approval. The Contractor shall submit the complete schedule in electronic format as directed by the Engineer. At a minimum, the schedule output shall include the following:
1. Activities with attributes or codes.
 2. Estimated activity durations in working days. (Not to exceed 15 working days for the construction activities.)
 3. All logic ties.
 4. The critical path activities differentiated from other activities.
 5. All activities for submittal of shop and working Drawings, videos, test results, procurement, fabrication, delivery, installation and testing of critical materials.
 6. Related activities shall be grouped on the network diagram.
 7. A time scale located at the top and/or bottom of the network diagram showing calendar days and months
 8. Earliest start date.
 9. Earliest finish date.
 10. Actual start date.
 11. Actual finish date.
 12. Latest start date.
 13. Latest finish date.
 14. Calendar Definition.
 15. Total float.
 16. All constraints.
 17. Lag – No lag is allowed in the baseline/ comprehensive schedule.
 18. Monetary value of activity (from Schedule of Values).
- C. The Contractor shall participate in a review and evaluation of the baseline schedule with the Engineer. Any revisions necessary as a result of this review shall be resubmitted to the Engineer within 10 calendar days after the conference. The mutually acceptable schedule shall then be used by the Contractor for planning, organizing and directing the work and for reporting progress. If the Contractor desires to make changes in its method of performing the Work, he shall notify the Engineer in writing stating the reason for the changes.
- D. The Contractor shall demonstrate competence in the use of CPM scheduling through the submission of a fully compliant CPM Construction Schedule with the initial CPM submission. In the event the Contractor fails to provide a baseline schedule in a timely manner or fails to demonstrate competence in the CPM scheduling, the Engineer may direct the Contractor to employ the services of a Scheduling Firm that can demonstrate competence. The Contractor shall comply with such directive at no additional cost to the CCWA representative.

- E. Each activity shall use the following format:

xxxx.yyyyyy

Where xxxx is the last four digits of the Contract number, and yyyyyy is for the Contractor's use according to a template provided by the Engineer at the pre-construction conference.

- F. Activities and milestones to appear on the Schedule Submittal shall include, but not be limited to, CCWA representative reviews that impact the Work, obtaining required permits, dewatering and dredging, Site work, paving, submittals, coordination requirements, and dates of Substantial and Final Completion.
- G. The Engineer shall have the right to require the Contractor to modify any portion of the Contractor's Schedule Submittal, or Recovery Schedule, as herein required, (including cost loading) with the Contractor bearing the expense thereof, which the Engineer reasonably determines to be:
1. Impractical or unreasonable.
 2. Based upon erroneous calculations or estimates.
 3. Required to ensure proper coordination by the Contractor of the Work of its subconsultants and with the work or services being provided by any separate consultants.
 4. Necessary to avoid undue interference with the CCWA operations.
 5. Necessary to ensure completion of the Work by the milestone and completion dates set forth in the Contract Documents.
 6. Required in order for the Contractor to comply with the requirements of this Section or any other requirements of the Contract Documents.
 7. Not in accordance with the Contractor's actual operations.
- H. The electronic version of the schedule shall be submitted on a CD, in a form and format acceptable to the Engineer, including all required submission information resident in the computer system and containing all of the files associated with the schedule.
- I. Each week, the Contractor will provide the Engineer with a detailed 2-week look-ahead schedule.

1.04 UPDATING OF THE SCHEDULE / PROGRESS REPORTS

- A. The Engineer shall review the Contractor's report of actual progress at each progress meeting. Prepared by the Contractor, said report shall set forth up-to-date and accurate progress. The Contractor in consultation with all principal subconsultants shall prepare said report. The Contractor will perform a complete schedule update on a monthly basis or at the discretion of the Engineer.
 - 1. The Contractor shall submit the updated schedule in electronic format as directed by the Engineer. The Contractor shall submit hard copies of the schedule output including, but not limited to:
 - a. 30-day Look-ahead Report including but not limited to planned activities within the next 30 days.
 - b. Milestones to be completed.
 - 2. The Contractor shall provide written explanation of all changes in activity durations, relationships, and constraints with the schedule output. Changes will require written approval by the Engineer.
- B. The Schedule Report of the Contractor shall show the activities, or portions of activities, completed during the reporting period, the actual start and finish dates for these activities, remaining duration and estimated completion dates for activities currently in progress.
- C. At the progress meeting a total review of the Project will take place including but not limited to, the following:
 - 1. Current update of the Schedule of Record in format as prescribed by Engineer.
 - 2. Anticipated detailed construction activities for the subsequent report period.
 - 3. Critical items pending.
 - 4. Contractor requested changes to the Schedule of Record.
- D. The Contractor shall submit a narrative with the progress report which shall include, but not be limited to, a narrative describing actual Work accomplished during the reporting period, a description of problem areas, current and anticipated delaying factors and their impact, explanations of corrective actions taken or planned, any proposed newly planned activities or changes in sequence, and proposed logic for a Recovery Schedule, if required, as further described herein.
- E. No invoice for payment shall be submitted and no payment whatsoever will be made to the Contractor until the Schedule of Record, and narrative reports as defined herein, are updated.

1.05 SCHEDULE REVISIONS

- A. Should the Contractor desire to or be otherwise required under the Contract Documents to make modifications or changes in its method of operation, its sequence of Work or the duration of the activities in the Schedule of Record, it shall do so in accordance with the requirements of this Specification Section and the Contract Documents. The approved Schedule of Record may only be revised by written approval of the Engineer as provided herein.
- B. The Contractor shall submit requests for revisions to the Schedule of Record to the Engineer using the Schedule Revision Form provided by the Engineer. The Contractor shall identify revisions and description of logic for rescheduling work and substantiate that the milestone and completion dates will be met as listed in the Contract Documents. Proposed revisions acceptable to the Engineer and CCWA representative will be approved in writing and incorporated into the Schedule of Record.
- C. Requests for revision will be accompanied by evidence acceptable to the Engineer that the Contractor's subcontractors are in agreement with the proposed revisions.
- D. If there are separate consultants on the Project, the approval of the separate consultants shall be obtained to make the proposed schedule revisions. If accepted by the Engineer and CCWA representative, the revisions shall be binding upon the Contractor and all separate consultants on the Project.
- E. The impact of all change orders to this Contract shall be included in the Project schedule.

1.06 RECOVERY SCHEDULE

- A. Should the updated Schedule of Record, at any time during the Contractor's performance, show that, in the sole opinion of the Engineer, the Contractor is behind schedule for any milestone or completion date for any location or category of work, the Contractor, at the request of the Engineer, shall prepare a Schedule Revision for the purpose of displaying recovery. The revision shall identify how the Contractor intends to reschedule its Work in order to regain compliance with the Schedule of Record within 30 calendar days.
- B. The Contractor shall prepare and submit to the Engineer a one month maximum duration Recovery Schedule, incorporating the best available information from subconsultants, subcontractors and others which will permit a return to the Schedule of Record at the earliest possible time. The Contractor shall prepare a Recovery Schedule to the same level of detail as the Schedule of Record. The Recovery Schedule shall be prepared in coordination with other separate consultants on the Project.

- C. Within 2 calendar days after submission of the Recovery Schedule to the Engineer, the Contractor shall participate in a conference with the Engineer to review and evaluate the Recovery Schedule. Within 2 calendar days of the conference, the Contractor shall submit the revisions necessitated by the review for the Engineer's review and acceptance. The Contractor shall use the accepted Recovery Schedule as its plan for returning to the Schedule of Record.
- D. The Contractor shall confer continuously with the Engineer to assess the effectiveness of the Recovery Schedule. As a result of these conferences, the Engineer will direct the Contractor as follows:
 - 1. If the Engineer determines the Contractor continues behind schedule, the Engineer will direct the Contractor to prepare a Schedule Revision and comply with all of the requirements of a Schedule Revision as stated herein and the other requirements of the Contract Documents; provided, however, that nothing herein shall limit in any way the rights and remedies of the CCWA representative and Engineer as provided elsewhere in the Contract Documents; or
 - 2. If the Engineer determines the Contractor has successfully complied with provisions of the Recovery Schedule, the Engineer will direct the Contractor to return to the use of the approved Schedule of Record.

1.07 FLOAT TIME

- A. Float or slack time shown on the currently approved Schedule of Record is not for exclusive use or benefit of either the CCWA representative or the Contractor and is available for use by either of them according to whichever first needs the benefit of the float to facilitate the effective use of available resources and to minimize the impact of Project problems, delays, impact, acceleration or changes in the Work which may arise during performance. The Contractor specifically agrees that float time may be used by the CCWA representative in conjunction with their review activities or to resolve Project problems. The Contractor agrees that there will be no basis for any modification of the milestone or completion dates or an extension of the Contract Time, or a claim for additional compensation as a result of any Project problem, delay, impact, acceleration, or change order which only results in the loss of available float on the currently approved Schedule of Record. Unless otherwise stated herein, float as referenced in these documents, is total float. Total float is the period of time measured by the number of working days each non- critical path activity may be delayed before it and its succeeding activities become part of the critical path. If a non-critical path activity is delayed beyond its float period, that activity then becomes part of the critical path and controls the end date of the Project. Thus, the delay of the non-critical path activity beyond its float period will cause delay to the Project itself.

- B. Float time shown on the Schedule of Record shall not be used arbitrarily by the Contractor in a manner which, in the opinion of the Engineer, unnecessarily delays separate subcontractors from proceeding with their work in a way which is detrimental to the interests of the CCWA representative. Liability for delay of the Project completion date rests with the party actually causing delay to the Project completion date. For example, if Party A uses some, but not all of the float time and Party B later uses the remainder of the float time as well as additional time beyond the float time, Party B shall be liable for the costs associated with the time that represents a delay to the Project's completion date. Party A would not be responsible for any costs since it did not consume all of the float time and additional float time remained, therefore, the Project's completion date was unaffected.

END OF SECTION

SECTION 01320
CONSTRUCTION PHOTOGRAPHY

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall furnish all labor, equipment and materials required to provide the CCWA Representative with digital construction photography of the Project as specified herein.
- B. The Contractor shall provide for professional videos and photographs to be made prior to and after construction to provide documentation of conditions and aid in any damage claims assessment. All conditions which might later be subject to disagreement shall be shown in sufficient detail to provide a basis for decisions.
- C. Video and photo files shall become the property of the CCWA Representative and none of the video or photographs herein shall be published without express permission of the CCWA Representative.

1.02 PRE AND POST CONSTRUCTION PHOTOGRAPHY

- A. Prior to the beginning of any work, the Contractor shall provide for professional videos and photographs of the work area to record existing conditions.
 - 1. The Contractor shall furnish a complete videotaped record of the Project Site. The video tape shall include the date of taping and shall contain audio commentary to emphasize existing conditions.
 - 2. The Project Site shall be videotaped prior to beginning of construction. The Contractor shall furnish three sets of compact disks containing the videotaped data to the CCWA Representative.
 - 3. The Project Site shall also be videotaped at the completion of construction when directed by the CCWA Representative. The video tape shall show the same areas and features as in the preconstruction videos. The Contractor shall furnish three sets of compact discs containing the videotaped data to the CCWA Representative.
- B. The pre-construction videos shall be submitted to the CCWA Representative within 15 calendar days after receipt of construction Notice to Proceed by the Contractor. Post construction videos and photographs shall be provided prior to final acceptance of the Project.

1.03 PROGRESS PHOTOGRAPHS

- A. Photographs shall be taken to record the general progress of the Project during each pay period. Photographs shall be representative of the primary work being performed at the time.
- B. All photographs shall be taken with a digital camera. The photographs shall include the date and time marking in the digital record. All photographs shall be labeled on a tab connected to the bottom of the photo to indicate date and description of work shown.

PART 2 PRODUCTS

2.01 PHOTOGRAPHS

- A. Photography and video files shall be provided in CD-ROM format.
- B. Photographs shall also be provided in hard copy format. The photographs shall include the date and time marking on the photograph. All photographs shall be labeled on a tab connected to the bottom of the photograph. Tab label shall contain:
 - 1. Project name.
 - 2. Orientation of view.
 - 3. Description of work shown.
- C. All compact disks (CDs) furnished under this section shall be suitable for viewing with Windows Media Player.

2.02 AERIAL PHOTOS

- A. For projects longer than a month in duration, Contractor shall utilize a drone to supply aerial photos and videos per paragraph 2.01 above.

PART 3 EXECUTION

3.01 SUBMITTALS

- A. No construction shall start until pre-construction photography has been completed and accepted by the CCWA Representative.
- B. A minimum of ten photographs shall be submitted with each application for payment. The view selection will be as determined by the CCWA Representative. Photographs shall be submitted in electronic format acceptable to the CCWA Representative.

- C. Construction photographs shall be submitted with each payment request. Failure to include photographs may be cause for rejection of the payment request.
- D. The Contractor shall be responsible for all discrepancies not documented in the pre-construction videos and photography.

END OF SECTION

SECTION 01350
PROJECT DOCUMENT TRACKING AND CONTROL SYSTEMS

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall provide electronic copies of all contract documentation in coordination with the overall Project Schedule established by these specifications and the Contractor.
- B. The Contractor shall utilize a high capacity scanner capable of scanning 11 by 17 documents, double sided for the entire duration of the Project. All documents must be scanned into a pdf file and transmitted to the Engineer.
- C. The Contractor shall transmit Project documents, including, but not limited to the following:
 - 1. Company Directory: Addresses, Phone Numbers, and Personnel Contacts.
 - 2. Drawings Log: Current Drawing revision log.
 - 3. Submittals (Integrated with Project Schedule through Activity codes).
 - 4. Transmittals.
 - 5. Requests for Information and Answers (RFIs).
 - 6. Change Documents, Including:
 - a. Requests for Proposal (RFPs).
 - b. Work Authorizations (WAs).
 - c. Change Order Requests (CORs).
 - d. Change Orders (CO).
 - e. Design Clarifications (DC).
 - 7. Daily Reports (Daily Diaries).
 - 8. Field Decisions & Clarification Memos.
 - 9. Notice of Non-Compliance.
 - 10. Construction Issue Memos.
 - 11. Punchlists.
 - 12. Meeting Minutes and Agendas.
 - 13. Correspondence.
 - 14. Work Plans.
 - 15. Start-up Plans.
 - 16. Equipment Operation and Maintenance Training.
 - 17. Spare Parts lists.

- D. The Contractor shall provide a highly trained and experienced construction project controls person knowledgeable in construction work sequencing, productivity, scheduling and invoicing. This person, along with the Contractor's management team, shall work closely with the CCWA representative to deliver the documents outlined in this section.
- E. The Contractor shall meet with the CCWA representative within 15 days after the Contract is awarded to discuss access requirements and the Contractor's plan to execute the document control functions herein.

1.02 COMPANY DIRECTORY

- A. The Contractor and the CCWA Representative will monitor and manage the Company Directory. The directory must include Company name, Company abbreviation, contact names, address, phone numbers and e-mail addresses.

1.03 DRAWING LOG

- A. The CCWA Representative will maintain a log of initial "issued for construction" drawings in an electronic format. Information shall include drawing number, title and revision number. In addition to logging the initial project drawing list, the CCWA Representative will maintain an electronic log of all subsequent revisions to these drawings and any sketches resulting from clarification memos, RFIs, field orders and Change Orders. It is the Contractor's responsibility to utilize the latest drawings and sketches in the performance of the work.

1.04 SUBMITTALS/SHOP DRAWINGS

- A. Requirements: This section specifies supplemental requirements to General Conditions related to the processing of submittals and Shop Drawings.
- B. Submittals and Product Data: A list of all required submittals will issued electronically by the Contractor. Submittals shall be incorporated into packages, with the submittal numbering format to be provided by the COA's engineer. The Contractor will log and track all submittals electronically. Each review cycle shall be entered electronically. The Contractor shall identify as activities in the CPM schedule, to include all data submittals, as well as those involving complex reviews and long lead deliveries, and all procurement items required for construction activities. Submittal schedule information shall be updated monthly with the Contractor's updated project CPM schedule.
- C. Guarantees/Warranties: A list of all required Guarantee/Warranty submittals will be provided electronically by the Contractor. These submittals shall be identified as individual submittals within the submittal packages with numbering as specified above.

- D. Work Plans, Start-up Plans, O&M Submittals and Spare Parts: All testing, Start-up and O&M submittals will be provided electronically by the Contractor. These submittals shall be identified as individual submittals within the submittal packages identified with numbering as specified above.
- E. Submittal Procedures: The Contractor shall prepare all submittal packages utilizing the submittal numbering system, description and packaging conventions described above. Submittals prepared by the Contractor, which fail to follow the conventions described above, will be returned “amend and resubmit”. Should the Contractor determine that a submittal is required and is not covered by the listing, the contractor, consultation with the CCWA representative to determine the submittal number, description and packaging will be required.

1.05 CORRESPONDENCE

- A. The CCWA representative shall monitor and manage the correspondence, Non-Compliance Notices, Field Decisions and Clarification Memos and Construction Issue Memo logs. The Contractor is responsible for providing electronic versions of any Project correspondence, and forwarding the correspondence to the CCWA representative.

1.06 TRANSMITTAL LOG

- A. The Contractor and the CCWA representative will monitor and manage the transmittal log. All Project transmittals shall be created electronically, sequentially numbered and transmitted electronically as they are created. The Contractor is responsible create transmittals for items transmitted to the Owner, Engineer, Resident Inspection Staff and other Contractors.

1.07 REQUESTS FOR INFORMATION AND ANSWERS

- A. The Contractor shall be responsible for generating RFIs electronically. The Contractor shall notify the CCWA representative when an RFI is submitted. The CCWA representative will monitor and manage the RFI log. The CCWA representative will prepare an Answer document in response to each RFI and forward them to the Contractor. The Contractor will track “Ball in Court” for all RFIs and Answers, as well as date of original generation and response date. In addition the RFIs will reference the relative specification section and Drawings. The RFI will identify the date of the request and the originator, responsible party for a response and the date of the response.

