

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GA



PROJECT MANUAL

FOR

BID NUMBER: 2022-WP-15

W.J. HOOPER WPP AND TERRY R. HICKS WPP  
UV SYSTEM UPGRADES

SEPTEMBER 2022

CONFORMED DOCUMENTS

VOLUME 1 OF 3  
PROJECT MANUAL  
DIVISIONS 00-01

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**Jacobs**



JACOBS Project No.  
EEXJ6935  
SEPTEMBER 2022



SECTION 00 01 01  
PROJECT TITLE PAGE

**PROJECT MANUAL**  
**FOR**  
**BID NUMBER: 2022-WP-15**  
**W.J. HOOPER WPP AND TERRY R. HICKS WPP**  
**UV SYSTEM UPGRADES**  
**SEPTEMBER 2022**  
**CONFORMED DOCUMENTS**

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Project No. EEXJ6935



**SECTION 00 01 10**  
**TABLE OF CONTENTS**

**VOLUME 1 OF 3 – PROJECT MANUAL**

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

<b>Section</b>	<b>Title</b>
00 01 01	Project Title Page
00 01 10	Table of Contents
00 11 16	Advertisement for Competitive Sealed Bid
00 21 13	Instructions to Bidders
00 41 00	Bid Form
00 43 13	Georgia Bid Bond
00 43 39.01	SLBE Program - Goal
00 45 13	Bidders Qualifications
00 45 19	Statement of Noncollusion
00 45 19B	Certification of Absence of Conflict of Interest
00 45 75	Georgia Security and Immigration Compliance Act of 2006
00 52 00	Agreement
00 61 13.13	Performance Bond
00 61 13.16	Payment Bond
00 72 00	General Conditions
00 73 00	Supplementary Conditions Exhibit 'A' – Additional Insurance Requirements
00 91 13.01	Addendum No. 1

**DIVISION 01 – GENERAL REQUIREMENTS**

<b>Section</b>	<b>Title</b>
01 11 00	Summary of Work
01 26 00	Contract Modification Procedures
01 29 00	Payment Procedures
01 31 13	Project Coordination

CCWA approved: 02/01/2021

<b>Section</b>	<b>Title</b>
01 31 19	Project Meetings
01 31 29	Web-Based Construction Document Management System
01 32 00	Construction Progress Documentation
01 33 00	Submittal Procedures Supplement 1, Transmittal of Contractor's Submittal
01 43 33	Manufacturers Field Services Supplement 1, Manufacturer's Certificate of Proper Installation
01 45 16.13	Contractor Quality Control
01 45 33	Special Inspection, Observation and Testing Supplement 1, Fabricator's Certificate of Compliance Supplement 2, Statement of Special Inspections Supplement 3, Schedule of Special Inspections
01 50 00	Temporary Facilities and Controls
01 61 00	Common Product Requirements Supplement 1, Form: Manufacturer's Certificate of Compliance
01 77 00	Closeout Procedures
01 78 23	Operation and Maintenance Data Supplement 1, Maintenance Summary Form
01 88 15	Anchorage and Bracing
01 91 14	Equipment Testing and Facility Startup Supplement 1, Unit Process Startup Form Supplement 2, Facility Performance Demonstration/Certification Form

CCWA approved: 02/01/2021

**VOLUME 2 OF 3 – TECHNICAL SPECIFICATIONS**

**DIVISION 02 – EXISTING CONDITIONS**

<b>Section</b>	<b>Title</b>
02 41 00	Demolition

**DIVISION 03 – CONCRETE**

<b>Section</b>	<b>Title</b>
03 31 03	Miscellaneous Structural Concrete
03 62 00	Grouting Supplement 1, 24-hour Evaluation of Nonshrink Grout Test Form and Grout Testing Procedures
03 63 00	Concrete Doweling

**DIVISION 04 – MASONRY (NOT USED)**

**DIVISION 05 – METALS**

<b>Section</b>	<b>Title</b>
05 05 19	Post-Installed Anchors
05 05 23	Welding Supplement 1, Welding and Nondestructive Testing Table
05 50 00	Metal Fabrications
05 52 16	Aluminum Railings
05 53 00	Metal Gratings

**DIVISION 06 THROUGH DIVISION 08 (NOT USED)**

**DIVISION 09 – FINISHES**

<b>Section</b>	<b>Title</b>
09 90 00	Painting and Coating Supplement 1, Paint System Data Sheet (PSDS) Supplement 2, Paint Product Data Sheet (PPDS)

CCWA approved: 02/01/2021

**DIVISION 10 – SPECIALTIES**

<b>Section</b>	<b>Title</b>
10 14 00	Signage

**DIVISION 11 THROUGH DIVISION 25 (NOT USED)**

**DIVISION 26 – ELECTRICAL**

<b>Section</b>	<b>Title</b>
26 05 02	Basic Electrical Requirements
26 05 04	Basic Electrical Materials and Methods
26 05 05	Conductors
26 05 26	Grounding and Bonding for Electrical Systems
26 05 33	Raceway and Boxes
26 05 70	Electrical Systems Analysis Supplement 1, Figure 1: Example Arc Flash Label
26 08 00	Commissioning of Electrical Systems

**DIVISION 27 THROUGH DIVISION 39 (NOT USED)**

**DIVISION 40 – PROCESS INTERCONNECTIONS**

<b>Section</b>	<b>Title</b>
40 05 15	Piping Support Systems Supplement 1, Table 1: Chemical Areas
40 27 00	Process Piping—General Supplement 1, Pipe Schedule Legend Supplement 2, Piping Schedule
40 27 00.01	Cement-Mortar Lined Ductile Iron Pipe and Fittings
40 27 00.07	Galvanized Steel Pipe and Malleable Iron Fittings
40 27 00.10	Polyvinyl Chloride (PVC) Pipe and Fittings
40 27 01	Process Piping Specialties
40 27 02	Process Valves and Operators Supplement 1, Electric Actuated Valve Schedule Supplement 2, Self-Regulated Valve Schedule

CCWA approved: 02/01/2021



40 90 01	Instrumentation and Control for Process Systems Supplement 1, Component Specifications Supplement 2, Instrument and Control Panel List Supplement 3, Loop Specifications Supplement 4, Instrument Calibration Sheet Supplement 5, I&C Valve Adjustment Sheet Supplement 6, Performance Acceptance Test Sheet Supplement 7, As-Built Fiber Optic Cable Installation Form Supplement 8, MR Systems Quote Q22-9855-R1 (Hooper Only) Supplement 9, MR Systems Quote Q22-9855-R1 (Hicks Only)
40 99 90	Package Control Systems

**DIVISION 41 THROUGH DIVISION 45 (NOT USED)**

**DIVISION 46 – WATER AND WASTEWATER EQUIPMENT**

Section	Title
46 66 20	Ultraviolet Disinfection Equipment for Drinking Water Supplement 1, Trojan UV Quote – Hicks WPP Supplement 2, Trojan UV Quote – Hooper WPP

**DIVISION 47 THROUGH DIVISION 49 (NOT USED)**

**VOLUME 3 OF 3 – DRAWINGS (BOUND SEPARATELY)**

**END OF SECTION**

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**PART 1**

**PROCUREMENT REQUIREMENTS**

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**SECTION 00 11 16**  
**ADVERTISEMENT FOR COMPETITIVE SEALED BID**

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

Name of Project: **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades**

Separate sealed Bids for the construction of the **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades** project will be received by the Clayton County Water Authority (CCWA) at 1600 Battle Creek Road, Morrow, Georgia 30260 until 10:00 a.m. local time, the **2<sup>nd</sup> day of August 2022**, 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 **Tuesday, July 12, 2022** at 10:00 a.m. local time to discuss the Project.

To join the pre-bid conference call, use the below Microsoft Teams link or call-in number:

**Join on your computer or mobile app:** [Click here to join the meeting](#)

**Join with a video conferencing device:**

[493366865@t.plcm.vc](mailto:493366865@t.plcm.vc)

Video Conference ID: 119 767 056 3

[Alternate VTC instructions](#)

**Or call in (audio only):**

[+1 469-214-8538,,911969215#](tel:+14692148538911969215) United States, Dallas

Phone Conference ID: 911 969 215#

To join the **bid opening conference call**, use the below Microsoft Teams link or call-in number:

**Join on your computer or mobile app:** [Click here to join the meeting](#)

**Join with a video conferencing device:**

[493366865@t.plcm.vc](mailto:493366865@t.plcm.vc)

Video Conference ID: 112 056 727 5

[Alternate VTC instructions](#)

**Or call in (audio only):**

[+1 469-214-8538,,374664761#](tel:+14692148538374664761) United States, Dallas

Phone Conference ID: 374 664 761#

Bidders are required to visit each Site and conduct a thorough visual examination of the UV Buildings and the adjacent Site areas. Each Bidder shall visit both Sites on Tuesday, July 12<sup>th</sup> from 12:00 p.m. to 4:00 p.m. The addresses for each Site are as follows:

W.J. Hooper WPP; 70 Oakdale Drive, Stockbridge, GA 30281

Terry R. Hicks WPP; 1693 Freeman Road Jonesboro, GA 30236

Each Bidder shall be limited to a maximum of 2 visitors during the Site visit. Bids will not be accepted from Bidders who do not attend the Site visit. It is each Bidder's responsibility to sign in at each Site visit to verify its participation. Bidders must sign in using the name of the organization that will be submitting a Bid. During the visit, the Bidder must not disturb any ongoing operations at the Sites.

As part of the effort to maintain the health and safety of CCWA personnel – as well as visitors – will be required to conform to any COVID-19 protocols that may be in place at the time of the site visits and/or in-person meetings.

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

1. W.J. Hooper Water Production Plant:
  - a. Demolition of existing UV disinfection system inside existing UV Building. The items to be demolished and/or salvaged consist of:
    - i. Four UV reactors and associated control panels.
    - ii. Piping, valves and structural supports.
    - iii. Chemical Cleaning system tank and containment wall.
    - iv. Metal stairs and access platforms.
    - v. Miscellaneous instruments.
  - b. New UV Disinfection System:
    - i. Two new UV reactors and associated control panels.
    - ii. Concrete and metal stairs and platforms.
    - iii. New Fiber Optic line within existing duct banks.
    - iv. Various piping, valves, and structural supports associated with the work above.
2. Terry R. Hicks Water Production Plant:
  - a. Demolition of existing UV disinfection system inside existing UV Building. The items to be demolished and/or salvaged consist of:
    - i. Four UV reactors and associated control panels.
    - ii. Piping, valves and structural supports.
    - iii. Chemical Cleaning system tank and containment wall.
    - iv. Metal stairs and access platforms.
    - v. Miscellaneous instruments.
  - b. New UV Disinfection System consisting of:
    - i. Two new UV reactors and associated control panels.
    - ii. Concrete and metal stairs and platforms.
    - iii. Removal and reinstallation of existing metal platforms.
    - iv. New Fiber Optic line within existing duct banks.
    - v. Various piping, valves, and structural supports associated with the work above.

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.

Electronic copies of Bidding Documents will be made available. Obtain them by contacting [Calvin.Woolson@Jacobs.com](mailto:Calvin.Woolson@Jacobs.com).

Hard copies of Bidding Documents are the responsibility of the Bidders.

By requesting the Bidding Documents via email, Bidder 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 as having received a complete set of Bidding Documents.

A list of planholders may be obtained by contacting Calvin Woolson at [Calvin.Woolson@Jacobs.com](mailto:Calvin.Woolson@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.

***CCWA encourages Small Local, Minority, and Women-Owned businesses to participate and respond to this bid request.***

All questions related to the Project shall be submitted by email no later than 10:00 a.m., local time, on **Tuesday, July 19, 2022**, to Calvin Woolson at [Calvin.Woolson@jacobs.com](mailto:Calvin.Woolson@jacobs.com). Questions, if answered, will be addressed by Addenda to the Contract Documents via email and/or Jacobs File Transfer Tool. Receipt of any Addenda or amendment to this Advertisement for Bids shall be acknowledged, in writing, and shall be submitted with the Bid.

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

The successful Bidder will be required to furnish the additional Bonds and Insurance 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 15<sup>th</sup> Day of June 2022.

Clayton County Water Authority

Mr. Robin Malone, 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 10:00 a.m., local time, 2<sup>nd</sup> day of August 2022.
- 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 W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades, 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 responsive Bidder to whom Owner (on the basis of Owner’s evaluation as hereinafter provided) makes an award.

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### 1.03 Copies of Bidding Documents

- A. Copies of Bidding Documents are available by contacting [Calvin.Woolson@jacobs.com](mailto:Calvin.Woolson@jacobs.com).
- 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 as having received a complete set of Bidding Documents.
- 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 mandatory site visit will be held at the times and location indicated in Section 00 11 16, Advertisement for Competitive Sealed Bid. Representatives of Owner and Engineer will be present to help sign-in Bidders and provide a general tour of the facility. **Bids will not be accepted from Bidders who do not attend the site visit.** It is each Bidder's responsibility to sign in at the site visit to verify its participation. Bidders must sign in using the name of the organization that will be submitting a Bid.
- 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.

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- C. 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.
- D. 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 may cause Bid to be considered in nonconformance.
- E. The address and telephone number for communications regarding the Bid shall be shown.
- F. Bidder shall comply with the Bid Form requirement for identification of Manufacturers or Suppliers of certain equipment, product, or systems.
- G. 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 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.
- 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. The Contractor shall provide documentation of four successfully constructed new projects and/or modifications to four existing water and/or wastewater treatment facilities within the last ten years. Each of these for construction projects, new or modified, shall have exceeded five (5) million dollars. Furthermore, the Contractor shall have successfully installed one UV system within the past seven (7) years. 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 Engineer of Record or designee at email address [Calvin.Woolson@jacobs.com](mailto:Calvin.Woolson@jacobs.com). To be given consideration, such requests must be received by **10:00 a.m on Tuesday, July 19, 2022**, 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.

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- 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 SLBE Participation**

- A. Clayton County Water Authority (CCWA) has implemented a Small Local Business Enterprise Program to promote full and open competition in all government procurement and purchasing.
- B. Goals for participation of Small Local Business Enterprises (SLBEs) are set on a contract-by-contract basis for each specific prime contract with subcontracting possibilities.
- C. CCWA wants to ensure that Bidders are non-discriminatory in their process of selecting subcontractors. CCWA also wants to encourage Bidders to utilize small, minority or woman-owned businesses whenever possible.
- D. Section 00 43 39, SLBE Forms 1-4 must be completed for Bidder to be considered responsive, regardless of participation.
- E. The participation goal for this procurement is 5 percent.

#### **1.13 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.

#### **1.14 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.

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### 1.15 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.

### 1.16 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.
- C. 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.
- D. Bids must be made on the prescribed Bid Form provided and submitted with the attachments listed below.
- E. Bidders shall complete and submit the following attachments with its Bid:
  - 1. Section 00 43 13, Georgia Bid Bond.
  - 2. Section 00 43 39, SLBE Forms 1 – 4.
  - 3. Section 00 45 13, Bidders Qualifications.
  - 4. Section 00 45 19, Statement of Noncollusion.
  - 5. Section 00 45 19B, Certification of Absence of Conflict of Interest.
  - 6. Section 00 45 75, Georgia Security and Immigration Compliance Act of 2006.
- F. 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.
- G. 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.

### 1.17 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 business 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 and Certificates of Insurance as required herein within 10 calendar days from the date when Notice of Award is delivered to that Bidder. Approval of the Payment Bond, Performance Bond, and Certificates of Insurance 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 Certificates of 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.

#### **1.18 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.

#### **1.19 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 Lakeshore Engineering, LLC (hereinafter “Bidder”), organized and existing under the laws of the State of GA, doing business as Corporation (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 **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades** 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                      July 12, 2022

(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.
- 2.07 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.

CCMVA approved: 05/04/2021

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- 2.08 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.
- 2.09 Liquidated Damages: Bidder accepts the provisions in Section 00 52 00, Agreement as to liquidated damages.
- 2.10 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.
- 2.11 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
1	7/28/2022		

**ARTICLE 3 – BASIS OF BID**

- 3.01 Bidder submits the following lump sum prices for the **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades** identified in Bid Form as part of this Bid. Work included within each Bid Item is described in Section 01 29 00, Payment Procedures. Bidder understands that if a Contract is to be awarded, it will be awarded to the lowest responsible, responsive Bidder for the Total Bid (Part 1 + Part 2 + Part 3 - Part 4= Part 5).

**Part 1 –Lump Sum Bid**

Bid Item No.	Description	Bid Price (Lump Sum)
1.1	Provide all equipment, labor, materials, and all other items required for the Construction of the W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades, complete in place, tested and ready for full operation, all in conformance with the Contract Documents, <b><u>exclusive of</u></b> furnishing pre-negotiated items. (Bid Price for these items <b><u>are not</u></b> to be include in the cost of any of the Bid Items in Part 2).	\$3,290,000.00
<b>Part 1 – Lum Sum Bid Price</b>		<b>\$ 3,290,000.00</b>

CCWA approved: 03/04/2021

**Part 2 – Pre-Negotiated Bid**

The following bid items are pre-negotiated sole source equipment and services to be included in contractors bid. Scope of supply for each bid item are included in the technical specifications listed. Contractor has scope associated with each of the below bid items and that effort should be included in Part 1. See Section 01 29 00, Payment Procedures for details related to payments for Bid Item 2.1 and 2.2.

Bid Item No.	Specification Section	Description	Price
2.1	46 66 20	CCWA - Hopper WPP – Ultraviolet Disinfection System - TrojanUVFlex™100	\$790,150
2.2	46 66 20	CCWA - Hicks WPP – Ultraviolet Disinfection System - TrojanUVFlex™100	\$705,200
2.3	40 90 01	CCWA – Hooper WPP: Instrumentation and Control for Process Systems - MR Systems	\$121,006
2.4	40 90 01	CCWA – Hicks WPP: Instrumentation and Control for Process Systems - MR Systems	\$121,152
<b>Part 2 –Pre-Negotiated Total:</b>			<b>\$ 1,737,508</b>

**Part 3 - Contingency Allowances**

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

Bid Item No.	Description	Price
3.1	Unforeseen Work Elements	\$475,000.00
<b>Part 3- Contingency Allowances Total:</b>		<b>\$475,000.00</b>

CCWA approved: 03/04/2021

**Part 4 - Credit for Salvage Items**

Bid Item No.	Specification Section	Description	Price
4.1	02 41 00	Credit for the cost of the salvage items (Piping, fittings, valves, metals etc.) related to the demolition of the existing facilities will be included in Part 4.	\$ 5,000.00
<b>Part 4- Credit for Salvage of Demolition Items Total:</b>			\$ 5,000.00

**Part 5- Total Base Bid**

Part No.	Part Number Description	Price
1	Lump Sum Items	\$3,290,000.00
2	Pre-Negotiated Bid Items	\$ 1,737,508
3	Contingency Allowance - Unforeseen Work Elements	\$ 475,000
4	Credit for Salvage Items	\$(5,000.00)
<b>TOTAL BASE BID PRICE (Sum of Parts 1, 2 and 3 less credit Part 4)</b>		\$5,497,508.00

TOTAL BASE BID WRITTEN IN WORDS

Five million four hundred ninety seven thousand five  
hundred eight Dollars and zero Cents

CCWA approved: 05/04/2021

**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"
Electrical	Player & Co.
I&C System Integrator	MR Systems
Mechanical	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 – EQUIPMENT / MATERIAL MANUFACTURERS**

5.01 Owner Selected Equipment/Supplier Schedule

The Bidder shall provide identification of the equipment manufacturer being supplied for each component listed below. See Specifications for approved manufacturers for each component.

Item	Component	Specification Section	Selected Manufacturer
1	V500 Butterfly Valve	40 27 01	A. Pratt B. DeZurik C. Or Equal
2	Electric Motor Actuator	40 27 01	A. Rotork Controls B. Flowserve C. Or Equal
3	UVT Analyzer	40 90 01	S::can Inc. No Substitutes
4	UVT Indicator/Transmitter	40 90 01	S::can Inc. No Substitutes
5	Ultraviolet Disinfection System Supplier	46 66 20	Trojan No Substitutes

CCWA approved: 03/04/2021

**ARTICLE 6 – TIME OF COMPLETION**

- 6.01 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.
- 6.02 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 7 – SURETY**

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

The Berkley Insurance Company \_\_\_\_\_ whose address is

475 Steamboat Road, Greenwich, CT, 06830

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

CC\MS approved: 03/04/2021

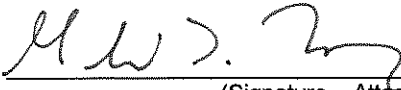


**ARTICLE 8 – BID SUBMITTAL**

8.01 This Bid submitted on August 2, 2022 by:

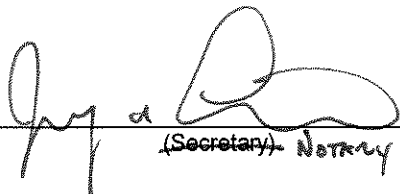
Corporation Name: Lakeshore Engineering, LLC

GA  
(State of Incorporation)

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

Name and Title: Garland Long, President  
(Typed or Printed)

(CORPORATE SEAL)

Attest  B/2/22  
(Secretary) ~~Notary~~ (Date)  
Georgia Utility Contractor's License Number: UC302050  
(Successful Bidder will be required to hold a valid Georgia Utility Contractor's License)

**Jeffrey A Laurion**  
Notary Public  
State of Georgia  
Cherokee County  
Exp: 2/01/23

Business Address: 1259 Ellsworth Dr, Atlanta, GA 30318

Phone No.: 404 355-3976

E-mail: glong@lakeshoreengineering.com

Website: www.lakeshoreengineering.com

**END OF SECTION**

CCWA approved: 03/04/2021



**SECTION 00 43 13**  
**GEORGIA BID BOND**

BOND NO. Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that Lakeshore Engineering, LLC

hereinafter called the Principal, and \_\_\_\_\_

Berkley Insurance Company

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

having its principal place of business at 475 Steamboat Road, Greenwich, CT 06830

\_\_\_\_\_ in the State of DE

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 sum of \_\_\_\_\_

Five (5%) Percent of Amount Bid DOLLARS (\$ \_\_\_\_\_) 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 construction of the **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades** 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 detailed Drawings and Specifications, entitled: **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades**.

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 5 percent of the base bid 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 Obligeo and furnishes a Performance Bond and a Payment Bond, each 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 Obligeo and the Surety herein agrees to pay said sum immediately upon demand of the Obligeo in good and lawful money of the United States of America, as liquidated damages for failure thereof of said principal.

Signed and sealed this 2nd day of August, 2022.

CCWA approved: 02/01/2021

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

CONTRACTOR – PRINCIPAL:

Lakeshore Engineering, LLC

By: [Signature]  
(name signed)

GARLAND LONG  
(name printed or typed)

Title: PRESIDENT

Address: 1259 Ellsworth Drive

Atlanta, GA 30318

Attest: [Signature]  
(name signed)

JEFF A. LAURION  
(name printed or typed)

Title: Notary

Jeffrey A Laurion  
Notary Public  
State of Georgia  
Cherokee County  
(SEAL)  
Exp: 2/6/23

Note: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY:

Berkley Insurance Company

By: [Signature]  
(name signed)

Daniel Yates  
(name printed or typed)

Title: Attorney in Fact

Address: 2800 Century Pkwy NE #300 , Atlanta, GA 30345

Attest: [Signature]  
(name signed)

Tina Marsh  
(name printed or typed)

Title: Witness (SEAL)

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

END OF SECTION

CC BY 4 approved: 02/01/2021



POWER OF ATTORNEY  
BERKLEY INSURANCE COMPANY  
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: *P. D. Yates, III; Daniel Yates; Alan R. Yates; Kevin M. Neider; Betsy J. Holmes; Brian K. Hughes; Jeffery John Blanton; Dana D. Rutledge; Tina Marsh; Sandra Lawrence; or Sean Tidwell of Yates, LLC of Atlanta, GA* its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00), to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

**RESOLVED**, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

**RESOLVED**, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

**RESOLVED**, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

**RESOLVED**, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 19<sup>th</sup> day of April, 2022.

Attest:  
  
(Seal) By Ira S. Lederman  
Executive Vice President & Secretary

Berkley Insurance Company  
By Jeffrey M. Hafter  
Senior Vice President

WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.

STATE OF CONNECTICUT )  
) ss:  
COUNTY OF FAIRFIELD )

Sworn to before me, a Notary Public in the State of Connecticut, this 19<sup>th</sup> day of April, 2022, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Executive Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

MARIA C RINDRAKEN  
NOTARY PUBLIC  
CONNECTICUT  
MY COMMISSION EXPIRES  
APRIL 30, 2024

Maria C. Rindraken  
Notary Public, State of Connecticut

CERTIFICATE

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this 2nd day of August, 2022.

(Seal)

Vincent P. Forte  
Vincent P. Forte

WARNING - Any unauthorized reproduction or alteration of this document is prohibited. This power of attorney is void unless seals are readable and the certification seal at the bottom is embossed. The background imprint, warning and verification instructions (on reverse) must be in blue ink.

Please **verify the authenticity** of the instrument attached to this Power by:

Toll-Free Telephone: (800) 456-5486; or

Electronic Mail: [BSGInquiry@berkleysurety.com](mailto:BSGInquiry@berkleysurety.com)

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Any written notices, inquiries, claims or demands to the Surety on the bond attached to this Power should be directed to:

Berkley Surety  
412 Mount Kemble Ave.  
Suite 310N  
Morristown, NJ 07960  
Attention: Surety Claims Department

Or

Email: [BSGClaim@berkleysurety.com](mailto:BSGClaim@berkleysurety.com)

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Please include with all communications the bond number and the name of the principal on the bond. Where a claim is being asserted, please set forth generally the basis of the claim. In the case of a payment or performance bond, please also identify the project to which the bond pertains.

Berkley Surety is a member company of W. R. Berkley Corporation that underwrites surety business on behalf of Berkley Insurance Company, Berkley Regional Insurance Company and Carolina Casualty Insurance Company.



**SECTION 00 43 39.01**  
**SLBE PROGRAM - GOAL**

**1.01 SLBE Participation and Acknowledgement**

- A. Clayton County Water Authority (CCWA) implemented a Small Local Business Enterprise Program to promote full and open competition in all government procurement and purchasing.
1. Goals for participation of Small Local Business Enterprises (SLBEs) are set on a procurement-by-procurement basis for each specific prime contract with subcontracting possibilities.
  2. CCWA wants to ensure that Bidders are non-discriminatory in their process of selecting subcontractors.
  3. CCWA also wants to encourage Bidders to utilize small, minority, or woman-owned businesses as subcontractors whenever possible.
  4. Forms 1-4 included in this Section must be completed for Bidder to be considered responsive, regardless of participation.
- B. By signing the Bid, the Bidder is certifying that he/she has acknowledged the requirements of this program. Please contact CCWA's Contracts, Compliance and Risk Management at [ccwa\\_slbe\\_program@ccwa.us](mailto:ccwa_slbe_program@ccwa.us) for a list of certified SLBEs. The list is also available through [www.ccwa.us](http://www.ccwa.us), under the tab for "About Us", section for "Small Local Business Program".