1.08 CHANGE DOCUMENTS

- A. Change documents include Request for Proposals (RFPs), Work Authorization Requests (WARs), Work Authorizations (WAs), Change Orders Requests (CORs), Design Clarifications (DCs), and Change Orders (COs). All change documents will be monitored and managed by the CCWA representative electronically. The Contractor will track “Ball in Court” status of all change documents.

1.09 PUNCHLISTS

- A. The CCWA representative will monitor and manage Punchlists and will create Punchlists that will be accessible to the contractor electronically. The Contractor shall address the punchlist items that have been assigned to the Contractor. Once accepted as complete, the CCWA representative will access the punchlist and close it out.

1.10 MEETING MINUTES AND AGENDA

- A. The CCWA representative shall monitor and manage the meeting minute process. The CCWA representative will forward meeting minutes to the Contractor electronically. The CCWA representative will log the meeting minute items electronically within 3 days of the meeting date.

1.11 PROGRESS PAYMENTS /REQUISITIONS FOR PAYMENT

- A. Required information within the Pay Application shall be coordinated with the CCWA representative’s Project Manager. Failure of a Contractor to maintain project record documents, maintain “As-Built” record documents, and maintain current and properly prepared daily reports or to submit the project schedule will be just cause for withholding of the monthly or final payment.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01400
QUALITY ASSURANCE/QUALITY CONTROL

PART 1 GENERAL

1.01 SCOPE

- A. This section includes requirements for the implementation of the Contractor's quality assurance and quality control program.

1.02 SITE INVESTIGATION AND CONTROL

- A. Contractor shall check and verify all dimensions and conditions in the field continuously during construction. Contractor shall be solely responsible for any inaccuracies built into the Work due to Contractor's and subcontractor's failure to comply with this requirement.
- B. Contractor shall inspect related and appurtenant Work and report in writing to the CCWA any conditions that will prevent proper completion of the Work. Failure to report any such conditions shall constitute acceptance of all Site conditions, and any required removal, repair, or replacement caused by unsuitable conditions shall be performed by the Contractor solely and entirely at Contractor's expense.

1.03 INSPECTION OF THE WORK

- A. All work performed by the Contractor and subcontractors shall be inspected by the Contractor and non-conforming Work and any safety hazards in the work area shall be noted and promptly corrected. The Contractor is responsible for the Work to be performed safely and in conformance to the Contract.
- B. The Work shall be subject to inspection by representatives of the CCWA acting on behalf of the CCWA to ensure strict compliance with the requirements of the Contract Documents. Such inspection may include mill, plant, shop, or field inspection, as required. The CCWA or any inspector(s) shall be permitted access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.

- C. The presence of the CCWA, or any inspector(s), however, shall not relieve the Contractor of the responsibility for the proper execution of the Work in accordance with all requirements of the Contract. Compliance is the responsibility of the Contractor. No act or omission on the part of the CCWA, or any inspector(s) shall be construed as relieving Contractor of this responsibility. Inspection of Work later determined to be non-conforming shall not be cause or excuse for acceptance of the non-conforming Work. The CCWA may accept non-conforming Work when adequate compensation is offered and it is in the CCWA's best interest as determined by the CCWA.
- D. All materials and articles furnished by the Contractor or subcontractors shall be subject to rigid documented inspection, by qualified personnel, and no materials or articles shall be used in the Work until they have been inspected and accepted by the Contractor's Quality Control representative and the CCWA or other designated representative. No Work shall be backfilled, buried, cast in concrete, covered, or otherwise hidden until it has been inspected. Any Work covered in the absence of inspection shall be subject to uncovering. Where uninspected Work cannot be easily uncovered, such as in concrete cast over reinforcing steel, all such Work shall be subject to demolition, removal, and reconstruction under proper inspection at the Contractor's expense.
- E. All materials, equipment and/or articles furnished to the Contractor by the CCWA shall be subject to rigid inspection by the Contractor's Quality Control representative before being used or placed by the Contractor. The Contractor shall inform the CCWA, in writing, of the results of said inspections within one working day after completion of inspection. In the event the Contractor believes any material or articles provided by the CCWA to be of insufficient quality for use in the Work, the Contractor shall immediately notify the CCWA.

1.04 TIME OF INSPECTION AND TESTS

- A. Samples and test specimens required under these specifications shall be furnished and prepared for testing in ample time for the completion of the necessary tests and analyses before said articles or materials are to be used. The Contractor shall furnish and prepare all required test specimens at Contractor's own expense.
- B. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover any Work under this Contract, the CCWA shall be notified not less than three work days in advance to request inspection before beginning any such Work of covering. Failure of the Contractor to notify the CCWA at least 3 work days in advance of any such inspections shall be reasonable cause for the CCWA to order a sufficient delay in the Contractor's schedule to allow time for such inspection. The costs of any remedial or corrective work required, and all costs of such delays, including its impact on other portions of the Work, shall be borne by the Contractor.

1.05 SAMPLING AND TESTING

- A. The Contractor shall retain and pay for an independent materials testing agency approved by the CCWA. This independent testing agency will develop and submit a testing plan for quality assurance on each type of work activity. The testing agency will document the processes and procedures utilized to verify and maintain quality work. When not otherwise specified, all sampling and testing shall be in accordance with the methods prescribed in the most current standards, as applicable to the class and nature of the article or materials considered. However, the CCWA reserves the right to use any generally accepted system of inspection which, in the opinion of the CCWA, will ensure the CCWA that the quality of the workmanship is in full accord with the Contract.
- B. The CCWA reserves the right to abbreviate, modify the frequency of or waive tests or quality assurance measures, but waiver of any specific testing or other quality assurance measure, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bond to assure execution of any necessary corrective or remedial work, shall not be construed as a waiver of any technical or qualitative requirements of the Contract.
- C. Notwithstanding the existence of such waiver, the CCWA shall reserve the right to make independent investigations and tests as specified in the following paragraph and failure of any portion of the Work to meet any of the qualitative requirements of the Contract, shall be reasonable cause for the CCWA to require the removal or correction and reconstruction of any such Work.
- D. In addition to any other inspection or quality assurance provisions that may be specified, the CCWA shall have the right to independently select, test, and analyze, at the expense of the CCWA, additional test specimens of any or all of the materials to be used. Results of such tests and analyses shall be considered along with the tests or analyses made by the Contractor to determine compliance with the applicable specifications for the materials so tested or analyzed provided that wherever any portion of the Work is discovered, as a result of such independent testing or investigation by the CCWA, which fails to meet the requirements of the Contract, all costs of such independent inspection and investigation and all costs of removal, correction, reconstruction, or repair of any such Work shall be borne by the Contractor.

1.06 CONTRACTOR'S QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

- A. The Contractor shall establish and execute a Quality Assurance/Quality Control (QA/QC) program for the services that are being procured from the Contractor. The program shall provide the Contractor with adequate measures for verification and conformance to defined requirements by the Contractor's personnel and subcontractors (including fabricators and suppliers). This program shall be described in a Plan responsive to this section. It shall utilize the services of an independent testing agency/company that is industry certified to provide quality assurance and compliance with the standards specified.
- B. The Contractor shall furnish the CCWA a project-specific QA/QC Plan. The Plan shall contain a comprehensive account of Contractor's QA/QC procedures as applicable to this job. The Contractor shall furnish for review by the CCWA, no later than 14 days after receipt of notice to proceed, the QA/QC plan proposed to be implemented. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. Construction will be permitted to begin only after acceptance of the QA/QC Plan. The detailed requirements for this Plan are delineated in the following paragraphs. No payments will be made to the Contractor until the QA/QC Plan is fully accepted by the CCWA.
- C. The QA/QC Plan shall describe and define the personnel requirements described herein. The Contractor shall employ a full time onsite QA/QC Manager to manage, address and resolve all quality control issues.
 - 1. The QA/QC Manager shall be as identified by the Contractor and approved by the CCWA. The QA/QC Manager shall have a minimum of 5 years of construction experience in pipe line installation. The QA/QC Manager shall be onsite at all times while work is being performed by the Contractor, to remedy and demonstrate that work is being performed properly and to make multiple observations of all Work in progress. This individual shall be dedicated solely to QA/QC activities and shall have no supervisory or managerial responsibility over the work force. The QA/QC Manager shall not be assigned any other duties or roles by the Contractor.
 - 2. The Contractor shall provide additional personnel who are assigned to assist the QA/QC Manager as required to fulfill the requirements of the QA/QC Plan. The Contractor shall provide a copy of the letter to the QA/QC Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the QA/QC Manager, including authority to stop work which is not in compliance with the Contract.

The QA/QC Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the CCWA.

- D. The Contractor's QA/QC program shall ensure the achievement of adequate quality throughout all applicable areas of the Project. A customized QA/QC Plan shall be developed that discusses each type of work that the Contractor is responsible for within the Project. The QA/QC Plan shall describe the program and include procedures, work instructions and records and a description of the quality control organization.
 - 1. The description of the quality control organization shall include a chart showing lines of authority staffing plan and acknowledgment that the QA/QC staff shall implement the system for all aspects of the work specified. The staffing plan shall identify the name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a QA/QC function including the QA/QC Manager.
 - 2. In addition, the Plan shall describe methods relating to areas that require special testing and procedures as noted in the specifications.
- E. Identification and Control of Items and Materials: Procedures to ensure that items or materials that have been accepted at the Site are properly used and installed shall be described in the QA/QC Plan.
- F. The procedures shall provide for proper identification and storage, and prevent the use of incorrect or defective materials.
- G. Inspection and Tests: The Contractor shall have written procedures defining a program for control of inspections performed and these procedures shall be described in the QA/QC Plan.
 - 1. Inspections and tests shall be performed and documented by qualified individuals. At a minimum, "qualified" shall mean having performed similar QA/QC functions on similar type projects for a minimum of 5 years and possession of industry standards certification and license. Records of personnel experience, training and qualifications shall be submitted to the CCWA for review and approval.
 - 2. The Contractor shall maintain and provide to the CCWA, within two working days of completion of each inspection and test, adequate records of all such inspections and tests. Inspection and test results shall be documented and evaluated to ensure that requirements have been satisfied.

3. Procedures shall include:
 - a. Specific instructions defining procedures for observing all Work in process and comparing this Work with the Contract requirements (organized by specification section).
 - b. Maintaining and providing daily QA/QC inspection reports. Such reports shall, at a minimum, include the following:
 - 1) Dated list of Item(s) inspected.
 - 2) Location of the test sample(s).
 - 3) Logs, detailed locational drawings and confirmation reports.
 - 4) Quality characteristics in compliance.
 - 5) Quality characteristics not in compliance.
 - 6) Corrective/remedial actions taken.
 - 7) Statement of certification.
 - 8) QC Manager's signature.
 - c. Specific instructions for recording all observations and requirements for demonstrating through the reports that the Work observed was in compliance or a deficiency was noted and action to be taken.
 - d. Procedures to preclude the covering of deficient or rejected Work.
 - e. Procedures for halting or rejecting Work.
 - f. Procedures for resolution of differences between the QA/QC representative(s) and the production representative(s).
 - g. Method of documenting QA/QC process and results including:
 - 1) Automatic exception reporting.
 - 2) Resolution tracking.
 - 3) Quality Confirmation Test reports.
 - 4) Sample retention index and storage.
4. The QA/QC Plan shall identify all contractual hold/inspection points as well as any Contractor imposed hold/inspections points.
5. The QA/QC Plan shall include procedures to provide verification and control of all testing provided by the Contractor including:
 - a. Individual test records containing the following information:
 - 1) Item tested – item number and description.
 - 2) Test results.
 - 3) Test designation.
 - 4) Test work sheet including location sample was obtained.
 - 5) Acceptance or rejection.
 - 6) Date sample was obtained.
 - 7) Retest information, if applicable.
 - 8) Control requirements.
 - 9) Tester signature.
 - 10) Testing QC staff initials.

- b. Maintaining and providing to the CCWA daily testing records. Such records shall, at a minimum, contain the following:
 - 1) Dated list of Item(s) inspected.
 - 2) Location of the test sample(s).
 - 3) Logs, detailed location drawings and confirmation reports.
 - 4) Quality characteristics in compliance.
 - 5) Quality characteristics not in compliance.
 - 6) Corrective/remedial actions taken.
 - 7) Statement of certification.
 - c. QC Manager's signature providing for location maps/drawings (i.e. lift drawings, laying schedules, etc.) for all tests performed or location of Work covered by the tests.
 - d. Maintaining copies of all test results.
 - e. Ensuring CCWA receives independent copy of all tests.
 - f. Ensuring testing lab(s) are functioning independently and in accordance with the specifications.
 - g. Ensuring re-tests are properly taken and documented.
- H. Control of Measuring and Test Equipment: Measuring and/or testing instruments shall be adequately maintained, calibrated, certified and adjusted to maintain accuracy within prescribed limits. Calibration shall be performed at specified periods against valid standards traceable to nationally recognized standards and documented.
- I. Supplier Quality Assurance: The QA/QC Plan shall include procedures to ensure that procured products and services conform to the requirements of the Specifications. Requirements of these procedures shall be applied, as appropriate, to subcontractors and suppliers. QA/QC inspections and certifications shall not be deferred to the Contractor's subcontractors or suppliers.
- J. Deficient, Defective and Non-conforming Work and Corrective Action:
 - 1. The QA/QC Plan shall include procedures for handling of deficiencies and non-conformances. Deficiencies and non-conformances are defined as documentation, drawings, material, and equipment or Work not conforming to the specified requirements or procedures. The procedures shall prevent non-conformances by identification, documentation, evaluation, separation, disposition and corrective action to prevent recurrence. Conditions having adverse effects on quality shall be promptly identified and reported to the senior level management. The cause of conditions adverse to quality shall be determined and documented and measures implemented to prevent recurrence. In addition, at a minimum, this procedure shall address:
 - a. Personnel responsible for identifying deficient and non-complying items within the work.

- b. How and by whom deficient and non-compliant items are documented “in the field”.
- c. The personnel and process utilized for logging deficient and non-compliant work at the end of each day onto a Deficiency Log.
- d. Tracking processes and tracking documentation for Deficient and Non- Compliant items.
- e. Personnel responsible for achieving resolution of outstanding deficiencies.
- f. Once resolved, how are the resolutions documented and by whom.

K. Special Processes And Personnel Qualifications:

- 1. The QA/QC Plan shall include detailed procedures for the performance and control of special process (e.g. welding, soldering, heat treating, cleaning, plating, and nondestructive examination).
- 2. Personnel performing special process tasks shall have the experience, training and certifications commensurate with the scope, complexity, or nature of the activity. They shall be approved by the CCWA before the start of Work on the Project.

L. Audits:

- 1. The Contractor’s QA/QC program shall provide for documented audits to verify that QA/QC procedures are being fully implemented by the Contractor as well as its subcontractors. Audit records shall be made available to the CCWA upon request.
- 2. The Contractor shall provide to the CCWA, a quarterly report indicating any outstanding and unresolved exceptions to the QA/QC program or Contract Documents. The report will include documentation on any standards modifications, corrections, failed tests and a review of field procedures and checks and balances effectiveness.

M. Documented Control/Quality Records:

- 1. The Contractor shall establish methods for control of Contract that describe how documents are received and distributed to assure the correct issue of the document being used. The methods shall also describe how as-built data are documented and furnished to the CCWA.
- 2. The Contractor shall maintain evidence of activities affecting quality, including operating logs, records of inspections and tests, audit reports, material analyses, personnel qualification and certification records, procedures, and document review records.
- 3. Quality records shall be maintained in a manner that provides for timely retrieval, and traceability. Quality records shall be protected from deterioration, damage, and destruction. The Contractor shall maintain an automated exceptions list of any non- conforming or defective or substandard work.

4. The Contractor shall provide a list with specific records as specified in the Contract Documents which will be furnished to the CCWA at the completion of activities and in conjunction with logs and location drawings.
- N. Acceptance of QA/QC Plan: The CCWA's review and acceptance of the Contractor's QA/QC Plan shall not relieve the Contractor from any of its obligations for the performance of the Work. The Contractor's QA/QC staffing is subject to the CCWA's review and continued acceptance. The CCWA, at its sole option, without cause, may direct the Contractor to remove and replace the QA/QC representative. No Work covered by the QA/QC Plan shall start until the CCWA's acceptance of Contractor's QA/QC plan has been obtained.
- O. The CCWA may perform independent quality assurance audits to verify that actions specified in Contractor's QA/QC Plan have been implemented. No CCWA audit finding or report shall in any way relieve Contractor from any requirements of this Contract.

1.07 TESTING SERVICES

- A. All tests which require the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing firm acceptable to CCWA. The testing firm's laboratory shall be staffed with experienced technicians, properly equipped and fully qualified to perform the tests in accordance with the specified standards. All standard quality assurance testing and installation verification testing will be at the expense of the Contractor.
- B. Testing, when required, will be in accordance with all pertinent codes and regulations and with procedures and requirements of the American Society for Testing and Materials (ASTM).
- C. The CCWA shall have the right to inspect work performed by the independent testing laboratory both at the Project and at the laboratory. This shall include inspection of the manual, equipment calibrations, and proficiency sample performance).
- D. Testing services provided by the CCWA, if any, are for the sole benefit of the CCWA; however, test results shall be available to the Contractor. Testing necessary to satisfy Contractor's internal quality control procedures shall be the sole responsibility of Contractor.

E. Testing Services Provided by the Contractor:

1. Unless otherwise specified, and in conjunction with, all other specified testing requirements, the Contractor shall provide the following testing services, and submit a detailed testing plan for each along with proposed forms for CCWA's review.
2. Moisture-density and relative density tests on embankment, fill, and backfill materials.
3. In-place field density test on embankments, fills and backfill.
4. QC testing of all precast and/or pre-stressed concrete.
5. All other tests and engineering data required for the CCWA's review of materials and equipment proposed to be used in the Work.
6. In addition, the following QC tests shall be performed by the Contractor:
 - a. Holiday testing of pipeline and all other coatings systems applied to surfaces as required by the CCWA.
 - b. Slumps, air bucket tests, compression tests and other confirmation tests.
 - c. Air testing of field-welded joints for steel pipe or pipe cylinders and fabricated specials.
 - d. All testing and inspection of welding work including, but not limited to, welding procedure qualifications, welder operator qualifications, all work performed by the certified welding inspector, all appropriate nondestructive testing of welds and all repair and retest of weld defects.
7. Testing, including sampling, shall be performed by the Contractor's testing firm's laboratory personnel, in the manner and frequency indicated in the specifications. The CCWA shall have the right to stipulate the location of the confirmation tests. The Contractor shall provide preliminary representative samples of materials to be tested, to the testing firm's laboratory, in required quantities.
8. The testing firm's laboratory shall perform all laboratory tests within a reasonable time consistent with the specified standards and will furnish a written report of each test.
9. Where such inspection and testing are to be conducted by an independent laboratory agency, the sample or samples shall be selected by such laboratory or agency or the CCWA and shipped to the laboratory by the Contractor at Contractor's expense.
10. Notify laboratory sufficiently in advance of operation to allow for the assignment of personnel and schedules of tests.

F. Transmittal of Test Reports:

1. Written reports of tests and engineering data furnished by Contractor for CCWA's review of materials and equipment proposed to be used in the Work shall be submitted as specified for Shop Drawings. Final transmittal of all Project testing records will be required as a final close out submittal for the release of retainage.
2. Promptly process and distribute all required copies of test reports and related instructions to insure all necessary retesting or replacement of materials with the least possible delay in progress of the Work.

END OF SECTION

SECTION 01410
TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 SCOPE

- A. This section includes testing which the CCWA may require, beyond that testing required of the manufacturer, to determine if materials provided for the Project meet the requirements of these Specifications.
- B. This section also includes all testing required by the CCWA to verify if work performed by the Contractor is in accordance with the requirements of these Specifications, i.e., concrete strength and slump testing, soil compaction, etc.
- C. This section does not include testing required in various sections of these Specifications to be performed by the manufacturer, i.e., testing of pipe. Where no testing requirements are described in various sections of these specifications, but the CCWA decides that testing is required to demonstrate compliance with material or performance standards, the CCWA may require testing to be performed under current pertinent standards for testing.
- D. An independent testing laboratory shall be selected by the Contractor to complete the testing. The laboratory must be approved in writing by the CCWA before any testing services are performed.
- E. The Contractor shall pay directly for the services of the independent testing laboratory for all testing required under this Contract.
- F. Employment of the testing laboratory shall in no way relieve the Contractor of Contractor's obligation to perform work meeting the requirements of the Contract.
- G. Testing laboratory services will be required for, but not be limited to:
 - 1. Cement.
 - 2. Aggregate.
 - 3. Concrete.
 - 4. Steel and Metals.
 - 5. Welding.
 - 6. Backfill and Compaction.
 - 7. Bituminous Pavement.

1.02 LABORATORY DUTIES

- A. Cooperate with the CCWA and Contractor.

- B. Provide qualified personnel promptly on notice.
- C. Perform specified inspections, sampling and testing of materials.
 - 1. Comply with specified standards, ASTM, other recognized authorities, and as specified.
 - 2. Ascertain compliance with requirements of the Contract Documents.
- D. Promptly notify the CCWA and Contractor of irregularity or deficiency of work which are observed during performance of services.
- E. Promptly submit copies of report of inspections to the CCWA with the following information included:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name and address.
 - 4. Name and signature of inspector.
 - 5. Date of inspection or sampling.
 - 6. Record of temperature and weather.
 - 7. Date of test.
 - 8. Identification of product and Specification section.
 - 9. Location of sample or test in the Project.
 - 10. Type of inspection or test.
 - 11. Results of test and observations regarding compliance with the Contract Documents.
 - 12. Interpretation of test results, when requested by the Contractor.
- F. Perform additional services as required.
- G. The laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of the Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

1.03 CONTRACTOR RESPONSIBILITIES

- A. Cooperate with laboratory personnel; provide access to Work and/or manufacturer's requirements.
- B. Provide to the laboratory, representative samples, in required quantities, of materials to be tested.
- C. Furnish copies of mill test reports.

- D. Furnish required labor and facilities to:
 - 1. Provide access to Work to be tested.
 - 2. Obtain and handle samples at the Site.
 - 3. Facilitate inspections and tests.
 - 4. Build or furnish a holding box for concrete cylinders or other samples as required by the laboratory.
- E. Notify the laboratory sufficiently in advance of operation to allow for the assignment of personnel and schedules of tests.
- F. Laboratory Tests: Where such inspection and testing are to be conducted by an independent laboratory agency, the sample(s) shall be selected by such laboratory or agency and shipped to the laboratory by the Contractor at Contractor's expense.
- G. Copies of all correspondence between the Contractor and testing agencies shall be provided to the CCWA.

1.04 QUALITY ASSURANCE

- A. Testing shall be in accordance with all pertinent codes and regulations and with procedures and requirements of the American Society for Testing and Materials (ASTM).

1.05 PRODUCT HANDLING

- A. Promptly process and distribute all required copies of test reports and related instructions to insure all necessary retesting or replacement of materials with the least possible delay in the progress of the Work.

1.06 FURNISHING MATERIALS

- A. The Contractor shall be responsible for furnishing all materials necessary for testing.

1.07 CODE COMPLIANCE TESTING

- A. Inspections and tests required by codes or ordinances or by a plan approval authority, and made by a legally constituted authority, shall be the responsibility of, and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

1.08 CONTRACTOR'S CONVENIENCE TESTING

- A. Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

1.09 SCHEDULES FOR TESTING

A. Establishing Schedule:

1. The Contractor shall, by advance discussion with the testing laboratory selected by the CCWA, determine the time required for the laboratory to perform its tests and to issue each of its findings, and make all arrangements for the testing laboratory to be on site to provide the required testing.
2. Provide all required time within the construction schedule.

B. When changes of construction schedule are necessary during construction, coordinate all such changes of schedule with the testing laboratory as required.

C. When the testing laboratory is ready to test according to the determined schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra costs for testing attributable to the delay will be back charged to the Contractor and shall not be borne by the CCWA.

1.10 TAKING SPECIMENS

A. Unless otherwise provided in the Contract Documents, all specimens and samples for tests will be taken by the testing laboratory.

1.11 TRANSPORTING SAMPLES

A. The Contractor shall be responsible for transporting all samples, except those taken by testing laboratory personnel, to the testing laboratory.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 TESTS AND CERTIFICATIONS

A. As a minimum, the following tests shall be performed and the following certification provided:

1. Cement: Certified test results by cement manufacture or by independent laboratory shall be furnished as required by the CCWA.
2. Aggregate and Mortar Sand: Certified test results by aggregate producer or by independent laboratory shall be furnished as required by the CCWA.
3. Concrete:
 - a. Certified test results of all concrete in accordance with ASTM C31, C39 and C172.

- b. Slump tests:
 - 1) Perform slump tests on the job in accordance with ASTM standards.
 - 2) One slump test shall be performed for each 25 cubic yards of concrete.
- B. Steel and Miscellaneous Metal: Reinforcing steel, structural steel and miscellaneous metal may be inspected visually on site by the CCWA.
- C. Welding: 1 percent of all structural welds during construction shall be inspected either visually or by an independent laboratory as required by the CCWA.
- D. Laboratory tests of compacted backfill shall be made in accordance with ASTM D698. In-place density tests shall be made in accordance with ASTM D1556 or D2922.
- E. Compaction testing shall be required as specified.
- F. Bituminous Concrete Pavement: Material testing for bituminous concrete shall be performed as directed by the CCWA.

END OF SECTION

SECTION 01500
TEMPORARY CONTROL OF CONSTRUCTION OPERATIONS

PART 1 GENERAL

1.01 SCOPE

- A. The Work covered by this section includes furnishing all labor, equipment, and materials required for temporary control of construction operations.

1.02 RELATED SECTIONS

- A. The Work of the following sections specifically apply to the Work of this section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of Work.

- 1. Section 31 23 19.01, Dewatering.

1.03 PUMPING

- A. The Contractor shall furnish and operate pumping and appurtenant piping for dewatering, flow rerouting, or any similar purposes.
- B. Standard Pumping equipment (as opposed to Reduced Noise Emitting Pumps ex. Quiet Zone, etc.) that could disturb the public shall be operated only during a standard workday or as approved in writing by the Engineer.

1.04 TEMPORARY FACILITIES

- A. The Contractor shall provide all temporary facilities for water, heat, electric light, and power as required for the work during the entire period of operations. Contractor shall be responsible for payment of utility costs for the duration of construction.
- B. The Contractor shall provide temporary toilets as required and shall maintain them in a sanitary condition for the duration of the work and remove them at completion.
- C. On or before the completion of the Work, the Contractor shall remove all temporary facilities, together with all rubbish and trash, as directed by the Engineer.

1.05 STORAGE

- A. The Contractor shall secure adequate storage to accommodate the required equipment, vehicles, and materials for the period of performance of the Contract.

1.06 USE OF PREMISES

- A. The Contractor shall not load nor permit any part of any structures to be loaded with a weight that will endanger its safety.
- B. The Contractor shall confine his apparatus, the storage of materials and the operations of his workers to the limits defined by laws, ordinances, permits, or directions of the Engineer and shall not unduly encumber the premises with his materials.
- C. The Contractor shall enforce the instructions of the Engineer regarding signs, advertisements, fire and smoking.

1.07 FLOW CONTROLS

- A. See Section 31 23 19.01, Dewatering for requirements.

1.08 MAINTENANCE OF EXISTING OPERATION

- A. The Contractor shall schedule all demolition and construction and maintain continuous operation of the existing wastewater system facilities.
- B. Piping to be abandoned shall be plugged with concrete in a manner approved by the Engineer, so as to be made watertight. All active utilities traversing the Site shall be preserved in operating condition.

1.09 MAINTENANCE DURING CONSTRUCTION

- A. The Contractor shall maintain, at his expense, the work during construction and until final acceptance of all work under the Contract. Continuous and effective work shall be prosecuted day by day, with adequate equipment and forces as required to keep the backfill, pavement, structures, pipe lines and other features in satisfactory and acceptable condition at all times.
- B. In the event the Contractor fails to remedy any unsatisfactory situation, within twenty-four hours after receipt of written notice from the Engineer describing the unsatisfactory conditions, the County may immediately proceed with adequate forces and equipment to maintain the project; and the entire cost of this maintenance will be deducted from the monies otherwise due the Contractor under the Contract.

- C. As an alternative to the above specified maintenance, the cost of all of the items, which are not properly maintained, may be deducted at the Contract Prices from the current partial payment request even if such items have been paid for in previous estimates.

1.10 CLEAN-UP AND DISPOSAL

- A. At the end of each day's operation, the Contractor shall thoroughly clear the Work Site of all dirt or debris, and generally restore the Site to an acceptable condition. Upon completion of the Work, all excess material and rubbish shall be removed from the Job Site and disposed of. The surrounding construction area shall be left in as good a condition as that which existed prior to construction.
- B. The Contractor shall transport and expeditiously dispose of all materials removed from the construction site. Disposal shall be at a site approved by the Engineer at no additional cost to the County and in a manner consistent with all-applicable codes and regulations.

1.11 CONSTRUCTION ALONG HIGHWAYS, STREETS, AND ROADWAYS

- A. Install pipe lines and appurtenances along highways, streets and roadways in accordance with the applicable regulations of, and permits issued by, the Georgia Department of Transportation and Clayton County, with reference to construction operations, safety, traffic control, road maintenance and repair.
- B. Traffic Controls:
 - 1. The Contractor shall provide, erect, and maintain all necessary barricades; suitable and sufficient lights and other traffic control devices; provide qualified flagmen where necessary to direct traffic; take all necessary precautions for the protection of the work and the safety of the public. Flagmen shall be certified by a Georgia DOT-approved flagman training program.
 - 2. Construction traffic control devices and their installation shall be in accordance with the current Manual on Uniform Traffic Control Devices for Streets and Highways.
 - 3. Placement and removal of construction traffic control devices shall be coordinated with the Georgia Department of Transportation and County a minimum of 48 hours in advance of the activity.
 - 4. Placement of construction traffic control devices shall be scheduled ahead of associated construction activities. Construction time in street right-of-way shall be conducted to minimize the length of time traffic is disrupted. Construction traffic control devices shall be removed immediately following their useful purpose. Traffic control devices used intermittently, such as "Flagmen Ahead," shall be removed and replaced when needed.

5. Existing traffic control devices within the construction work zone shall be protected from damage. Traffic control devices requiring temporary relocation shall be located as near as possible to their original vertical and horizontal locations. Original locations shall be measured from reference points and recorded in a log prior to relocation. Temporary locations shall provide the same visibility to affected traffic as the original location. Relocated traffic control devices shall be reinstalled in their original locations as soon as practical following construction.
6. Construction traffic control devices shall be maintained in good repair and shall be clean and visible to affected traffic for daytime and nighttime operation. Traffic control devices affected by the construction work zone shall be inspected daily.
7. Construction warning signs shall be black legend on an orange background. Regulatory signs shall be black legend on a white background. Construction sign panels shall meet the minimum reflective requirements of the Georgia Department of Transportation and Clayton County. Sign panels shall be of durable materials capable of maintaining their color, reflective character and legibility during the period of construction.
8. Channelization devices shall be positioned preceding an obstruction at a taper length as required by the current Manual on Uniform Traffic Control Devices for Streets and Highways, as appropriate for the speed limit at that location. Channelization devices shall be patrolled to insure that they are maintained in the proper position throughout their period of use.

C. Construction Operations:

1. Perform all work along highways, streets and roadways to minimize interference with traffic.
2. Stripping: Where the construction area is along a road right-of-way, strip and stockpile all sod, topsoil and other material suitable for right-of-way restoration.
3. Trenching, Laying and Backfilling: Do not open the trench any further ahead of construction operations than is necessary. Backfill and remove excess material immediately behind laying operations. Complete excavation and backfill for any portion of the trench in the same day.
4. Shaping: Reshape damaged slopes, side ditches, and ditch lines immediately after completing backfilling operations. Replace topsoil, sod and any other materials removed from shoulders.
5. Construction operations shall include cleanup and utility exploration.

D. Excavated Materials: Do not place excavated material along highways, streets and roadways in a manner that obstructs traffic. Sweep all scattered excavated material off the pavement in a timely manner.

- E. Drainage Structures: Keep all side ditches, culverts, cross drains, and other drainage structures clear of excavated material. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.
- F. Landscaping Features: Landscaping features shall include, but are not necessarily limited to, fences, property corners, cultivated trees, and shrubbery, man-made improvements, subdivision signs, and other signs within the right-of-way and easement. The Contractor shall take extreme care in moving landscape features and promptly re-establishing these features.
- G. Maintaining Highways, Streets, Roadways and Driveways:
 - 1. Maintain streets, highways, roadways and driveways in suitable condition for movement of traffic until completion and final acceptance of the work.
 - 2. During the time period between pavement removal and completing permanent pavement replacement, maintain highways, streets, and roadways by the use of steel running plates. The edges of running plates shall have asphalt placed around their periphery to minimize vehicular impact. The backfill above the pipe shall be compacted, as specified elsewhere up to the existing pavement surface to provide support for the steel running plates.
 - 3. Furnish a road grader or front-end loader for maintaining highways, streets, and roadways. Make the grader or front-end loader available at all times.
 - 4. Immediately repair all driveways that are cut or damaged. Maintain them in a suitable condition for use until completion and final acceptance of the Work.

1.12 ACCESS ROADS

- A. Streets, road and drives used by the Contractor for access to and from the Site of the Work shall be protected from damage caused by the normal traffic of vehicles used for or in connection with construction work. Any such damage done shall be repaired immediately and left in good condition at the end of the construction period. Any new access road construction shall be “all weather” and have drainage structures placed as shown or as required.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01510
TEMPORARY FACILITIES**

PART 1 GENERAL

1.01 SCOPE

- A. Temporary facilities required for this work include, but are not necessarily limited to:
 - 1. Temporary utilities such as water and electricity.
 - 2. Sanitary facilities.
 - 3. Potable water.
 - 4. Temporary heat and ventilation.
 - 5. Parking facilities.

1.02 GENERAL

- A. Installation: Furnish and install temporary facilities as required for the performance of the Work.
- B. Maintenance: Maintain temporary facilities in proper and safe condition throughout progress of the Work. In the event of loss or damage, immediately make all repairs and replacements necessary, at no additional cost to the CCWA.
- C. Removal: Remove temporary facilities as rapidly as progress of the Work will permit. Clean and repair damage caused by temporary installations or use of temporary facilities.

1.03 TEMPORARY UTILITIES

- A. General:
 - 1. Pay all costs for temporary utilities until Project completion.
 - 2. Costs for temporary utilities shall include all power for testing equipment.
- B. Temporary Water:
 - 1. Refer to Section 01040, Coordination for requirements related to utilization of water for construction purposes.
 - 2. Provide all necessary temporary piping, and upon completion of the Work, remove all temporary piping and water meters.

C. Temporary Electricity:

1. Provide all necessary wiring for the Contractor's use.
2. Furnish, locate and install area distribution boxes such that the individual trades may use their own construction type extension cords to obtain adequate power and artificial lighting at all points where required and for safety.