**1.02 SLBE Definition**

- A. SLBEs must perform a commercially useful function, which means performance of provision of real and actual services under the contract or subcontract with CCWA. Factors such as the nature and amount of the work subcontracted; whether the SLBE has the skill and expertise to perform the work for which it has been certified; whether the SLBE actually performs, manages or supervises the work; and whether the SLBE intends to purchase commodities and/or services from a non-SLBE and simply resell them will be considered in determining if the SLBE is performing a commercially useful function.
- B. SLBE means a locally-based small business operating inside or outside of Clayton County, which meets the following criteria:
1. Independently owned and operated business concern whose average annual gross receipts for the previous three years must not exceed:
    - a. Construction Firms- \$18,250,000.

CCWA approved: 03/10/2021

- b. Professional Services Firms - \$5,500,000.
  - c. Architectural Firms - \$3,750,000.
  - d. Engineering Firms - \$7,500,000.
  - e. Goods & Services – less than 250 employees.
2. Locally based, meaning located and operating in Clayton County or the ten (10) counties of Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale and Spalding for at least one year prior to submitting application for certification.

### 1.03 SLBE Certification

- A. CCWA has two SLBE certifications which consists of a Provisional Certification and General Certification.
- B. CCWA Provisional SLBE Certification: If a bidder is locally-based in one of the counties mentioned above, is currently certified as a small business through the DeKalb County, Clayton County, or the City of Atlanta or certified as a DBE with the Georgia Department of Transportation, and can provide evidence of its certification, the bidder may be provisionally accepted as a CCWA SLBE, provided that they complete the official certification application for CCWA within two (2) years following the date of provisional certification.
- C. CCWA General SLBE Certification: If the bidder is locally-based in one of the counties mentioned above, is currently not certified as a small business through any of the entities mentioned above, the bidder can submit an application and supporting documentation to become generally certified as an SBLE with CCWA.
- D. If a bidder meets these qualifications but is not currently certified as a CCWA small business, either through a Provisional or General SLBE certification, then the bidder must complete an application for certification with CCWA no later than seven (7) business days following the deadline for Bid submission. CCWA does not make any guarantees that CCWA SLBE certification will be reviewed and approved prior to or in time for award of the bid.

### 1.04 Substitutions or Replacements

- A. No substitution/replacement for any SLBE Subcontractor, vendor, or previously selected Subcontractor/vendor by the Prime shall be made without written notification to CCWA and the approval by CCWA. A Prime cannot arbitrarily terminate a SLBE Subcontractor and self-perform the work without requesting a waiver and written approval from CCWA in advance.

- B. SLBE Subcontractors can be replaced if they are unable or unwilling to perform the contracted work, or for other appropriate reasons, which are documented in writing. If it appears that the SLBE subcontracting requirement cannot be achieved, the Prime Contractor shall immediately notify CCWA in writing accompanied by the appropriate documentation. Good Faith Effort used to try to meet at least a portion of the requirement should be documented and submitted to CCWA for evaluation. All Prime Contractors must use the “Request for SLBE Subcontractor Removal/Substitution Form” which is set form herein as “Exhibit SLBE-6.”
- C. Although participation in the SLBE program is not a requirement to participate in contracting with CCWA, it is a requirement to comply with making the “good faith effort” procedures and forms as outlined below.
- D. The Bidder will be required to submit evidence demonstrating that “good faith efforts” were made to meet the SLBE goal.

### 1.05 SLBE Required Forms

- A. This Section contains the following forms that Bidders are required to submit along with their Bids (in addition to general contractor forms):
  - 1. SLBE-1 Covenant of Non-Discrimination: The signed agreement stating that the firm will not discriminate on the basis of a firm’s size (revenue or employee count) with regard to prime contracting, subcontracting, or partnering opportunities.
  - 2. SLBE-2 Sub-Contractor Contact Form: A list of all firms contacted to participate as SLBE sub-contractors/suppliers on a contract.
  - 3. SLBE-3 SLBE Small Local Business Enterprise Project Participation Plan: A list of all firms procured as SLBE sub-contractors/suppliers to be utilized on a contract.
  - 4. SLBE-4 Statement of Good Faith Efforts (Including the Checklist): Documented efforts to seek and procure the utilization of SLBE’s as sub-contractors/suppliers on a contract where a goal is required.

#### **To be submitted post-award:**

- 5. SLBE-5 Post Award Monthly SLBE Participation Report – Contract Goal: Report detailing percentage of SLBE participation (work performed) and payments to SLBEs on a contract.
- 6. SLBE-6 Request for Subcontractor Removal/Substitution Form: Required to fill out and obtain approval if a SLBE subcontractor is being substituted following post bid.

## 1.06 Supplements

- A. The supplements listed below, following “END OF SECTION”, are part of this Specification:
1. Form SLBE-1, Covenant of Non-Discrimination.
  2. Form SLBE-2, Sub-Contractor Contact Form – Contract Goal.
  3. Form SLBE-3, Small Local Business Enterprise Project Participation Plan.
  4. Form SLBE-4, Statement of Good Faith Efforts.
  5. Form SLBE-5, Post-Award-Monthly SLBE Participation Report Contract Goal.
  6. Form SLBE-6, Subcontractor Removal/Substitution Form.

**END OF SECTION**

**FORM SLBE-1**

**COVENANT OF NON-DISCRIMINATION**

The undersigned understands that it is the policy of the Clayton County Water Authority (CCWA) to promote full and equal business opportunity for all persons doing business with CCWA. The undersigned covenants that we have not discriminated on the basis of a firm's revenue or employee count with regard to prime contracting, subcontracting or partnering opportunities. The undersigned further covenants that we have completed truthfully and fully the required forms SLBE-2, SLBE-3 and SLBE-4. Set forth below is the signature of an officer of the Bid entity with CCWA to bind the entity.

I, Garland Long (Name, Title), on behalf of Lakeshore Engineering, LLC  
(Company), by my signature below, do hereby promise:

1. To adopt the policies of Clayton County relating to equal opportunity in contracting on projects and contracts funded, in whole or in part, with funds of CCWA;
2. Not to otherwise engage in discriminatory conduct;
3. To provide a discrimination-free working environment;
4. That this Covenant of Non-Discrimination shall be continuing in nature and shall remain in full force and effect without interruption; and
5. That this Covenant of Non-Discrimination shall be incorporated by reference into any contract or portion thereof which we may hereafter obtain.

We understand that our failure to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract.


  
\_\_\_\_\_

Signature of Attesting Party

\_\_\_\_\_  
President

Title of Attesting Party

On this 2nd day of August, 2022, before me appeared Garland Long,  
the person who signed the above covenant in my presence.

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

2/8/23  
\_\_\_\_\_  
My Commission Expires

**Jeffrey A Laurion**  
[Notary Public]  
State of Georgia  
Cherokee County

CCWA approved: 03/10/2021

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CCWA approved: 03/10/2021

## FORM SLBE-2

### SUB-CONTRACTOR CONTACT FORM – CONTRACT GOAL

#### Instructions to Contractors:

The prime contractor must complete and sign the sub-contractor contact form and submit the completed and signed form with the bid. **Failure to submit this form may result in the bid being deemed nonresponsive.**

**SLBE Prime Contractors:** If you are the prime contractor on the project AND also the SLBE on the project and will NOT use any other SLBE firms as subcontractors, check the box at the top of the form and sign the form.

1. Name of contractor/supplier: Provide name of the contractor or supplier you contacted to perform on the contract.
2. Contact Name, Address and Phone Number: Provide the contact information of the contractor/supplier you contacted.
3. County of Clayton Business License: State if the contractor/supplier you contacted is a Clayton County Licensed business.
4. Type or work solicited for: Describe the type of work for which you are soliciting from the contractor/supplier.
5. Business Ownership (SLBE/non-SLBE): State whether the contractor/supplier you contacted is an SLBE or non-SLBE.
6. Results of Contact: Describe the results of your contact.
7. Sign and date the form.

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CCWA approved: 03/10/2021



**FORM SLBE-2**

**SUB-CONTRACTOR CONTACT FORM**

List all sub-contractors or suppliers (SLBE and Non-SLBE) that were contacted regarding this project

IF THE PRIME IS THE SLBE ON THE PROJECT CHECK THE BOX

Name of Sub-Contractor/Supplier	Company Name, Contact Name, Address and Phone Number	County of Clayton Business License? (Yes or No)	Type of Work Solicited for	Business Ownership (Enter SLBE or Non SLBE)	Results of Contact
Company ABC	123 Main Street Morrow, GA 30260 770-123-4698	Yes	Hauling	SLBE	Will perform as sub
Llamas Coatings		no	painting	SLBE	
Player & Co.		no	electrical	Non SLBE	
M.E. Contractors, Inc.		no	electrical	Non SLBE	
C&B Piping		no	piping	Non SLBE	
Core & Main		no	piping	Non SLBE	
Ferguson Waterworks		no	piping	Non SLBE	

**FORM SLBE-2**

**SUB-CONTRACTOR CONTACT FORM – Cont'd**

*List all sub-contractors or suppliers (SLBE and Non-SLBE) that were contacted regarding this project*

Name of Sub-Contractor/Supplier	Company Name, Contact Name, Address and Phone Number	County of Clayton Business License? (Yes or No)	Type of Work Solicited for	Business Ownership (Enter SLBE or Non SLBE)	Results of Contact
Contessa Construction Services, LLC		No	painting	SLBE	

Bidder's Name: Lakeshore Engineering, LLC

Project Name: Hooper & Hicks UV

FC#: \_\_\_\_\_

Signature: 

Contact No: 404 355-3976

Date: 8/2/2022

**FORM SLBE-3**  
**SMALL LOCAL BUSINESS ENTERPRISE**  
**PROJECT PARTICIPATION PLAN**

SUB-CONTRACTOR/SUPPLIER UTILIZATION

Instructions to Contractors:

The prime contractor must complete the project participation plan for sub-contractor/supplier utilization and submit the form with the bid. **Failure to submit this form may result in the bid being deemed nonresponsive.**

1. Name of contractor/supplier: Provide name of the contractor or supplier you contacted to perform on the project.
2. Certified as SLBE: State if the subcontractor/supplier to be used on the project is an SLBE.
3. Which County? If you are using an SLBE on the project, state in which county the SLBE is located.
4. NAIC or NIGP code: List the NAIC/NIGP code that relates to the service or work to be performed by the subcontractor/supplier.
5. Type of work to be performed: Describe the type of proposed work to be performed by the subcontractor/supplier.
6. Certification number and expiration date: If using an SLBE, provide the SLBE certification number and expiration date.
7. Estimated dollar value of work: Provide the estimated dollar value of the work to be performed by the subcontractor/supplier on the project.
8. Percentage of Total Bid Amount: Enter the estimated % of the total bid amount for which the SLBE will be paid.

**Estimated Dollar Value of the Work / Total Bid Amount = % of Total Bid Amount**

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**FORM SLBE-3**

**SMALL LOCAL BUSINESS ENTERPRISE PROJECT PARTICIPATION PLAN**

Sub-Contractor/Supplier Utilization

List all sub-contractors and suppliers, including lower tiers, to be used on this project.

Name of Sub-contractor/Supplier	Certified as Small Local Business Enterprise (SLBE) Yes or No	If SLBE, which county? Clayton, Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Henry, Gwinnett, Rockdale, Spalding	NIAC or NIGP Code	Type of Work to be Performed	SLBE Certification No. and Expiration Date	Estimate Dollar (\$) Value of Work	Percentage of Total Bid Amount
Company ABC	Yes	Clayton	96239	Hauling	SLBE-465-12 1/15/2017	\$4,200	8.4%
Llamas Coatings	Yes	Clayton		Painting	SLBE - 1606 -29G	\$90,000.00	1.8%
Player & Co.	No			electrical		\$230,000.00	4.6%

Total Estimate SLBE Sub-contractor % 1.8%

Bidder's Company Name: Lakeshore Engineering, LLC

Date: 8/2/2022

Bidder's Contact Number: 404 355-3976

Project Name: Hooper & Hicks UV

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

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**FORM SLBE-4**

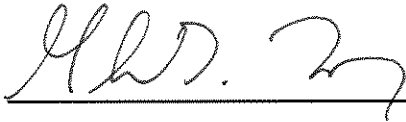
**STATEMENT OF GOOD FAITH EFFORTS**

Instructions to Contractor:

If you will not meet the Small Local Business Enterprises (SLBE) goal set forth in the RFB, in addition to the information included on the SLBE Form 2 Sub-contractors Contact Form submitted with your bid, please provide a narrative explanation of why you cannot meet the SLBE goal and the steps taken to include SLBEs in your bid. Describe specific actions (i.e. phone calls, etc.). Please provide copies of any solicitation notices sent, whether by email, fax or mail, and the amount of time given for response. Describe efforts to follow up initial communications. Identify the individuals from your organization who performed these activities. Attach additional pages as needed.

**CERTIFICATION OF GOOD FAITH EFFORTS**

I hereby attest that I have exercised good faith efforts to meet the Small Local Business Enterprise goals for this bid. Despite such good faith efforts, I have not been able to meet the SLBE goal for this bid.



---

Authorized Signature

August 2, 2022

---

Date

Garland Long, President

Name and Title (typed or printed)

Lakeshore Engineering, LLC

Name of Firm

## FORM SLBE-4 (Cont'd)

### STATEMENT OF GOOD FAITH EFFORTS

#### Checklist

A Bidder or Bidder that does not meet CCWA's SLBE participation goal is required to demonstrate that it made "good faith efforts." Please indicate whether or not any of the following actions were taken:

**YES** **NO**

1.   Attendance at a pre-bid meeting, if any, scheduled by CCWA to inform SLBEs of subcontracting opportunities under a given solicitation; Advertisement for solicitation of SLBEs in general circulation media, trade association publications, and minority-focus media, to provide notice of subcontracting opportunities.
2.   Advertisement in general circulation media at least seven (7) days prior to Bid or Bid opening any and all Sub-contractor opportunities. Proof of advertisement must be submitted with the Bid or Bid.
3.   Provided interested SLBEs with timely, adequate information about the plans specifications, and other such requirements of the Contract to facilitate their quotation and conducted follow up to initial solicitations.
4.   Provided written notice to SLBEs that their interest in subcontracting opportunities or furnishing supplies is solicited. Provided a contact log showing the name, address, email and contact number (phone or fax) used to contact the proposed certified sub-contractors, nature of work requested for quote, date of contact, the name and title of the person making the effort, and the amount of the quoted price if one was obtained.
5.   Efforts were made to divide the work for SLBE subcontracting in areas likely to be successful and identify portions of work available to SLBEs consistent with their availability. Include a list of divisions of work not subcontracted and the corresponding reasons for not including them. The ability or desire of a Bidder/Bidder to perform the work of a contract with its own organization does not relieve it of the responsibility to make good faith efforts on all scopes of work subject to subcontracting.
6.   Efforts were made to assist potential SLBE sub-contractors to meet bonding, insurance or other governmental contracting requirements. Where feasible, facilitating the leasing of supplies or equipment when they are of such a specialized nature that an SLBE could not readily and economically obtain them in the marketplace.
7.   Utilization of services of available minority community organizations, minority contractor groups and other organizations that provide assistance in the recruitment and placement of SLBEs.
8.   Communication with the CCWA Contracts, Compliance and Risk Management Section seeking assistance in identifying available SLBEs.
9.   Exploration of joint venture opportunities with SLBEs.
10.   Other actions (specify):

---

Please explain any "no" answers listed above (by number):

SLBE goals were met

---

*This list is a guideline and by no means exhaustive. CCWA will review these efforts, along with other documents, towards assessing the Bidder/Bidder's efforts to meet CCWA's SLBE goal. If you require assistance in identifying certified SLBEs, please contact the Contracts, Compliance and Risk Management Section at [ccwa\\_slbe\\_program@ccwa.us](mailto:ccwa_slbe_program@ccwa.us) or at 770-960-5880.*



**FORM SLBE-5**  
**POST-AWARD – MONTHLY SLBE PARTICIPATION REPORT –**  
**CONTRACT GOAL**

**Instructions to Contractors**

The prime contractor must complete the participation report and submit the form with each pay application to the CCWA Project Manager in charge of the contract. Failure to submit this form will result the pay application being deemed incomplete.

1. Report Number: Reports must be consecutively numbered. It will only be necessary to submit a report in a period when the approved SLBE has performed a portion of the work that has been designated for the contract.
2. Date: Actual date of the report.
3. Pay application period end date: Reports must acknowledge the end date for the period for which is being reported.
4. SLBE Amount: The amount of the contract for which the SLBE will earn.
5. Prior Earned Pay Application Amount: The amount previously submitted for payment on pay application.
6. Current Earned Pay Application Amount: The amount submitting with current payment application.
7. Earnings To-Date: The actual amount that each SLBE has earned to-date under the contract.
8. Percent of Contract: This percentage is calculated using the contract amount and the total SLBE earnings-to-date. Divide the total contract amount by the total SLBE earnings-to-date.
9. Certification: The contractor's authorized representative must sign this form prior to submittal.

**GENERAL INFORMATION**

When the approved SLBE is to provide materials, goods or services, this completed form must be submitted to the CCWA Project Manager. The prime contractor must notify CCWA or any changes to SLBE firms.

When the prime contractor is an approved SLBE, it will only be necessary to complete the total SLBE earnings to-date. Joint ventures between non-SLBE and certified SLBE: Only that portion of the work for which the SLBE is responsible may be used to satisfy the requirement.

**FORM SLBE-5**

**POST AWARD – MONTHLY SLBE PARTICIPATION REPORT – CONTRACT GOAL**

PROJECT NO. (S): \_\_\_\_\_

REPORT NO.: \_\_\_\_\_

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

DATE: \_\_\_\_\_

CONTRACT AMOUNT: \$\_\_\_\_\_

PAY APPLICATION PERIOD END DATE: \_\_\_\_\_

Check if final payment >>>  FINAL PAYMENT

% SLBE GOAL \_\_\_\_\_

SLBE AMOUNT \$: \_\_\_\_\_

NAME OF APPROVED SLBE	DESCRIPTION OF WORK	PRIOR EARNED PAY APPLICATION AMOUNT	CURRENT EARNED PAY APPLICATION AMOUNT	EARNINGS TO-DATE

TOTAL SLBE EARNINGS TO-DATE: \_\_\_\_\_

% CONTRACT: \_\_\_\_\_

I HEREBY CERTIFY THAT THE ABOVE STATEMENT IS TRUE AND CORRECT AND SUPPORTING DOCUMENTATION IS ON FILE AND IS AVAILABLE FOR INSPECTION BY CCWA AT ANY TIME.

SIGNED \_\_\_\_\_  
CONTRACTOR

REMARKS \_\_\_\_\_  
\_\_\_\_\_

**FOR DEPARTMENT USE ONLY:**

THIS DOCUMENT HAS BEEN REVIEWED AT THAT PROJECT LEVEL BY:

SIGNED \_\_\_\_\_ TITLE \_\_\_\_\_



### FORM SLBE-6

## REQUEST FOR SUBCONTRACTOR REMOVAL / SUBSTITUTION

Prior to submitting this form to Risk Management you must notify the SLBE in writing of your intent and allow the SLBE five (5) days to respond.

Request Date:		Contract/Project #	
Contract Value:	SLBE Contract Amount:	Amount Paid to SLBE:	
Prime Contractor Name:			
Prime Contractor Address:			
Prime Contact Name & Email:		Prime Contact Phone:	
Name of SLBE Firm:		SLBE Contact Name:	
SLBE Firm Address:		SLBE Contact Phone:	

Was SLBE firm given five (5) days written notice of intent?  Yes or  No If yes, please attach written notice.

Will the SLBE goal for the project still be met?  Yes or  No or  N/A

Reason(s) for removal/substitution. **Check all that apply**

- The listed SLBE is no longer in business.
- The listed SLBE requested removal.
- The listed SLBE failed or refused to perform under the terms of the contract or failed to furnish the listed materials.
- The work performed by the listed SLBE was unsatisfactory and was not in accordance with the scheduled specifications.

Name/Address of Substitution Contractor:	Is the substituted contractor an SLBE? <input type="checkbox"/> Yes or <input type="checkbox"/> No
Fully describe the type of work the substitute subcontractor will perform:	

Prime Authorized Signature:	Date:
Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Reason for rejection:	
Risk Management Authorized Signature:	Date:

This form (with all required documentation) should be completed and submitted to:

Clayton County Water Authority  
ATTN: Purchasing Manager  
1600 Battle Creek Rd.  
Morrow, GA 30260

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Providing Quality Water and Quality Services to Our Community

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Mr. Benigno Llamazales  
Llamas Coatings, Inc  
2210 Riverview Road, SE  
Smyrna, GA 30082


Subject: Small Local Business Enterprise (SLBE) Program  
Certification Number SLBE-1606-29G  
Expiration Date: June 21, 2021

Thank you for your application for certification as a Small Local Business Enterprise with Clayton County Water Authority.

This letter reflects to recent changes to the Small Local Business Program. Your new certification expiration date is stated above.

You will be required to submit an Affidavit of No Change every two years. The Affidavit will be sent to you. Or you can download the affidavit on our website at [www.ccwa.us](http://www.ccwa.us). Please note that one month prior to the expiration date of this certification, your company is required to submit a completed Recertification Affidavit form for our review relative to the company's qualifications for continuing participation in the SLBE program. Additionally, you must formally notify this Department of any changes that occur within your company that effect ownership, managerial and/or operational control within thirty days of such changes occurring. Similar notification must be provided to us of any changes to the company's name, business address, telephone numbers, and principal products/services or other basic contact and commercial activity information. Failure to provide a completed Recertification Affidavit or to notify this office of such changes to your company in a timely manner may result in the revocation of your certification status.

As the SLBE program indicate, Clayton County Water Authority values equal opportunity among its business partners, and hopes to see them grow and prosper. Consequently, we are delighted to be able to assist your company by approving its participation in this program.

Sincerely,  
  
Karen Riser  
Risk Manager  
Clayton County Water Authority

[www.ccwa.us](http://www.ccwa.us) | 770-960-5880 | [www.ccwa\\_slbe\\_program@ccwa.us](mailto:www.ccwa_slbe_program@ccwa.us) | 1600





Providing Quality Water and Quality Services to Our Community

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December 2, 2020

Garland Long, President  
Lakeshore Engineering, LLC  
1259 Ellsworth Drive  
Atlanta Ga 30318

**RE: Small Local Business Enterprise (SLBE) Program**  
**Certification Number SLBE-2012-01**  
**Expires: December 2, 2022**

Garland Long, President:

The Clayton County Water Authority has reviewed your Small Local Business Enterprise Provisional Certification Application. Our evaluation of the information submitted with your request for certification indicates that your firm has met the criteria outlined for participation in the Clayton County Water Authority Small Local Business Enterprise Program.

Your firm has been provisionally certified as a **Small Local Business Enterprise (SLBE)** with the Clayton County Water Authority. **Your certification will last for a period of two (2) years** from the date on this certification letter. *Please attach a copy of this certification letter with each bid or proposal you submit as a prime or sub-contractor.* **Additionally, you are required to register as a CCWA vendor if have not already done so. You may access our online vendor registration at [www.ccwa.us](http://www.ccwa.us).**

At the end of your 2-year term you will qualify for a 2<sup>nd</sup> 2-year provisional term. **These terms DO NOT have to run consecutively.** After completion of the 2nd term, applicants must recertify with our General Application for a 5-year general term by providing the general application and supporting documents. *Please be advised, Contract Compliance and Risk Management reserves the right to schedule on-site inspections of any business certified under this program.*

Your firm's information will appear in the Clayton County Water Authority's Certified SLBEs listing which can be accessed through our website at [www.ccwa.us](http://www.ccwa.us). **Certification does not guarantee** any present or future contracts with Clayton County Water Authority. All certified/registered vendors must take the necessary steps to become a part of Clayton County Water Authority's procurement process and bid competitively for business.

**It is your obligation to notify CCWA of any changes in ownership and/or control of your firm.** If at any time during the year there is a change in ownership and/or control of your firm, you are required to notify this office of such change in writing by sworn affidavit and with supporting documentation within thirty (30) days of such change. You are also required to notify CCWA if your firm relocates outside of the eleven (11) county area specific to CCWA's SLBE program: **Clayton, Cherokee, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale, Spalding and City of Atlanta.** Failure to provide notification of such changes may result in your firm being removed from the SLBE program.

As the SLBE program indicates, Clayton County Water Authority values equal opportunity among its business partners, and hopes to see them grow and prosper. Consequently, we are delighted to be able to assist your company by approving its participation in this program.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Riser".

Karen Riser  
Risk Manager  
Clayton County Water Authority





**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 3)

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: Lakeshore Engineering, LLC
2. Permanent main office address, phone numbers, and email address of primary contact:  
1259 Ellsworth Dr, Atlanta, GA 30318
3. When organized: 09/14/2009
4. If a Corporation, where incorporated: GA
5. How many years has the Bidder been engaged in the contracting business under its present firm or trade name? 13
6. General description of type of work performed by the Bidder's company: Utility Construction, General Contractor & Engineering
7. Has the Bidder ever failed to complete any job awarded to it? If so, please provide details including where and why. no
8. Has the Bidder ever failed to complete a job on time? If so, please provide details including how late was it?  
no
9. Has the bidder ever been assessed liquidated damages? If so, please provide details including where and why.  
no

CCWA approved: 03/10/2021

**CORPORATE EXPERIENCE FORM**

(Page 2 of 3)

10. Has the bidder ever been in litigation or arbitration with the Owner. If so, please provide details including where and why.

no

11. Has the Bidder ever defaulted on a contract? If so, please provide details including where and why? \_\_\_\_

no

12. Has the Bidder ever refused to sign a Contract at the original bid price? If so, please provide details including where and why? \_\_\_\_\_

no

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

<u>Name</u>	<u>Position</u>	<u>Years of Experience</u>
Garland Long	President	35
Jeff Laurion	Vice President	25
_____	_____	_____
_____	_____	_____

C.C.W.A. approved: 03/11/2021


**CORPORATE EXPERIENCE FORM**

(Page 2 of 3)

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

Bidder: Lakeshore Engineering, LLC

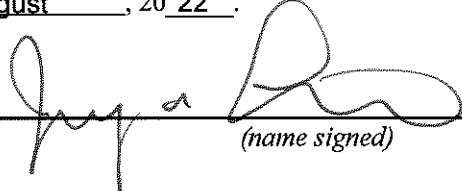
By:   
(name signed)

Garland Long  
(name printed or typed)

Title: President

Date: August 2, 2022

Subscribed and sworn to me this 2nd day of August, 20 22.

Notary Public:   
(name signed)

JEFF A. LAURION  
(name printed or typed)

Commission Expires: 2/8/23  
(Date)

**Jeffrey A Laurion**  
**Notary Public**  
**State of Georgia**  
**Cherokee County**

CCWA approved: 05/10/2021

**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: Lakeshore Engineering, LLC

Project Title: North Chattahoochee Interceptor Pump Station Improvements

Project Location: Peachtree Corners, GA

Project Manager: Brandon Dow

Superintendent: Tim Raby

Project Description: Upgrade to existing wastewater pump station

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

Project Owner:

Owner Name: Gwinnett County Department of Water Resources

Contact Person: Tyler Tanksley

Phone Number: (678) 997-7756

Design Firm:

Company Name: Brown & Caldwell - Johnathan Jackson (770) 673-3671

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

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

Construction Contract Administration:

Company Name: Brown & Caldwell - Johnathan Jackson (770) 673-3671

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

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

CCWA approved: 03/10/2021

**PROJECT INFORMATION FORM**

(Page 2 of 2)

**Contract:**

Bid Date: December 13, 2017

Bid Price / Contract Amount: \$4,604,112.00

Final Contract Price: \$5.443.155.00

**Contract Time**

Initial: 365 days

Final: 365 days

Completion Date: June 2018

Explain Reasons for Variances to Contract Amount and/or Time: \_\_\_\_\_  
additional scope was added

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

Electrical: M.E. Contractors, Inc.

Subcontractor PM: Ron Stroud

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

Phone Number: 404 427-4425

Instrumentation & Controls: Global Controls

Subcontractor PM: Kishor Ghandi

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

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

Other: \_\_\_\_\_

Subcontractor PM: \_\_\_\_\_

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

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

**END OF SECTION**

CCMVA approved: 03/10/2021



## STATEMENT OF QUALIFICATIONS

Lakeshore Engineering, LLC (Lakeshore) is a fully licensed GA environmental / utility contractor that focuses on the construction and renovation of water / wastewater treatment plants, pump stations, industrial construction, and environmental remediation projects. The management team has over forty years of combined experience in this type of work. Lakeshore self performs the majority of the work on their projects and also has an extensive list of proven subcontractors and vendors that form an extremely efficient and well managed project team.

### WATER / SEWER PROJECTS LIST:

Project Name	Contract Amount	% complete	Engineer	Owner Contact	Completion Date
DDCWSA Lift Station & Forcemain	\$353,522.00	100%	RJ Wood Ronnie Wood (478) 741-7044	Douglas County Daniel Manny (770) 920-3853	7/31/10
City of Roswell WTP Improvements	\$69,960.00	100%	none	City of Roswell Mike Leonard (770) 641-3816	7/31/10
City of Montezuma Levee Pump Station	\$334,720.00	100%	Ocmulgee Engineering Lance Woods (478) 217-0352	City of Montezuma Jim Copland (478) 472-9782	8/15/10
City of Roberta WWTP Improvements	\$1,262,910.00	100%	Carter & Sloope Trey Gavin (478) 477-3923	City of Roberta Bob Bacle (478) 837-5582	8/1/11
Dekalb County Snapfinger WWTP Improvements	\$497,494.00	100%	none	Dekalb County Merat Zarreii (770) 621-3526	4/1/11
Stepan Chemical Site Development	\$343,000	100%	Process Unlimited	Stepan Chem. Bob Montgomery (770) 867-8826	4/1/11
Howard Road Booster Pump Station	\$96,928.00	100%	GBT Chris Poje (770) 333-0700	City of Senoia, GA	4/15/11
Mason Mill Park Ecological Pump Station	\$352,794.00	100%	Brown & Caldwell	Dekalb County Merat Zarreii (770) 621-3526	11/1/11



Project Name	Contract Amount	Percent Complete	Engineer	Owner	Completion Date
Skipper Road Booster Pump Station	\$1,120,000	100%	Hofstadter & Associates John Fry (478) 757-1169	MWA Ray Shell (478) 454-5637	10/1/11
WJ Hooper WPP Solids Handling Improvements	1,664,072.00	100%	CH2M Hill Chris Cranmer (678) 313-9095	CCWA Mike Buffington (770) 960-3616	3/1/12
Willeo Creek Pump Station Upgrade	399,628.00	100%	Hazen & Sawyer	Cobb County, Andrew Kennedy (770) 419-6388	7/15/12
Scott Candler Emergency Pump Station Modifications-Dekalb County	2,062,918.00	100%	CDM Rob Isabel (404) 720-1400	Dekalb County Merat Zarreii (770) 621-3526	3/1/14
Lower Crooked Creek Pump Station #1	1,181,000.00	100%	B & C -Kelly Comstock (770) 673-3669	Dekalb County, GA Jeff Winston (404) 660-9436	11/15/12
Echeconee Lift Station Modifications	657,400.00	100%	Carter Sloop Trey Gavin (478) 477-3923	MWA Ray Shell (478) 454-5637	10/31/12
MWA Pump Station Rehab No. 2	\$634,780.00	100%	Hofstadter & Associates John Fry (478) 757-1169	MWA Ray Shell (478) 454 -5637	4/30/13
CCWA Distribution System Improvements	\$1,143,456.00	100%	Jacobs Michael Diaz (770) 455-8555	CCWA Cliff Beroset (678) 422-2828	8/15/13
City of Atlanta DB –Dechlor Project	282,800	100%	Lakeshore Engineering	City of Atlanta Mike Shelhammer	4/30/13
Fort Gordon Gate 4 BPS	1,334,492	100%	JLA -Rich Laschober (706) 724-5756	AUD – Stanley Aye (706) 724-5756	10/31/13
Louisville GA WTP Improvements	1,109,016	100%	GBT – Kenny Green (706) 863-8800	City of Louisville, GA	6/30/14
College Park, GA	288,896	100%	GBT – Chris Poje (770) 333-0700	College Park. GA- Jackson Myers	6/30/13





<b>Project Name</b>	<b>Contract Amount</b>	<b>Percent Complete</b>	<b>Engineer</b>	<b>Owner</b>	<b>Completion Date</b>
Casey Bio-Filter Rehab	\$680,873	100%	Jacobs Diana Davis	CCWA Cliff Beroset	4/15/14
NE Chemical Tank Replacement	\$165,496	100%	Jacobs Diana Davis	CCWA Cliff Beroset	3/27/14
Middle Oconee WRF Improvements	\$1,065,000	100%	EMI Chip McGaughey	JCWSA Joey Leslie	9/30/2014
Cobb Raw Water Pump Replacement	\$363,275	100%	CEC Andrew Lovejoy	Cobb Water Lance Buchanan	8/15/2014
Rincon WRF	\$258,404	100%	EMC Tim Baumgartner	City of Rincon Tracy Gunter	6/15/14
Shoal Creek IPS	\$627,521	100%	Jacobs Michael Diaz	CCWA Jim Poff	9/15/2014
Warm Springs Radium Removal	\$607,258	100%	EMI Russ Brink	City of Warm Springs	4/15/2015
Tallapoosa Pump Station	\$309,615	100%	GB Turnipseed Chuck Butterfield	City of Tallapoosa	10/31/2014
Runaway Point Pump Station	\$289,668	100%	ISE Cary Dial	Chatham County	7/15/14
Emory Private WRF	1,265,327	100%	Mckim & Creed George Simon	Emory University	7/15/15
Mauldin Road WTP	4,754,087	100%	Peoples & Quigley Bob Peoples	City of Calhoun Jerry Crawford	1/15/16
Amerson WTP RWPS	589,478	100%	Hazen & Sawyer Dave Ehrhardt	MWA Ray Shell	7/15/15
South River Aeration Basins	2,993,952	100%		COA Mike Shelhammer	5/30/16
Long Cane Creek Fine Screen Installation	511,500	100%	Ellis & Associates Ron Ellis	City of LaGrange	11/15/15
RM Clayton WRC Centrifuge Controls	\$1,878,462.00	100%	CMG Brad Ross	COA Sandra Glenn	3/30/2016



<b>Project Name</b>	<b>Contract Amount</b>	<b>Percent Complete</b>	<b>Engineer</b>	<b>Owner</b>	<b>Completion Date</b>
Hemphill Embankment Repairs	\$2,899,000	100%	CMG Dennis Phillips	COA Lee Hunt	3/1/2017
Crosstown WTP Improvements	\$4,523,281	100%	CH2M Hill Michael Diaz	FCWA Lee Pope	11/2016
North Rabun WTP Construction	\$5,448,616	100%	Precision Planning Jim Sunta (404) 372-1353	Rabun County Brendan Thompson (706) 490-2075	2/2017
South Columbus Dewatering Building	\$2,049,000	100%	Ch2M Hill Michael Diaz	Columbus Water Works Jason Powers (706) 580-1296	3/15/2017
Amerson WTP RWPS Low Flow Management System	\$467,000	100%	Aecom Dmitry Tepo (404) 965-9674	Macon Water Authority Ray Shell	4/2017
Bojo Ella Lift Station	\$794,000	100%	Carter & Sloope Charlie Bridge	City of Douglas	9/30/2017
Lamar Ham WTP High Service Pump Replacement	\$391,099	100%	Goodwyn, Mills, Cawood Tim Blaydes	City of Milledgeville Robert Haden	11/30/2017
Rose Creek Odor Control Improvements	\$689,027	100%	Infratech Keith Hendrix	Cherokee County Water & Sewer Authority Mike Venters	9/30/2017
City of Woodstock Wells	\$845,500	100%	Rindt McDuff Robert Simmons	City of Woodstock	10/30/2017
College Park Water System Improvements	\$1,664,000	100%	Turnipseed Engineers Chuck Butterfield	City of College Park Jackson Meyers	2/29/2018
Riverbend Environmental Complex - JV	\$14,046,190 (Lakeshore Engineering Portion)	100%	Hazen & Sawyer Chris Szoch (404) 459-6363	Cherokee County Water & Sewer Authority Corey Ghorley (770) 479-1813	10/15/2018
North Columbus WRF Solids	\$2,472,341	100%	Krebs Engineering Scott Lee	Columbus Water Works Jason Powers	12/31/2018



Project Name	Contract Amount	Percent Complete	Engineer	Owner	Completion Date
CNG Fueling Facility at Hamilton Mill	\$15,439,720	100%	MARTA Israel Shahdaiah	MARTA Israel Shahdaiah (404) 848-4019	2/29/19
Big Flat Creek Pump Station	\$3,042,000	100%	ESI John Fleck (770) 634-4177	Gwinnett County DWR Tyler Tanksley (678) 376-6935	10/30/19
North Chattahoochee Interceptor Pump Station	\$5,443,155.00	100%	Brown & Caldwell	Gwinnett County DWR Tyler Tanksley (678) 376-6935	10/30/19
Snapping Shoals WPCP	\$24,923,566	100%	Parsons Billy Street 678 910-1697	Rockdale County David Cervone	11/01/21
Reynolds Plantation Water Treatment Plant	\$11,600,000	100%	Fortis Engineering Mark Pittard 770 402-8452	Piedmont Water Adam Shaifer (404) 235-4035	6/15/2021
South Fayette Chloride Dioxide Generation System	\$934,080.00	100%	CH2M Hill Chris Cranmer	FCWA Russell Ray	12/15/2020
Clarkesville WTP Upgrade	\$4,854,505.00	100%	Turnipseed Engineers David Tyre	City of Clarksville	10/15/2021
Nevis Island Water Treatment Plant	\$600,000.00	100%	Turnipseed Engineers Chris Poje	Nevis Island Authority Floyd Robinson	12/15/2020
Brooks Road Pump Station	\$7,721,900.00	80%	Tetra Tech	Gwinnett County DWR	5/15/2022
Blankets Creek Pump Station	\$2,039,000.00	100%	ESI Scott Hennessy	Cherokee County WSA	3/15/2022
Sherwood Pump Station	\$3,749,150.00	65%	ESI John Fleck	Gwinnett County DWR	5/15/2022
JW Smith HSPS	\$2,685,374.00	25%	Hazen & Sawyer Alan Bowling	Clayton County Water Authority Kelly Taylor	3/1/2023
Shoal Creek UV Replacment	\$879,000.00	100%	Hazen & Sawyer Alan Bowling	Clayton County Water Authority Kelly Taylor	3/31/2022
Thomaston WPCP Upgrade	\$4,355,000.00	50%	ESG Engineering Trey Gavin	City of Thomaston	6/30/2022



<b>Project Name</b>	<b>Contract Amount</b>	<b>Percent Complete</b>	<b>Engineer</b>	<b>Owner</b>	<b>Completion Date</b>
Gemini Booster Pump Station	\$5,483,750.00	95%	Hazen & Sawyer Alan Bowling	Macon Water Authority Michel Wanna	5/1/22
Wolf Creek Pump Station	\$10,432,450.00	10%	ESI JohnFleck	Gwinnett County DWR Tyler Tanksley	6/30/23
East Area Water Quality Improvements	\$13,844,850.00	5%	Acradis Michael Diaz	City of Atlanta Derek Stewart	4/30/2023



**President /Project Director  
Garland L. Long, P.E.**

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**EMPLOYMENT HISTORY**

- November 2009 – Present      President Lakeshore Engineering**
- June 2005 – October 2009      Vice President Heavy Constructors, Inc.**
- July 1998 – April 2005      Vice President - The Winter Construction Company/ Winter Environmental**
- September 1990 – June 1998      Project Manager – Waste Abatement Technology (WATEC)**

**EDUCATION**

Bachelor Civil Engineering – Georgia Institute of Technology, 1990

**TRAINING & CERTIFICATIONS**

- Licensed Professional Engineer, State of Georgia
- Licensed General Contractor, Unlimited, State of Georgia
- Licensed Utility Manager, State of Georgia
- Prior Board of Directors, Georgia Utility Contractors Association
- Member, American Society of Civil Engineers
- Member Association General Contractors of GA
- OSHA 40-hour HAZWOPER training

**RELEVANT PROJECT EXPERIENCE**

- Snapping Shoals WPCP
- Marta CNG Fueling Facility

- **OVER 30 YEARS EXPERIENCE IN WATER AND WASTEWATER TREATMENT PLANT CONSTRUCTION**



**Vice President / Preconstruction Manager**  
**Jeff Laurion**

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**EMPLOYMENT HISTORY**

**August 2010 – present**

**Lakeshore Engineering LLC**

- Project Manager / Estimator for water / wastewater treatment plant projects

**August 2005 – July 2010**

**Skanska USA Civil SE**

- Project Manager, R.M. Clayton Digester Upgrades Project, Atlanta, GA
- Sr. Project Engineer, West Area CSO Treatment Facility, Atlanta, GA

**May 2003 – August 2005**

**Winter Construction Company**

- Project Manager, Tussahaw Water Treatment Facility, Jackson, GA
- Project Manager, City of Rincon Water Pollution Control Facility, Rincon, GA

**November 1998 – May 2003**

**Danis Environmental Industries, Inc**

- Civil Project Manager, Lee Hall Water Treatment Plant, Newport News, VA
- Civil Project Manager, Harwoods Mill Water Treatment Plant, Newport News, VA
- Mechanical Project Manager, Lawrence Wastewater Treatment Facility, Lawrence, KS
- Mechanical Project Manager, Ina Road Wastewater Treatment Plant, Tucson, AZ
- Mechanical Project Engineer, Sod Run Wastewater Treatment Plant, Perryman, MD

**October 1995 – November 1998**

**M.A. Mortenson**

- Field/ Office Engineer, South Essex Sewer District Treatment Plant, Salem, MA

**EDUCATION:**

Wentworth Institute of Technology, Boston, MA

- Bachelor of Science in Civil Engineering Technology, September 1995
- Associate Degree in Building Construction Technology, May 1993

**TRAINING & CERTIFICATIONS:**

- OSHA (30 hrs) & OSHA Focus Four
- Scaffold & Excavation Competent Person
- Confined Space and Sulfur Dioxide/Chlorine Safety trained
- CPR & First Aid Certified.



## **Senior Project Manager Brandon Dow**

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### **EMPLOYMENT HISTORY**

<b>2016 – Present</b>	<b>Lakeshore Engineering</b>
<b>2008 – 2016</b>	<b>Layne Heavy Civil (Formerly Reynolds Inc.).</b>
<b>2001 – 2008</b>	<b>Alberici Constructors</b>

### **EDUCATION**

Bachelor Mechanical Engineering Technology--Southern Polytechnic State University (SPSU)

### **TRAINING & CERTIFICATIONS**

- E.I.T. 2002
- LEED 2.2 Certified
- OSHA 30 Hour Safety Training
- Red Cross First Aid / CPR

### **RELEVANT PROJECT EXPERIENCE –**

#### **Riverbend Environmental Complex – Ballground, GA**

Construction of new wastewater treatment plant including concrete, equipment installation, Electrical. Contact Value \$14,059,737.00

#### **North Chattahoochee Interceptor Pump Station Improvements – Duluth, GA**

Upgrade to existing wastewater pump station including concrete, mechanical, electrical, odor control, equipment installation and startup – Contract Value - \$5,443,155.00

#### **Big Flat Creek Pump Station – Loganville, GA**

Construction of new wastewater pump station including sitework, concrete, yard piping, concrete, Electrical, equipment installation, and startup. Contract Value \$3,184,000.00

#### **Hard Labor Creek Dam, Social Circle, GA**

New earth and concrete dam. Includes a concrete chute spillway with 14,000 CYD concrete, 120' foot tall earthen dam, 1,400 Acre reservoir. Contract Value \$18,000,000

#### **Breezy Hill Water Treatment Plant, Clearwater, SC**

New Water Treatment Facility that included a Raw Water Intake, Raw Water Pump Station, and an Operations Building to house the Plant Staff. Contract Value \$9,000,000



**Lawrenceville Water Treatment Facility, Lawrenceville, GA**

New Water Treatment Facility that included treatment and storage of Raw Well Water and an Office Building to house the City's Water Department. Contract Value \$4,000,000

**Wastewater Land Treatment System, Jacksonville, NC**

Upgrade and Expansion, Plant Upgrade at the main pump and effluent pump stations. Contract Value \$26,000,000

**No Business Creek, Gwinnett County, GA**

Tunnel and Pump Station Furnish and install two (2) pumps, metal building, processing and mechanical equipment for tunnel project. Contract Value \$8,500,000

**South River WRC Head works Improvements, City of Atlanta, GA**

Demolition and installation of head works equipment and the design, fabrication and construction of a permanent bypass pumping steel structure. Contract Value \$4,400,000

**Pump Stations Improvements, City of Atlanta, GA**

Modification of one pump station and four stations with major equipment. Upgrades and capacity improvements. Contract Value \$6,800,000

**Custer Avenue CSO & Dechlorination Facility, City of Atlanta, GA**

Demolition of screening facility and diversion channels and the construction of new screening and dechlorination facility with associate piping, site preparation, etc. Contract Value \$37,000,000





## **Project Manager Steven Ruble**

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### **EMPLOYMENT HISTORY**

**2020 – Present**            **Lakeshore Engineering**

**2005 – 2020**            **Heavy Constructors, Inc.**

### **EDUCATION**

Bachelors of Construction Management – Southern Polytechnic State University (SPSU)

### **TRAINING & CERTIFICATIONS**

- OSHA – Trench and Excavation Certification
- OSHA 30
- NPDES Level 1A Certification
- Red Cross First Aid / CPR

### **RELEVANT PROJECT EXPERIENCE –**

#### **Cartersville WTP Filter Upgrade – Cartersville GA**

Rehabilitation of existing filter systems including the replacement of existing control valves.  
Contract Value \$1,675,000

#### **Cumming WTP Chemical Improvements – Cumming GA**

Construction of new chemical system feed building and the addition of slope protection on an existing creek. Contract Value - \$4,803,000

#### **Riverside Chemical Improvements WTP Upgrade – Gainesville GA**

Construction of new chemical feed system including sitework, yard piping, concrete, electrical, equipment installation, and startup. Contract Value \$9,507,892

#### **WB Casey WWTP – Clayton County, GA**

Addition of a new 120' clarifier, rehabilitation of the existing pre-screening structure, and the construction of a drum screen. Contract Value \$14,114,829

#### **Rum Creek Pump Station – Clayton County GA**

Construction of new pump station while existing station was in service. Old pump station was demolished upon completion. Contract Value \$1,807,030



**Blue Ridge Water Treatment Plant – Blue Ridge GA**

New Water Treatment Facility that included the construction of a new 2.0 MGD clear well, basins, filters, chemical feed systems, and solids handling building. Contract Value \$7,720,000

**McCaysville WTP Expansion – McCaysville GA**

Upgrades to the water plant including the rehabilitation of the existing filters, chemicals system upgrades, instrumentation update, and the construction of a new clear well next to the Tallapoosa River. Contract Value \$4,457,767

**Fannin County H2O Main & Pump Station – Fannin County GA**

Construction of a new water main, including the addition of instrumentation and controls of water booster/tanks throughout the county.

Contract Amount \$1,457,767

**City of Atlanta Pump Stations (2) – College Park GA**

Construction of two new sewage pump station next to the fifth runway.

Contract Value \$1,985,230

**Quarles WTP Hypochlorite & Chemical Tank improvements – Cobb County Marietta Water Authority**

Construction of a new chemical systems including a sodium hypochlorite generation system, chlorine dioxide generator, and storage tanks. Contract Value \$7,030,434



**Project Engineer / QA QC Manager/ Safety Manager  
Jeff Endres, P.E.**

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**EMPLOYMENT HISTORY**

**2010 – Present                  Lakeshore Engineering**

**EDUCATION:**

Bachelor Civil Engineering – Georgia Institute of Technology, 1990

**TRAINING & CERTIFICATIONS:**

- Licensed Professional Engineer - GA
- OSHA 40 HR Hazwoper Training
- OSHA 30 HR CFR 1926 training

**RELEVANT PROJECT EXPERIENCE:**

- Marta CNG Fueling Facility
- Crosstown WTP Improvements
- Rabun County WTP Construction
- CCWA Pumping System Improvements
- Intranchment Creek WRF Improvements
- South Columbus WRF Solids Handling
- WJ Hooper Solids Handling



## **Assistant Project Manager Nick Leclerc**

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### **EMPLOYMENT HISTORY**

#### **June 2018 – Present Lakeshore Engineering, LLC**

- Assistant Project Manager / Estimator / Scheduler / Wastewater Treatment Plant Projects
  - North Chattahoochee Interceptor Pump Station Upgrades
  - Intrenchment Creek WRC Upgrades

#### **May 2014 – June 2018 PC Construction**

- Project Engineer / Estimator / Scheduler/ Manager / Water Treatment Plant Projects / Buildings and Facilities
  - City of Atlanta Department of Watershed Water Reserve Project, Atlanta, GA
  - Waterbury State Complex Renovation and Rehabilitation, Waterbury, VT

### **EDUCATION**

Bachelor of Science in Construction Engineering Management – Norwich University, Northfield, VT, 2014

### **TRAINING & CERTIFICATIONS**

- OSHA (30 hrs)
- CPR
- Fall Protection Training
- Confined Space Training
- Protection Training, Confined Space Training

### **RELEVANT PROJECT EXPERIENCE:**

- Annual Contract for Major Mechanical Repairs and Services – City of Atlanta
- Bellwood Quarry Pump Station – City of Atlanta
- North Chattahoochee Interceptor Pump Station Improvements – Gwinnett County DWM



## **General Project Superintendent Beau Jackson**

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### **EMPLOYMENT HISTORY**

**2009 – Present                      Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**2005-2009                              Wharton-Smith Inc.**

- Supervision and construction of water and wastewater treatment facilities

**1998-2005                              Winter Construction**

- Supervision and construction of water and wastewater treatment facilities

### **TRAINING & CERTIFICATIONS:**

- OSHA 30 hr safety training
- OSHA Subpart P – Excavation Training
- Red Cross First Aid / CPR annual training

### **RELEVANT PROJECT EXPERIENCE:**

- Skipper Road Booster Pump Station
- City of Roberta WWTP
- South Columbus WRF Solids Handling Facility
- North Columbus WRF Screw Press Installation
- City of Milledgeville HS pump replacement
- Bojo Ella Lift Station Refurbishment
- Amerson WTP Low Flow Management System
- Gemini Booster Pump Station
- Reynolds Plantation WTP



**Project Superintendent  
Michael Bowen**

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**EMPLOYMENT HISTORY**

**2018 – Present            Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**2010 – 2018            Heavy Constructors**

- Construction of water and wastewater treatment projects

**2000-2010            Winter Construction**

- Construction of water and wastewater treatment projects and remediation systems

**TRAINING & CERTIFICATION**

- OSHA 30 HR Safety Training
- 40 HR OSHA HAZWOPER Training
- Red Cross & CPR
- OSHA Subpart P Excavation Safety Training

**RELEVANT PROJECT EXPERIENCE:**

- Snapping Shoals WPCP
- WB Casey WRC Upgrade
- Huie Wetland Phase II & III
- Clayton County Water Authority WJ Hooper UV
- Gwinnett County F Wayne Hill



## **Project Superintendent Tim Raby**

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### **EMPLOYMENT HISTORY**

**2016 – Present                      Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**2003 - 2016                      Layne Heavy Civil / Reynolds**

- Supervision and construction of water and wastewater treatment facilities

### **TRAINING & CERTIFICATIONS**

- OSHA 40 HR Hazwoper Training
- OSHA 30 HR CFR 1926 training
- First Aid & CPR Training
- Excavation Safety & Competent Person Training

### **RELEVANT PROJECT EXPERIENCE:**

**North Chattahoochee Interceptor Pump Station** – Upgrade to existing wastewater pump station including bypass pumping, yard piping, concrete restoration, electrical, instrumentation, chemical feed systems, and startup. Contract Value - \$5,443,155.00

**Riverbend Environmental Complex – Ballground, GA**

Construction of new wastewater treatment plant including concrete, equipment installation, Electrical. Contact Value \$14,059,737.00

**Butler Creek Interceptor Upgrade West, Phase III, Augusta Utilities Department, Augusta, GA** – Start date October 2014 through Completion date: July 2015. 7,000 LF of 30-Inch diameter gravity sewer including 400 LF of tunneling and 200 LF of jack and bore; 5,100 LF of 20-Inch diameter force main; upgrade of existing lift station. Contract Amount \$5,170,950.

**Sunset Water Treatment Plant Expansion, Guntersville Water and Sewer Board, Guntersville, AL** - Superintendent-Start date: August 2012 through Completion date: June 2015. Additions and modifications to the existing 6 MGD water treatment plant. Contract Amount \$8,367,101.



**Breezy Hill Water Treatment Plant, Breezy Hill Water & Sewer Co., Inc., Burnetown, SC** - Superintendent-Start date: September 2011 through Completion date: May 2013. New Water Treatment Facility that included a Raw Water Intake, Raw Water Pump Station, and an Operations Building to house the Plant Staff. Contract amount \$9,000,000

**Walnut Creek WWTF, Henry County WSA McDonough, GA** - Project Superintendent-Start date: April 2009 through Completion date: May 2012. This project involved furnishing all labor, materials, tools, equipment and incidentals, required to construct complete in place and ready to operate the Walnut Creek WRF Phase 2 Expansion. Contract amount \$24,803,953.