1.04 SANITARY FACILITIES

- A. Prior to starting the Work, the Contractor shall furnish, for use of Contractor's personnel on the job, all necessary toilet facilities which shall be secluded from public observation. Toilet facilities shall be either chemical toilets or shall be connected to the CCWA's sanitary sewer system. All facilities, regardless of type, shall be kept in a clean and sanitary condition and shall comply with the requirements and regulations of the area in which the Work is performed. Adequacy of these facilities will be subject to the CCWA's review and maintenance of facilities must be satisfactory to the CCWA at all times.

1.05 POTABLE WATER

- A. The Contractor shall be responsible for furnishing a supply of potable drinking water for employees, subcontractors, inspectors, engineers and the CCWA who are associated with the Work.

1.06 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the work, to meet specified minimum conditions for the installation of materials and to protect materials and finishes from damage due to temperature or humidity.

1.07 PARKING FACILITIES

- A. Parking facilities for the Contractor's and Contractor's subcontractors' personnel shall be the Contractor's responsibility.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01530
PROTECTION OF EXISTING FACILITIES

PART 1 GENERAL

1.01 THE REQUIREMENT

- A. Contractor shall be responsible for the preservation and protection of property adjacent to the Work Site against damage or injury as a result of his operations under this Contract. Any damage or injury occurring on account of any act, omission or neglect on the part of the Contractor shall be restored in a proper and satisfactory manner or replaced by and at the expense of the Contractor to an equal or superior condition than previously existed.
- B. Contractor shall comply promptly with such safety regulations as may be prescribed by the Owner or the local authorities having jurisdiction and shall, when so directed, properly correct any unsafe conditions created by, or unsafe practices on the part of, his employees. In the event of the Contractor's failure to comply, the Owner may take the necessary measures to correct the conditions or practices complained of, and all costs thereof will be deducted from any monies due the Contractor. Failure of the Engineer to direct the correction of unsafe conditions or practices shall not relieve the Contractor of his responsibility hereunder.
- C. In the event of any claims for damage or alleged damage to property as a result of work under this Contract, the Contractor shall be responsible for all costs in connection with the settlement of or defense against such claims. Prior to commencement of work in the vicinity of property adjacent to the Work Site, the Contractor, at his own expense, shall take such surveys as may be necessary to establish the existing condition of the property. Before final payment can be made, the Contractor shall furnish satisfactory evidence that all claims for damage have been legally settled or sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.

1.02 PROTECTION OF WORK AND MATERIAL

- A. During the progress of the Work and up to the date of final payment, the Contractor shall be solely responsible for the care and protection of all Work and materials covered by the Contract.
- B. All Work and materials shall be protected against damage, injury or loss from any cause whatsoever, and the Contractor shall make good any such damage or loss at his own expense. Protection measures shall be subject to the approval of the Engineer.

1.03 BARRICADES, WARNING SIGNS AND LIGHTS

- A. The General Contractor shall provide, erect and maintain as necessary, strong and suitable barricades, danger signs and warning lights along all roads accessible to the public, as required by the authority having jurisdiction, to ensure safety to the public. All barricades and obstructions along public roads shall be illuminated at night and all lights for this purpose shall be kept burning from sunset to sunrise.
- B. Each Contractor shall provide and maintain such other warning signs and barricades in areas of and around their respective work as may be required for the safety of all those employed in the Work, the Owner's operating personnel, or those visiting the Site.

1.04 EXISTING UTILITIES AND STRUCTURES

- A. The term existing utilities shall be deemed to refer to both publicly-owned and privately-owned utilities such as electric power and lighting, telephone, water, gas, storm drains, process lines, sanitary sewers and all appurtenant structures.
- B. Where existing utilities and structures are indicated on the Drawings, it shall be understood that all of the existing utilities and structures affecting the work may not be shown and that the locations of those shown are approximate only. It shall be the responsibility of the Contractor to ascertain the actual extent and exact location of existing utilities and structures. In every instance, the Contractor shall notify the proper authority having jurisdiction and obtain all necessary directions and approvals before performing any work in the vicinity of existing utilities.
- C. Prior to beginning any excavation work, the Contractor shall, through field investigations, determine any conflicts or interferences between existing utilities and new utilities to be constructed under this Project. This determination shall be based on the actual locations, elevations, slopes, etc., of existing utilities as determined in the field investigations, and locations, elevation, slope, etc. of new utilities as shown on the Drawings. If an interference exists, the Contractor shall bring it to the attention of the Engineer as soon as possible. If the Engineer agrees that an interference exists, he shall modify the design as required. Additional costs to the Contractor for this change shall be processed through a Change Order as detailed elsewhere in these Contract Documents. In the event the Contractor fails to bring a potential conflict or interference to the attention of the Engineer prior to beginning excavation work, any actual conflict or interference which does arise during the Project shall be corrected by the Contractor, as directed by the Engineer, at no additional expense to the Owner.

- D. The Work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to insure uninterrupted of existing services. Any damage resulting from the Work of this Contract shall be promptly repaired by the Contractor at his own expense in a manner approved by the Engineer and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that they perform their own repairs or have them done by others, the Contractor shall be responsible for all costs thereof.
- E. Where excavations by the Contractor require any utility lines or appurtenant structures to be temporarily supported and otherwise protected during the construction work, such support and protection shall be provided by the Contractor. All such work shall be performed in a manner satisfactory to the Engineer and the respective authority having jurisdiction over such work. In the event the Contractor fails to provide proper support or protection to any existing utility, the Engineer may, at his discretion, have the respective authority to provide such support or protection as may be necessary to ensure the safety of such utility, and the costs of such measures shall be paid by the Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01540
SECURITY AND SAFETY**

PART 1 GENERAL

1.01 SECURITY PROGRAM

- A. The Contractor shall protect the Work, including all field offices and temporary facilities and their contents from theft, vandalism and unauthorized entry.
- B. The Contractor shall initiate a site-security program at the time of mobilization onto the Work Site, which provides adequate security for Site stored and installed material.
- C. The Contractor shall maintain the security program throughout the Contract duration.
- D. The Contractor shall be wholly responsible for the security of their storage and lay down areas and for all their plant, material, equipment and tools at all times.
- E. The Contractor shall provide the CCWA with a list of 24-hour emergency phone numbers including chain of command.

1.02 ENTRY CONTROL

- A. The Contractor shall restrict entry of unauthorized personnel and vehicles onto the Project Site.
- B. The Contractor shall allow entry only to authorized persons with proper identification.
- C. The Contractor shall maintain an Employee Log and Visitor Log and make the log available to the CCWA upon request. The log shall be submitted to the CCWA bi-weekly or as necessary. Sample logs are included at the end of this section.
- D. The Contractor shall require all visitors to sign the Visitor Acknowledgment of the Program Site Rules/Visitor Log, which includes a release form. Copies of these forms shall be submitted to the CCWA bi-weekly and maintained in the Contractor's security files onsite.

- E. The Contractor shall require all employees to sign the Employee Acknowledgment of Project Site Rules Log included at the end of this Section. All employees, subcontractor employees and lower tier Contractor employees will receive a new employee orientation. Signing the Employee Log by the employee is certifying that the orientation training has been received.
- F. The Contractor and CCWA have the right to refuse access to the Site or request that a person or vehicle be removed from the Site if found violating any of the Project safety, security conduct rules.

1.03 BARRICADES, LIGHTS AND SIGNALS

- A. The Contractor shall furnish and erect such barricades, fences, lights and danger signals and shall provide such other precautionary measures for the protection of persons or property and of the work as necessary. Barricades shall be painted in a color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any work under construction.
- B. The Contractor will be held responsible for all damage to the work and any resulting injuries due to failure of barricades, signs and lights and whenever evidence is found of such damage, the Contractor shall immediately remove the damaged portion and replace it at Contractor's cost and expense. The Contractor's responsibility for the maintenance of barricades, signs and lights shall not cease until the Project has been accepted by the CCWA.

1.04 RESTRICTIONS

- A. The Contractor shall not allow cameras onsite or photographs taken except with approval of the CCWA.

1.05 CONTRACTOR SAFETY/HEALTH AND SECURITY PLAN

- A. Prior to the performance of any work the Contractor will prepare a Contract specific Safety/Health and Security Plan signed by an officer of the Contractor's organization. Adequacy of the plan shall be the responsibility of the Contractor.
- B. The CCWA will not review the Contractor's safety plan for the adequacy of the plan. The plan shall:
 - 1. Identify the person(s) responsible for implementation and enforcement of Safety/Health and Security rules and regulations for this Project.
 - 2. Generally address safe work procedures for the activities within the Contractor's scope of work.

3. Included a new employee orientation program, which addresses job and site-specific rules, regulations and hazards.
 4. Include the Contractor's Drug Free Work Place Policy including substance abuse prevention and testing program.
 5. Include provisions to protect all of the Contractor's employees, other persons and organizations who may be affected by the work from injury, damage or loss.
 6. Comply with current Fed/OSHA, Safety/Health and Security Plan, facility safety program (when applicable), and locally accepted safety codes, regulations and practices.
 7. Include a site-specific emergency action and evacuation plan.
 8. Include Hazard Communication/Right To Know Program.
 9. Include security procedures for the Contractor's work, tools, and equipment.
 10. Include the capability of providing the CCWA with documentation to show compliance with their plan, plus accidents and investigation reports.
 11. Address any other specific-contract requirements.
- C. Provide a Job Safety Analysis (JSA) for the scope of work, prior to the start of work.
- D. Review of the Contractor's Safety Plan by the CCWA shall not impose any duty or responsibility upon the CCWA for the Contractor's performance of the Work in a safe manner.
- E. The Contractor shall be fully responsible for the safety and health of its employees, its subcontractors and lower tier Contractors during performance of its work.
- F. The Contractor shall provide the CCWA with all safety reports, training records, competent person list, and accident reports prepared in compliance with Fed/OSHA and the Project Safety/Health and Security Plan.

1.06 PROJECT SAFETY COORDINATOR

- A. The Contractor shall be responsible for the safety of the Contractor's and the CCWA's personnel and all other personnel at the Site of the Work. The Contractor shall have a Project Safety Coordinator on the Job Site. The Project Safety Coordinator shall maintain and keep available safety records and up-to-date copies of all pertinent safety rules and regulations.

B. The Project Safety Coordinator shall:

1. Ensure compliance with all applicable health and safety requirements of all governing legislation.
2. Schedule and conduct safety meetings and safety training programs as required by law for all personnel engaged in the Work.
3. Post all appropriate notices regarding safety and health regulations at locations that afford maximum exposure to all personnel at the Job Site.
4. Post the name, address and hours of the nearest medical doctor; names and addresses of nearby clinics and hospitals; and the telephone numbers of the fire and police departments.
5. Post appropriate instructions and warning signs with regard to all hazardous areas or conditions.
6. Have proper safety and rescue equipment adequately maintained and readily available for any contingency. This equipment shall include such applicable items as: proper fire extinguishers, first aid kits, safety ropes and harnesses, stretcher, life savers, oxygen breathing apparatus, resuscitators, gas detectors, oxygen deficiency indicators, explosion meters, and any other equipment mandated by law.
7. Make inspections at least once daily in accordance with an inspection checklist report form to ensure that all machines, tools and equipment are in safe operating condition; that all work methods are not dangerous; and that all work methods are free of hazards.
8. Submit to the CCWA upon request copies of all inspection checklist report forms, safety records and all safety inspection reports and certifications from regulating agencies and insurance companies.
9. Notify the CCWA of a serious accident immediately, followed by a detailed written report within 24 hours. A "serious accident" is defined as an accident requiring an absence from work of more than 2 days and/or hospitalization.
10. Notify the CCWA immediately in the event of a fatal accident.
11. Notify CCWA of any accident claim against the Contractor or any subcontractor immediately, followed up by a detailed written report on the claim and its resolution.
12. Review safety aspects of the Contractor's submittals as applicable.

VISITOR ACKNOWLEDGMENT OF THE PROJECT SITE RULES

By signing this Visitor's Log, I acknowledge that I understand and agree to abide by the Project rules outlined below.

In consideration of my receipt of a visitor's pass as issued by the CCWA directly or indirectly for the CCWA, I waive on behalf of myself, my heirs, employer, legal representatives and assigns and hereby release and discharge the CCWA, and their subcontractors and consultants and each of their directors, officers, employees, representatives and agents from any and all claims, actions, causes of action or any charge of any kind whatsoever which may arise or could arise in the future as a result of my being present at the facility including injury, death or property damage whether or not caused by the fault or negligence of any of the parties released hereunder.

I further acknowledge that I have been briefed on specific hazards, hazardous substances that are onsite and the Site emergency action procedure.

PROHIBITED ACTIVITIES

- Unauthorized removal or theft of CCWA's property.
- Violation of safety or security rules or procedures.
- Possession of firearms or lethal weapons on Job Site.
- Acts of sabotage.
- Destruction or defacing CCWA's property.
- Failure to use sanitary facilities.
- Failure to report accidents or job related injuries.
- Being under the apparent influence of drugs, alcohol or other intoxicants or in possession of drugs, alcohol or other intoxicants on the property.
- Wearing shorts or tennis shoes on the Job Site.
- Failure to wear a hardhat/safety glasses.
- Gambling at any time on the Project.
- Fighting, threatening behavior, or engaging in horseplay on the Project.
- Smoking in unauthorized areas on the Project.
- Open fire cooking or making unauthorized fires on Project property.
- Selling items or raffles without authorization.
- Use of unauthorized cameras on the Project.
- Use of radio or television in the construction area.
- Failure to park personal vehicle in authorized parking area.
- Failure to wear designated identification [Site-Specific]
- Failure to use designated gates.

I have read, understand and agree to abide by the PROJECT SITE RULES. Furthermore, I understand failure to abide by these rules is grounds for being denied access to the Project Site. I have received a personal copy for my use and reference.

VISITOR LOG

THE SIGNING OF THIS LOG ACKNOWLEDGES I HAVE READ AND UNDERSTAND AND AGREE TO ABIDE BE THE PROJECT RULES OUTLINE ABOVE. THIS IS NOT A VEHICLE ACCESS PERMIT.

VISITOR'S NAME PRINT	SIGNATURE	COMPANY VISITED	DATE	IN	OUT

EMPLOYEE ACKNOWLEDGMENT OF THE PROJECT SITE RULES

By signing this Employee Log, I acknowledge that I understand and agree to abide by the Project rules outlined below.

PROHIBITED ACTIVITIES

- Unauthorized removal or theft of CCWA's property.
- Violation of safety or security rules or procedures.
- Possession of firearms or lethal weapons on Job Site.
- Acts of sabotage.
- Destruction or defacing CCWA's property.
- Failure to use sanitary facilities.
- Failure to report accidents or job related injuries.
- Under the apparent influence of drugs, alcohol or other intoxicants or in possession of drugs, alcohol or other intoxicants on the property.
- Wearing shorts or tennis shoes on the Job Site.
- Failure to wear a hardhat.
- Gambling at any time on the Project.
- Fighting, threatening behavior, or engaging in horseplay on the Project.
- Smoking in unauthorized areas on the Project.
- Open fire cooking or making unauthorized fires on Project property.
- Selling items or raffles without authorization.
- Use of unauthorized cameras on the Project.
- Use of radio or television in the construction area.
- Failure to park personal vehicle in authorized parking area.
- Failure to wear designated identification [Site Specific].
- Failure to use designated gates.

I have read, understand and agree to abide by the PROJECT SITE RULES. Furthermore, I understand failure to abide by these rules is grounds for being denied access to the Project Site. I have received a personal copy for my use and reference.

EMPLOYEE LOG

BY SIGNING THIS LOG ACKNOWLEDGMENT I HAVE READ AND UNDERSTAND AND AGREE TO ABIDE BY THE PROJECT RULES OUTLINED ABOVE AND ALL STATE, FEDERAL, LOCAL OR ANY OTHER CONTRACT OBLIGATIONS THAT MAY APPLY. I FURTHER ACKNOWLEDGE THAT I HAVE BEEN ORIENTATED AS TO THE SITE SPECIFIC HAZARDS, ANY HAZARDOUS SUBSTANCES I MAY BE EXPOSED TO WHILE ON THE SITE AND THE SITE/COMPANY EMERGENCY ACTION PROCEDURES, BY A REPRESENTATIVE OF THE COMPANY.

EMPLOYEE NAME (PRINT)	SIGNATURE	COMPANY NAME	DATE

END OF SECTION

**SECTION 01550
TRAFFIC REGULATION**

PART 1 GENERAL

1.01 SCOPE

- A. The Work specified in this section includes the provision of products, permits, services, procedures and personnel by the Contractor to effect traffic control during the Work.

1.02 TRAFFIC CONTROL MANAGER

- A. The Contractor shall designate a qualified individual as the Traffic Control Manager (TCM) who shall be responsible for selecting, installing and maintaining all traffic control devices in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
- B. A written resume documenting the experience and credentials of the TCM shall be submitted and accepted by the CCWA Representative prior to beginning any work that involves traffic control.
- C. The TCM shall be available on a 24-hour basis to perform his duties. If the work requires traffic control activities to be performed during the daylight and nighttime hours it may be necessary for the Contractor to designate alternate TCMs. An alternate TCM must meet the same requirements and qualifications as the primary TCM and be accepted by the CCWA Representative prior to beginning any traffic control duties.
- D. The Traffic Control Manager's traffic control responsibilities shall have priority over all other assigned duties.
- E. As the representative of the Contractor, the TCM shall have full authority to act on behalf of the Contractor in administering the Traffic Control Plan. The TCM shall have appropriate training in safe traffic control practices in accordance with Part VI of the MUTCD. In addition to the TCM all other individuals making decisions regarding traffic control shall meet the training requirements of the Part VI of the MUTCD.
- F. The TCMs shall supervise the initial installation of traffic control devices. The CCWA Representative prior to the beginning of construction will review the initial installation. Modifications to traffic control devices as required by sequence of operations or staged construction shall be reviewed by the TCMs.