**James Creek WRF- Waterscape Utilities LLC , Cumming, GA** - Superintendent-Start date: June 2004 through Completion date: June 2006. The project utilized a Design-Build delivery method to provide for quick results while maintaining flexibility to allow for the changing demands of growth during construction. The facility is built to handle 1.0 MGD of flow, but outfitted with enough equipment to treat 0.25 MGD. Contract amount: \$10,331,464.





**Project Superintendent  
Chris Cothorn**

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**EMPLOYMENT HISTORY**

**2011 – Present          Lakeshore Engineering**

- Supervision and construction of water and wastewater treatment facilities

**TRAINING & CERTIFICATIONS**

- OSHA 40 HR Hazwoper Training
- OSHA 30 HR CFR 1926 training
- First Aid & CPR Training
- Excavation Safety & Competent Person Training

**RELEVANT PROJECT EXPERIENCE:**

- Reynolds Plantation WTP
- Columbus Solids Handling Facilities
- Lamar Ham WTP Pump Replacement
- Bojo Ella Lift Station Improvements
- Blankets Creek Pump Station







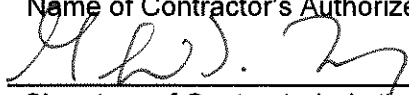
**SECTION 00 45 19B**  
**CERTIFICATION OF ABSENCE OF CONFLICT OF INTEREST**

(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):  
N/A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- (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.

Lakeshore Engineering, LLC  
NAME OF CONTRACTOR

Garland Long  
Name of Contractor's Authorized Official  
  
Signature of Contractor's Authorized Official  
August 2, 2022  
DATE



**SECTION 00 45 75**

**GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT OF 2006**

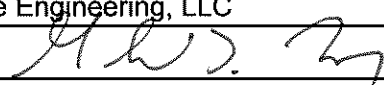
Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-.02 are conditions of this Agreement. The Contractor further agrees that such compliance 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 as Exhibit A and is incorporated into this Agreement by reference herein.

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.   X   Fewer than 100 employees.

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:** Lakeshore Engineering, LLC  
**Authorized Signature:**   
**Title:** President  
**Date:** August 2, 2022

CCWA approved: 02/01/2021

**EXHIBIT A  
CONTRACTOR AFFIDAVIT AND AGREEMENT**

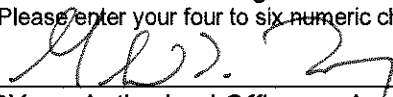
By executing this affidavit, the undersigned Contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use 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 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 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.

292618

EEV / Basic Pilot Program User Identification Number

(Please enter your four to six numeric characters)

  
BY: Authorized Officer or Agent

August 2, 2022

Date


President

Title of Authorized Officer or Agent if Contractor

Garland Long

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE  
2nd DAY OF August, 2022.

  
Notary Public  
My Commission Expires:  
2/8/23

Jeffrey A Laurion  
Notary Public  
State of Georgia  
Cherokee County

CCWA Approved: 02/01/2024



EXHIBIT A-1  
SUBCONTRACTOR AFFIDAVIT

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 (name of Contractor) LAKESHORE ENGINEERING on behalf of the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use for the duration of this 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 the Subcontractor will maintain records of such compliance and provide a copy of each such verification to the Contractor within five days of the subcontractor(s) presenting such affidavit(s) to the Subcontractor.

60642  
EEV / Basic Pilot Program User Identification Number  
(Please enter your four to six numeric characters)

WESLEY CHANDLER  
BY Authorized Officer or Agent  
Subcontractor Name

AUG 1, 2022  
Date

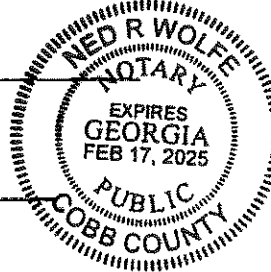
PROJECT MANAGER  
Title of Authorized Officer or Agent of Subcontractor

WESLEY CHANDLER  
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE  
1st DAY OF August, 2022.

Ned R. Wolfe  
Notary Public  
My Commission Expires:

February 17, 2025



END OF SECTION



**EXHIBIT A-1  
SUBCONTRACTOR AFFIDAVIT**

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 (name of Contractor) Lakeshore Engineering, LLC on behalf of the Clayton County Water Authority has registered with, is participating in, uses, and will continue to use for the duration of this 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 the Subcontractor will maintain records of such compliance and provide a copy of each such verification to the Contractor within five days of the subcontractor(s) presenting such affidavit(s) to the Subcontractor.

228409

EEV / Basic Pilot Program User Identification Number  
(Please enter your four to six numeric characters)

Robert K. Stark

BY: Authorized Officer or Agent  
Subcontractor Name

August 01, 2022  
Date

PROJECT MANAGER

Title of Authorized Officer or Agent of Subcontractor

ROBERT K. STARK

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE  
1<sup>st</sup> DAY OF August, 2022.

[Signature]

Notary Public

My Commission Expires:

2/8/23

Jeffrey A Laurion  
Notary Public  
State of Georgia  
Cherokee County

**END OF SECTION**

00718200 In-Order - Aug 17



---

**PART 2**

**CONTRACTING REQUIREMENTS**

---



**SECTION 00 52 00**

**AGREEMENT**

THIS AGREEMENT is by and between the Clayton County Water Authority (hereinafter called Owner) and Lakeshore Engineering, LLC (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 **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades**.

**ARTICLE 2 – ENGINEER**

2.01 The Project has been designed by Jacobs, 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 Times**

A. Contractor will achieve Substantial Completion and Work required on or before the date specified, or within 600 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 630 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 and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 3.01A 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,

CCWA approved: 03/04/2021

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 3.01A 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.

**Part 1 – Lump Sum Bid Price** \$ 3,290,000.00

**Part 2 – Plus: Pre-Negotiated Bid Items**

Bid Item No.	Specification Section	Description	Price
2.1	46 66 20	CCWA - Hopper WPP – Ultraviolet Disinfection System - TrojanUVFlex™ 100	\$790,150
2.2	46 66 20	CCWA - Hicks WPP – Ultraviolet Disinfection System - TrojanUVFlex™ 100	\$705,200
2.3	40 90 01	CCWA – Hooper WPP: Instrumentation and Control for Process Systems- MR Systems	\$121,006
2.4	40 90 01	CCWA – Hicks WPP: Instrumentation and Control for Process Systems- MR Systems	\$121,152

**Part 3 - Plus: Contingency Allowances**

Bid Item No.	Description	Price
3.1	Unforeseen Work Elements	\$475,000.00

CCWA approved: 03/04/2021



**Part 4 - Minus: Credit for Salvage Items**

Bid Item No.	Specification Section	Description	Price
4.1	02 41 00	Credit for the cost of the salvage items (Piping, fittings, valves, metals etc.) related to the demolition of the existing facilities will be included in Part 4.	\$ 5,000.00

**Part 5- Total Contract Price**

FIVE MILLION FOUR HUNDRED NINETY SEVEN THOUSAND FIVE HUNDRED <sup>EIGHT</sup> Dollars  
(Words)

and ZERO Cents  
(Words)

\$ 5,497,508.00  
(Figures)

**ARTICLE 5 – EQUIPMENT / MATERIAL MANUFACTURERS**

**5.01 Owner Selected Equipment/Supplier Schedule**

Item	Component	Specification Section	Selected Manufacturer
1	V500 Butterfly Valve	40 27 01	A. Pratt B. DeZurik C. Or Equal
2	Electric Motor Actuator	40 27 01	D. Rotork Controls E. Flowserve F. Or Equal
3	UVT Analyzer	40 90 01	S::can Inc. No Substitutes
4	UVT Indicator/Transmitter	40 90 01	S::can Inc. No Substitutes
5	Ultraviolet Disinfection System Supplier	46 66 20	Trojan No Substitutes

CCWA approved: 03/04/2021

## ARTICLE 6 – RETAINAGE

6.01 Prior to Substantial Completion, Owner shall retain from progress payments 10 percent of the value of Work completed, and 10 percent of the value of stored materials and equipment. When Work has been 50 percent completed as determined by Owner, the provisions of paragraph SC-15.01.B of the Supplementary Conditions shall be applicable to the withholding of further retainage. Following Substantial Completion, Owner shall retain from progress payments an amount, not to exceed 200 percent of the value of the outstanding Work.

## ARTICLE 7 – INTEREST

7.01 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 8 – CONTRACTOR'S REPRESENTATIONS

8.01 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 9 – CONTRACT DOCUMENTS

9.01 The Contract Documents consist of the following:

- A. Unless otherwise defined herein, 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 **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades**.
- C. The Drawings bound to 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 Non-collusion.

9.02 The documents listed in Paragraph 9.01 above are attached to this Agreement (except as expressly noted otherwise above). Documents not attached are incorporated by reference.

9.03 The Contract Documents may only be amended or supplemented as provided in the General Conditions.

## ARTICLE 10 – MISCELLANEOUS

### 10.01 Terms

- A. Unless otherwise defined herein, terms used in this Agreement will have the meanings indicated in the General Conditions and the Supplementary Conditions.

### 10.02 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.

### 10.03 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 December 13, 2022 (which is the Effective Date of the Agreement).

Owner: Clayton County Water Authority  
Signature: [Signature]  
Name: H. Bernard Franks  
Title: General Manager

Contractor: LAKESHORE ENGINEERING, LLC  
Signature: [Signature]  
Name: GARLAND LONG  
Title: PRESIDENT

Attest [Signature]  
Name: Khonda Maxwell  
Title: Executive Coordinator

Attest [Signature]  
Name: JEFF A. LAURION  
Title: Notary  
Jeffrey A Laurion  
Notary Public  
State of Georgia  
Cherokee County

Address for giving notices  
1600 Battle Creek Road  
Morrow, Georgia 30260

Address for giving notices  
1759 EUSWORTH DR  
ATLANTA GA 30318

(CORPORATE SEAL)

Agent for service of process:

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

(CORPORATE SEAL)

END OF SECTION



CHIEF OF POLICE  
CITY OF NEW YORK  
100-100-10000

Handwritten notes and signatures, including a large signature in the center.

Handwritten notes in the upper right quadrant.

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November 1, 2022

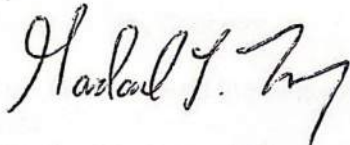
Clayton County Water Authority  
1600 Battle Creek Road  
Morrow, GA 30260

RE: W.J. Hooper WPP and Terry Hicks WPP UV System Upgrades

To Whom it May Concern:

Please accept this letter as your authority to date the Contract and bonds once the required date has been determined.

Sincerely,



Garland L. Long, P.E.  
President







October 11, 2022

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

RE: Performance/Payment Bond No: 0113038 - Lakeshore Engineering, LLC  
Project: W.J. Hooper WPP and Terry R. Hicks WPP UV System Upgrades

To Whom It May Concern:

Please find enclosed the requested Performance and Payment Bonds for the above referenced project.

Once the contract date for this project has been determined, please accept this letter as your authority to date the bonds and power of attorney concurrent with the contract date.

Should you have any questions, please let us know.

Regards,

A handwritten signature in black ink, appearing to read "Daniel Yates". The signature is fluid and cursive.

Daniel Yates  
Bond Account Manager

enclosures



**SECTION 00 61 13.13**  
**PERFORMANCE BOND**

Bond No. 0113038

KNOW ALL MEN BY THESE PRESENTS THAT Lakeshore Engineering, LLC  
(as Contractor, hereinafter referred to as the "Principal"), and Berkley Insurance Company  
(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 the  
"Authority"), for the use and benefit of any "Claimant" as hereinafter defined in the sum of \_\_\_\_\_  
\_\_\_\_\_  
Five Million Four Hundred Ninety-Seven Thousand Five Hundred Eight & 00/100 (\$5,497,508.00--) 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 the Authority, dated December 13, 2022, which is incorporated  
herein by reference in its entirety (hereinafter referred to as the "Contract"), for the construction  
of a project known as **W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades**,  
(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 the  
Authority 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 the Authority 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 the Authority 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 the Authority.

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.

CCWA approved: 02/01/2021

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 \_\_\_\_\_, 202\_\_.

CONTRACTOR – PRINCIPAL:

Lakeshore Engineering, LLC

By: [Signature]  
(name signed)

GALLARD LONG  
(name printed or typed)

Title: PRESIDENT

Address: 1259 Ellsworth Drive

Atlanta, GA 30318

Attest: [Signature]  
(name signed)

JEFF A. LAURION Jeffrey A Laurion  
(name printed or typed) Notary Public

Title: NOTARY State of Georgia  
Cherokee County (SEAL)

SURETY:

Berkley Insurance Company

By: [Signature]  
(name signed)

Daniel Yates  
(name printed or typed)

Title: Attorney-in-fact

Address: 2800 Century Parkway, NE. Ste. 300

Atlanta, GA 30345

Attest: [Signature]  
(name signed)

Dana D. Rutledge  
(name printed or typed)

Title: Witness (SEAL)

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

END OF SECTION

CCWA approved 02/01/2021

POWER OF ATTORNEY  
BERKLEY INSURANCE COMPANY  
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: *P. D. Yates, III; Daniel Yates; Alan R. Yates; Kevin M. Neidert; Betsy J. Holmes; Brian K. Hughes; Jeffery John Blanton; Dana D. Rutledge; Tina Marsh; Sandra Lawrence; or Sean Tidwell of Yates, LLC of Atlanta, GA* its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00), to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

RESOLVED, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

RESOLVED, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

RESOLVED, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

RESOLVED, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 19<sup>th</sup> day of April, 2022.

Attest:

Berkley Insurance Company

(Seal)

By

By

Ira S. Lederman  
Executive Vice President & Secretary

Jeffrey M. Hafter  
Senior Vice President

WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.

STATE OF CONNECTICUT )

) ss:

COUNTY OF FAIRFIELD )

Sworn to before me, a Notary Public in the State of Connecticut, this 17<sup>th</sup> day of April, 2022, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Executive Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

MARIA C. RINDRAKEN  
NOTARY PUBLIC  
CONNECTICUT  
MY COMMISSION EXPIRES  
APRIL 30, 2024

Maria C. Rindracken  
Notary Public, State of Connecticut

CERTIFICATE

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this 13<sup>th</sup> day of December, 2022

(Seal)

Vincent P. Forte  
Vincent P. Forte

WARNING - Any unauthorized reproduction or alteration of this document is prohibited. This power of attorney is void unless seals are readable and the certification seal at the bottom is embossed. The background imprint, warning and verification instructions (on reverse) must be in blue ink.

Please **verify the authenticity** of the instrument attached to this Power by:

Toll-Free Telephone: (800) 456-5486; or

Electronic Mail: [BSGInquiry@berkleysurety.com](mailto:BSGInquiry@berkleysurety.com)

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Any written notices, inquiries, claims or demands to the Surety on the bond attached to this Power should be directed to:

Berkley Surety  
412 Mount Kemble Ave.  
Suite 310N  
Morristown, NJ 07960  
Attention: Surety Claims Department

Or

Email: [BSGClaim@berkleysurety.com](mailto:BSGClaim@berkleysurety.com)

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Please include with all communications the bond number and the name of the principal on the bond. Where a claim is being asserted, please set forth generally the basis of the claim. In the case of a payment or performance bond, please also identify the project to which the bond pertains.

Berkley Surety is a member company of W. R. Berkley Corporation that underwrites surety business on behalf of Berkley Insurance Company, Berkley Regional Insurance Company and Carolina Casualty Insurance Company.





**SECTION 00 61 13.16**  
**PAYMENT BOND**

Bond No. 0113038

KNOW ALL MEN BY THESE PRESENTS THAT Lakeshore Engineering, LLC  
(as Contractor, hereinafter referred to as the "Principal"), and Berkley Insurance Company  
(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 the  
"Authority"), for the use and benefit of any "Claimant" as hereinafter defined in the sum of \_\_\_\_\_  
Five Million Four Hundred Ninety-Seven Thousand Five Hundred Eight & 00/100 (\$ 5,497,508.00-- ) 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 the Authority, dated December 13, 2022, which is incorporated herein  
by reference in its entirety (hereinafter referred to as the "Contract"), for the construction of a  
project known as W.J. Hooper WPP and Terry R. Hicks WPP – UV System Upgrades  
(hereinafter referred to as "the Project").

NOW THEREFORE, the conditions 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 the Authority, or the filing of a Lien  
against the property of the Authority 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.

CCWA approved 02/01/2021

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 13<sup>th</sup> day of December, 2022.

CONTRACTOR – PRINCIPAL:

Lakeshore Engineering, LLC

By: [Signature]  
(name signed)

GARLAND LONG  
(name printed or typed)

Title: PRESIDENT

Address: 1259 Ellsworth Drive

Atlanta, GA 30318

Attest: [Signature]  
(name signed)

JEFF A LAURION  
(name printed or typed)

Title: NOTARY (SEAL)

Jeffrey A Laurion  
Notary Public  
State of Georgia  
Cherokee County

SURETY:

Berkley Insurance Company

By: [Signature]  
(name signed)

Daniel Yates  
(name printed or typed)

Title: Attorney-in-fact

Address: 2800 Century Parkway, NE. Ste. 300

Atlanta, GA 30345

Attest: [Signature]  
(name signed)

Dana D. Rutledge  
(name printed or typed)

Title: Witness (SEAL)

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

END OF SECTION

CCWA approved\_02/01/2021

POWER OF ATTORNEY  
BERKLEY INSURANCE COMPANY  
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: *P. D. Yates, III; Daniel Yates; Alan R. Yates; Kevin M. Neldert; Betsy J. Holmes; Brian K. Hughes; Jeffery John Blanton; Dana D. Rutledge; Tina Marsh; Sandra Lawrence; or Sean Tidwell of Yates, LLC of Atlanta, GA* its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00), to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

**RESOLVED**, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

**RESOLVED**, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

**RESOLVED**, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

**RESOLVED**, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 19<sup>th</sup> day of April, 2022.

Attest:  
  
(Seal) By Ira S. Lederman  
Executive Vice President & Secretary

Berkley Insurance Company  
By Jeffrey M. Hafter  
Senior Vice President

WARNING: THIS POWER INVALID IF NOT PRINTED ON BLUE "BERKLEY" SECURITY PAPER.

STATE OF CONNECTICUT )  
 ) ss:  
COUNTY OF FAIRFIELD )

Sworn to before me, a Notary Public in the State of Connecticut, this 19<sup>th</sup> day of April, 2022, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Executive Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

MARIA C RINDRAKEN  
NOTARY PUBLIC  
CONNECTICUT  
MY COMMISSION EXPIRES  
APRIL 30, 2024

Maria C. Rindraken  
Notary Public, State of Connecticut

CERTIFICATE

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

Given under my hand and seal of the Company, this 13<sup>th</sup> day of December, 2022.

(Seal)

Vincent P. Forte  
Vincent P. Forte

WARNING - Any unauthorized reproduction or alteration of this document is prohibited. This power of attorney is void unless seals are readable and the certification seal at the bottom is embossed. The background imprint, warning and verification instructions (on reverse) must be in blue ink.

Please **verify the authenticity** of the instrument attached to this Power by:

Toll-Free Telephone: (800) 456-5486; or

Electronic Mail: [BSGInquiry@berkleysurety.com](mailto:BSGInquiry@berkleysurety.com)

---

Any written notices, inquiries, claims or demands to the Surety on the bond attached to this Power should be directed to:

Berkley Surety  
412 Mount Kemble Ave.  
Suite 310N  
Morristown, NJ 07960  
Attention: Surety Claims Department

Or

Email: [BSGClaim@berkleysurety.com](mailto:BSGClaim@berkleysurety.com)

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Please include with all communications the bond number and the name of the principal on the bond. Where a claim is being asserted, please set forth generally the basis of the claim. In the case of a payment or performance bond, please also identify the project to which the bond pertains.

Berkley Surety is a member company of W. R. Berkley Corporation that underwrites surety business on behalf of Berkley Insurance Company, Berkley Regional Insurance Company and Carolina Casualty Insurance Company.

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

## TABLE OF CONTENTS

	<b>Page</b>
Article 1 – Definitions and Terminology .....	1
1.01 Defined Terms .....	1
1.02 Terminology .....	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance .....	6
2.02 Copies of Documents .....	6
2.03 Before Starting Construction .....	6
2.04 Preconstruction Conference; Designation of Authorized Representatives .....	7
2.05 Initial Acceptance of Schedules .....	7
2.06 Electronic Transmittals.....	7
Article 3 – Documents: Intent, Requirements, Reuse .....	8
3.01 Intent.....	8
3.02 Reference Standards .....	8
3.03 Reporting and Resolving Discrepancies .....	8
3.04 Requirements of the Contract Documents .....	9
3.05 Reuse of Documents .....	10
Article 4 – Commencement and Progress of the Work .....	10
4.01 Commencement of Contract Times; Notice to Proceed .....	10
4.02 Starting the Work.....	10
4.03 Reference Points .....	10
4.04 Progress Schedule .....	10
4.05 Delays in Contractor’s Progress .....	11
Article 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions .....	12
5.01 Availability of Lands .....	12
5.02 Use of Site and Other Areas .....	12
5.03 Subsurface and Physical Conditions.....	13
5.04 Differing Subsurface or Physical Conditions .....	13
5.05 Underground Facilities .....	15

5.06	Hazardous Environmental Conditions at Site .....	16
Article 6 – Bonds and Insurance .....		18
6.01	Performance, Payment, and Other Bonds .....	18
6.02	Insurance—General Provisions .....	19
6.03	Contractor’s Insurance .....	20
6.04	Owner’s Liability Insurance .....	22
6.05	Property Insurance.....	22
6.06	Waiver of Rights .....	24
6.07	Receipt and Application of Property Insurance Proceeds .....	25
Article 7 – Contractor’s Responsibilities .....		25
7.01	Supervision and Superintendence .....	25
7.02	Labor; Working Hours .....	26
7.03	Services, Materials, and Equipment.....	26
7.04	“Or Equals” .....	26
7.05	Substitutes .....	27
7.06	Concerning Subcontractors, Suppliers, and Others .....	29
7.07	Patent Fees and Royalties .....	30
7.08	Permits .....	31
7.09	Taxes .....	31
7.10	Laws and Regulations.....	31
7.11	Record Documents.....	32
7.12	Safety and Protection.....	32
7.13	Safety Representative .....	33
7.14	Hazard Communication Programs .....	33
7.15	Emergencies .....	33
7.16	Shop Drawings, Samples, and Other Submittals.....	33
7.17	Contractor’s General Warranty and Guarantee.....	35
7.18	Indemnification .....	36
7.19	Delegation of Professional Design Services .....	37
Article 8 – Other Work at the Site .....		37
8.01	Other Work .....	37
8.02	Coordination .....	38
8.03	Legal Relationships.....	38

Article 9 – Owner’s Responsibilities.....	39
9.01 Communications to Contractor.....	39
9.02 Replacement of Engineer .....	39
9.03 Furnish Data .....	39
9.04 Pay When Due.....	39
9.05 Lands and Easements; Reports, Tests, and Drawings .....	39
9.06 Insurance.....	40
9.07 Change Orders.....	40
9.08 Inspections, Tests, and Approvals.....	40
9.09 Limitations on Owner’s Responsibilities .....	40
9.10 Undisclosed Hazardous Environmental Condition.....	40
9.11 Evidence of Financial Arrangements.....	40
9.12 Safety Programs .....	40
Article 10 – Engineer’s Status During Construction.....	40
10.01 Owner’s Representative.....	40
10.02 Visits to Site.....	40
10.03 Project Representative.....	41
10.04 Rejecting Defective Work.....	41
10.05 Shop Drawings, Change Orders and Payments.....	41
10.06 Determinations for Unit Price Work .....	41
10.07 Decisions on Requirements of Contract Documents and Acceptability of Work .....	41
10.08 Limitations on Engineer’s Authority and Responsibilities.....	41
10.09 Compliance with Safety Program.....	42
Article 11 – Amending the Contract Documents; Changes in the Work .....	42
11.01 Amending and Supplementing Contract Documents .....	42
11.02 Owner-Authorized Changes in the Work .....	43
11.03 Unauthorized Changes in the Work.....	43
11.04 Change of Contract Price .....	43
11.05 Change of Contract Times .....	44
11.06 Change Proposals.....	44
11.07 Execution of Change Orders.....	45
11.08 Notification to Surety.....	46
Article 12 – Claims.....	46

12.01	Claims .....	46
Article 13 –	Cost of the Work; Allowances; Unit Price Work.....	47
13.01	Cost of the Work .....	47
13.02	Allowances .....	49
13.03	Unit Price Work .....	50
Article 14 –	Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....	51
14.01	Access to Work.....	51
14.02	Tests, Inspections, and Approvals.....	51
14.03	Defective Work.....	52
14.04	Acceptance of Defective Work.....	52
14.05	Uncovering Work .....	52
14.06	Owner May Stop the Work .....	53
14.07	Owner May Correct Defective Work.....	53
Article 15 –	Payments to Contractor; Set-Offs; Completion; Correction Period .....	54
15.01	Progress Payments.....	54
15.02	Contractor’s Warranty of Title .....	57
15.03	Substantial Completion.....	57
15.04	Partial Use or Occupancy .....	58
15.05	Final Inspection .....	58
15.06	Final Payment.....	58
15.07	Waiver of Claims .....	60
15.08	Correction Period .....	60
Article 16 –	Suspension of Work and Termination .....	61
16.01	Owner May Suspend Work .....	61
16.02	Owner May Terminate for Cause .....	61
16.03	Owner May Terminate For Convenience .....	62
16.04	Contractor May Stop Work or Terminate .....	62
Article 17 –	Final Resolution of Disputes .....	63
17.01	Methods and Procedures.....	63
Article 18 –	Miscellaneous .....	63
18.01	Giving Notice .....	63
18.02	Computation of Times.....	63
18.03	Cumulative Remedies .....	63

18.04	Limitation of Damages .....	64
18.05	No Waiver .....	64
18.06	Survival of Obligations .....	64
18.07	Controlling Law .....	64
18.08	Headings.....	64



## 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 considered 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.

**SC-1.01 A.40.** Paragraph 1.01.A.40 of the General Conditions is amended to read as follows:

- A. **Substantial Completion:** Substantial Completion for the purposes of assessing liquidated damages, shall be defined as the time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of 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. At minimum, Substantial Completion shall be defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide the Owner full time, uninterrupted, continuous operation of the Work; and (ii) all required functional, performance, and operational or startup testing has been successfully demonstrated for all components, devices, equipment, systems, including instrumentation and controls to the satisfaction of the Engineer in accordance with the requirements of the Specifications; and (iii) all inspections required have been completed. Specific items of Work that must be completed prior to the Engineer's issuance of a certificate of Substantial Completion include, but are not limited to, the following:
1. Correcting deficient Work items listed by any regulatory agencies.



2. All submittals must be received and approved by the Engineer, including, but not necessarily limited to, the following:
  - a. Record documents.
  - b. Factory test reports.
  - c. Equipment and structure test reports.
  - d. Manufacturer's Certificate of Proper Installation.
  - e. Operating and Maintenance information, instructions, manuals, documents, drawings, diagrams, and records.
  - f. Spare parts lists.
3. All additional warranty or insurance coverage requirements have been provided.
4. All Manufacturer/Vendor provided Operator training is complete and documented.

## **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 2 full size copies, 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.

CCWA approved: 02/01/2021

**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 responsive responsible bidder, or, if applicable, to the proposer whose bid or proposal has been accepted, within sixty (60) 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.

CCWA approved: 02/01/2021

### 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:

- Record Drawings for Construction of the Advanced Disinfection Facilities for Freeman Road, W.J. Hooper, and J.W. Smith Water Production Plants, April 2004
- Record Drawings for Construction of W.J. Hooper Water Production Plant Improvements – Phase II, July 2006
- Record Drawings for Construction of Freeman Road Water Treatment Plant, December 1996

### 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.

CCWA approved: 02/01/2021



**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 CONTACT 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 90 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 90 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

CCWA approved: 02/01/2021

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 when 50 percent of the contract value, including Change Orders and other additions to the contract value, provided for by the Contract Documents is due, and the manner of completion of the Contract Work and its progress are reasonably satisfactory to Owner, Owner shall withhold no more retainage. 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. If after discontinuing the retainage, Owner determines that the Work is unsatisfactory or Contractor has fallen behind schedule, Owner may resume retainage at the rate set forth hereinabove. Retainage shall be invested at the current market rate and any interest earned on the retained amounts shall be paid to Contractor upon completion of the Project within the time specified and for the Contract Price as same may have been amended by Change Order. For purposes of this Agreement, the terms and conditions of O.C.G.A. § 13-10-20 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.

CCWA approved: 02/01/2021

**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;

CCWA approved: 02/01/2021



- 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**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/12/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Yates, LLC 2800 Century Parkway NE Suite 300 Atlanta GA 30345	<b>CONTACT NAME:</b> PHONE (A/C No./Ext): 404-633-4321      FAX (A/C No.): 404-633-1312 E-MAIL ADDRESS: certs@yatesins.com	
	<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> Lakeshore Engineering, LLC 1259 Ellsworth Dr Atlanta GA 30318	<b>INSURER A:</b> Cincinnati Indemnity Company      NAIC # 23280	
	<b>INSURER B:</b> Old Republic Insurance Company      24147	
	<b>INSURER C:</b> Evanston Insurance Company      35378	
	<b>INSURER D:</b> Travelers Property Casualty Co of America      25674	
	<b>INSURER E:</b>	
	<b>INSURER F:</b>	

**COVERAGES**      **CERTIFICATE NUMBER: 1568770929**      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y	Y	EPP0118126	12/28/2021	12/28/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000 \$
	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	Y	Y	EBA0118126	12/28/2021	12/28/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0	Y	Y	EPP0118126	12/28/2021	12/28/2022	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	MWC30410722	1/1/2022	1/1/2023	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution Liability	Y	Y	MKLV2ENV102036	12/28/2021	12/28/2022	Ded \$5,000 \$2,000,000 Occ \$2,000,000 \$2,000,000 Agg \$5,000,000
D	Professional Liability			MKLV2ENV102036	12/28/2021	12/28/2022	
	Excess Liability			EX7S309077	9/1/2021	12/28/2022	

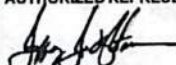
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
 Installation Floater Policy#EPP0118126 Eff Date 12/28/21-12/28/22 Limit \$8,131,200 - Ded \$1,000/Special\*\*

Subject to policy terms, conditions, forms and exclusions, the insurance coverages afforded by the policies above include the following when required by written contract for the certificate holder and/or entities listed below: Blanket Additional Insured in regards to General Liability for ongoing and completed operations, Lessors of Leased Equipment, Automobile Liability, Pollution Liability and Umbrella Liability; Blanket Primary and Non-Contributory in regards to General Liability, Automobile Liability, Pollution Liability and Umbrella Liability; Blanket Waiver of Subrogation in regards to General Liability, Automobile Liability, Pollution Liability, Umbrella Liability and Workers Compensation; Per Project Aggregate applies to the General Liability.

See Attached...

**CERTIFICATE HOLDER**

**CANCELLATION**

Clayton County Water Authority 1600 Battle Creek Road Morrow GA 30260	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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**ADDITIONAL REMARKS SCHEDULE**

AGENCY Yates, LLC		NAMED INSURED Lakeshore Engineering, LLC 1259 Ellsworth Dr Atlanta GA 30318	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

**ADDITIONAL REMARKS**

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
 FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

- FORMS:
- GA101 12/04 Commercial General Liability Coverage Form
  - GA233 09/17 Contractors' Commercial General Liability Broadened Endorsement
  - GA472 05/20 Contractors Additional Insured – Automatic Status When Required In Written Contract, Agreement, Permit or Authorization
  - AA288 06/20 CinciPlus Business Auto XC+ Endorsement
  - WC000313 04/84 Waiver of Our Right to Recover
  - USD513 05/10 Commercial Umbrella Liability Coverage Part Declarations
  - US101 UM 12/04 Commercial Umbrella Liability Coverage Form
  - US4096 01/21 Automatic Non-Contributory Coverage Endorsement – Where Required By Written Contract
  - CGT096 04/17 – Policy Declarations Excess (Follow Form) Liability Insurance
  - MEEI0007 11/17 Contractors Pollution Liability Coverage Form
  - MEEI2592 08/19 Waiver of Transfer of Rights of Recovery Against Others To Us – Written Contract Limitation
  - MEEI2591 08/19 Automatic Primary And Non-Contributory Insurance

Project: W.J. Hooper WPP and Terry R. Hicks WPP UV System  
 Upgrades

Entity: Clayton County Water Authority

- IA 4087 09 17 - PCKG Cancellation or Nonrenewal by us Notification to a Designates
  - WC 00 03 01 A - Alternate Employer Endorsement
  - WC 99 03 65 03/11 - Designated Entity - Notice of Cancellation Provided by Us Endorsement
- Explosion, collapse, and underground coverage in included.



1600 Battle Creek Road  
Morrow, GA 30260

# W.J. HOOPER WPP AND TERRY R. HICKS WPP UV SYSTEM UPGRADES

## ADDENDUM No. 1

<b>Date</b>	Thursday, July 28, 2022
<b>Bid Number</b>	2022-WP-15
<b>Pre-Bid Meeting</b>	Tuesday, July 12, 2022, at 10:00 a.m. local time
<b>Bid Opening</b>	Tuesday, August 2, 2022, at 10:00 a.m. local time

**ADDENDUM MUST BE SIGNED AND INCLUDED IN YOUR BID SUBMITTAL**

### PART 1 – QUESTIONS AND ANSWERS

The following QUESTIONS and ANSWERS shall be incorporated into the PROJECT MANUAL for the above-referenced project:

- Q1: Are the liquidated damages in the proposed Form of Agreement additive and/or cumulative? Will they be assessed concurrently?**  
**A1:** Liquidated damages can be additive but not concurrent.
- Q2: SC 3.03.A.2., Reporting and Resolving Discrepancies, appears to waive the Owner’s implied warranty for the adequacy of the design under Spearin Doctrine. Is this correct? If the Contractor builds the project in accordance with the plans and specifications under GC 7.17, but the project does not function as the Owner intended, who is responsible?**  
**A2:** The Contractor is required to perform and complete the work per the Contract Documents. The Contractor is responsible only for the obligations set forth in the Contract Documents.
- Q3: SC 4.01.A. is a no-damages-for delay provision and conflicts with GC 4.05.A. Which takes precedence? If the Owner delays the Contractor, it costs the Contractor money. Why isn’t the Contractor allowed an equitable adjustment in Contract Time and Contract Price for delays caused by the Owner, Engineer, or separate contractors working for the Owner?**  
**A3:** SC 4.01.A concerns delays prior to the NTP being issued to the contractor; SC 4.05A concerns delays after the NTP is issued.
- Q4: We understand the Owner/Engineer’s need to communicate directly with Subcontractors/Suppliers concerning timely pay per SC 7.06.K., but please explain the meaning of the phrase “whether or not the Contractor is otherwise complying with its obligations under this Agreement”?**  
**A4:** The owner may contact subcontractors and suppliers to ensure that GC 7.06 is being followed.

CCWA approved: 02/01/2021



1600 Battle Creek Road  
Morrow, GA 30260

## W.J. HOOPER WPP AND TERRY R. HICKS WPP UV SYSTEM UPGRADES

### ADDENDUM No. 1

<b>Date</b>	Thursday, July 28, 2022
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- Q5: Please confirm that the Contractor is prohibited from submitting any and all Subcontractor or Supplier claims to the Owner per SC 7.06.P., even if the Contractor believes the claims are valid.**
- A5: Contractor has a duty to defend against any invalid pass-through claims by its subcontractors or suppliers. The Contract does not forbid subcontractor and supplier pass-through claims; it does prohibit pass-through claims that are barred or waived by the applicable subcontract or supplier contract. Such claims are never valid.
- Q6: Why is the Contractor prohibited from making any and all claims against the Owner for Owner's breach of the Agreement per SC 7.18?**
- A6: This provision does not prohibit any claims against the Owner. However, claims against any officer, employee, board member, or agent of the Owner are not allowed.
- Q7: Why is the Contractor compelled to waive his rights to prompt payment under the Georgia Prompt Pay Act, per SC 9.04.A?**
- A7: All payment terms and remedies are set forth in the contract.
- Q8: Please confirm that the Contractor is prohibited from filing a reservation of rights for future impact damages per SC 12.01.B.**
- A8: Confirmed. The Notice provisions are set forth in the contract. All damages must be identified and asserted in the claim submission process.
- Q9: Where is the Trojan UV manufactured? Where will it ship from?**
- A9: The Trojan UV equipment is manufactured and shipped from London, Canada.
- Q10: Will the Owner issue payment per the Payment Terms and Invoicing Milestones in the two Trojan UV proposals? If not, those terms should be negotiated out of the proposal before contract award.**
- A10: Payment percentages will follow the invoicing milestones, the contractor will negotiate the terms and conditions with Trojan.
- Q11: The Trojan Technologies standard Terms and Conditions of Sale states delivery shall be EXW or CIP point of shipment (Incoterms 2020). Does the**

CCWA approved: 02/01/2021

W.J. HOOPER WPP AND TERRY R. HICKS WPP UV SYSTEM UPGRADES

BID NUMBER: 2022-WP-15

07/28/2022

ADDENDUM NO. 1



1600 Battle Creek Road  
Morrow, GA 30260

# W.J. HOOPER WPP AND TERRY R. HICKS WPP UV SYSTEM UPGRADES

## ADDENDUM No. 1

<b>Date</b>	Thursday, July 28, 2022
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**ADDENDUM MUST BE SIGNED AND INCLUDED IN YOUR BID SUBMITTAL**

**Owner accept the full responsibility of shipment under these terms? We recommend you renegotiate delivery to DDP (Delivered Duty Paid) and amend the proposals accordingly prior to contract award.**

A11: Contractor and Trojan shall enter into a sub-contractor agreement, the contractor will negotiate the terms and conditions with Trojan. If the contractor is not able to negotiate such that Trojan is fully responsible for shipment, as currently described in Trojan's terms and conditions, the Contractor shall be fully responsible for shipment.

**Q12: Does the Owner accept the limited warranty in the Trojan UV proposals?**

A12: No, the Owner doesn't accept the limited warranty in the Trojan UV proposals? Contractor and Trojan shall enter into a sub-contractor agreement.

**Q13: Does the Owner accept the force majeure provisions in the Trojan UV proposals?**

A13: No, the Owner doesn't accept the force majeure provisions in the Trojan UV proposals? Contractor and Trojan shall enter into a sub-contractor agreement.

**Q14: Does the Owner accept the limitation of liability in the Trojan UV proposals?**

A14: No, the Owner doesn't accept the limitation of liability in the Trojan UV proposals. Contractor and Trojan shall enter into a sub-contractor agreement.


**Q15: Does the Owner accept the applicable law and venue (Ontario, Canada) in the Trojan UV proposals?**

A15: No, the Owner doesn't accept the applicable law and venue (Ontario, Canada) in the Trojan UV proposals. Contractor and Trojan shall enter into a sub-contractor agreement.

**Q16: Does the Owner accept the payment terms in Article 101 in the Trojan Technologies standard Terms and Conditions?**

A16: No, the Owner doesn't accept the payment terms in Article 101 in the Trojan Technologies standard Terms and Conditions. Contractor and Trojan shall enter into a sub-contractor agreement.

CCWA approved: 02/01/2021

 <p>1600 Battle Creek Road Morrow, GA 30260</p>	<b>W.J. HOOPER WPP AND TERRY R. HICKS WPP UV SYSTEM UPGRADES</b>	
	<b>ADDENDUM No. 1</b>	
	<b>Date</b>	Thursday, July 28, 2022
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**Q17: Confirm that material testing, and inspections will not be a cost to the contractor.**

A17: Concrete material testing will be performed by the owner, at no cost to the contractor.

**Q18: 01 50 00 details a fairly extensive office trailer for the engineer use. Should the contractor include all of these costs in pricing?**

A18: Yes.

**Q19: Spec Section 01 88 15-1.04 Will the contractor be required to provide design for anchorage and bracing or is that included in the Contract Documents?**

A19: Yes, Contractor shall provide the design of anchorage and bracing as required by the Contract.

**Q20: Sheet 49 detail 0330-061 shows details 1 and 2 of 3. Where is detail 3 of 3?**

A20: Detail 0330-061 3 of 3 is located on sheet 50.

**END OF SECTION**

<b>Acknowledgment of receipt of this addendum must be signed and included in your bid submittal.</b>	
<b>Company Name</b>	LAKESHORE ENGINEERING, LLC
<b>Signature</b>	<i>[Handwritten Signature]</i>
<b>Date</b>	8/2/2022

CCWA approved: 02/01/2021



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**PART 3**

**SPECIFICATIONS**

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**SECTION 01 11 00**  
**SUMMARY OF WORK**

**PART 1 GENERAL**

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The completed Work will provide Owner with new Ultraviolet (UV) Disinfection Systems for improving finished water quality at the W.J. Hooper Water Production Plant and the Terry R. Hicks Water Production Plant.
- B. The Work will be completed in two separate sites:
  - 1. W.J. Hooper Water Production Plant:
    - a. Demolition of existing UV disinfection system inside existing UV Building. The items to be demolished and/or salvaged consist of:
      - 1) Four UV reactors and associated control panels.
      - 2) Piping, valves and structural supports.
      - 3) Chemical Cleaning system tank and containment wall.
      - 4) Metal stairs and access platforms.
      - 5) Miscellaneous instruments.
    - b. New UV Disinfection System:
      - 1) Two new UV reactors and associated control panels.
      - 2) Concrete and metal stairs and platforms.
      - 3) New Fiber Optic line within existing duct banks.
      - 4) Various piping, valves, and structural supports associated with the work above.
  - 2. Terry R. Hicks Water Production Plant:
    - a. Demolition of existing UV disinfection system inside existing UV Building. The items to be demolished and/or salvaged consist of:
      - 1) Four UV reactors and associated control panels.
      - 2) Piping, valves and structural supports.
      - 3) Chemical Cleaning system tank and containment wall.
      - 4) Metal stairs and access platforms.
      - 5) Miscellaneous instruments.
    - b. New UV Disinfection System consisting of:
      - 1) Two new UV reactors and associated control panels.
      - 2) Concrete and metal stairs and platforms.
      - 3) Removal and reinstallation of existing metal platforms.
      - 4) New Fiber Optic line within existing duct banks.
      - 5) Various piping, valves, and structural supports associated with the work above.
- C. Alternates: None.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

1.02 PRENEGOTIATED EQUIPMENT

- A. Work includes pre-negotiated scopes of supply for equipment and services.  
The scopes of supply are included as supplements to the relevant Specification sections and are also specifically listed in the bid form.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 01 26 00**  
**CONTRACT MODIFICATION PROCEDURES**

**PART 1 GENERAL**

1.01 PROPOSAL REQUESTS

- A. Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor to prepare a detailed proposal of cost and times to perform contemplated change.
- B. Proposal request will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project.
- C. Proposal request is for information only; Contractor is neither authorized to execute proposed change nor to stop Work in progress as result of such request.
- D. Contractor's written proposal shall be transmitted to Engineer promptly, but not later than 14 days after Contractor's receipt of Owner's written request. Proposal shall remain firm for a maximum period of 45 days after receipt by Engineer.
- E. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a Claim for an adjustment in Contract Price or Contract Times (or Milestones).

1.02 CLAIMS

- A. Include, at a minimum:
  - 1. Specific references including (i) Drawing numbers, (ii) Specification section and article/paragraph number, and (iii) Submittal type, Submittal number, date reviewed, Engineer's comment, as applicable, with appropriate attachments.
  - 2. Stipulated facts and pertinent documents, including photographs and statements.
  - 3. Interpretations relied upon.
  - 4. Description of (i) nature and extent of Claim, (ii) who or what caused the situation, (iii) impact to the Work and work of others, and (iv) discussion of claimant's justification for requesting a change to price or times or both.

5. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification.
6. Requested Change in Contract Times: Include at least (i) Progress Schedule documentation showing logic diagram for request, (ii) documentation that float times available for Work have been used, and (iii) revised activity logic with durations including sub-network logic revisions, duration changes, and other interrelated schedule impacts, as appropriate.
7. Documentation as may be necessary as set forth below for Work Change Directive, and as Engineer may otherwise require.

### 1.03 WORK CHANGE DIRECTIVES

#### A. Procedures:

1. Engineer will:
  - a. Initiate, including a description of the Work involved and any attachments.
  - b. Affix signature, demonstrating Engineer's recommendation.
  - c. Transmit five copies to Owner for authorization.
2. Owner will:
  - a. Affix signature, demonstrating approval of the changes involved.
  - b. Return four copies to Engineer, who will retain one copy, send one copy to the Resident Project Representative or other field representative, and forward two copies to Contractor.
3. Upon completion of Work covered by the Work Change Directive or when final Contract Times and Contract Price are determined, Contractor shall submit documentation for inclusion in a Change Order.
4. Contractor's documentation shall include but not be limited to:
  - a. Appropriately detailed records of Work performed to enable determination of value of the Work.
  - b. Full information required to substantiate resulting change in Contract Times and Contract Price for Work. On request of Engineer, provide additional data necessary to support documentation.
  - c. Support data for Work performed on a unit price or Cost of the Work basis with additional information such as:
    - 1) Dates Work was performed, and by whom.
    - 2) Time records, wage rates paid, and equipment rental rates.
    - 3) Invoices and receipts for materials, equipment, and subcontracts, all similarly documented.

- B. Effective Date of Work Change Directive: Date of signature by Owner, unless otherwise indicated thereon.

1.04 CHANGE ORDERS

A. Procedure:

1. Engineer will prepare proposed Change Order and transmit such with Engineer's written recommendation and request to Contractor for signature.
2. Contractor shall, upon receipt, either: (i) promptly sign, retaining one for its file, and return a copy to Engineer for Owner's signature, or (ii) return unsigned copy with written justification for not executing Change Order.
3. Engineer will, upon receipt of Contractor signed copies, promptly forward Engineer's written recommendation and partially executed copy for Owner's signature, or if Contractor fails to execute the Change Order, Engineer will promptly so notify Owner and transmit Contractor's justification to Owner.
4. Upon receipt of Contractor-executed Change Order, Owner will promptly either:
  - a. Execute Change Order, retaining one copy for its file and returning a copy to Engineer; or
  - b. Return to Engineer unsigned copies with written justification for not executing Change Order.
5. Upon receipt of Owner-executed Change Order, Engineer will transmit one copy to Contractor, one copy to Resident Project Representative or other field representative, and retain one copy, or if Owner fails to execute the Change Order, Engineer will promptly so notify Contractor and transmit Owner's justification to Contractor.
6. Upon receipt of Owner-executed Change Order, Contractor shall:
  - a. Perform Work covered by Change Order.
  - b. Revise Schedule of Values to adjust Contract Price and submit with next Application for Payment.
  - c. Revise Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by change.
  - d. Enter changes in Project record documents after completion of change related Work.

B. In signing a Change Order, Owner and Contractor acknowledge and agree that:

1. Stipulated compensation (Contract Price or Contract Times, or both) set forth includes payment for (i) the Cost of the Work covered by the Change Order, (ii) Contractor's fee for overhead and profit, (iii) interruption of Progress Schedule, (iv) delay and impact, including cumulative impact, on other Work under the Contract Documents, and (v) extended overheads.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
3. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.05 COST OF THE WORK

- A. In determining the supplemental costs allowed in Article 13.01.B.5 of the General Conditions for rental equipment and machinery, the following will apply.
- B. Rental of construction equipment and machinery and the parts thereof having a replacement value in excess of \$1,000, whether owned by Contractor or rented or leased from others, shall meet the following requirements:
  1. Full rental costs for leased equipment shall not exceed rates listed in the Rental Rate Blue Book published by Equipment Watch, as adjusted to the regional area of the Project. Owned equipment costs shall not exceed the single shift rates established in the Cost Reference Guide (CRG) published by Equipment Watch. The most recent published edition in effect at commencement of actual equipment use shall be used.
  2. Rates shall apply to equipment in good working condition. Equipment not in good condition, or larger than required, may be rejected by Engineer or accepted at reduced rates.
  3. Leased Equipment: For equipment leased or rented in arm's length transactions from outside vendors, maximum rates shall be determined by the following actual usage/Payment Category:
    - a. Less than 8 hours: Hourly rate.
    - b. 8 or more hours but less than 7 days: Daily rate.
    - c. 7 or more days but less than 30 days: Weekly rate.
    - d. 30 days or more: Monthly rate.
  4. Arm's length rental and lease transactions are those in which the firm involved in the rental or lease of equipment is not associated with, owned by, have common management, directorship, facilities and/or stockholders with the firm renting the equipment.
  5. Financial arrangements associated with rental and lease transactions that provide Contractor remuneration or discounts not visible to the Owner must be disclosed and integrated with charged rates.
  6. Leased Equipment in Use: Actual equipment use time documented by Engineer shall be the basis that equipment was on and utilized at the Project Site. In addition to the leasing rate above, equipment operational costs shall be paid at the estimated hourly operating cost rate set forth in



- the Rental Rate Blue Book if not already included in the lease rate. Hours of operation shall be based upon actual equipment usage to the nearest quarter hour, as recorded by Engineer.
7. Leased Equipment, When Idle (Standby): Idle or standby equipment is equipment onsite or in transit to and from the Work Site and necessary to perform the Work under the modification, but not in actual use. Idle equipment time, as documented by Engineer, shall be paid at the leasing rate determined above, excluding operational costs.
  8. Owned and Other Equipment in Use: Equipment rates for owned equipment or equipment provided in other than arm's length transaction shall not exceed the single shift total hourly costs rate developed in accordance with the CRG and as modified herein for multiple shifts. This total hourly rate will be paid for each hour the equipment actually performs work. Hours of operation shall be based upon actual equipment usage as recorded by Engineer. This rate shall represent payment in full for Contractor's direct costs.
  9. Owned and Other Equipment, When Idle (Standby): Equipment necessary to be onsite to perform the Work on single shift operations, but not utilized, shall be paid for at the ownership hourly expense rate developed in accordance with the CRG, provided its presence and necessity onsite has been documented by Engineer. Payment for idle time of portions of a normal workday, in conjunction with original contract Work, will not be allowed. In no event shall idle time claimed in a day for a particular piece of equipment exceed the normal Work or shift schedule established for the Project. It is agreed that this rate shall represent payment in full for Contractor's direct costs. When Engineer determines that the equipment is not needed to continuously remain at the Work Site, payment will be limited to actual hours in use.
  10. Owned and Other Equipment, Multiple Shifts: For multiple shift operations, the CRG single shift total hourly costs rate shall apply to the operating equipment during the first shift. For subsequent shifts, up to two in a 24-hour day, operating rate shall be the sum of the total hourly CRG operating cost and 60 percent of the CRG ownership and overhaul expense. Payment for idle or standby time for second and third shifts shall be 20 percent of the CRG ownership and overhaul expense.
  11. When necessary to obtain owned equipment from sources beyond the Project limits, the actual cost to transfer equipment to the Site and return it to its original location will be allowed as an additional item of expense. Move-in and move-out allowances will not be made for equipment brought to the Project if the equipment is also used on original Contract or related Work.
  12. If the move-out destination is not to the original location, payment for move-out will not exceed payment for move-in.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

13. If move is made by common carrier, the allowance will be the amount paid for the freight. If equipment is hauled with Contractor's own forces, rental will be allowed for the hauling unit plus the hauling unit operator's wage. If equipment is transferred under its own power, the rental will be 75 percent of the appropriate total hourly costs for the equipment, without attachments, plus the equipment operator's wage.
14. Charges for time utilized in servicing equipment to ready it for use prior to moving and similar charges will not be allowed.
15. When a breakdown occurs on any piece of owned equipment, payment shall cease for that equipment and any other owned equipment idled by the breakdown.
16. If any part of the Work is shut down by Owner, standby time will be paid during nonoperating hours if diversion of equipment to other Work is not practicable. Engineer reserves the right to cease standby time payment when an extended shutdown is anticipated.
17. If a rate has not been established in the CRG for owned equipment, Contractor may:
  - a. If approved by Engineer, use the rate of the most similar model found, considering such characteristics as manufacturer, capacity, horsepower, age, and fuel type, or
  - b. Request Equipment Watch to furnish a written response for a rate on the equipment, which shall be presented to Engineer for approval; or
  - c. Request Engineer to establish a rate.

1.06 FIELD ORDER

- A. Engineer will issue Field Orders to Contractor.
- B. Effective date of the Field Order shall be the date of signature by Engineer, unless otherwise indicated thereon.
- C. Contractor shall acknowledge receipt by signing and returning one copy to Engineer.
- D. Field Orders will be incorporated into subsequent Change Orders, as a no-cost change to the Contract.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 01 29 00**  
**PAYMENT PROCEDURES**

**PART 1 GENERAL**

1.01 SUBMITTALS

A. Action Submittals:

1. Schedule of Values and Application for Payment Format. Submit during Administrative Period as per Section 01 31 13, Project Coordination.
2. Stored Materials Form.

B. Informational Submittals:

1. Schedule of Estimated Progress Payments:
  - a. Submit with initially acceptable Schedule of Values.
  - b. Submit adjustments thereto with Application for Payment.
2. Application for Payment.
3. Final Application for Payment.

1.02 CONTINGENCY ALLOWANCE

- A. Contingency allowance for Item 3.1 in the Bid Form shall be used for unforeseen work elements.
- B. Contingency allowance will be administered in accordance with Article 13.02 of General Conditions.
- C. Use of funds at the sole direction and discretion of the Owner.
- D. Payment of allowance funds may be allocated on a time and material basis, or one or more lump sum tasks as determined by Owner.