PART 2 PRODUCTS

2.01 SIGNS, SIGNALS, AND DEVICES

- A. The Contractor shall provide post-mounted and wall-mounted traffic control an informational sign as specified and required by local jurisdictions.
- B. The Contractor shall provide automatic traffic control signals as approved by local jurisdictions.
- C. The Contractor shall provide traffic cones, drums and flashing lights as approved by local jurisdictions.
- D. The Contractor shall provide Clayton County police officers and certified flaggers and flagger's equipment as required by GDOT.

PART 3 EXECUTION

3.01 PERMITS

- A. The Contractor shall obtain permits from authorities having jurisdiction over road closures before closing any road. The Contractor shall use forms provided by authorities having jurisdiction (City of Forest Park, Clayton County Transportation and Development Department, and GDOT). Refer to Section 01060, Regulatory Requirements.
- B. Permit applications shall indicate the time (in days), length (in feet), the number of lanes, and the purpose of the closure.
- C. All permits are approved for operations during off-peak hours 9:00 a.m. to 4:00 p.m. unless special approval is received.
- D. Operations between the hours of 6:00 p.m. and 10:00 p.m. and Saturdays and Sundays must be approved by the CCWA Representative
- E. Full street closure permits require 96 hours advance notice prior to street closure. The following additional information is required prior to approval:
 - 1. The recommended detour route with signage and Traffic Management Plan as per the Manual of Uniform Traffic Control Devices (MUTCD).
 - 2. A copy of the resident and/or business notification letters about the closure. The residents/businesses located between the detour route must be notified about the closure at least 5 business days prior to the proposed closure.

- F. Lane closure permits require a minimum of 48-hour notice prior to lane closure. The Contractor shall continuously maintain the safety of the traveling public during lane closures in accordance with the requirements of the MUTCD and as stipulated by public officers.

3.02 PREPARATION OF TRAFFIC CONTROL PLANS

- A. The Contractor shall develop detailed staging and traffic control plans for performing specific areas of the Work including but not limited to all requirements for certified flaggers, additional traffic control devices, traffic shifts, detours, paces, lane closures or other activities that disrupt traffic flow. The Contractor shall submit these plans in accordance with the specifications to receive final approvals from permitting agencies and provide any and all required traffic control devices as required by both the permitting agencies and these specifications at no additional cost to the CCWA.

3.03 CONSTRUCTION PARKING CONTROL

- A. The Contractor shall control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles and CCWA Representative's operations.
- B. The Contractor shall monitor parking of construction personnel's vehicles in existing facilities and maintain vehicular access to and through parking areas.
- C. The Contractor shall prevent parking on or adjacent to access roads or in non-designated areas.

3.04 MAINTENANCE OF TRAFFIC

- A. Whenever and wherever, in the CCWA Representative's opinion, traffic is sufficiently congested or public safety is endangered, the Contractor shall furnish uniformed officers to direct traffic and to keep traffic off the highway area affected by construction operations.
- B. When the Contract requires the maintenance of vehicular traffic on an existing road, street, or highway during the Contractor's performance of Work the Contractor shall keep such road, street, or highway open to all traffic and shall provide such maintenance as may be required to safely accommodate traffic. The Contractor shall furnish, erect and maintain barricades, warning signs, flaggers, and other traffic control devices in conformity with the requirements of the local jurisdictions.

- C. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary to ingress into and egress from abutting property or intersecting roads, streets, or highways. The Contractor shall maintain traffic in accordance with any traffic control plans furnished with and made a part of the plan assembly.
- D. The Contractor shall make his own estimate of all labor, materials, equipment, and incidentals necessary for providing the maintenance of traffic as specified in this section.
- E. The cost of maintaining traffic shall be included in the Contractor's bid.

3.05 FLAGGERS FOR TRAFFIC CONTROL

- A. The Contractor shall provide Georgia Department of Transportation (GDOT) certified trained and equipped flaggers to regulate traffic when construction operations or traffic encroach on public traffic lanes.

3.06 FLASHING LIGHTS

- A. The Contractor shall use flashing lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.07 HAUL ROUTES

- A. The Contractor shall consult with authorities and establish public thoroughfares to be used for haul routes and site access and obtain a haul route permit as specified in Section 01060, Regulatory Requirements.
- B. The Contractor shall confine construction traffic to designated haul routes.
- C. The Contractor shall provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.

3.08 ROAD CLOSURES ON PUBLIC STREETS AND ROADS

- A. No street or road shall be closed without the permission of the local jurisdiction of any street or road and the fire department having jurisdiction. Prior to closing a street, road or highway, signs shall be posted for a minimum of 7 days prior to actual closing, forewarning of the imminent closing. The local jurisdiction shall determine the information to be placed upon the signs by the Contractor. Where traffic is diverted from the Work, the Contractor shall provide all materials and perform all work for the construction and maintenance of all required temporary roadways, structures, barricades, signs and signalization.

- B. To obtain approval to close a road or street maintained by the local jurisdiction, the Contractor shall proceed as follows:
1. The Contractor shall obtain approval of his traffic plan from the CCWA Representative. The traffic plan must be in accordance with the requirements of the Clayton County or the City of Forest Park, as applicable.
 2. The Contractor shall obtain a utility permit.
 3. The Contractor shall apply in writing to the local jurisdiction and obtain a permit to close the road on a specific date. Routine permit approval by the local jurisdiction requires from 1 to 2 weeks depending on when the application is received.
 4. The Contractor shall obtain a permit from the local jurisdiction before posting closure signs. Signs must be posted for 7 days prior to the first day of closure. Signs shall be acceptable to the CCWA Representative.
 5. Emergency road closures will be handled by the CCWA Representative.

3.09 PROCEDURES FOR TRAFFIC DETOUR ROUTE PLAN

- A. The Contractor shall provide a sketch map showing his traffic detour route plan to the CCWA Representative. The sketch map need not be drawn to scale but should resemble, as closely as possible, the actual location. The sketch map shall be drawn in a manner so as to provide emergency agencies a better understanding of the detour for quick response. The sketch map shall include directional arrows showing the flow of traffic.
- B. “Road Closed Ahead” signs shall be erected before the start point of the detour indicating the name of the street closed.
- C. Detour signs with appropriate directional arrows shall be erected at every intersection along the detour route until the end of the detour, when the traffic is back to the original street.
- D. The Contractor shall erect an “End Detour” sign at the end of the detour.
- E. Each detour and “End Detour” sign shall be accompanied by an accessory plate indicating the name of the street being detoured.
- F. The Contractor shall apply appropriate traffic control measures in accordance with the requirements of the MUTCD, Clayton County, and the City of Forest Park.

3.10 BARRICADES AND WARNING SIGNS

- A. The Contractor shall furnish, erect, and maintain all barricades and warning signs for hazards necessary to protect the public and the Work. When used during periods of darkness, such barricades, warning signs and hazard markings shall be suitably illuminated or reflectorized.
- B. For vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs, lights, and other traffic control devices in conformity with the requirements of the Georgia Department of Transportation, Clayton County, and the City of Forest Park.
- C. The Contractor shall furnish and erect all barricades and warning signs for hazards prior to commencing Work which requires such erection and shall maintain the barricades and warning signs for hazards until their dismantling.
- D. Two weeks prior to lane closures or road closures, the Contractor shall erect Electronic Message Boards notifying the public of the lane and/or road closure.

3.11 REMOVAL

- A. The Contractor shall remove equipment and devices when no longer required and repair damage caused by installation.

END OF SECTION

**SECTION 01551
SITE ACCESS AND STORAGE**

PART 1 GENERAL

1.01 THE REQUIREMENT

A. Access Roads:

1. The General Contractor shall maintain temporary access roads as required to perform the Work of this Contract.
2. Access roads shall be located within the property lines of the Owner unless the Contractor independently secures easements for his use and convenience. Contractor shall submit written documentation to the Engineer for any Contractor secured easements across privately held property. Easement agreement shall specify terms and conditions of use and provisions for site restoration. A written release from the property owner certifying that all terms of the easement agreement have been complied by the Contractor shall be furnished to the Engineer prior to final payment.
3. Existing access roads used by the Contractor shall be suitably maintained by the Contractor at his expense during construction. Contractor shall not be permitted to restrict Owner access to existing facilities. Engineer may direct Contractor to perform maintenance of existing access roads when Engineer determines that such work is required to insure all weather access by the Owner.
4. The Contractor shall obtain and pay all cost associated with any bonds required by the Georgia Department of Transportation for the use of State maintained roads.

B. Parking Areas: Parking is available for construction personnel on residential streets where approved by the Engineer and the Owner. Parking shall not impede access to driveways and mailboxes.

C. Restoration: At the completion of the Work, the surfaces of land used for access roads and parking areas shall be restored by each Contractor to its original condition and to the satisfaction of the Engineer. At a minimum, such restoration shall include establishment of a permanent ground cover adequate to restrain erosion for all disturbed areas.

D. Traffic Regulations:

1. Contractor shall obey all traffic laws and comply with all the requirements, rules and regulations of the GDOT, and other local authorities having jurisdiction to maintain adequate warning signs, lights, and barriers, for the protection of traffic on public roadways.
2. Traffic shall be maintained at all times and driveways shall remain accessible at all times.

E. Storage of Equipment and Materials:

1. Contractor shall store his equipment and materials at the Job Site in accordance with the requirements of the General Conditions, the Supplemental Conditions, and as hereinafter specified. All equipment and materials shall be stored in accordance with manufacturer's recommendations and as directed by the Owner or Engineer, and in conformity to applicable statutes, ordinances, regulations and rulings of the public authority having jurisdiction. Where space or strip heaters are provided within the enclosure for motors, valve operators, motor starters, panels, instruments, or other electrical equipment, the Contractor shall make connections to these heaters from an appropriate power source and operate the heaters with temperature control as necessary until the equipment is installed and being operated according to its intended use.
2. Contractor shall enforce the instructions of Owner and Engineer regarding the posting of regulatory signs for loadings on structures, fire safety, and smoking areas.
3. Contractor shall not store materials or encroach upon private property without the written consent of the Owners of such private property.
4. Contractor shall not store unnecessary materials or equipment on the Job Site, and shall take care to prevent any structure from being loaded with a weight which will endanger its security or the safety of persons.
5. Materials shall not be placed within 10 feet of fire hydrants. Gutters, drainage channels and inlets shall be kept unobstructed at all times.
6. Contractor shall provide adequate temporary storage buildings/facilities, if required, to protect materials or equipment on the Job Site.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.01 SUMMARY

- A. This section covers Work to implement structural and nonstructural Best Management Practices (BMP) to control soil erosion by wind or water and keep eroded sediments and other construction-generated pollutants from moving off Project Sites. Requirements described in this Specification and shown on the Drawings are part of the project Temporary Erosion and Sediment Control Plan (TESC Plan) and are the minimum for all project construction sites and conditions. This Specification covers all project activities, including material sources, disposal sites, and offsite mitigation areas unless specific project activities are excluded elsewhere in this Specification or in other Contract Documents controlling the Work.
- B. National Pollutant Discharge Elimination System: Comply with Federal, state, and local laws, rules and regulations, and the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit or Permits applicable to the Project. A copy of the Project's General Construction Permit, if applicable to the Project, is available from Owner. NPDES General Construction permits are required on projects that involve disturbance of 1 acre or more with potential to discharge stormwater to surface waters.
- C. Other Regulations: A local government erosion and sediment control permit may apply and some local agency requirements may be more stringent than this Specification. Adequate erosion and sediment control is essential for complying with the federal Endangered Species Act where construction runoff enters waters inhabited by protected species.
- D. The temporary erosion and sedimentation control measures shown on the Drawings are minimum requirements. Any additional erosion and sedimentation control measures required by the Contractor's means, methods, techniques and sequence of operation will be installed by the Contractor at no additional cost to the Owner.
- E. Basic Principles:
 - 1. Coordinate the land disturbance activities to fit the topography, soil types and conditions.
 - 2. Minimize the disturbed area and the duration of exposure to erosive elements.

3. Provide temporary or permanent stabilization to disturbed areas immediately after rough grading is complete.
4. Safely convey run-off from the Site to a stable outlet to prevent flooding and damage to downstream facilities resulting from increased runoff from the Site.
5. Retain sediment onsite that was generated onsite.
6. Minimize encroachment upon watercourses.

F. Implementation:

1. The Contractor is solely responsible for the control of erosion within the Project Site and the prevention of sedimentation from leaving the Project Site or entering waterways.
2. The Contractor shall install temporary and permanent erosion and sedimentation controls which will ensure that runoff from the disturbed area of the Project Site shall pass through a filter system before exiting the Project Site.
3. The Contractor shall provide temporary erosion and sedimentation control measures to prevent silt and sediment from entering the waterways. The Contractor shall maintain an undisturbed vegetative buffer a minimum of 25 feet from the top of the bank. The Contractor will be provided with a Land Disturbance Permit that allows encroachments on the 25-foot vegetative buffer in specific areas. The Contractor shall exercise extreme care during land disturbance operations within the 25-foot vegetative buffer to prevent degradation of the stream.
4. The Contractor shall limit land disturbance activity to those areas shown on the Drawings.
5. The Contractor shall maintain erosion and sedimentation control measures within disturbed areas on the entire Site at no additional cost to the Owner until the acceptance of the Project. Maintenance shall include mulching, re-seeding, clean-out of sediment barriers and sediment ponds, replacement of washed-out or undermined rip rap and erosion control materials, to the satisfaction of the Engineer.
6. All fines imposed for improper erosion and sedimentation control shall be paid by the Contractor.
7. The Contractor shall use all means necessary to control dust on and near the Work and all offsite borrow areas, in accordance to the Manual for Erosion and Sedimentation Control in Georgia, latest edition. The Contractor should thoroughly moisten all surfaces as required to prevent dust from being a nuisance to the public, neighbors and concurrent performance of work on the Site.

1.02 REFERENCES

- A. Activities shall conform to the Manual for Erosion and Sediment Control Manual in Georgia, latest Edition and the Drawings. In the event of a conflict, the more stringent requirement shall apply.
- B. Perform all work under this section in accordance with all pertinent rules and regulations including, but not necessarily limited to, those stated in these Specifications. Where provisions of pertinent rules and regulations conflict with these Specifications, the more stringent provisions shall govern.
- C. Provide all materials and promptly take all actions necessary to achieve effective erosion and sedimentation control in accordance with the Georgia Erosion and Sedimentation Control Act of 1975, as amended (OCGA §12-7-1, et. seq.) local ordinances, other permits, local enforcing agency guidelines and these Specifications.

1.03 SUBMITTALS

- A. Informational Submittals:
 - 1. When a TESC Plan is included in the Drawings, either adopt or modify the TESC Plan. Provide a schedule for TESC Plan implementation and incorporate it into Contractor's progress schedule. Obtain Engineer's approval of the TESC Plan and schedule before any Work begins.
 - 2. Modified TESC Plans shall meet all requirements of the applicable jurisdictions.
 - 3. The TESC Plan shall cover all areas that may be affected inside and outside the limits of the Project (including all Owner-provided sources, disposal sites, and haul roads, and all nearby land, streams, and other bodies of water).

PART 2 PRODUCTS

2.01 CHECK DAMS

- A. Stone Check Dams:
 - 1. Stone check dams shall be constructed of graded size two, 10-inch stone.
 - 2. The geotextile shall be in accordance with AASHTO M288-96 Section 7.3, Separation Requirements, Table 3.
- B. Hay Bales: Hay bales shall be clean, seed-free cereal hay, rectangular in shape and contain 5 cubic feet or more of material. Stakes shall be steel re-enforcement bars, steel pickets or 2-inch by 2-inch wooden stakes.

2.02 EROSION CONTROL BLANKET (MATTING), BIODEGRADABLE

- A. Temporary erosion control blanket shall be made of natural plant fibers. Supply independent test results meeting the following:

Properties	ASTM Test Method	Requirements
Protecting Slopes from Rainfall-Induced Erosion	D6459: Test in one soil type. Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle.	Maximum C factor of 0.15 using Revised Universal Soil Loss Equation (RUSLE)
Dry Weight per Unit Area	D6475	0.36 lb/sq. yd. minimum
Performance in Protecting Earthen Channels from Stormwater-Induced Erosion	D6460: Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle.	1.0 lb/sq. ft. minimum
Seed Germination Enhancement	D7322	200 percent minimum
Netting, if present, shall be biodegradable with a life span not to exceed 1 year.		

2.03 GEOTEXTILE

- A. Geotextiles shall consist only of long chain polymeric fibers or yarns formed into a stable network such that the fibers or yarns retain their position relative to each other during handling, placement, and design service life. At least 95 percent by weight of the material shall be polyolefins or polyesters. The material shall be free from defects or tears. Geotextile shall also be free of any treatment or coating which might adversely alter its hydraulic or physical properties after installation. Geotextile properties shall be as specified in Section 31 32 19.16, Geotextile, or as described in Table 1 through Table 3.

Table 1 Geotextile for Permanent Erosion Control							
Geotextile Property	ASTM Test Method	Geotextile Property Requirements					
		Permanent Erosion Control				Ditch Lining	
		Moderate Survivability		High Survivability			
		Woven	Nonwoven	Woven	Nonwoven	Woven	Nonwoven
AOS	D4751	See Table 2		See Table 2		U.S. No. 30 max.	
Water Permittivity	D4491	See Table 2		See Table 2		0.02 sec ⁻¹ min.	
Grab Tensile Strength, in machine and x-machine direction	D4632/ D4632M	250 lb min.	160 lb min.	315 lb min.	200 lb min.	250 lb min.	160 lb min.