1.03 SCHEDULE OF VALUES

- A. Prepare a separate Schedule of Values (SOV) for each schedule of the Work under the Agreement using format of AIA Form G703.
  1. Schedule of Values shall include a unique identifier that shall not exceed thirty characters.
- B. Upon request of Engineer, provide documentation to support the accuracy of the Schedule of Values.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- C. Lump Sum Work:
  - 1. Reflect specified cash and contingency allowances and alternates, as applicable.
  - 2. List bonds and insurance premiums, mobilization, demobilization, preliminary and detailed progress schedule preparation, equipment testing, facility startup, and contract closeout separately.
    - a. Mobilization includes, at minimum, items identified in Section 01 50 00, Temporary Facilities and Controls.
    - b. Include item(s) for monthly progress schedule update and maintenance of Engineer's trailer.
  - 3. Break down by Division 02 through 49 with appropriate subdivision of each specification and for each Project facility.
- D. An unbalanced or front-end loaded schedule will not be acceptable.
- E. Summation of the complete Schedule of Values representing all the Work shall equal the Contract Price.
- F. Submit Schedule of Values in a spreadsheet format compatible with latest version of MS Excel.
- G. The payment applications are to be approved by the Engineer and Owner no later than the 20th of each month. If not approved by the 20th of each month, the payment application shall be processed for payment the next processing cycle., which occurs the 20th of every month.

1.04 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times aggregating initial Contract Price.
- B. Base estimated progress payments on initially acceptable progress schedule. Adjust to reflect subsequent adjustments in progress schedule and Contract Price as reflected by modifications to the Contract Documents.

1.05 APPLICATION FOR PAYMENT

- A. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment for each schedule and include Request for Payment of Materials and Equipment on Hand as applicable. Execute certification by authorized officer of Contractor.
- B. Use detailed Application for Payment Form suitable to Engineer and Owner.

- C. Provide separate form for each schedule as applicable.
- D. Include accepted Schedule of Values for each schedule or portion of lump sum Work and the unit price breakdown for the Work to be paid on a unit priced basis.
- E. Include separate line item for each Change Order and Work Change Directive executed prior to date of submission. Provide further breakdown of such as requested by Engineer.
- F. Include Owner's:
  - 1. Pay Application Summary Sheet
  - 2. SLBE Form No. 5, Interim Waiver
  - 3. Sales Tax Reimbursement Documentation
  - 4. Release Upon Payment Form
  - 5. Final Waiver and Release Upon Payment Form (when applicable)
- G. Preparation:
  - 1. Round values to nearest dollar.
  - 2. Submit Application for Payment to Engineer, including a Transmittal Summary Form and detailed Application for Payment Form(s) for each schedule as applicable, a listing of materials on hand for each schedule as applicable, and such supporting data as may be requested by Engineer and all items listed in Section 1.05.F.
  - 3. Applications are to be submitted in such time as to allow for Engineer and Owner review and approval no later than the 20<sup>th</sup> of each month. If not approved by the 20<sup>th</sup> of each month, the payment application will be processed for payment the next processing cycle, which occurs the 20<sup>th</sup> of every month.

#### 1.06 MEASUREMENT—GENERAL

- A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. Whenever pay quantities of material are determined by weight, weigh material on scales furnished by Contractor and certified accurate by state agency responsible. Obtain weight or load slip from weigher and deliver to Owner's representative at point of delivery of material.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
 UV SYSTEM UPGRADES

- C. If material is shipped by rail, car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff, and provided further that car weights will not be acceptable for material to be passed through mixing plants.
- D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by Engineer. Each vehicle shall bear a plainly legible identification mark.
- E. Haul materials that are specified for measurement by the cubic yard measured in the vehicle in transport vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Load vehicles to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- F. Quantities Based on Profile Elevations: Existing ground profiles shown on the Drawings were taken from topographic map drawn with contour intervals of 5 feet with supplementary spot elevations.
- G. Quantities will be based on ground profiles shown. Field surveys will not be made to confirm accuracy of elevations shown.
- H. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on the Drawings. Variations of 1 foot or less will be ignored, and profiles shown on the Drawings will be used for determining quantities.
- I. Units of measure shown on Bid Form shall be as follows, unless specified otherwise.

Item	Method of Measurement
AC	Acre—Field Measure by Engineer
CY	Cubic Yard—Field Measure by Engineer within limits specified or shown
CY-VM	Cubic Yard—Measured in Vehicle by Volume
EA	Each—Field Count by Engineer
GAL	Gallon—Field Measure by Engineer

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

Item	Method of Measurement
HR	Hour
LB	Pound(s)—Weight Measure by Scale
LF	Linear Foot—Field Measure by Engineer
MFBM	Thousand Foot Board Measure—Field Measure by Engineer
SF	Square Foot
SY	Square Yard
TON	Ton—Weight Measure by Scale (2,000 pounds)

- J. Measurement of Linear Items: Where payment will be made based on linear quantities and on parameters other than length, those parameters shall be as follows:

Item	Measurement Parameters
Trench Safety System	Depth of Trench: 0 foot to 4 feet; 4 feet to 10 feet; over 10 feet in 2-foot increments. The depth of trench will be measured at intervals of 25 feet along the centerline of the trench. The depth of each measuring point will be the depth from existing at grade surface to bottom of pipe base, 6 inches below pipe invert and will be used for computing the depth of trench for a distance of 25 feet ahead of the point of measurement. The depth figures indicated in Bid Form are inclusive to nearest 0.1 foot; that is, a trench depth measured as 11.9 feet will be paid for at the unit price for excavation 10 feet to 12 feet deep. A trench depth measured as 12 feet will be paid for at the unit price for excavation 12 feet to 14 feet deep.
Unclassified Trench Excavation	Depth of Trench: Same as Trench Safety System above.
Trench Backfill and Compaction	Depth of Trench: Same as Unclassified Trench Excavation above.
Rock Excavation	Depth: Same as for Unclassified Trench Excavation above except that depth will be measured from surface of rock to bottom of pipe base 6 inches below pipe invert.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

1.07 PAYMENT

- A. Payment for all Lump Sum Work shown or specified in Contract Documents is included in the Contract Price. Payment will be based on a percentage complete basis for each line item of the accepted Schedule of Values.
- B. Payment for Lump Sum Work covers all Work specified or shown within the limits or Specification sections as follows:
  - 1. All Work shown on the Drawings and in Specifications.

1.08 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
  - 1. Loading, hauling, and disposing of rejected material.
  - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
  - 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
  - 4. Material not unloaded from transporting vehicle.
  - 5. Defective Work not accepted by Owner.
  - 6. Material remaining on hand after completion of Work.

1.09 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings and preliminary operation and maintenance data is acceptable to Engineer.
- B. Final Payment: Will be made only for products incorporated in Work; remaining products, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

1.10 PARTIAL PAYMENT FOR UNDELIVERED, PROJECT-SPECIFIC  
MANUFACTURED OR FABRICATED EQUIPMENT

- A. Notwithstanding above provisions, partial payments for undelivered (not yet delivered to Site or not stored in the vicinity of Site) products specifically manufactured for this Project, excluding off the shelf or catalog items, will be made for products listed below when all following conditions exist:
  - 1. Partial payment request is supported by written acknowledgment from Suppliers that invoice requirements have been met.



W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Equipment is adequately insured, maintained, stored, and protected by appropriate security measures.
3. Each equipment item is clearly marked and segregated from other items to permit inventory and accountability.
4. Authorization has been provided for access to storage Site for Engineer and Owner.
5. Equipment meets applicable Specifications of these Contract Documents.

B. Applicable Items:

Specification Section	Specific Product
46 66 20	UV Disinfection System Equipment

- C. Payment of 5 percent of Trojan’s quoted price for undelivered, Project-specific UV equipment will be made following Shop Drawing submittal, then a payment of 25 percent upon Shop Drawing Approval, then a payment of an additional 60 percent at the time of delivery to the site, and an additional 10 percent after final acceptance.
- D. Failure of Contractor to continue compliance with above requirements shall give cause for Owner to withhold payments made for such equipment from future partial payments.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**



**SECTION 01 31 13**  
**PROJECT COORDINATION**

**PART 1 GENERAL**

1.01 GENERAL

- A. Unless otherwise noted, all requirements listed herein apply to both W.J. Hooper WPP Site and Terry R. Hicks WPP Site.

1.02 SUBMITTALS

A. Action Submittals:

1. Construction Sequencing Plan including the following information:
  - a. Estimated duration of demolition at each site.
  - b. Estimated arrival times of major equipment, valves and piping.
  - c. Estimated duration of major activities at each site.

B. Informational:

1. Photographs:
  - a. Digital Images: Submit images within 5 days of being taken. Images must be a minimum resolution of 2176 by 3264 pixels. The production of larger file sizes with higher resolution is encouraged.
    - 1) Pre-Construction photographs shall be submitted within 60 calendar days after the date of receipt by the Contractor of Notice to Proceed.
2. Facility Shut Down Requests: Submit for approval detailed plan and expected duration for plant outages or shutdowns.

1.03 RELATED WORK AT SITE

A. General:

1. Other work that is either directly or indirectly related to scheduled performance of the Work under these Contract Documents, listed henceforth, is anticipated to be performed at Site by others.
2. Coordinate the Work of these Contract Documents with work of others as specified in General Conditions.
3. Include sequencing constraints specified herein as a part of Progress Schedule.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

1.04 UTILITY NOTIFICATION AND COORDINATION

- A. Coordinate the Work with various utilities within Project limits. Notify applicable utilities prior to commencing Work, if damage occurs, or if conflicts or emergencies arise during the Work.
  - 1. Clayton County Water Authority – Hooper WPP:
    - a. Contact Person: Philip Beckham; Plant Manager.
    - b. Telephone: 770-302-3455.
  - 2. Clayton County Water Authority – Hicks WPP:
    - a. Contact Person: Ben Teal; Plant Manager.
    - b. Telephone: 770-302-3443.

1.05 PROJECT MILESTONES

- A. General: Include the Milestones specified herein as a part of the Progress Schedule required under Section 01 32 00, Construction Progress Documentation.

1.06 WORK SEQUENCING/CONSTRAINTS

- A. Include the following work sequences in the Progress Schedule:
  - 1. Administrative Period. No on-site activities will be allowed during this time period, including mobilization. Mobilization shall include, but is not limited to the following activities:
    - a. Receipt of Notice-to-Proceed.
    - b. Pre-Construction Meeting.
    - c. Approved Schedule of Values.
    - d. Approved Baseline Schedule.
    - e. Approval of Select Submittals.
  - 2. Demolition may not commence until 30 days from scheduled delivery of all CLDI piping and fittings.

1.07 FACILITY OPERATIONS

- A. Continuous operation of Owner's facilities is of critical importance. Schedule and conduct activities to enable existing facilities to operate continuously, unless otherwise specified.
- B. Perform Work continuously during critical connections and changeovers, and as required to prevent interruption of Owner's operations.
- C. When necessary, plan, design, and provide various temporary services, utilities, connections, temporary piping and heating, access, and similar items to maintain continuous operations of Owner's facility.

- D. Do not close lines, open or close valves, or take other action which would affect the operation of existing systems, except as specifically required by the Contract Documents and after authorization by Owner and Engineer. Such authorization will be considered within 48 hours after receipt of Contractor's written request.
- E. Process or Facility Shutdown:
  - 1. The following shall require shutdown the Work:
    - a. Hicks WPP existing UV system.
    - b. Hooper WPP existing UV system.
  - 2. Provide 7 days advance written request for approval of need to shut down a process or facility to Owner and Engineer.
  - 3. Power outages will be considered upon 48 hours written request to Owner and Engineer. Describe the reason, anticipated length of time, and areas affected by the outage. Provide temporary provisions for continuous power supply to critical facility components.
- F. Do not proceed with Work affecting a facility's operation without obtaining Owner's and Engineer's advance approval of the need for and duration of such Work.
- G. Relocation of Existing Facilities:
  - 1. During construction, it is expected that minor relocations of Work will be necessary.
  - 2. Provide complete relocation of existing structures and Underground Facilities, including piping, utilities, equipment, structures, electrical conduit wiring, electrical duct bank, and other necessary items.
  - 3. Use only new materials for relocated facility. Match materials of existing facility, unless otherwise shown or specified.
  - 4. Perform relocations to minimize downtime of existing facilities.
  - 5. Install new portions of existing facilities in their relocated position prior to removal of existing facilities, unless otherwise accepted by Engineer.

#### 1.08 ADJACENT FACILITIES AND PROPERTIES

- A. Examination:
  - 1. After Effective Date of the Agreement and before Work at Site is started, Contractor, Engineer, and affected property owners and utility owners shall make a thorough examination of pre-existing conditions including existing buildings, structures, and other improvements in vicinity of Work, as applicable, which could be damaged by construction operations.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Periodic reexamination shall be jointly performed to include, but not limited to, cracks in structures, settlement, leakage, and similar conditions.

B. Documentation:

1. Record and submit documentation of observations made on examination inspections in accordance with Article Construction Photographs.
2. Upon receipt, Engineer will review, sign, and return one record copy of documentation to Contractor to be kept on file in field office.
3. Such documentation shall be used as indisputable evidence in ascertaining whether and to what extent damage occurred as a result of Contractor's operations, and is for the protection of adjacent property owners, Contractor, and Owner.

1.09 CONSTRUCTION PHOTOGRAPHS

A. General:

1. Photographically document all phases of the Project including preconstruction, construction progress, and post-construction.
2. Engineer shall have right to select subject matter and vantage point from which photographs are to be taken.
3. Digital Images: No post-session electronic editing of images is allowed. Stored image shall be actual image as captured without cropping or other edits.

B. Preconstruction and Post-Construction:

1. After Effective Date of the Agreement and before Work at Site is started, and again upon issuance of Substantial Completion, take a minimum of 200 photographs of Site and areas adjacent to perimeter of each UV Building.
2. Particular emphasis shall be directed to structures both inside and outside the Site.
3. Format: Digital, minimum resolution of 2176 by 3264 pixels and 24-bit, millions of color.

C. Construction Progress Photos:

1. Photographically demonstrate progress of construction, showing every aspect of Site and adjacent properties as well as interior and exterior of new or impacted structures.
2. Weekly: Take 48 photographs using digital, minimum resolution of 2176 by 3264 pixels and 24-bit, millions of color.

D. Documentation:

1. Digital Images:
  - a. Electronic image shall have date taken embedded into image.
  - b. Archive using a commercially available photo management system that provides listing of photographs including date, keyword description, and direction of photograph.
  - c. Label file folders or database records with Project and Owner's name, and month and year images were produced.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 SALVAGE OF MATERIALS

A. Materials to be salvaged include:

1. Ductile iron pipe fittings.
2. Ductile iron valves.
3. Metal stairs and platforms assemblies.

B. Salvage materials for Owner's use.

1. Remove material with extreme care so as not to damage for future use.
2. Promptly remove salvaged materials from Work area.
3. Store materials where instructed by Owner onsite.

C. Provide new or repair damaged equipment or material specified or indicated to be salvaged. Clean and protect equipment from dust, dirt, natural elements, and store as directed.

D. See Section 02 41 00, Demolition for further notes and instructions on demolition and salvage items.

3.02 CUTTING, FITTING, AND PATCHING

A. Cut, fit, adjust, or patch Work and work of others, including excavation and backfill as required, to make Work complete.

B. Obtain prior written authorization of Engineer before commencing Work to cut or otherwise alter:

1. Structural or reinforcing steel, structural column or beam, elevated slab, trusses, or other structural member.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Weather-resistant or moisture-resistant elements.
  3. Efficiency, maintenance, or safety of element.
  4. Work of others.
- C. Refinish surfaces to provide an even finish.
1. Refinish continuous surfaces to nearest intersection.
  2. Refinish entire assemblies.
  3. Finish restored surfaces to such planes, shapes, and textures that no transition between existing work and the Work is evident in finished surfaces.
- D. Restore existing work, Underground Facilities, and surfaces that are to remain in completed Work including concrete-embedded piping, conduit, and other utilities as specified and as shown on the Drawings.
- E. Make restorations with new materials and appropriate methods as specified for new Work of similar nature; if not specified, use recommended practice of manufacturer or appropriate trade association.
- F. Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces and fill voids.
- G. Remove specimens of installed Work for testing when requested by Engineer.

**END OF SECTION**



**SECTION 01 31 19**  
**PROJECT MEETINGS**

**PART 1 GENERAL**

1.01 GENERAL

- A. Contractor shall schedule physical arrangements for meetings throughout progress of the Work, prepare meeting agenda with regular participant input and distribute with written notice of each meeting, preside at meetings, record minutes to include significant proceedings and decisions, and reproduce and distribute copies of minutes within 5 days after each meeting to participants and parties affected by meeting decisions.

1.02 PRECONSTRUCTION CONFERENCE

- A. Contractor shall be prepared to discuss the following subjects, as a minimum:

1. Required schedules.
2. Status of Bonds and insurance.
3. Sequencing of critical path work items.
4. Progress payment procedures.
5. Project changes and clarification procedures.
6. Use of Site, access, office and storage areas, security and temporary facilities.
7. Major product delivery and priorities.
8. Contractor's safety plan and representative.

- B. Attendees will include:

1. Owner's representatives.
2. Contractor's office representative.
3. Contractor's resident superintendent.
4. Contractor's quality control representative.
5. Subcontractors' representatives whom Contractor may desire or Engineer may request to attend.
6. Engineer's representatives.
7. Others as appropriate.

1.03 PRELIMINARY SCHEDULES REVIEW MEETING

- A. As set forth in General Conditions and Section 01 32 00, Construction Progress Documentation.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

1.04 PROGRESS MEETINGS

- A. Contractor will schedule regular progress meetings at Site, conducted bi-weekly to review the Work progress, Progress Schedule, Schedule of Submittals, Application for Payment, contract modifications, and other matters needing discussion and resolution.
- B. Attendees will include:
  - 1. Owner's representative(s), as appropriate.
  - 2. Contractor, Subcontractors, and Suppliers, as appropriate.
  - 3. Engineer's representative(s).
  - 4. Others as appropriate.

1.05 QUALITY CONTROL MEETINGS

- A. In accordance with Section 01 45 16.13, Contractor Quality Control.
- B. Attendees will include:
  - 1. Contractor.
  - 2. Contractor's designated quality control representative.
  - 3. Subcontractors and Suppliers, as necessary.
  - 4. Engineer's representatives.

1.06 PROCESS INSTRUMENTATION AND CONTROL SYSTEMS (PICS)  
COORDINATION MEETINGS

- A. Contractor will schedule meetings at Site, conducted as necessary to review specific requirements of PICS work.
- B. Attendees will include:
  - 1. Contractor.
  - 2. Owner.
  - 3. PICS Subcontractor/Installer.
  - 4. Engineer's representatives.

1.07 PREINSTALLATION MEETINGS

- A. When required in individual Specification sections, convene at Site prior to commencing the Work of that section.
- B. Require attendance of entities directly affecting, or affected by, the Work of that section.

- C. Notify 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.

1.08 FACILITY STARTUP MEETINGS

- A. Schedule and attend a minimum of two facility startup meetings. The first of such meetings shall be held prior to submitting Facility Startup Plan, as specified in Section 01 91 14, Equipment Testing and Facility Startup, and shall include preliminary discussions regarding such plan.
- B. Agenda items shall include, but not be limited to, content of Facility Startup Plan, coordination needed between various parties in attendance, and potential problems associated with startup.
- C. Attendees will include:
  - 1. Contractor.
  - 2. Contractor's designated quality control representative.
  - 3. Subcontractors and equipment manufacturer's representatives whom Contractor deems to be directly involved in facility startup.
  - 4. Engineer's representatives.
  - 5. Owner's operations personnel.
  - 6. Others as required by Contract Documents or as deemed necessary by Contractor.

1.09 OTHER MEETINGS

- A. In accordance with Contract Documents and as may be required by Owner and Engineer.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**



**SECTION 01 31 29**  
**WEB-BASED CONSTRUCTION DOCUMENT MANAGEMENT SYSTEM**

**PART 1 GENERAL**

1.01 SUMMARY

- A. Section includes: Requirements for use of a web-based construction document management system, Prolog Converge (Prolog) as provided by Engineer.

1.02 REQUIREMENTS

- A. The Owner, Engineer and Contractor shall utilize Prolog for submission of all data and documents (unless specified otherwise in this section) throughout the duration of the Contract.
1. Prolog is a web-based electronic media site.
  2. The Contractor will be provided licenses at no cost.
  3. Prolog will be made available to all Owner's personnel, and select subcontractor personnel suppliers, and consultants.
  4. The joint use of this system is to facilitate electronic exchange of information of key processes, and overall management of Contract Documentation.
  5. Prolog shall be the primary means of project information submission and management.
- B. User Access Limitations: The system administrator will control the Contractor's access to Prolog by allowing access and assigning user profiles to accepted Contractor personnel. User profiles will define levels of access into Prolog; determine assigned function based authorizations and user privileges. Subcontractors and suppliers will be given access to Prolog by and through the Contractor. Entry of information exchanged and transferred between the Contractor and its subcontractors and suppliers on Prolog shall be the responsibility of the Contractor.
- C. Joint Ownership of Data: Data entered in a collaborative mode (entered with the intent to share as determined by permissions and workflows within Prolog) by the Engineer and the Contractor will be jointly owned.
- D. Automated System Notification and Audit Log Tracking: Review comments made (or lack thereof) by the Owner on Contractor submitted documentation shall not relieve the Contractor from compliance with requirements of the Contract Documents. The Contractor is responsible for managing, tracking, and documenting the Work to comply with the requirements of the Contract

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

Documents. Owner’s acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation and does not constitute validation of the Contractor’s submitted information.

E. Computer Requirements:

- 1. The Contractor shall use computer hardware and software that meets the requirements of Prolog.
  - a. Acceptable internet Browsers:
    - 1) Microsoft Internet Explorer 11.
    - 2) Microsoft Edge.
    - 3) Google Chrome.
    - 4) Firefox.
- 2. The Contractor ensure that connectivity to Prolog is accomplished through networking requirements specified in Section 01 50 00, Temporary Facilities and Controls.

F. Contractor Responsibility:

- 1. The Contractor shall be responsible for the validity of their information placed in Prolog and for the abilities of their personnel.
- 2. Accepted users shall be knowledgeable in the use of computers, including Internet Browsers, email programs, CAD drawing applications, and Adobe Portable Document Format (PDF) documents distribution program.
- 3. The Contractor shall utilize the existing forms in Prolog to the maximum extent possible. If a form does not exist in Prolog the Contractor must include a form of their own or provided by the Engineer as attachment to a submittal.
- 4. Adobe PDF documents will be created through electronic conversion rather than optically scanned whenever possible.
- 5. Contractor’s personnel requiring access to Prolog will receive a username and password along with instruction. Training for use of Prolog can be requested by the Contractor.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 PROLOG UTILIZATION

- A. Prolog shall be utilized in connection with all document and information management required by these Contract Documents.

### 3.02 SUBMITTALS

#### A. Shop Drawings:

1. Shop Drawings and design data documents shall be submitted PDF attachments to Prolog submittal work flow process and form. Example of the Shop Drawings include, but are not limited to:
  - a. Standard manufacturer installation drawings.
  - b. Drawings prepared to illustrate portions of the work designed or developed by the Contractor.
  - c. Steel fabrication, piece, and erection drawings.
2. Hard copy submittals may be allowed, if approved by the Engineer on a case-by-case basis.
  - a. Hard copy submittals shall be handled following procedures for Samples defined below.

### 3.03 PRODUCT DATA

#### A. Product catalog data and manufacturer's instructions shall be submitted as PDF attachments to Prolog submittal work flow process and form. Examples for product data include, but are not limited to:

1. Manufacturer's printed literature.
2. Preprinted product specification data and installation instructions.

### 3.04 SAMPLES

#### A. Sample submittals shall be physically submitted as specified in Division 1, General Requirements. Contractor shall enter submittal data information into Prolog with a copy of the submittal form(s) attached to the sample. Examples of samples include but are not limited to:

1. Product finishes and color selection samples.
2. Product finishes and color verification samples.
3. Finish/color boards.
4. Physical samples of materials.

### 3.05 ADMINISTRATIVE SUBMITTALS

#### A. All correspondence and pre-construction submittals shall be submitted using Prolog. Examples of administrative submittals include, but are not limited to:

1. Permits.
2. Requests for substitutions (RFS).
3. List of contact personnel.
4. Requests for Information (RFI).

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- B. Network Analysis Schedules and associated reports and updates. Each schedule submittal specified in these Contract Documents shall be submitted as a native backed-up file (PRX or STX) of the scheduling program being used. The schedule shall also be posted as a PDF file in the format specified in these Contract Documents.
- C. Plans for safety, demolition, environmental protection, and similar activities.
- D. Quality Control Plan(s), Testing Plan and Log, Quality Control Reports, Production Reports, Quality Control Specialist Reports, Preparatory Phase Checklist, Initial Phase Checklist, Field Test reports, Summary reports, Rework Items List, etc.
- E. Meeting minutes for quality control meetings, progress meetings, preinstallation meetings, etc.
- F. Any general correspondence submitted.

3.06 COMPLIANCE SUBMITTALS

- A. Test reports, certificates, and manufacture field report submittals shall be submitted on Prolog as PDF attachments. Examples of compliance submittals include, but are not limited to:
  - 1. Inspection Requests:
    - a. When a portion of Work is ready for inspection and prior to covering up the Work (for example, a concrete pour that has waterstop, rebar and embeds placed prior to pouring the concrete), inspection requests shall be submitted via Prolog and approved via Prolog.
    - b. Reports associated with this element of the Work will be submitted via Prolog and associated with the inspection request.
  - 2. Field test reports.
  - 3. Quality Control certifications.
  - 4. Manufacturer's documentation and certifications for quality of products and materials provided.

3.07 RECORD AND CLOSEOUT SUBMITTALS

- A. Operation and maintenance data and closeout submittals shall be submitted on Prolog as PDF documents during the approval and review stage as specified, with actual set of documents submitted for final. Examples of record submittals include, but are not limited to:
  - 1. Operation and Maintenance Manuals: Final documents shall be submitted as specified.



2. Extra materials, spare stock, etc.: Submittal forms shall indicate when actual materials are submitted.

3.08 FINANCIAL SUBMITTALS

A. Schedule of Value, Pay Estimates, and Change Request Proposals shall be submitted on Prolog. Supporting material for Pay Estimates and Change Requests shall be submitted on Prolog as PDF attachments. Examples of compliance submittals include, but are not limited to:

1. Contractor's Schedule of Values.
2. Contractor's Monthly Progress Payment Requests.
3. Contract Change proposals requested by the Owner.