Table 1 Geotextile for Permanent Erosion Control							
Geotextile Property	ASTM Test Method	Geotextile Property Requirements					
		Permanent Erosion Control				Ditch Lining	
		Moderate Survivability		High Survivability			
		Woven	Nonwoven	Woven	Nonwoven	Woven	Nonwoven
Grab Failure Strain, in machine and x-machine direction	D4632/ D4632M	15% -50%	≥50%	15% -50%	≥50%	<50%	≥50%
Seam Breaking Strength	D4632/ D4632M	220 lb min.	140 lb min.	270 lb min.	180 lb min.	220 lb min.	140 lb min.
Puncture Resistance	D6241	495 lb min.	310 lb min.	620 lb min.	430 lb min.	495 lb min.	310 lb min.
Tear Strength, in machine and x-machine direction	D4533	80 lb min.	50 lb min.	112 lb min.	79 lb min.	80 lb min.	50 lb min.
Ultraviolet (UV) Radiation Stability	D4355	70% strength retained min., after 500 hours in xenon arc device					

Table 2 Filtration Properties for Geotextile for Permanent Erosion Control				
Geotextile Property	ASTM Test Method	Geotextile Property Requirements		
		Class A	Class B	Class C
AOS	D4751	U.S. No. 40 max.	U.S. No. 60 max.	U.S. No. 70 max.
Water Permittivity	D4491	0.7 sec ⁻¹ min.	0.4 sec ⁻¹ min.	0.2 sec ⁻¹ min.

Table 3 Geotextile for Temporary Silt Fence			
Geotextile Property	ASTM Test Method	Geotextile Property Requirements	
		Unsupported Between Posts	Supported Between Posts with Wire or Polymeric Mesh
AOS	D4751	U.S. No. 30 max. for silt wovens, U.S. No. 50 for all other geotextile types, U.S. No. 100 min.	
Water Permittivity	D4491	0.2 sec ⁻¹ min.	
Grab Tensile Strength, in machine and x-machine direction	D4632/ D4632M	180 lb min. in machine direction, 100 lb min. in x-machine direction	100 lb min.
Grab Failure Strain, in machine and x-machine direction	D4632/ D4632M	30% max. at 180 lb or more	
Ultraviolet (UV) Radiation Stability	D4355	70% strength retained min., after 500 hours in xenon arc device	

2.04 INLET PROTECTION

- A. Filter Fabric with Supporting Frame: Type C silt fence supported by steel post shall be used.
- B. Baffle Box:
 - 1. Shall be constructed of 2-inch by 4-inch boards spaced a maximum of 1-inch apart or of plywood with weep holes 2 inches in diameter.
 - 2. Gravel: 1/2 to 3/4-inch gravel (No. 57 washed stone).
 - 3. Type C filter fabric wrapping.
- C. Curb Inlet Protection:
 - 1. 8-inch concrete blocks wrapped in filter fabric.
 - 2. Gravel bags constructed by wrapping DOT No. 57 stone with filter fabric, wire, plastic mesh, or equivalent material.
- D. Silt Saver: Provide as per manufacturer's (Silt-Saver, Inc.) specifications.

2.05 MULCH

- A. Short-Term: Provide independent test results documenting that the mulch meets the requirements in Table 4, Short-Term Mulch Test Requirements.

Table 4 Short-Term Mulch Test Requirements		
Properties	Test Method	Requirements
Performance in Protecting Slopes from Rainfall-Induced Erosion.	ASTM D6459. Test in one soil type. Soil tested shall be sandy loam as defined by the National Resources Conservation Service (NRCS) Soil Texture Triangle.	C Factor = 0.15 maximum using Revised Universal Soil Loss Equation (RUSLE)

- B. Moderate-Term: Within 48 hours of application, the Moderate-Term Mulch shall bond with soil surface to create a continuous, absorbent, flexible, erosion-resistant blanket that allows for seed germination and plant growth and conforms to the requirements in Table 5, Moderate-Term Mulch Test Requirements. Provide test results documenting that the mulch meets the requirements in Table 5, Moderate-Term Mulch Test Requirements. Supply independent test results.

Table 5 Moderate-Term Mulch Test Requirements		
Properties	Test Method	Requirements
Performance in Protecting Slopes from Rainfall-Induced Erosion.	ASTM D6459. Test in one soil type. Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle.	C Factor = 0.05 maximum using Revised Universal Soil Loss Equation (RUSLE)

- C. Long-Term:
1. Provide Long-Term Mulch with demonstrated ability:
 - a. To adhere to soil and create a blanket-like mass within 2 hours of application.
 - b. To bond with the soil surface to create a continuous, porous, absorbent, and flexible erosion-resistant blanket that allows for seed germination and plant growth.
 - c. To conform to the requirements in Table 6, Long-Term Mulch Test Requirements.

- d. Provide test results documenting that mulch meets requirements in Table 6, Long-Term Mulch Test Requirements. Supply independent test results.

Table 6 Long-Term Mulch Test Requirements		
Properties	Test Method	Requirements
Performance in Protecting Slopes from Rainfall-Induced Erosion.	ASTM D6459. Test in one soil type. Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle.	C Factor = 0.01 maximum using Revised Universal Soil Loss Equation (RUSLE)

2.06 OUTLET PROTECTION

- A. Provide riprap (size as noted on the Drawings to resist movement under design flows. Install at least 12 inches deep. Provide riprap material free of extraneous material. Rip rap sizes to conform to GDOT Section 805.01 Stone Dumped Rip Rap for Type 1 and Type 3.

2.07 PLASTIC COVERING

- A. Clear plastic meeting requirements of ASTM D4397 for polyethylene sheeting having a minimum thickness of 6 mils.

2.08 SEEDING

- A. See Section 32 92 00, Turf and Grasses.

2.09 SILT (SEDIMENT) FENCE

- A. Sensitive Areas Sd1-S: Type C silt fence is a combination of Type A silt fence fabric with woven wire reinforcement. Type C silt fence woven wire reinforcement shall meet the requirements of Section 171 of the Georgia Department of Transportation Standard Specifications, latest edition. Posts shall be 4 feet in length and shall be made of steel. Steel posts shall be 1.3lb./ft. minimum.
- B. Silt fence fabric shall be an approved product on the Georgia DOT Qualified Product List No. 36, latest edition.

2.10 STABILIZED CONSTRUCTION ENTRANCE

- A. Construct a pad from stone 3 inches to 6 inches in size, placed at least 8 inches deep and not less than 50 feet long.

- B. Provide aggregate free of extraneous materials that may cause or contribute to track out.
- C. Place separation geotextile under the rock to prevent fine sediment from pumping up into the rock pad. See Article Geotextile for required geotextile properties.
- D. Use of constructed or constructed/manufactured steel plates with ribs (such as, shaker/rumble plates or corrugated steel plates) for entrance/exit access is allowable.

2.11 STRAW

- A. Straw:
 - 1. Air dried condition free of noxious weeds, seeds, and other materials detrimental to plant life. Hay is not acceptable. Provide weed-free documentation:
 - a. Certified Weed Free Straw using North American Weed Management Association (NAWMA) standards.
 - b. Provide documentation that material is steam or heat treated to kill seeds.
 - c. Provide U.S. or state's Department of Agriculture laboratory test reports, dated within 90 days prior to date of application, showing there are no viable seeds in the straw.
- B. Straw Mulch: Suitable for spreading with mulch blower equipment.

2.12 STREET CLEANING

- A. Use self-propelled pickup street sweeper(s). Mechanical broom sweepers are not allowed where environmental concerns exist about storm water pollution or air quality.

2.13 TACKIFIERS

- A. Biodegradable Hydraulically Applied Erosion Control Products (HECPs) in a dry condition, free of noxious weeds, seeds, chemical printing ink, germination inhibitors, herbicide residue, chlorine bleach, rock, metal, plastic, and other materials detrimental to plant life. Up to 5 percent by weight may be photodegradable material.
- B. Suitable for spreading with a hydroseeder.
- C. Furnish HECPs premixed by the manufacturer. Under no circumstances will field mixing of additives or components be acceptable.

- D. Provide test results, dated within 3 years prior to the date of application, from an independent, accredited laboratory, as approved by Engineer, showing that the product meets the HECF requirements in Table 7.

Table 7 HECF Requirements		
Properties	Test Method	Requirements
Acute Toxicity	EPA-821-R-02-012 Methods for Measuring Acute Toxicity of Effluents. Test leachate from recommended application rate receiving 2 inches of rainfall per hour using static test for No-Observed-Adverse-Effect-Concentration (NOEC).	Four replicates are required with no statistically significant reduction in survival in 100 percent leachate for a Daphnid at 48 hours and Oncorhynchus mykiss (rainbow trout) at 96 hours.
Solvents	EPA 8260B	Benzene: < 0.03 mg/kg Methylene chloride: < 0.02 mg/kg Naphthalene: < 5 mg/kg Tetrachloroethylene: < 0.05 mg/kg Toluene: < 7 mg/kg Trichloroethylene: < 0.03 mg/kg Xylenes: < 9 mg/kg
Heavy Metals	EPA 6020A Total Metals	Antimony: < 4 mg/kg Arsenic: < 6 mg/kg Barium: < 80 mg/kg Boron: < 100 mg/kg Cadmium: < 2 mg/kg Chromium: < 2 mg/kg Copper: < 5 mg/kg Lead: < 5 mg/kg Mercury: < 2 mg/kg Nickel: < 2 mg/kg Selenium: < 10 mg/kg Strontium: < 30 mg/kg Zinc: < 5 mg/kg
Water Holding Capacity	ASTM D7367	900 percent minimum

Table 7 HECP Requirements		
Properties	Test Method	Requirements
Organic Matter Content	ASTM D2974	90 percent minimum
Moisture Content	ASTM D2974	15 percent
Seed Germination Enhancement	ASTM D7322	Long-Term: 420 percent minimum Moderate-Term: 400 percent minimum Short-Term: 200 percent minimum

PART 3 EXECUTION

3.01 PREPARATION

- A. Engineer's acceptance of the TESC Plan is required prior to starting earth disturbing activities.
- B. Include proposed stockpile areas and installation of temporary erosion control devices, ditches, or other facilities in Work phasing plans.
- C. Areas designated for Contractor's use during Project may be temporarily developed as specified to provide working, staging, and administrative areas. Include control of sediment from these areas in the TESC Plan.
- D. Check Dams: Install check dams as soon as construction will allow, or when designated by Engineer. Contractor may substitute a different check dam, in lieu of what is specified in the Contract, with approval of Engineer. Check dam is a temporary or permanent structure, built across a minor channel. Water shall not flow through check dam structure. Construct check dams to create a ponding area upstream of dam to allow pollutants to settle, with water from increased flows channeled over a spillway in check dam. Construct check dam to prevent erosion in area below spillway. Place check dams perpendicular to flow of water and install in accordance with the Drawings. Extend outer edges up sides of conveyance to prevent water from going around check dam. Provide check dams of sufficient height to maximize detention, without causing water to leave ditch. Place sandbags so that initial row makes tight contact with ditch line for length of dam. Stagger subsequent rows so center of bag is placed over space between bags on previous lift.

- E. Erosion Control Blanket (Matting), Biodegradable: Temporary Erosion Control Blankets are used as an erosion prevention device and to enhance establishment of vegetation. Install erosion control blankets according to manufacturer's recommendations.
1. Erosion control blankets with an open area of 60 percent or greater may be installed prior to seeding and fertilizing. Install blankets with less than 60 percent open space immediately following seeding and fertilizing operation.
 2. Select erosion control blanket material for an area based on the intended function; slope or ditch stabilization and Site-specific factors including soil, slope gradient, rainfall, and flow exposure. Do not use erosion Control Blankets on slopes or in ditches that exceed manufacturer's recommendations.
- F. Inlet Protection: Install inlet protection below or above, or as a prefabricated cover at each inlet grate, as shown on the Drawings. Install inlet protection devices prior to beginning clearing, grubbing or earthwork activities. Geotextile fabric used in prefabricated inlet protection devices must meet or exceed the requirements for Moderate Survivability and minimum filtration properties. When depth of accumulated sediment and debris reaches approximately one-half the height of an internal device or one-third the height of external device (or less when so specified by the manufacturers) or as designated by Engineer, remove deposits and stabilize onsite.
1. Below Inlet Grate:
 - a. Prefabricated units specifically designed for inlet protection.
 - b. Must remain securely attached to drainage structure when fully loaded with sediment and debris or at the maximum level of sediment and debris specified by manufacturer.
 2. Above Inlet Grate:
 - a. Devices may be silt fence, sandbags, or prefabricated units specifically designed for inlet protection.
 - b. Must remain securely in place around drainage structure under all conditions.
 3. Inlet Grate Cover:
 - a. Prefabricated units specifically designed for inlet protection and:
 - 1) Be a sewn geotextile fabric unit fitted to individual grate and completely enclosing grate.
 - 2) Have built-in lifting devices to allow manual access of stormwater system.
 - 3) Use an orange monofilament geotextile fabric.
 - b. Check dams or functionally equivalent devices may be used as inlet protection devices with approval of Engineer.

- G. Mulch: Furnish, haul, and evenly apply at rates indicated and spread on seeded areas within 48 hours after seeding unless otherwise specified.
1. Distribute straw mulch material with an approved mulch spreader that uses forced air to blow mulch material on seeded areas.
 2. Apply wood strand mulch by hand or by straw blower on seeded areas.
 3. Hydraulically apply Short-Term Mulch at the rate of 2,500 pounds per acre. May be applied in one lift.
 4. Hydraulically apply Moderate-Term Mulch and Long-Term Mulch at the rate of 3,500 pounds per acre with no more than 2,000 pounds applied in any single lift. Mulch may be applied with seed and fertilizer in moist climates. In dry climates, apply seed and fertilizer in a single application followed by mulch application. Provide mulch suitable for application with a hydroseeder.
 5. Cover temporary seed applied outside application windows established in Section 32 92 00, Turf and Grasses, with a mulch containing either Moderate-Term Mulch or Long-Term Mulch, as designated by Engineer.
 6. Mulch areas not accessible by mulching equipment by approved hand methods.
- H. Outlet Protection: Provide outlet protection to prevent scour at outlets of ponds, pipes, ditches, or other conveyances.
- I. Plastic Covering: Use clear plastic covering to promote seed germination when seeding is performed outside of specified dates. Use black plastic covering for stockpiles or other areas where vegetative growth is unwanted. Place plastic with at least a 12-inch overlap of all seams. Install and maintain plastic cover to prevent water from cutting under the plastic and to prevent cover from blowing open in the wind.
- J. Seeding: See Section 32 92 00, Turf and Grasses.
- K. Silt (Sediment) Fence:
1. Silt fence shall be installed in accordance with the Drawings. When backup support is used, use steel wire with a maximum mesh spacing of 2 inches by 4 inches, or plastic mesh as resistant to ultraviolet radiation as the geotextile it supports. Provide wire or plastic mesh with strength equivalent to or greater than as required for unsupported geotextile (for example, 180 pounds grab tensile strength in the machine direction).
 2. Attach geotextile to posts and support system using staples, wire, or in accordance with manufacturer's recommendations. Geotextile shall be sewn together at the point of manufacture, or at a location approved by Engineer, to form geotextile lengths as required.

3. Provide wood or steel support posts at sewn seams and overlaps and as shown on the Drawings and necessary to support fence.
 4. Wood Posts: Minimum dimensions of 1-1/4-inch by 1-1/4-inch by the minimum length shown on the Drawings.
 5. Steel Posts: Minimum weight of 0.90 lb/ft.
 6. When sediment deposits reach approximately one-third the height of the silt fence, remove and stabilize deposits.
- L. Stabilized Construction Entrance: Construct temporary stabilized construction entrance in accordance with the Drawings, prior to beginning any clearing, grubbing, earthwork, or excavation. When stabilized entrance no longer prevents track out of sediment or debris, either rehabilitate existing entrance to original condition or construct a new entrance.
- M. Street Cleaning: Use self-propelled pickup street sweepers whenever required by Engineer to prevent transport of sediment and other debris off Project Site. Provide street sweepers designed and operated to meet air quality standards. Street washing with water will require approval by Engineer. Intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.
- N. Tackifiers:
1. Mix and apply tackifier in accordance with manufacturer's recommendations. If applied with a hydroseeder, add Short-Term Mulch as a tracer at a rate of 125 pounds to 250 pounds per acre to visibly aid uniform application.
 2. Soil Binding Using Polyacrylamide (PAM): Apply PAM on bare soil completely dissolved and mixed in water or applied as a dry powder. Apply dissolved PAM at a rate of not more than 2/3 pound per 1,000 gallons of water per acre. Apply a minimum of 200 pounds per acre of Short-Term Mulch with the dissolved PAM. Dry powder applications may be at a rate of 5 pounds per acre using a hand-held fertilizer spreader or a tractor-mounted spreader.
 - a. Apply PAM only to areas that drain to completed sedimentation control BMPs in accordance with the TESC Plan. PAM may be reapplied on actively worked areas after a 48-hour period.
 - b. PAM shall not be applied during rainfall or to saturated soils.

3.02 MAINTENANCE

- A. The ESCP measures described in this Specification are minimum requirements for anticipated Site conditions. During the construction period, upgrade these measures as needed to comply with all applicable local, state, and federal erosion and sediment control regulations.