**END OF SECTION**



**SECTION 01 32 00**  
**CONSTRUCTION PROGRESS DOCUMENTATION**

**PART 1 GENERAL**

1.01 SUBMITTALS

A. Informational Submittals:

1. Preliminary Progress Schedule: Submit within time specified in Paragraph 2.03 of the General Conditions.
2. Detailed Progress Schedule:
  - a. Submit initial Detailed Progress Schedule within 60 days after Effective Date of the Agreement.
  - b. Submit an Updated Progress Schedule at each update, in accordance with Article Detailed Progress Schedule.
3. Submit with Each Progress Schedule Submission:
  - a. Contractor's certification that Progress Schedule submission is actual schedule being used for execution of the Work.
  - b. Project Planner (P6) by Primavera Systems, Inc Progress Schedule: One legible copies.
  - c. Narrative Progress Report: Same number of copies as specified for Progress Schedule.
4. Prior to final payment, submit a final Updated Progress Schedule.

1.02 PRELIMINARY PROGRESS SCHEDULE

- A. In addition to basic requirements outlined in General Conditions, show a detailed schedule, beginning with Notice to Proceed, for minimum duration of 90 days, and a summary of balance of Project through Final Completion.
- B. Show activities including, but not limited to the following:
  1. Notice to Proceed.
  2. Permits.
  3. Submittals, with review time. Contractor may use Schedule of Submittals specified in Section 01 33 00, Submittal Procedures.
  4. Early procurement activities for long lead equipment and materials.
  5. Initial Site work.
  6. Specified Work sequences and construction constraints.
  7. Contract Milestone and Completion Dates.
  8. Owner-furnished products delivery dates or ranges of dates.
  9. Major structural, mechanical, equipment, electrical, architectural, and instrumentation and control Work.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

10. System startup summary.
  11. Project close-out summary.
  12. Demobilization summary.
- C. Update Preliminary Progress Schedule monthly as part of progress payment process. Failure to do so may result in the Owner withholding all or part of the monthly progress payment until the Preliminary Progress Schedule is updated in a manner acceptable to Engineer.
- D. Format: In accordance with Article Progress Schedule - Critical Path Network.

1.03 DETAILED PROGRESS SCHEDULE

- A. In addition to requirements of General Conditions, submit Detailed Progress Schedule beginning with Notice to Proceed and continuing through Final Completion.
- B. Show the duration and sequences of activities required for complete performance of the Work reflecting means and methods chosen by Contractor.
- C. When accepted by Engineer, Detailed Progress Schedule will replace Preliminary Progress Schedule and become Baseline Schedule. Subsequent revisions will be considered as Updated Progress Schedules.
- D. Format: In accordance with Article Progress Schedule—Critical Path Network.
- E. Update monthly to reflect actual progress and occurrences to date, including weather delays.

1.04 PROGRESS SCHEDULE—BAR CHART

- A. General: Comprehensive bar chart schedule, generally as outlined in Associated General Contractors of America (AGC) 580, “Construction Project Planning and Scheduling Guidelines.” If a conflict occurs between the AGC publication and this Specification, this Specification shall govern.
- B. Format:
1. Unless otherwise approved, white paper, 11-inch by 17-inch sheet size.
  2. Title Block: Show name of Project and Owner, date submitted, revision or update number, and name of scheduler.
  3. Identify horizontally, across the top of the schedule, the time frame by year, month, and day.

4. Identify each activity with a unique number and a brief description of the Work associated with that activity.
  5. Legend: Describe standard and special symbols used.
- C. Contents: Identify, in chronological order, those activities reasonably required to complete the Work, including as applicable, but not limited to:
1. Obtaining permits, submittals for early product procurement, and long lead time items.
  2. Mobilization and other preliminary activities.
  3. Initial Site work.
  4. Specified Work sequences, constraints, and Milestones, including Substantial Completion date(s).
  5. Subcontract Work.
  6. Major equipment design, fabrication, factory testing, and delivery dates.
  7. Delivery dates for Owner-furnished products, as specified in Section 01 11 00, Summary of Work.
  8. Sitework.
  9. Concrete Work.
  10. Structural steel Work.
  11. Architectural features Work.
  12. Conveying systems Work.
  13. Equipment Work.
  14. Mechanical Work.
  15. Electrical Work.
  16. Instrumentation and control Work.
  17. Interfaces with Owner-furnished equipment.
  18. Other important Work for each major facility.
  19. Equipment and system startup and test activities.
  20. Project closeout and cleanup.
  21. Demobilization.

#### 1.05 PROGRESS SCHEDULE—CRITICAL PATH NETWORK

- A. General: Comprehensive computer-generated schedule using CPM, generally as outlined in Associated General Contractors of America (AGC) 580, “Construction Project Planning and Scheduling Guidelines.” If a conflict occurs between the AGC publication and this Specification, this Specification shall govern.
- B. Contents:
1. Schedule shall begin with the date of Notice to Proceed and conclude with the date of Final Completion.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Identify Work calendar basis using days as a unit of measure.
3. Show complete interdependence and sequence of construction and Project-related activities reasonably required to complete the Work.
4. Identify the Work of separate stages and other logically grouped activities, and clearly identify critical path of activities.
5. Reflect sequences of the Work, restraints, delivery windows, review times, Contract Times and Project Milestones set forth in the Agreement and Section 01 31 13, Project Coordination.
6. Include as applicable, at a minimum:
  - a. Obtaining permits, submittals for early product procurement, and long lead time items.
  - b. Mobilization and other preliminary activities.
  - c. Initial Site work.
  - d. Specified Work sequences, constraints, and Milestones, including Substantial Completion date(s) Subcontract Work.
  - e. Major equipment design, fabrication, factory testing, and delivery dates.
  - f. Delivery dates for Owner-furnished products, as specified in Section 01 11 00, Summary of Work.
  - g. Sitework.
  - h. Concrete Work.
  - i. Structural steel Work.
  - j. Architectural features Work.
  - k. Conveying systems Work.
  - l. Equipment Work.
  - m. Mechanical Work.
  - n. Electrical Work.
  - o. Instrumentation and control Work.
  - p. Interfaces with Owner-furnished equipment.
  - q. Other important Work for each major facility.
  - r. Equipment and system startup and test activities.
  - s. Project closeout and cleanup.
  - t. Demobilization.
7. No activity duration, exclusive of those for Submittals review and product fabrication/delivery, shall be less than 1 day nor more than 14 days, unless otherwise approved.
8. Activity duration for Submittal review shall not be less than review time specified unless clearly identified and prior written acceptance has been obtained from Engineer.

C. Network Graphical Display:

1. Plot or print on paper not greater than 30 inches by 42 inches or smaller than 22 inches by 34 inches, unless otherwise approved.

2. Title Block: Show name of Project, Owner, date submitted, revision or update number, and the name of the scheduler. Updated schedules shall indicate data date.
3. Identify horizontally across top of schedule the time frame by year, month, and day.
4. Identify each activity with a unique number and a brief description of the Work associated with that activity.
5. Indicate the critical path.
6. Show, at a minimum, the controlling relationships between activities.
7. Plot activities on a time-scaled basis, with the length of each activity proportional to the current estimate of the duration.
8. Plot activities on an early start basis unless otherwise requested by Engineer.
9. Provide a legend to describe standard and special symbols used.

D. Schedule Report:

1. On 8-1/2-inch by 11-inch white paper, unless otherwise approved.
2. List information for each activity in tabular format, including at a minimum:
  - a. Activity Identification Number.
  - b. Activity Description.
  - c. Original Duration.
  - d. Remaining Duration.
  - e. Early Start Date (Actual start on Updated Progress Schedules).
  - f. Early Finish Date (Actual finish on Updated Progress Schedules).
  - g. Late Start Date.
  - h. Late Finish Date.
  - i. Total Float.
3. Sort reports, in ascending order, as listed below:
  - a. Activity number sequence with predecessor and successor activity.
  - b. Activity number sequence.
  - c. Early-start.
  - d. Total float.

E. Cost-Loading:

1. Note the estimated cost to perform each Work activity, with the exception of Submittals or Submittal reviews, in the network in a tabular listing.
2. The sum of all activity costs shall equal the Contract Price. An unbalanced or front-end-loaded schedule will not be acceptable.
3. The accepted cost-loaded Progress Schedule shall constitute the Schedule of Values specified in Section 01 29 00, Payment Procedures.

1.06 PROGRESS OF THE WORK

- A. Updated Progress Schedule shall reflect:
1. Progress of Work to within 5 working days prior to submission.
  2. Approved changes in Work scope and activities modified since submission.
  3. Delays in Submittals or resubmittals, deliveries, or Work.
  4. Adjusted or modified sequences of Work.
  5. Other identifiable changes.
  6. Revised projections of progress and completion.
  7. Report of changed logic.
- B. Produce detailed subschedules during Project, upon request of Owner or Engineer, to further define critical portions of the Work such as facility shutdowns.
- C. If an activity is not completed by its latest scheduled completion date and this failure is anticipated to extend Contract Times (or Milestones), submit, within 7 days of such failure, a written statement as to how nonperformance will be corrected to return Project to acceptable current Progress Schedule. Actions by Contractor to complete the Work within Contract Times (or Milestones) will not be justification for adjustment to Contract Price or Contract Times.
- D. Owner may order Contractor to increase plant, equipment, labor force, or working hours if Contractor fails to:
1. Complete a Milestone activity by its completion date.
  2. Satisfactorily execute Work as necessary to prevent delay to overall completion of Project, at no additional cost to Owner.

1.07 NARRATIVE PROGRESS REPORT

- A. Format:
1. Organize same as Progress Schedule.
  2. Identify, on a cover letter, reporting period, date submitted, and name of author of report.
- B. Contents:
1. Number of days worked over the period, work force on hand, construction equipment on hand (including utility vehicles such as pickup trucks, maintenance vehicles, stake trucks).
  2. General progress of Work, including a listing of activities started and completed over the reporting period, mobilization/demobilization of subcontractors, and major milestones achieved.



3. Contractor's plan for management of Site (for example, lay down and staging areas, construction traffic), use of construction equipment, buildup of trade labor, and identification of potential Contract changes.
4. Identification of new activities and sequences as a result of executed Contract changes.
5. Documentation of weather conditions over the reporting period, and any resulting impacts to the work.
6. Description of actual or potential delays, including related causes, and the steps taken or anticipated to mitigate their impact.
7. Changes to activity logic.
8. Changes to the critical path.
9. Identification of, and accompanying reason for, any activities added or deleted since the last report.
10. Steps taken to recover the schedule from Contractor-caused delays.

#### 1.08 SCHEDULE ACCEPTANCE

##### A. Engineer's acceptance will demonstrate agreement that:

1. Proposed schedule is accepted with respect to:
  - a. Contract Times, including Final Completion and all intermediate Milestones, are within the specified times.
  - b. Specified Work sequences and constraints are shown as specified.
  - c. Specified Owner-furnished Equipment or Material arrival dates, or range of dates, are included.
  - d. Access restrictions are accurately reflected.
  - e. Startup and testing times are as specified.
  - f. Submittal review times are as specified.
  - g. Startup testing duration is as specified and timing is acceptable.
2. In all other respects, Engineer's acceptance of Contractor's schedule indicates that, in Engineer's judgment, schedule represents reasonable plan for constructing Project in accordance with the Contract Documents. Engineer's review will not make any change in Contract requirements. Lack of comment on any aspect of schedule that is not in accordance with the Contract Documents will not thereby indicate acceptance of that change, unless Contractor has explicitly called the nonconformance to Engineer's attention in submittal. Schedule remains Contractor's responsibility and Contractor retains responsibility for performing all activities, for activity durations, and for activity sequences required to construct Project in accordance with the Contract Documents.

- B. Unacceptable Preliminary Progress Schedule:
  - 1. Make requested corrections; resubmit within 10 days.
  - 2. Until acceptable to Engineer as Baseline Progress Schedule, continue review and revision process, including updating schedule on a monthly basis to reflect actual progress and occurrences to date.
- C. Unacceptable Detailed Progress Schedule:
  - 1. Make requested corrections; resubmit within 10 days.
  - 2. Until acceptable to Engineer as Baseline Progress Schedule, continue review and revision process.
- D. Narrative Report: All changes to activity duration and sequences, including addition or deletion of activities subsequent to Engineer's acceptance of Baseline Progress Schedule, shall be delineated in Narrative Report current with proposed Updated Progress Schedule.

#### 1.09 ADJUSTMENT OF CONTRACT TIMES

- A. Reference General Conditions and Section 01 26 00, Contract Modification Procedures.
- B. Evaluation and reconciliation of Adjustments of Contract Times shall be based on the Updated Progress Schedule at the time of proposed adjustment or claimed delay.
- C. Schedule Contingency:
  - 1. Contingency, when used in the context of the Progress Schedule, is time between Contractor's proposed Completion Time and Contract Completion Time.
  - 2. Contingency included in Progress Schedule is a Project resource available to both Contractor and Owner to meet Contract Milestones and Contract Times. Use of Schedule contingency shall be shared to the proportionate benefit of both parties.
  - 3. Use of schedule contingency suppression techniques such as preferential sequencing and extended activity times is prohibited.
  - 4. Pursuant to Contingency sharing provisions of this specification, no time extensions will be granted, nor will delay damages be paid until a delay occurs which (i) consumes all available contingency time, and (ii) extends Work beyond the Contract Completion date.

D. Float:

1. Float time is a Project resource available to both parties to meet Contract Milestones and Contract Times.
2. Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic restraints, and extended activity times are prohibited, and use of float time disclosed or implied by use of alternate float-suppression techniques shall be shared to proportionate benefit of Owner and Contractor.
3. Pursuant to above float-sharing requirement, no time extensions will be granted nor delay damages paid until a delay occurs which (i) impacts Project's critical path, (ii) consumes available float or contingency time, and (iii) extends Work beyond Contract completion date.

E. Claims Based on Contract Times:

1. Where Engineer has not yet rendered formal decision on Contractor's Claim for adjustment of Contract Times, and parties are unable to agree as to amount of adjustment to be reflected in Progress Schedule, reflect an interim adjustment in the Progress Schedule as acceptable to Engineer.
2. It is understood and agreed that such interim acceptance will not be binding on either Contractor or Owner, and will be made only for the purpose of continuing to schedule Work until such time as formal decision has been rendered as to an adjustment, if any, of the Contract Times.
3. Revise Progress Schedule prepared thereafter in accordance with Engineer's formal decision.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**



**SECTION 01 33 00**  
**SUBMITTAL PROCEDURES**

**PART 1 GENERAL**

1.01 DEFINITIONS

- A. Action Submittal: Written and graphic information submitted by Contractor that requires Engineer's approval.
- B. Deferred Submittal: Information in accordance with 2020 IBC Section 107.3.4 submitted by Contractor for portions of design that are to be submitted to permitting agency for approval prior to installation of that portion of the Work, along with Engineer's review documentation that submittal has been found to be in general conformance with Project's design.
- C. Informational Submittal: Information submitted by Contractor that requires Engineer's review and determination that submitted information is in accordance with the Conditions of the Contract.

1.02 PROCEDURES

- A. Direct submittals to Engineer at the following, unless specified otherwise.
  - 1. Available at preconstruction conference.
- B. Electronic Submittals: Submittals shall, unless specifically accepted, be made in electronic format.
  - 1. Each submittal shall be an electronic file in Adobe Acrobat Portable Document Format (PDF). Use the latest version available at time of execution of the Agreement.
  - 2. PDF files must be text-searchable.
  - 3. Electronic files that contain more than 10 pages in PDF format shall contain internal bookmarking from an index page to major sections of the document.
  - 4. PDF files shall be set to open "Bookmarks and Page" view.
  - 5. Add general information to each PDF file, including title, subject, author, and keywords.
  - 6. PDF files shall be set up to print legibly at 8.5-inch by 11-inch, 11-inch by 17-inch, or 22-inch by 34-inch. No other paper sizes will be accepted.
  - 7. Submit new electronic files for each resubmittal.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

8. Include a copy of the Transmittal of Contractor's Submittal form, located at end of section, with each electronic file.
9. Engineer will reject submittal that is not electronically submitted, unless specifically accepted.
10. Provide Engineer with authorization to reproduce and distribute each file as many times as necessary for Project documentation.
11. Detailed procedures for handling electronic submittals will be discussed at the preconstruction conference.

C. Transmittal of Submittal:

1. Contractor shall:
  - a. Review each submittal and check for compliance with Contract Documents.
  - b. Stamp each submittal with uniform approval stamp before submitting to Engineer.
    - 1) Stamp to include Project name, submittal number, Specification number, Contractor's reviewer name, date of Contractor's approval, and statement certifying submittal has been reviewed, checked, and approved for compliance with Contract Documents.
    - 2) Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
2. Complete, sign, and transmit with each submittal package, one Transmittal of Contractor's Submittal form attached at end of this section in format approved by Engineer.
3. Identify each submittal with the following:
  - a. Numbering and Tracking System:
    - 1) Sequentially number each submittal.
    - 2) Resubmission of submittal shall have original number with sequential alphabetic suffix.
  - b. Specification section and paragraph to which submittal applies.
  - c. Project title and Engineer's project number.
  - d. Date of transmittal.
  - e. Names of Contractor, Subcontractor or Supplier, and manufacturer as appropriate.
4. Identify and describe each deviation or variation from Contract Documents.

- D. Format:
1. Do not base Shop Drawings on reproductions of Contract Documents.
  2. Package submittal information by individual Specification section. Do not combine different Specification sections together in submittal package, unless otherwise directed in Specification.
  3. Present in a clear and thorough manner and in sufficient detail to show kind, size, arrangement, and function of components, materials, and devices, and compliance with Contract Documents.
  4. Index with labeled tab dividers in orderly manner.
- E. Timeliness: Schedule and submit in accordance Schedule of Submittals and requirements of individual Specification sections.
- F. Processing Time:
1. Time for review shall commence on Engineer's receipt of submittal.
  2. Engineer will act upon Contractor's submittal and transmit response to Contractor not later than 21 days after receipt, unless otherwise specified.
  3. Resubmittals will be subject to same review time.
  4. No adjustment of Contract Times or Price will be allowed as a result of delays in progress of Work caused by rejection and subsequent resubmittals.
- G. Resubmittals: Clearly identify each correction or change made.
- H. Incomplete Submittals:
1. Engineer will return entire submittal for Contractor's revision if preliminary review deems it incomplete.
  2. When any of the following are missing, submittal will be deemed incomplete:
    - a. Contractor's review stamp; completed and signed.
    - b. Transmittal of Contractor's Submittal; completed and signed.
    - c. Insufficient number of copies.
- I. Submittals not required by Contract Documents:
1. Will not be reviewed and will be returned stamped "Not Subject to Review."
  2. Engineer will keep one copy and return submittal to Contractor.

1.03 ACTION SUBMITTALS

- A. Prepare and submit Action Submittals required by individual Specification sections.
- B. Shop Drawings:
  - 1. Identify and Indicate:
    - a. Applicable Contract Drawing and Detail number, products, units and assemblies, and system or equipment identification or tag numbers.
    - b. Equipment and Component Title: Identical to title shown on the Drawings.
    - c. Critical field dimensions and relationships to other critical features of Work. Note dimensions established by field measurement.
    - d. Project-specific information drawn accurately to scale.
  - 2. Manufacturer's standard schematic drawings and diagrams as follows:
    - a. Modify to delete information that is not applicable to the Work.
    - b. Supplement standard information to provide information specifically applicable to the Work.
  - 3. Product Data: Provide as specified in individual Specifications.
  - 4. Deferred Submittal: See Drawings for list of deferred submittals.
    - a. Contractor-design drawings and product data related to permanent construction.
      - 1) Written and graphic information.
      - 2) Drawings.
      - 3) Cut sheets.
      - 4) Data sheets.
      - 5) Action item submittals requested in individual Specification section.
    - b. Prior to installation of indicated structural or nonstructural element, equipment, distribution system, or component or its anchorage, submit required supporting data and drawings for review and acceptance by Engineer. Documentation of review and approval provided on Engineer's comment form, along with completed submittal, shall be filed with permitting agency by Contractor and approved by permitting agency prior to installation.
  - 5. Foreign Manufacturers: When proposed, include names and addresses of at least two companies that maintain technical service representatives close to Project.



C. Samples:

1. Copies: Two, unless otherwise specified in individual Specifications.
2. Preparation: Mount, display, or package Samples in manner specified to facilitate review of quality. Attach label on unexposed side that includes the following:
  - a. Manufacturer name.
  - b. Model number.
  - c. Material.
  - d. Sample source.
3. Manufacturer's Color Chart: Units or sections of units showing full range of colors, textures, and patterns available.
4. Full-size Samples:
  - a. Size as indicated in individual Specification section.
  - b. Prepared from same materials to be used for the Work.
  - c. Cured and finished in manner specified.
  - d. Physically identical with product proposed for use.

D. Action Submittal Dispositions: Engineer will review, comment, stamp, and distribute as noted:

1. Approved:
  - a. Contractor may incorporate product(s) or implement Work covered by submittal.
  - b. Distribution: Electronic.
2. Approved as Noted:
  - a. Contractor may incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
  - b. Distribution: Electronic.
3. Partial Approval, Resubmit as Noted:
  - a. Make corrections or obtain missing portions, and resubmit.
  - b. Except for portions indicated, Contractor may begin to incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
  - c. Distribution: Electronic.
4. Revise and Resubmit:
  - a. Contractor may not incorporate product(s) or implement Work covered by submittal.
  - b. Distribution: Electronic.

1.04 INFORMATIONAL SUBMITTALS

A. General:

1. Refer to individual Specification sections for specific submittal requirements.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Engineer will review each submittal. If submittal meets conditions of the Contract, Engineer will forward copy to appropriate parties. If Engineer determines submittal does not meet conditions of the Contract and is therefore considered unacceptable, Engineer will retain one copy and return remaining copy with review comments to Contractor, and require that submittal be corrected and resubmitted.
- B. Certificates:
1. General:
    - a. Provide notarized statement that includes signature of entity responsible for preparing certification.
    - b. Signed by officer or other individual authorized to sign documents on behalf of that entity.
  2. Welding: In accordance with individual Specification sections.
  3. Installer: Prepare written statements on manufacturer's letterhead certifying installer complies with requirements as specified in individual Specification section.
  4. Material Test: Prepared by qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
  5. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in individual Specification sections.
  6. Manufacturer's Certificate of Compliance: In accordance with Section 01 61 00, Common Product Requirements.
  7. Manufacturer's Certificate of Proper Installation: In accordance with Section 01 43 33, Manufacturers' Field Services.
- C. Construction Photographs and Video: In accordance with Section 01 31 13, Project Coordination, and as may otherwise be required in Contract Documents.
- D. Closeout Submittals: In accordance with Section 01 77 00, Closeout Procedures.
- E. Contractor-design Data (related to temporary construction):
1. Written and graphic information.
  2. List of assumptions.
  3. List of performance and design criteria.
  4. Summary of loads or load diagram, if applicable.
  5. Calculations.
  6. List of applicable codes and regulations.

7. Name and version of software.
  8. Information requested in individual Specification section.
- F. Deferred Submittals: See Drawings for list of deferred submittals.
1. Contractor-design data related to permanent construction:
    - a. List of assumptions.
    - b. List of performance and design criteria.
    - c. Summary of loads or load diagram, if applicable.
    - d. Calculations.
    - e. List of applicable codes and regulations.
    - f. Name and version of design software.
    - g. Factory test results.
    - h. Informational submittals requested in individual Specification section.
  2. Prior to installation of indicated structural or nonstructural element, equipment, distribution system, or component or its anchorage, submit calculations and test results of Contractor-designed components for review by Engineer. Documentation of review and indication of compliance with general design intent and project criteria provided on Engineer's comment form as meets conditions of the Contract, along with completed submittal, shall be filed with permitting agency by Contractor and approved by permitting agency prior to installation.
- G. Manufacturer's Instructions: Written or published information that documents manufacturer's recommendations, guidelines, and procedures in accordance with individual Specification section.
- H. Operation and Maintenance Data: As required in Section 01 78 23, Operation and Maintenance Data.
- I. Payment:
1. Application for Payment: In accordance with Section 01 29 00, Payment Procedures.
  2. Schedule of Values: In accordance with Section 01 29 00, Payment Procedures.
  3. Schedule of Estimated Progress Payments: In accordance with Section 01 29 00, Payment Procedures.
- J. Quality Control Documentation: As required in Section 01 45 16.13, Contractor Quality Control.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- K. Schedules:
1. Schedule of Submittals: Prepare separately or in combination with Progress Schedule as specified in Section 01 32 00, Construction Progress Documentation.
    - a. Show for each, at a minimum, the following:
      - 1) Specification section number.
      - 2) Identification by numbering and tracking system as specified under Paragraph Transmittal of Submittal.
      - 3) Estimated date of submission to Engineer, including reviewing and processing time.
    - b. On a monthly basis, submit updated Schedule of Submittals to Engineer if changes have occurred or resubmittals are required.
  2. Progress Schedules: In accordance with Section 01 32 00, Construction Progress Documentation.
- L. Special Guarantee: Supplier's written guarantee as required in individual Specification sections.
- M. Statement of Qualification: Evidence of qualification, certification, or registration as required in Contract Documents to verify qualifications of professional land surveyor, engineer, materials testing laboratory, specialty Subcontractor, trade, Specialist, consultant, installer, and other professionals. Reference Article 1.01.A.38.b of Supplementary Conditions for definition of Specialist.
- N. Submittals Required by Laws, Regulations, and Governing Agencies:
1. Promptly submit promptly notifications, reports, certifications, payrolls, and otherwise as may be required, directly to the applicable federal, state, or local governing agency or their representative.
  2. Transmit to Engineer for Owner's records one copy of correspondence and transmittals (to include enclosures and attachments) between Contractor and governing agency.
- O. Test, Evaluation, and Inspection Reports:
1. General: Shall contain signature of person responsible for test or report.
  2. Factory:
    - a. Identification of product and Specification section, type of inspection or test with referenced standard or code.
    - b. Date of test, Project title and number, and name and signature of authorized person.
    - c. Test results.

- d. If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
  - e. Provide interpretation of test results, when requested by Engineer.
  - f. Other items as identified in individual Specification sections.
3. Field:
- a. As a minimum, include the following:
    - 1) Project title and number.
    - 2) Date and time.
    - 3) Record of temperature and weather conditions.
    - 4) Identification of product and Specification section.
    - 5) Type and location of test, Sample, or inspection, including referenced standard or code.
    - 6) Date issued, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
    - 7) If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
    - 8) Provide interpretation of test results, when requested by Engineer.
    - 9) Other items as identified in individual Specification sections.