- B. Maintain erosion and sediment control BMPs so they properly perform their function until Engineer determines they are no longer needed.
- C. Construction activities must avoid or minimize excavation and creation of bare ground during wet weather.
- D. The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.
- E. Inspect BMPs in accordance with the schedule in the Construction Stormwater Discharge Permit(s) or as directed by Engineer.
- F. Complete an inspection report within 24 hours of an inspection. Each inspection report shall be signed and identify corrective actions. Document that corrective actions are performed within 7 days of identification. Keep a copy of all inspection reports at the Site or at an easily accessible location.
- G. Unless otherwise specified, remove deposits before the depth of accumulated sediment and debris reaches approximately height of BMP. Dispose of debris or contaminated sediment at approved locations. Clean sediments may be stabilized onsite using BMPs as approved by Engineer.
- H. Sediment Fence: Remove trapped sediment before it reaches one-third of the above ground fence height and before fence removal.
- I. Other Sediment Barriers (such as biobags): Remove sediment before it reaches 2 inches depth above ground height and before BMP removal.
- J. Catch Basins: Clean before retention capacity has been reduced by 50 percent.
- K. Initiate repair or replacement of damaged erosion and sediment control BMPs immediately, and work completed by end of next work day. Significant replacement or repair must be completed within 7 days, unless infeasible.
- L. Within 24 hours, remediate any significant sediment that has left construction site. Investigate cause of the sediment release and implement steps to prevent a recurrence of discharge within same 24 hours. Perform in-stream cleanup of sediment according to applicable regulations.
- M. At end of each work day, stabilize or cover soil stockpiles or implement other BMPs to prevent discharges to surface waters or conveyance systems leading to surface waters.
- N. Temporarily stabilize soils at end of shift before holidays and weekends, if needed. Ensure soils are stable during rain events at all times of year.

- O. Initiate stabilization by no later than end of next work day after construction work in an area has stopped permanently or temporarily.
- P. Within 14 days of initiating stabilization or as specified in permit, either seed or plant stabilized area (see Section 32 92 00, Turf and Grasses); or apply non-vegetative measures and cover all areas of exposed soil. Seed dry areas as soon as Site conditions allow. Ensure that vegetation covers at least 70 percent of stabilized area. In areas where Contractor's activities have compromised erosion control functions of existing grasses, overseed existing grass. Non-vegetative measures may include blown straw and a tackifier, loose straw, or an adequate covering of compost mulch. Complete initial stabilization within 7 days if storm water discharges to surface waters impaired for sediment or nutrients, or high quality waters.
- Q. Provide permanent erosion control measures on all exposed areas. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. However, do remove all temporary erosion control measures as exposed areas become stabilized, unless doing so conflicts with local requirements. Properly dispose of construction materials and waste, including sediment retained by temporary BMPs.

3.03 EMERGENCY MATERIALS

- A. Provide, stockpile, and protect the following emergency erosion and sediment control materials on the Project Site for unknown weather or erosion conditions. Emergency materials are in addition to other erosion control materials required to implement and maintain the TESC Plan. Replenish emergency materials as they are used. Remove all unused emergency materials from the Project Site at completion of the Project.

Item	Quantity
Silt (sediment) fence	100 ft
Plastic sheeting	260 sq ft
Straw bales	10
Water pump and hose	One

3.04 REMOVAL

- A. When Engineer determines that an erosion control BMP is no longer required, remove BMP and all associated hardware from the Project limits. When materials are biodegradable, Engineer may approve leaving temporary BMP in place.

- B. Permanently stabilize all bare and disturbed soil after removal of erosion and sediment control BMPs. Dress sediment deposits remaining after BMPs have been removed to conform to existing grade. Prepare and seed graded area. If installation and use of erosion control BMPs have compacted or otherwise rendered soil inhospitable to plant growth, such as construction entrances, take measures to rehabilitate soil to facilitate plant growth. This may include, but is not limited to, ripping the soil, incorporating soil amendments, or seeding with specified seed.

END OF SECTION

SECTION 01600
MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 THE REQUIREMENT

A. Furnish and Install:

1. Where the words "furnish", "provide", "supply", "replace", or "install" are used, whether singularly or in combination, they shall mean to furnish and install, unless specifically stated otherwise.
2. In the interest of brevity, the explicit direction "to furnish and install" has sometimes been omitted in specifying materials and/or equipment herein. Unless specifically noted otherwise, it shall be understood that all equipment and/or materials specified or shown on the Drawings shall be furnished and installed under the Contract as designated on the Drawings.

1.02 EQUIPMENT AND MATERIALS

- A. All equipment, materials, instruments or devices incorporated in this Project shall be new and unused, unless indicated otherwise in the Contract Documents. Equipment and materials to be incorporated into the work shall be delivered sufficiently in advance of their installation and use to prevent delay in the execution of the Work, and they shall be delivered as nearly as feasible in the order required for executing the Work.
- B. The Contractor shall protect all equipment and materials from deterioration and damage, including provisions for temporary storage buildings as needed and as specified in Section 01551, Site Access and Storage. Storage of equipment and materials shall be in locations completely protected from flooding, standing water, excessive dust, falling rock, brush fire, etc. Storage areas shall be located sufficiently distant from all construction activities and the movement of construction vehicles to minimize the potential for accidental damage. Any equipment or materials of whatever kind which may have become damaged or deteriorated from any cause shall be removed and replaced by good and satisfactory items at the Contractor's expense for both labor and materials.

1.03 SUBSTITUTIONS

- A. Requests for substitutions of equipment or materials shall conform to the requirements of the General Conditions, Supplemental Conditions, and as hereinafter specified.
1. Contractor shall submit for each proposed substitution sufficient details, complete descriptive literature and performance data together with samples of the materials, where feasible, to enable the Owner and Engineer to determine if the proposed substitution is equal.
 2. Contractor shall submit certified tests, where applicable, by an independent laboratory attesting that the proposed substitution is equal.
 3. A list of installations where the proposed substitution is equal.
 4. Requests for substitutions shall include full information concerning differences in cost, and any savings in cost resulting from such substitutions shall be passed on to the Owner.
- B. Where the approval of a substitution requires revision or redesign of any part of the Work, including that of other Contracts, all such revision and redesign, and all new drawings and details, therefore, shall be provided by the Contractor at his own cost and expense, and shall be subject to the approval of the Owner and Engineer.
- C. In the event that the Engineer is required to provide additional engineering services because of a substitution, then the Engineer's charges for such additional services shall be charged to the Contractor by the Owner in accordance with the requirements of the General Conditions, and the Supplemental Conditions.
- D. In all cases, the Owner and Engineer shall be the judge as to whether a proposed substitution is to be approved. The Contractor shall abide by their decision when proposed substitute items are judged to be unacceptable and shall in such instances furnish the item specified or indicated. No substitute items shall be used in the Work without written approval of the Owner and Engineer.
- E. Contractor shall have and make no claim for an extension of time or for damages by reason of the time taken by the Engineer in considering a substitution proposed by the Contractor or by reason of the failure of the Engineer to approve a substitution proposed by the Contractor.
- F. Acceptance of any proposed substitution shall in no way release the Contractor from any of the provisions of the Contract Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01610
TRANSPORTATION AND HANDLING

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall provide transportation of all equipment, materials and products to the Work Site. In addition, the Contractor shall provide preparation for shipment, loading, unloading, handling and preparation for installation and all other work and incidental items necessary or convenient to the Contractor for the satisfactory prosecution and completion of the Work.
- B. All equipment, materials and products damaged during transportation or handling shall be repaired or replaced by the Contractor at no additional cost to the CCWA prior to being incorporated into the Work.

1.02 TRANSPORTATION

- A. All equipment shall be suitably boxed, crated or otherwise protected during transportation.
- B. Where equipment will be installed using existing cranes or hoisting equipment, the Contractor shall ensure that the weights of the assembled sections do not exceed the capacity of the cranes or hoisting equipment.
- C. Small items and appurtenances such as gauges, valves, switches, instruments and probes which could be damaged during shipment shall be removed from the equipment prior to shipment, packaged and shipped separately. All openings shall be plugged or sealed to prevent the entrance of water or dirt.

1.03 HANDLING

- A. All equipment, materials and products shall be carefully handled to prevent damage or excessive deflections during unloading or transportation.
- B. Lifting and handling drawings and instructions furnished by the manufacturer or supplier shall be strictly followed. Eyebolts or lifting lugs furnished on the equipment shall be used in handling the equipment. Shafts and operating mechanisms shall not be used as lifting points. Spreader bars or lifting beams shall be used when the distance between lifting points exceeds that permitted by standard industry practice.
- C. Under no circumstances shall equipment or products such as pipe, structural steel, castings, reinforcement, lumber, piles, and poles, be thrown or rolled off of trucks onto the ground.

- D. Slings and chains shall be padded as required to prevent damage to protective coatings and finishes.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01611
STORAGE AND PROTECTION**

PART 1 GENERAL

1.01 SCOPE

- A. The Work under this section includes, but is not necessarily limited to, the furnishing of all labor, tools and materials necessary to properly store and protect all materials, equipment, products and the like, as necessary for the proper and complete performance of the Work.
- B. The Contractor shall store materials, supplies, and equipment at the Site in such orderly fashion and in such locations as approved by the Engineer that will not unduly interfere with the progress of the Work or the work of any other Contractors, or the activities of County personnel.

1.02 STORAGE AND PROTECTION

- A. Storage:
 - 1. Maintain ample space for foot traffic at all times, except as otherwise approved by the Engineer.
 - 2. All property damaged by reason of storing of material shall be properly replaced at no additional cost to the County.
 - 3. Packaged materials shall be delivered in original unopened containers and so stored until ready for use.
 - 4. All materials shall meet the requirements of these specifications at the time that they are used in the Work.
 - 5. Store products in accordance with manufacturer's instructions.
- B. Protection:
 - 1. Use all means necessary to protect the materials, equipment, and products of every section before, during and after installation and to protect the installed work and materials of all other trades.
 - 2. All materials shall be delivered, stored, and handled to prevent the inclusion of foreign materials and damage by water, breakage, vandalism, or other causes.
 - 3. Substantially constructed weathertight storage sheds, with raised floors, shall be provided, and maintained as may be required to adequately protect those materials and products, which may require protection from damage by the elements, stored on the Site.

- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary for the approval of the Engineer and at no additional cost to the County.
- D. Equipment and products stored outdoors shall be supported above the ground on suitable wooded blocks or braces arranged to prevent excessive deflection or bending between supports. Items such as pipe, structural steel and sheet construction products shall be stored with one end elevated to facilitate drainage.
- E. Unless otherwise permitted in writing by the Engineer, building products, and materials such as cement, grout, plaster, gypsum board, particleboard, resilient flooring, acoustical tile, paneling, finish lumber, insulation, and wiring, shall be stored indoors in a dry location. Building products such as rough lumber, plywood, concrete block, and structural tile may be stored outdoors under a properly secured waterproof covering.
- F. Tarps and other coverings shall be supported above the stored equipment or materials on wooden strips to provide ventilation under the cover and minimize condensation. Tarps and covers shall be arranged to prevent ponding of water.

1.03 EXTENDED STORAGE

- A. In the event that certain items of major equipment such as air compressors, pumps, and mechanical aerators have to be stored for an extended period of time, the Contractor shall provide satisfactory long-term storage facilities that are acceptable to the Engineer. The Contractor shall provide all special packaging, protective coverings, protective coatings, power, nitrogen purge, desiccants, lubricants, and exercising necessary or recommended by the manufacturer to properly maintain and protect the equipment during the period of extended storage.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01650 WARRANTIES

PART 1 GENERAL

1.01 PROJECT MAINTENANCE AND WARRANTY

- A. Maintain and keep in good repair the Work covered by these Drawings and Specifications until acceptance by the Owner.
- B. The Contractor shall warrant for a period of one year from the date of Owner's written final acceptance of the Project, as defined in the Contract Documents, that the completed Work is free from all defects due to faulty products or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect throughout the warranty period.
- C. The Contractor shall not be obligated to make replacements which become necessary because of ordinary wear and tear, or as a result of improper operation or maintenance, or as a result of improper work or damage by another Contractor or the Owner, or to perform any work which is normally performed by a maintenance crew during operation.
- D. In the event of multiple failures of major consequences prior to the expiration of the one year warranty described above, the affected unit shall be disassembled, inspected and modified or replaced as necessary to prevent further occurrences. All related components which may have been damaged or rendered non-serviceable as a consequence of the failure shall be replaced. A new warranty period equal to the original warranty period shall be provided against defective or deficient design, workmanship, and materials and shall commence on the day that the item is reassembled and placed back into operation. As used herein, multiple failure shall be interpreted to mean two or more successive failures of the same kind in the same item or failures of the same kind in two or more items. Major failures may include, but are not limited to, cracked or broken housings, piping, or vessels, excessive deflections, bent or broken shafts, broken or chipped gear teeth, premature bearing failure, excessive wear or excessive leakage around seals. Failures which are directly and clearly traceable to operator abuse, such as operations in conflict with published operating procedures or improper maintenance, such as substitution of unauthorized replacement parts, use of incorrect lubricants or chemicals, flagrant over-or under- lubrication and using maintenance procedures not conforming with published maintenance

instructions, shall be exempted from the scope of the one year warranty. Should multiple failures occur in a given item, all products of the same size and type shall be disassembled, inspected, modified or replaced as necessary and re-warranted for the original full warranty period.

- E. The Contractor shall, at Contractor's own expense, furnish all labor, materials, tools and equipment required and shall make such repairs and removals and shall perform such work or reconstruction as may be made necessary by any structural or functional defect or failure resulting from neglect, faulty workmanship or faulty materials, in any part of the Work performed by the Contractor. Such repair shall also include refilling of trenches, excavations or embankments which show settlement or erosion after backfilling or placement.
- F. Except as noted on the Drawings or as specified, all structures such as embankments and fences shall be returned to their original condition prior to the completion of the Contract. Any and all damage to any facility not designated for removal, resulting from the Contractor's operations, shall be promptly repaired by the Contractor at no cost to the Owner.
- G. The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of 1 year from the date of final acceptance. In the event the repairs and maintenance are not made immediately and it becomes necessary for the Owner of the road to make such repairs, the Contractor shall reimburse the owner of the road for the cost of such repairs.
- H. In the event the Contractor fails to proceed to remedy the defects upon notification within 10 days of the date of such notice, the Owner reserves the right to cause the required materials to be procured and the work to be done, as described in the Drawings and Specifications, and to hold the Contractor and the sureties on Contractor's bond liable for the cost and expense thereof.
- I. Notice to Contractor for repairs and reconstruction will be made in the form of a registered letter addressed to the Contractor at Contractor's home office.
- J. Neither the foregoing paragraphs nor any provision in the Contract Documents, nor any special guarantee time limit implies any limitation of the Contractor's liability within the law of the place of construction.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01700
PROJECT CLOSEOUT**

PART 1 GENERAL

1.01 SCOPE

A. Final Cleaning:

1. At the completion of the Work, the Contractor shall remove all rubbish from and about the Site of the Work, and all temporary structures, construction signs, tools, scaffolding, materials, supplies and equipment which he or any of his subcontractors may have used in the performance of the Work. Contractor shall broom clean paved surfaces and rake clean other surfaces of grounds.
2. Contractor shall thoroughly clean all materials, equipment and structures; all marred surfaces shall be touched up to match adjacent surfaces; dirty filters and burned out lights replaced as required; all glass surfaces cleaned and floors cleaned and polished so as to leave work in a clean and new appearing condition.
3. Contractor shall maintain cleaning until Project, or portion thereof, is occupied by the Owner.

B. Final Cleanup; Site Rehabilitation:

1. Before finally leaving the Site, the Contractor shall wash and clean all exposed surfaces which have become soiled or marked, and shall remove from the Site of work all accumulated debris and surplus materials of any kind which result from his operation, including construction equipment, tools, sheds, sanitary enclosures, etc. The Contractor shall leave all equipment, fixtures, and work, which he has installed, in a clean condition. The completed Project shall be turned over to the Owner in a neat and orderly condition.
2. The Site of the Work shall be rehabilitated or developed in accordance with other sections of the specifications and the Drawings. In the absence of any portion of these requirements, the Contractor shall completely rehabilitate the Site to a condition and appearance equal or superior to that which existed just prior to construction, except for those items whose permanent removal or relocation was required in the Contract Documents or ordered by the Owner.

C. Final Inspection:

1. Final cleaning and repairing shall be so arranged as to be finished upon completion of the construction work. The Contractor will make his final cleaning and repairing, and any portion of the work finally inspected and accepted by the Engineer shall be kept clean by the Contractor, until the final acceptance of the entire work.
2. When the Contractor has finally cleaned and repaired the whole or any portion of the work, he shall notify the Engineer that he is ready for final inspection of the whole or a portion of the work, and the Engineer will thereupon inspect the work. If the work is not found satisfactory, the Engineer will order further cleaning, repairs, or replacement.
3. When such further cleaning or repairing is completed, the Engineer, upon further notice, will again inspect the work. The "Final Payment" will not be processed until the Contractor has complied with the requirements set forth, and the Engineer has made his final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the requirements of the Contract Documents.

D. As-Builts: See Section 01720, Record Documents.

E. Project Close Out:

1. As construction of the Project enters the final stages of completion, the Contractor shall, in concert with accomplishing the requirements set forth in the Contract Documents, attend to or have already completed the following items as they apply to his Contract:
 - a. Scheduling equipment manufacturers' visits to Site.
 - b. Required testing of project components.
 - c. Scheduling start-up and initial operation.
 - d. Scheduling and furnishing skilled personnel during initial operation.
 - e. Correcting or replacing defective work, including completion of items previously overlooked or work which remains incomplete, all as evidenced by the Engineer's "Punch" Lists.
 - f. Attend to any other items listed herein or brought to the Contractor's attention by the Engineer.
2. Just before the Engineer's Certificate of Substantial Completion is issued, the Contractor shall accomplish the cleaning and final adjustment of the various building components as specified in the Specifications and as follows:
 - a. Clean all glass and adjust all windows and doors for proper operation.
 - b. Clean all finish hardware after adjustment for proper operation.

- c. Touch up marks or defects in painted surfaces and touch up any similar defects in factory finished surfaces.
 - d. Wax all resilient flooring materials.
 - e. Remove bitumen from gravel stops, fascias, and other exposed surfaces.
 - f. Remove all stains, marks, fingerprints, soil, spots, and blemishes from all finished surfaces, tile, stone, brick, and similar surfaces.
3. In addition, and before the Certificate of Substantial Completion is issued, the Contractor shall submit to the Engineer (or to the Owner if indicated) certain records, certifications, etc., which are specified elsewhere in the Contract Documents. A partial list of such items appears below, but it shall be the Contractor's responsibility to submit any other items which are required in the Contract Documents:
- a. Test results of project components.
 - b. Performance Affidavits for equipment.
 - c. Certification of equipment or materials in compliance with Contract Documents.
 - d. Operation and maintenance instructions or manuals for equipment.
 - e. One set of neatly marked-up record drawings showing as-built changes and additions to the work under his Contract.
 - f. Any special guarantees or bonds (Submit to Owner).
 - g. Licensed surveyor's report showing elevations of weirs specified in the Contract Drawings and the final surveyed elevation.
4. The Contractor's attention is directed to the fact that required certifications and information under Item 3 above, must actually be submitted earlier in accordance with other sections of the specifications.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01720
RECORD DOCUMENTS**

PART 1 GENERAL

1.01 SCOPE

- A. The Work under this section includes, but is not necessarily limited to, the compiling, maintaining, recording, and submitting of project record documents as herein specified.
- B. Record documents include, but are not limited to:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Change orders and other modifications to the Contract.
 - 4. Engineer field orders or written instructions, including Requests for Information (RFI) and Clarification Memorandums.
 - 5. Reviewed Shop Drawings, product data and samples.
 - 6. Test records.
 - 7. As-built drawings and/or maps, indicating the locations and types of work performed (stormwater asset ID numbers clearly shown where appropriate). Position survey coordinates, top of stormwater structure cover and invert elevations shall be indicated on the Drawing for all stormwater structures which are newly constructed, replaced or adjusted to grade. Where service laterals are rehabilitated or replaced (whether partial or complete to property line) indicate approximate location on drawing, as well as method of rehabilitation/repair. As-built pipe diameters and materials shall also be indicated.
 - 8. Map Corrections: Printed map marked up illustrating the approximate position of any unmapped stormwater structures or pipes discovered (no survey required).
 - 9. Geographic Information System (GIS) data – updated GIS data set indicating the as-built position and attributes for all replaced and rehabilitated stormwater pipes, structures and lateral piping.
- C. The Contractor shall maintain a current set of Record Drawings and GIS data on the Project site throughout the Contract Time.

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. Storage:

1. Store documents and samples in the Contractor's field office, apart from documents used for construction.
2. Provide files and racks for storage of documents.
3. Provide locked cabinet or secure storage space for storage of samples.

B. File documents and samples in accordance with format of these specifications.

C. Maintenance:

1. Maintain documents in a clean, dry, legible condition and in good order.
2. Do not use record documents for construction purposes.
3. Maintain one copy of all record documents at the Site.

D. Make documents and samples available at all times for inspection by Engineer.

E. Failure to maintain the Record Documents in a satisfactory manner may be cause for withholding payment.

1.03 QUALITY ASSURANCE

A. Unless noted otherwise, Record Drawings and corresponding GIS data shall provide dimensions, distances, coordinates to the nearest 0.1 foot in North American Datum of 1983 (1986 adjustment) Georgia State Plane West 1002 System format. All coordinate values shall be provided as grid coordinates in US Survey Feet.

B. Unless noted otherwise, Record Drawings and corresponding GIS data shall provide elevations to the nearest 0.01 foot referenced to the North American Vertical Datum of 1988 (NAVD88) format. All coordinate values shall be provided as grid coordinates in US Survey Feet.

C. GPS data shall be collected using e-GPS Solutions or equivalent internet - based real time GPS network. The network shall provide continuous error correction and accuracy which meets or exceeds the requirements of Section 1.07 Data Accuracy.

D. Any transformation or adjustment necessary to project surveyed coordinates to the Reference Coordinate System will be the responsibility of the Contractor.

- E. The Contractor shall employ a Professional Land Surveyor (PLS) licensed in the State of Georgia to prepare the Record Drawings from a post-construction, field survey of all stormwater structures and pipes newly constructed, replaced or otherwise adjusted in position or elevation. Additionally, the Contractor shall submit the corresponding GIS data accordingly to indicate the as-built condition and GIS data attributes of these structures and pipelines. Replacement methods include open cut. Point repairs, abandonment and removal of stormwater lines or structures is considered rehabilitation work. A post construction survey is not required for these types of rehabilitation; however, the GIS data attributes shall be updated to indicate the physical as-built condition.

1.04 DATA ACCURACY

- A. High Resolution: For all stormwater structures, the equipment and means used by Contractor must generate the position of points with a minimum accuracy of 3 centimeters horizontal and 3 centimeters vertical. To determine the accuracy obtained, Contractor's GPS system will be calibrated daily against a known point (monuments) prior to beginning work and when the work is completed. The Contractor shall submit a report to the Engineer certifying calibration was accomplished and indicating the reference system. Data delivered to the Engineer arising from the GPS survey shall be certified by a Professional Land Surveyor. When the GPS equipment cannot be set directly on the point, conventional surveying methods will be used to establish the position to the stated level of accuracy.
- B. Calibration shall be carried out at least on a daily basis in accordance with the GPS equipment manufacturer's instructions. Additional calibrations may be required during the course of the working day for large fluctuations of temperature and/or humidity, also in accordance with the manufacturer's instructions and tolerances. The Contractor shall submit a report to the Engineer certifying calibration was accomplished and indicating the reference system.

1.05 INTERFERENCE

- A. A GPS position is required for all newly constructed, replaced or adjusted Storm point structures regardless of the overhead conditions or other nearby obstructions which may interfere with satellite signals, at no additional cost. In the event coverage conditions do not allow all positions to be obtained by setting directly over the point, rangefinders or other conventional surveying methods may be used to obtain the position of the point(s).

1.06 RECORDING

- A. Label each document "PROJECT RECORD" in neat, large printed letters.
- B. Recording:
 - 1. Record information concurrently with construction progress.
 - 2. Do not conceal any work until required information is recorded.

1.07 RECORD DRAWINGS

- A. Record Drawings shall be reproducible, shall have a title block indicating that the Drawings are Record Drawings, the name of the company preparing the Record Drawings, and the date the Record Drawings were prepared. The Contractor will be provided paper sepia's of the Drawings, or it may elect to provide reproducible drawings via another method. Reproducible shall be defined as being translucent so as to allow a blueline print to be produced.
- B. Legibly mark drawings to record actual construction, including:
 - 1. All Construction:
 - a. Changes of dimension, diameter, or material and detail.
 - b. Location and type of work performed on each stormwater structure or pipe segment (indicate asset ID numbers).
 - c. Changes made by Requests for Information (RFI), field order, clarification memorandums or by change order.
 - d. Details not on original Drawings.
 - e. The distance (length) between access covers on pipe segments where work was performed.
 - 2. Structures: Position coordinates, as well as invert and top elevations of stormwater structures where stormwater structures or pipe have been newly constructed, replaced or adjusted/raised to grade.

1.08 SPECIFICATIONS

- A. Legibly mark each section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - 2. Changes made by Requests for Information (RFI), field order, clarification memorandums, or by change order.

1.09 GIS DATA

- A. Coordinate and attribute data shall be provided in both electronic and hard copy format at the completion of each stormwater basin, but not less than monthly. The hard copy data must be submitted for approval by the Engineer. Electronic data will not be accepted without hard copy data.
- B. The hard copy data shall include a cover letter and printed spreadsheet that corresponds to the electronic data submitted. If the survey work is performed by a subcontractor, the cover letter shall provide certification of data accuracy by a Professional Land Surveyor (PLS) licensed in the State of Georgia. If the survey work is performed by the prime Contractor, the cover letter shall provide certification of data accuracy by a Professional Land Surveyor (PLS) licensed in any State in the United States of America. The hard copy data must be bound, with the PLS seal placed on the cover letter; OR, the hard copy data may be submitted unbound, with the PLS seal placed on each and every sheet of unbound data submitted.
- C. The attached GPS Certification Form shall be signed and sealed by a Registered Land Surveyor in Georgia and submitted for each storm drainage basin.
- D. The electronic data table submittal shall include four completed worksheets to form a workbook in Microsoft Excel format containing position survey data and physical attributes of the replacement and rehabilitation work. All pipe material, pipe shape and pipe type code values shall be provided. Numerical value measurement data precision shall be 1/1000 or three decimal places. Each data worksheet shall include individual data records arranged in template formats and header values conforming to examples provided below:

Storm Structure Replacement or Rehabilitation Worksheet:

PointGISID	X_Coord_US	Y_Coord_US	Z_Elev_US	REHAB_METH	Comments	Install Date	Scope Status
23040113201	2204663.500	1349506.320	859.950	Replace Storm Structure Top, Frame and Cover	Replaced Inlet with GDOT Type C Catch Basin	mm/dd/yyyy	Original scope completed as designed

Pipeline Rehabilitation Worksheet (Use for stormwater line open cut replacement):

PipeGISID	PipeDia	PipeWidth	PipeHeight	PipeGauge	PipeShape	PipeUSDpth	PipeDSDpth
23040113201T 23040116501	12.000	0.000	0.000	1.125	C	8.600	15.840

PipeMatl	X_Coord_US	Y_Coord_US	Z_Elev_US	US_Pipe_Elev	X_Coord_DS	Y_Coord_DS	Z_Elev_DS
PE	2204663.500	1349506.320	859.950	851.350	2204313.580	1349469.870	864.350

DS_Pipe_Elev	Length	Slope	REHAB_METH	COMMENTS	Install Date	Scope Status
848.510	351.813	0.008072	OC		mm/dd/yyyy	Original Scope completed as designed

Point Repair Rehabilitation Worksheet:

PipeGISID	PipeDia	PipeWidth	PipeHeight	PipeGauge	PipeShape	PipeMatl
23040113201T23040116501	12.000	0.000	0.000	1.125	C	VC

REHAB_METH	DISTFRMUSMH	PR_LENGTH	PR_MATERIAL	COMMENTS	Install Date	Scope Status
External	12.700	4.500	VC		mm/dd/yyyy	Rehab scope method revised from original scope

1.10 SUBMITTAL

- A. At work assignment or Contract closeout (whichever comes first), the Contractor shall submit two copies of Record Documents to the Engineer.
- B. The submittal shall include a transmittal letter, in duplicate, containing;
 1. Date.
 2. Project title and number.
 3. Contractor's name and address.
 4. Title and number of each record document.
 5. Signature of Contractor or Contractor's authorized representative.

- C. Additionally, the Contractor shall edit the digital PDF(s) files furnished for each storm drainage basin to include all changes based upon actual field conditions. The Contractor shall submit marked up map(s) showing the position of unmapped and incorrectly positioned stormwater structure(s) and/or pipelines discovered during the Work. All map(s) shall be marked up with red text and delivered to the Engineer upon the completion of each storm drainage basin. Supplemental sketches shall also be provided in red text, as necessary to clearly depict the actual site conditions including, but not limited to congested areas and established access roads. A legend shall be added to the title block indicating the symbology, color coding and descriptions. The date, the words “As-Built” and company name shall also be included in the title block.

END OF SECTION

**SECTION 01740
CLEANING AND DISPOSAL**

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. During the progress of the Work Contractor shall keep the Project work area and other immediate impacted areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations. At the completion of the Work, the Contractor shall remove from the Project work area, all waste materials, rubbish, debris, 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.

1.02 RELATED WORK

- A. Each Section: Cleaning for specific products or work.

1.03 DISPOSAL AND CLEANING

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute periodic cleaning to keep the Work, the Site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.

- B. Provide onsite containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the Site.
- D. Refer to Section 01060, Regulatory Requirements for Stormwater discharges.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Wash and shine glazing and mirrors.
- D. Polish glossy surfaces to a clear shine.
- E. Ventilating Systems:
 - 1. Clean permanent filters and replace disposable filters if units were operated during construction.
 - 2. Clean ducts, blowers and coils if units were operated without filters during construction.
- F. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- G. Prior to final completion, or Owner occupancy, conduct an inspection of sight-exposed interior and exterior surfaces and all work areas, to verify that the entire work is clean.

END OF SECTION

SECTION 01770 CLOSEOUT PROCEDURES

PART 1 SCOPE

1.01 SUBMITTALS

- A. Quality Control Submittals: Written procedures for maintaining and markup of Record Documents.
- B. Contract Closeout Submittals: Submit prior to processing of application for final payment.
 - 1. Record Documents.
 - 2. Complete set of Approved Shop Drawings and Samples.
 - 3. Two copies of all Special Bonds, Special Warranties, and Service Agreements.
 - 4. Consent of Surety to Final Payment.
 - 5. Releases or Waivers of Liens and Claims.
 - 6. Release from Agreements.
 - 7. Certificates of Inspection and Occupancy if required by local jurisdiction.
 - 8. Registry of training sessions conducted and list of attendees for all manufacturer's operation and maintenance training session.
 - 9. Registry of final maintenance and lubrication of filter and/or oil lube protected equipment.
 - 10. Registry of all Spare Parts and Special Tools provided to the Owner as required by individual specification sections organized by specification section inclusive of documentation depicting receipt by Owner.
 - 11. Final Application for Payment: Submit in accordance with procedures and requirements stated in paragraph 14.07 of the General Conditions.
 - 12. A final written tabulation, plus other documentation as may be required, of all taxes, including sales tax, paid by the Contractor to assist the Owner in obtaining sales and/or use tax refunds for eligible machinery and equipment used for the primary purpose of reducing or eliminating air or water pollution as provided for in Chapter 48-8-3 (36) and (37) of the Official Code of Georgia.

1.02 FINAL PAYMENT

- A. Neither the Final Payment nor the retainage shall become due until Contractor submits to the Engineer:
 - 1. An affidavit that all payrolls, bills for Materials and Equipment, and other indebtedness connected with the Work have been paid or otherwise satisfied.
 - 2. Consent of surety, if any, to Final Payment.

3. Clear title for all vehicles and/or trailers, if any, to remain as County property.
4. Documentation for all state sales taxes paid by Contractor including completed State Department of Revenue Refund forms and all necessary back up documentation required by the Department of Revenue.
5. If required by the Engineer or County, other data establishing payment or satisfaction of all such obligations, such as receipts, releases, and waivers of liens arising out of the Agreement, to the extent and in such form as may be designated by the Engineer or County. If any Subcontractor refuses to furnish a release or waiver required by the Engineer or County, Contractor may furnish a bond satisfactory to the County to indemnify the County against any such loss. If any lien or indebtedness remains unsatisfied after all payments are made, Contractor shall refund to the County all monies that the latter may be compelled to pay in discharging such lien or other indebtedness, including, without limitation, all costs, expenses, arbitration fees, reasonable attorneys' fees, expert fees, or consultant fees incurred in connection with same.
6. As a condition of Final Payment on the Project, Contractor shall, prior to final payment, complete and submit to the County, all of the invoice documentation and the State of Georgia Revenue Department forms required to obtain the sales tax refund on all applicable equipment expenditures. This submittal shall include the certified forms and auditable back-up necessary to substantiate the expenditures for State refund.

1.03 PROJECT RECORD DOCUMENTS

- A. See Section 01720, Record Documents.

1.04 RELEASES FROM AGREEMENTS

- A. Furnish Owner written releases from property owners or public agencies where side agreements or special easements have been made, or where Contractor's operations have not been kept within the Owner's construction right-of-way.
- B. In the event Contractor is unable to secure written releases, inform the Owner of the reasons:
 1. Inform Owner of the reasons.
 2. Owner or its representatives will examine the site, and Owner will direct Contractor to complete Work that may be necessary to satisfy terms of the side agreement or special easement.

3. Should Contractor refuse to perform this Work, Owner reserves the right to have it done by separate contract and deduct the cost of same from the Contract Price, or require the Contractor to furnish a satisfactory Bond in a sum to cover legal claims for damages.
4. When Owner is satisfied that Work has been completed in agreement with the Contract Documents and terms of side agreement or special easement, the right is reserved to waive the requirement for written release if:
5. Contractor's failure to obtain such statement is due to the grantor's refusal to sign, and this refusal is not based upon any legitimate claims that Contractor has failed to fulfill the terms of the side agreement or special easement, or
6. Contractor is unable to contact or has had undue hardship in contacting the grantor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01800 MAINTENANCE

PART 1 GENERAL

1.01 DESCRIPTION

- A. Contractor will be required to maintain stored and installed equipment and materials until Final Acceptance of the Work as defined by the General Conditions. Work included, but is not limited to:
 - 1. Perform all required maintenance.
 - 2. Repair and maintain protective coatings.
 - 3. Repair and replace scratched and damaged materials and equipment.
 - 4. Maintain and operate new equipment placed into service.
- B. Work per this section starts on the date the equipment and materials are received and continued until the Date of Final Acceptance.
- C. Contractor will monitor equipment storage and subsequently the operation and material functionality on a continual basis during the specified time period. Any deterioration of materials or malfunction of equipment will be followed by swift repair action to minimize the damage. Such repair may include repair and technical services by an independent contractor if the Engineer deems the Contractor's efforts are ineffective in correcting the problem.
- D. All costs for maintenance and repair of stored and installed equipment and materials, including costs from an independent contractor, during the specified time period will be the sole responsibility of the Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