P. Testing and Startup Data: In accordance with Section 01 91 14, Equipment Testing and Facility Startup.

Q. Training Data: In accordance with Section 01 43 33, Manufacturers' Field Services.

#### 1.05 SUPPLEMENTS

A. The supplement listed below, following "End of Section", is part of this Specification.

- 1. Forms: Transmittal of Contractor's Submittal.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**



W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

<b style="margin-left: 20px;">TRANSMITTAL OF CONTRACTOR'S SUBMITTAL</b> (ATTACH TO EACH SUBMITTAL)	
DATE: _____	
<b>TO:</b> _____ _____ _____ _____  <b>FROM:</b> _____ <div style="text-align: center; margin-left: 100px;">Contractor</div> _____ _____ _____	Submittal No.: _____ <input type="checkbox"/> New Submittal <input type="checkbox"/> Resubmittal Project: _____ Project No.: _____ Specification Section No.: _____ <b>(Cover only one section with each transmittal)</b> Schedule Date of Submittal: _____
<b>SUBMITTAL TYPE:</b> <input type="checkbox"/> Shop Drawing <input type="checkbox"/> Sample <input type="checkbox"/> Informational <input type="checkbox"/> Deferred	

**The following items are hereby submitted:**

Number of Copies	Description of Item Submitted (Type, Size, Model Number, Etc.)	Spec. and Para. No.	Drawing or Brochure Number	Contains Variation to Contract	
				No	Yes

Contractor hereby certifies that (i) Contractor has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and requirements of laws and regulations and governing agencies.

By: \_\_\_\_\_  
Contractor (Authorized Signature)





**SECTION 01 43 33**  
**MANUFACTURERS' FIELD SERVICES**

**PART 1 GENERAL**

1.01 DEFINITIONS

- A. Person-Day: One person for 8 hours within regular Contractor working hours.

1.02 SUBMITTALS

- A. Informational Submittals:

1. Training Schedule: Submit, in accordance with requirements of this Specification, not less than 21 days prior to start of equipment installation and revise as necessary for acceptance.
2. Lesson Plan: Submit, in accordance with requirements of this Specification, proposed lesson plan not less than 21 days prior to scheduled training and revise as necessary for acceptance.
3. Training Session Recordings: Furnish Owner with complete sets of recordings fully indexed and cataloged with printed label stating session and date recorded.

1.03 QUALIFICATION OF MANUFACTURER'S REPRESENTATIVE

- A. Authorized representative of the manufacturer, factory trained, and experienced in the technical applications, installation, operation, and maintenance of respective equipment, subsystem, or system, with full authority by the equipment manufacturer to issue the certifications required of the manufacturer. Additional qualifications may be specified in the individual Specification section.
- B. Representative subject to acceptance by Owner and Engineer. No substitute representatives will be allowed unless prior written approval by such has been given.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 FULFILLMENT OF SPECIFIED MINIMUM SERVICES

- A. Furnish manufacturers' services, when required by an individual Specification section, to meet the requirements of this section.

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UV SYSTEM UPGRADES

- B. Where time is necessary in excess of that stated in the Specifications for manufacturers' services, or when a minimum time is not specified, time required to perform specified services shall be considered incidental.
- C. Schedule manufacturer' services to avoid conflict with other onsite testing or other manufacturers' onsite services.
- D. Determine, before scheduling services, that conditions necessary to allow successful testing have been met.
- E. Only those days of service approved by Engineer will be credited to fulfill specified minimum services.
- F. When specified in individual Specification sections, manufacturer's onsite services shall include:
  - 1. Assistance during product (system, subsystem, or component) installation to include observation, guidance, instruction of Contractor's assembly, erection, installation or application procedures.
  - 2. Inspection, checking, and adjustment as required for product (system, subsystem, or component) to function as warranted by manufacturer and necessary to furnish Manufacturer's Certificate of Proper Installation.
  - 3. Providing, on a weekly basis, copies of manufacturers' representatives field notes and data to Engineer and Owner.
  - 4. Revisiting the Site as required to correct problems and until installation and operation are acceptable to Engineer.
  - 5. Resolution of assembly or installation problems attributable to or associated with respective manufacturer's products and systems.
  - 6. Assistance during functional and performance testing, and facility startup and evaluation.
  - 7. Training of Owner's personnel in the operation and maintenance of respective product as required.
  - 8. If initial performance tests are not successful, contractor is responsible for costs associated with repeat of performance testing, including site visit of manufacturer's representative.

3.02 MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION

- A. When so specified, a Manufacturer's Certificate of Proper Installation form, a copy of which is attached to this section, shall be completed and signed by equipment manufacturer's representative.
- B. Such form shall certify signing party is a duly authorized representative of manufacturer, is empowered by manufacturer to inspect, approve, and operate their equipment and is authorized to make recommendations required to ensure equipment is complete and operational.

### 3.03 TRAINING

#### A. General:

1. Furnish manufacturers' representatives for detailed classroom and hands-on training to Owner's personnel on operation and maintenance of specified product (system, subsystem, component) and as may be required in applicable Specifications.
2. Furnish trained, articulate personnel to coordinate and expedite training, to be present during training coordination meetings with Owner, and familiar with operation and maintenance manual information specified in Section 01 78 23, Operation and Maintenance Data.
3. Manufacturer's representative shall be familiar with facility operation and maintenance requirements as well as with specified equipment.
4. Furnish complete training materials, to include operation and maintenance data, to be retained by each trainee.

#### B. Training Schedule:

1. List specified equipment and systems that require training services and show:
  - a. Respective manufacturer.
  - b. Estimated dates for installation completion.
  - c. Estimated training dates.
2. Allow for multiple sessions when several shifts are involved.
3. Adjust schedule to ensure training of appropriate personnel as deemed necessary by Owner, and to allow full participation by manufacturers' representatives. Adjust schedule for interruptions in operability of equipment.
4. Coordinate with Section 01 32 00, Construction Progress Documentation, and Section 01 91 14, Equipment Testing and Facility Startup.

#### C. Lesson Plan: When manufacturer or vendor training of Owner personnel is specified, prepare a lesson plan for each required course containing the following minimum information:

1. Title and objectives.
2. Recommended attendees (such as, managers, engineers, operators, maintenance).
3. Course description, outline of course content, and estimated class duration.
4. Format (such as, lecture, self-study, demonstration, hands-on).
5. Instruction materials and equipment requirements.
6. Resumes of instructors providing training.

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UV SYSTEM UPGRADES

- D. Pre-startup Training:
  - 1. Coordinate training sessions with Owner’s operating personnel and manufacturers’ representatives and with submission of operation and maintenance manuals in accordance with Section 01 78 23, Operation and Maintenance Data.
  - 2. Complete prior to beginning of facility startup.
- E. Post-startup Training: If required in Specifications, furnish and coordinate training of Owner’s operating personnel by respective manufacturer’s representatives. Training is to be recorded by a professional videographer.
- F. Recording of Training Sessions:
  - 1. Furnish audio and visual recording of pre-startup and post-startup instruction sessions, including manufacturers’ representatives’ hands-on equipment instruction and classroom sessions.
  - 2. Use .MEG4 (.MP4) format on a portable USB Flash Drive, suitable for playback on standard equipment available commercially in the United States.

3.04 SUPPLEMENTS

- A. The supplement listed below, following “End of Section,” is part of this Specification.
  - 1. Manufacturer’s Certificate of Proper Installation.

**END OF SECTION**

**MANUFACTURER’S CERTIFICATE OF PROPER INSTALLATION**

OWNER \_\_\_\_\_ EQPT SERIAL NO: \_\_\_\_\_  
EQPT TAG NO: \_\_\_\_\_ EQPT/SYSTEM: \_\_\_\_\_  
PROJECT NO: \_\_\_\_\_ SPEC. SECTION: \_\_\_\_\_

I hereby certify that the above-referenced equipment/system has been:

(Check Applicable)

- Installed in accordance with Manufacturer’s recommendations.
- Inspected, checked, and adjusted.
- Serviced with proper initial lubricants.
- Electrical and mechanical connections meet quality and safety standards.
- All applicable safety equipment has been properly installed.
- Functional tests.
- System has been performance tested, and meets or exceeds specified performance requirements. (When complete system of one manufacturer)

Note: Attach any performance test documentation from manufacturer.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I, the undersigned Manufacturer’s Representative, hereby certify that I am (i) a duly authorized representative of the manufacturer, (ii) empowered by the manufacturer to inspect, approve, and operate their equipment and (iii) authorized to make recommendations required to ensure equipment furnished by the manufacturer is complete and operational, except as may be otherwise indicated herein. I further certify that all information contained herein is true and accurate.

Date: \_\_\_\_\_, 20\_\_\_\_

Manufacturer: \_\_\_\_\_

By Manufacturer’s Authorized Representative: \_\_\_\_\_  
(Authorized Signature)



**SECTION 01 45 16.13**  
**CONTRACTOR QUALITY CONTROL**

**PART 1 GENERAL**

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. ASTM International (ASTM):
    - a. D3740, Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
    - b. E329, Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.

1.02 DEFINITIONS

- A. Contractor Quality Control (CQC): The means by which Contractor ensures that the construction, to include that performed by subcontractors and suppliers, complies with the requirements of the Contract.

1.03 SUBMITTALS

- A. Informational Submittals:
1. CQC Plan: Submit, not later than 30 days after receipt of Notice to Proceed.
  2. CQC Report: Submit, weekly, an original and one copy in report form.

1.04 OWNER'S QUALITY ASSURANCE

- A. All Work is subject to Owner's quality assurance inspection and testing at all locations and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract Documents.
- B. Owner's quality assurance inspections and tests are for the sole benefit of Owner and do not:
1. Relieve Contractor of responsibility for providing adequate quality control measures;
  2. Relieve Contractor of responsibility for damage to or loss of the material before acceptance;
  3. Constitute or imply acceptance; or
  4. Affect the continuing rights of Owner after acceptance of the completed Work.

- C. The presence or absence of a quality assurance inspector does not relieve Contractor from any Contract requirement.
- D. Promptly furnish all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by Engineer.
- E. Owner may charge Contractor for any additional cost of inspection or test when Work is not ready at the time specified by Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary. Quality assurance inspections and tests will be performed in a manner that will not unnecessarily delay the Work.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 GENERAL

- A. Maintain an adequate inspection system and perform such inspections as will ensure that the Work conforms to the Contract Documents.
- B. Maintain complete inspection records and make them available at all times to Owner and Engineer.
- C. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the Contract Documents. The system shall cover all construction and demolition operations, both onsite and offsite, including Work by subcontractors, fabricators, suppliers and purchasing agents, and shall be keyed to the proposed construction sequence.

3.02 COORDINATION MEETING

- A. After the Preconstruction Conference, but before start of construction, and prior to acceptance of the CQC Plan, schedule a meeting with Engineer and Owner to discuss the quality control system.
- B. Develop a mutual understanding of the system details, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite Work, and the interrelationship of Contractor's management and control with the Owner's Quality Assurance.
- C. There may be occasions when subsequent conferences may be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures that may require corrective action by Contractor.



### 3.03 QUALITY CONTROL ORGANIZATION

#### A. CQC System Manager:

1. Designate an individual within Contractor's organization who will be responsible for overall management of CQC and have the authority to act in CQC matters for the Contractor.
2. CQC System Manager may perform other duties on the Project.
3. CQC System Manager shall be an experienced construction person, with a minimum of 3 years construction experience on similar type Work.
4. CQC System Manager shall report to the Contractor's project manager or someone higher in the organization. Project manager in this context shall mean the individual with responsibility for the overall quality and production management of the Project.
5. CQC System Manager shall be onsite during construction; periods of absence may not exceed 2 weeks at any one time.
6. Identify an alternate for CQC System Manager to serve with full authority during the System Manager's absence. The requirements for the alternate will be the same as for designated CQC System Manager.

#### B. CQC Staff:

1. Designate a CQC staff, available at the Site at all times during progress, with complete authority to take any action necessary to ensure compliance with the Contract. CQC staff members shall be subject to acceptance by Engineer.
2. CQC staff shall take direction from CQC System Manager in matters pertaining to QC.
3. CQC staff must be of sufficient size to ensure adequate QC coverage of Work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities.
4. The actual strength of the CQC staff may vary during any specific Work period to cover the needs of the Project. Add additional staff when necessary for a proper CQC organization.

- C. Organizational Changes: Obtain Engineer's acceptance before replacing any member of the CQC staff. Requests for changes shall include name, qualifications, duties, and responsibilities of the proposed replacement. Replacement shall meet requirements listed herein.

3.04 QUALITY CONTROL PHASING

- A. CQC shall include at least three phases of control to be conducted by CQC System Manager for all definable features of Work, as follows:
1. Preparatory Phase:
    - a. Notify Owner at least 48 hours in advance of beginning any of the required action of the preparatory phase.
    - b. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The CQC System Manager shall instruct applicable CQC staff as to the acceptable level of workmanship required in order to meet Contract requirements.
    - c. Document the results of the preparatory phase meeting by separate minutes prepared by the CQC System Manager and attached to the QC report.
    - d. Perform prior to beginning Work on each definable feature of Work:
      - 1) Review applicable Contract Specifications.
      - 2) Review applicable Contract Drawings.
      - 3) Verify that all materials and/or equipment have been tested, submitted, and approved.
      - 4) Verify that provisions have been made to provide required control inspection and testing.
      - 5) Examine the Work area to verify that all required preliminary Work has been completed and is in compliance with the Contract.
      - 6) Perform a physical examination of required materials, equipment, and sample Work to verify that they are on hand, conform to approved Shop Drawing or submitted data, and are properly stored.
      - 7) Review the appropriate activity hazard analysis to verify safety requirements are met.
      - 8) Review procedures for constructing the Work, including repetitive deficiencies.
      - 9) Document construction tolerances and workmanship standards for that phase of the Work.
      - 10) Check to verify that the plan for the Work to be performed, if so required, has been accepted by Engineer.
  2. Initial Phase:
    - a. Accomplish at the beginning of a definable feature of Work:
      - 1) Notify Owner at least 48 hours in advance of beginning the initial phase.

- 2) Perform prior to beginning Work on each definable feature of Work:
    - a) Review minutes of the preparatory meeting.
    - b) Check preliminary Work to verify compliance with Contract requirements.
    - c) Verify required control inspection and testing.
    - d) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Comparison with sample panels is appropriate.
    - e) Resolve all differences.
    - f) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
  - 3) Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
  - 4) The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.
3. Follow-up Phase:
- a. Perform daily checks to verify continuing compliance with Contract requirements, including control testing, until completion of the particular feature of Work.
  - b. Daily checks shall be made a matter of record in the CQC documentation and shall document specific results of inspections for all features of Work for the day or shift.
  - c. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of Work that will be affected by the deficient Work. Constructing upon or concealing nonconforming Work will not be allowed.
4. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be conducted on the same definable features of Work as determined by Owner if the quality of ongoing Work is unacceptable; or if there are changes in the applicable QC staff or in the onsite production supervision or work crew; or if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

### 3.05 CONTRACTOR QUALITY CONTROL PLAN

#### A. General:

1. Plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. An interim plan for the first 30 days of operation will be considered.
3. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of Work to be started.
4. Work outside of the features of Work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of Work to be started.

B. Content:

1. Plan shall cover the intended CQC organization for the entire Contract and shall include the following, as a minimum:
  - a. Organization: Description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will implement the three-phase control system (see Paragraph QC Phasing) for all aspects of the Work specified.
  - b. CQC Staff: The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a QC function.
  - c. Letters of Authority: A copy of a letter to the CQC System Manager signed by an authorized official of the firm, describing the responsibilities and delegating sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop Work which is not in compliance with the Contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities. Copies of these letters will also be furnished to Owner.
  - d. Submittals: Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers and purchasing agents.
  - e. Testing: Control, verification and acceptance testing procedures for each specific test to include the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required.
  - f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests, including documentation.
  - g. Procedures for tracking deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

- h. Reporting procedures, including proposed reporting formats; include a copy of the CQC report form.
- C. Acceptance of Plans: Acceptance of the Contractor's basic and addendum CQC plans is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. Owner reserves the right to require Contractor to make changes in the CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.
- D. Notification of Changes: After acceptance of the CQC plan, Contractor shall notify Engineer, in writing, a minimum of 7 calendar days prior to any proposed change. Proposed changes are subject to acceptance by Engineer.

### 3.06 CONTRACTOR QUALITY CONTROL REPORT

- A. As a minimum, prepare a CQC report for every 7 calendar days. Account for all days throughout the life of the Contract. Reports shall be signed and dated by CQC System Manager. Include copies of test reports and copies of reports prepared by QC staff.
- B. Maintain current records of quality control operations, activities, and tests performed, including the Work of subcontractors and suppliers.
- C. Records shall be on an acceptable form and shall be a complete description of inspections, the results of inspections, daily activities, tests, and other items, including but not limited to the following:
  - 1. Contractor/subcontractor and their areas of responsibility.
  - 2. Operating plant/equipment with hours worked, idle, or down for repair.
  - 3. Work performed today, giving location, description, and by whom. When a network schedule is used, identify each phase of Work performed each day by activity number.
  - 4. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
  - 5. Material received with statement as to its acceptability and storage.
  - 6. Identify submittals reviewed, with Contract reference, by whom, and action taken.
  - 7. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
  - 8. List instructions given/received and conflicts in the Drawings and/or Specifications.
  - 9. Contractor's verification statement.

10. Indicate a description of trades working on the Project; the number of personnel working; weather conditions encountered; and any delays encountered.
11. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in file work and workmanship comply with the Contract.

### 3.07 SUBMITTAL QUALITY CONTROL

- A. Submittals shall be as specified in Section 01 33 00, Submittal Procedures. The CQC organization shall be responsible for certifying that all submittals are in compliance with the Contract requirements. Owner will furnish copies of test report forms upon request by Contractor. Contractor may use other forms as approved.

### 3.08 TESTING QUALITY CONTROL

- A. Testing Procedure:
  1. Perform tests specified or required to verify that control measures are adequate to provide a product which conforms to Contract requirements. Procure services of a licensed testing laboratory. Perform the following activities and record the following data:
    - a. Verify testing procedures comply with contract requirements.
    - b. Verify facilities and testing equipment are available and comply with testing standards.
    - c. Check test instrument calibration data against certified standards.
    - d. Verify recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
    - e. Documentation:
      - 1) Record results of all tests taken, both passing and failing, on the CQC report for the date taken.
      - 2) Include specification paragraph reference, location where tests were taken, and the sequential control number identifying the test.
      - 3) Actual test reports may be submitted later, if approved by Engineer, with a reference to the test number and date taken.
      - 4) Provide directly to Engineer an information copy of tests performed by an offsite or commercial test facility. Test results shall be signed by an engineer registered in the state where the tests are performed.
      - 5) Failure to submit timely test reports, as stated, may result in nonpayment for related Work performed and disapproval of the test facility for this Contract.

- B. Testing Laboratories: Laboratory facilities, including personnel and equipment, utilized for testing soils, concrete, asphalt and steel shall meet criteria detailed in ASTM D3740 and ASTM E329, and be accredited by the American Association of Laboratory Accreditation (AALA), National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation Officials (AASHTO), or other approved national accreditation authority. Personnel performing concrete testing shall be certified by the American Concrete Institute (ACI).

### 3.09 COMPLETION INSPECTION

- A. CQC System Manager shall conduct an inspection of the Work at the completion of all Work or any milestone established by a completion time stated in the Contract.
- B. Punchlist:
1. CQC System Manager shall develop a punchlist of items which do not conform to the Contract requirements.
  2. Include punchlist in the CQC report, indicating the estimated date by which the deficiencies will be corrected.
  3. CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Owner.
  4. These inspections and any deficiency corrections required will be accomplished within the time stated for completion of the entire Work or any particular increment thereof if the Project is divided into increments by separate completion dates.

**END OF SECTION**





**SECTION 01 45 33**  
**SPECIAL INSPECTION, OBSERVATION, AND TESTING**

**PART 1 GENERAL**

1.01 SUMMARY

- A. This section covers requirements for Special Inspection, Observation, and Testing required in accordance with Chapter 17 of the 2018 IBC and is in addition to and supplements requirements included in Statement of Special Inspections shown in supplement located at end of this section.

1.02 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. American Society of Civil Engineers (ASCE): 7, Minimum Design Loads for Buildings and Other Structures.
  2. International Code Council (ICC):
    - a. International Building Code (IBC).
    - b. Evaluation Service (ICC-ES) Reports and Legacy Reports.
    - c. 2020 and 2022 State of Georgia Amendments to the IBC.

1.03 DEFINITIONS

- A. Agencies and Personnel:
1. Agency Having Jurisdiction (AHJ): Permitting building agency; may be a federal, state, local, or other regional department, or individual including building official, fire chief, fire marshal, chief of a fire prevention bureau, labor department, or health department, electrical inspector; or others having statutory authority. AHJ may be Owner when authorized to be self-permitting by governmental permitting agency or when no governmental agency has authority.
  2. Approved Agency: An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved.
  3. Registered Design Professional in Responsible Charge: An individual who is registered or licensed to practice their respective design profession as defined by statutory requirements of professional registration laws of state or jurisdiction in which Project is to be constructed.

4. Special Inspector: Qualified person employed by Owner or Owner's Registered Design Professional who will demonstrate competence to the satisfaction of AHJ for inspection of a particular type of construction or operation requiring Special Inspection.
- B. Statement of Special Inspections: Detailed written procedure contained in supplement located at end of this section establishing systems and components subject to Special Inspection, Observation, and Testing during construction, type and frequency of testing, extent and duration of Special Inspection, and reports to be completed and distributed by Special Inspector.
- C. Special Inspection:
1. Special Inspection: Inspection required of materials, installation, fabrication, erection, or placement of components and connections requiring special expertise to ensure compliance with approved Contract Documents and referenced standards.
  2. Special Inspection, Continuous: Full-time observation of work requiring Special Inspection by an approved Special Inspector who is present in area where the Work is being performed.
  3. Special Inspection, Periodic: Part-time or intermittent observation of the Work requiring Special Inspection by an approved Special Inspector who is present in area where the Work has been or is being performed, and at completion of the Work.
- D. Structural Systems and Components:
1. Diaphragm: Component of structural lateral load resisting system consisting of roof, floor, or other membrane or bracing system acting to transfer lateral forces to vertical resisting elements of structure.
  2. Drag Strut or Collector: Component of structural lateral load resisting system consisting of diaphragm or shear wall element that collects and transfers diaphragm shear forces to vertical force-resisting elements or distributes forces within diaphragm or shear wall.
  3. Seismic-Force-Resisting System: That part of structural lateral load resisting system that has been considered in the design to provide required resistance to seismic forces identified on the Drawings.
  4. Shear Wall: Component of structural lateral load resisting system consisting of a wall designed to resist lateral forces parallel to plane of the wall. Unless noted otherwise on the Drawings, load-bearing walls with direct in-plane connections to roof and floors shall be considered to be shear walls.
  5. Wind Force Resisting System: That part of the structural system that has been considered in the design to provide required resistance to wind forces identified on the Drawings.

E. Nonstructural Components:

1. Architectural Component Supports: Structural members or assemblies of members which transmit loads and forces from architectural systems or components to structure, including braces, frames, struts, and attachments.
2. Electrical Component Supports: Structural members or assemblies which transmit loads and forces from electrical equipment to structure, including braces, frames, legs, pedestals, and tethers, as well as elements forged or cast as part of component for anchorage.
3. Mechanical and Plumbing Component Supports: Structural members or assemblies which transmit loads and forces from mechanical or plumbing equipment to structure, including braces, frames, skirts, legs, saddles, pedestals, snubbers, and tethers, as well as elements forged or cast as part of component for anchorage.

F. Professional Observation:

1. Does not include or waive responsibility for required Special Inspection or inspections by building official.
2. Requirements are indicated on Statement of Special Inspections provided in supplement located at the end of this section.
3. Geotechnical Observation: Visual observation of selected subgrade bearing surfaces and installation of deep foundation elements by a registered design professional for general conformance to Contract Documents.
4. Structural Observation: Visual observation of structural system(s) by a registered design professional for general conformance to Contract Documents.

1.04 SUBMITTALS

A. Informational Submittals:

1. Fabricator's Certificate of Compliance: Form shall be completed by entity responsible for shop fabrication of structural load-bearing members and assemblies. Refer to Article Supplements located at end of section.

1.05 STATEMENT OF SPECIAL INSPECTIONS REQUIREMENTS

A. Designated Systems for Inspection:

1. Seismic-force-resisting systems designated under IBC Section 1705 and subject to Special Inspection under Section 1705: None required.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Wind-force-resisting systems designated under IBC Section 1705: None required.
  3. Architectural, Plumbing, Mechanical, and Electrical Components subject to Special Inspection under IBC Section 1705.12.5 and 1705.12.6 for Seismic Resistance: None required.
- B. Statement of Special Inspections:
1. As included in supplement located at the end of this section and in support of building permit application, Project-specific requirements were prepared by Registered Design Professional in Responsible Charge. The following identifies elements of inspection, observation, and testing program to be followed in construction of the Work:
    - a. Special Inspection and testing required by IBC Section 1705 and other applicable sections and referenced standards therein.
    - b. Type and frequency of Special Inspection required.
    - c. Type and frequency of testing required.
    - d. Required frequency and distribution of testing and Special Inspection reports to be distributed by Special Inspector to Engineer, Contractor, building official, and Owner.
    - e. Geotechnical Observation to be Performed: Not required for this Project.
    - f. Structural Observations to be Performed: Required frequency and distribution of Structural Observation reports by registered design professional to Contractor, building official, and Owner.
- C. Special Inspection and associated testing of shop fabrication and field construction will be performed by an approved accredited independent agency or by Authority Having Jurisdiction's (AHJ) approved, qualified inspection staff. Owner or Owner's Registered Design Professional In Responsible Charge will secure and pay for services of agency to perform Special Inspection and associated testing.
- D. Code required Special Inspection with associated testing and Professional Observation, as provided in Statement of Special Inspections in supplement located at the end of this section and further provided in this section, is for benefit of Owner and does not:
1. Relieve Contractor of responsibility for providing adequate quality control measures.
  2. Relieve Contractor of responsibility for damage to or loss of material before acceptance.
  3. Constitute or imply acceptance.
  4. Affect continuing rights of Owner after acceptance of completed Work.

- E. The presence or absence of code required Special Inspector and Professional Observer does not relieve Contractor from Contract requirements.
- F. Contractor is responsible for additional costs associated with Special Inspection and Testing and Observation when work is not ready at time identified by Contractor and Special Inspectors and Professional Observer are onsite, but not able to provide contracted services.
- G. Contractor is responsible for associated costs for additional Special Inspection and Testing and Professional Observation by Special Inspectors and Professional Observers required because of rejection of materials of in place Work that cannot be made compliant to Contract Document without additional inspections and observation and testing.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 GENERAL

- A. Requirements of the Statement of Special Inspections are provided by the Owner. All other testing and inspections, unless noted otherwise, are provided by Contractor.
- B. Provide access to shop or Site for Special Inspection and Testing and Professional Observation requirements.
- C. Notify Engineer in advance of required Special Inspection and Professional Observation no later than 48 hours prior to date of Special Inspection and Professional Observation.
- D. Provide access for Special Inspector to construction documents.
- E. Retain special inspection records onsite to be readily available for review.
- F. Cooperate with Special Inspector and provide safe access to the Work to be inspected.
- G. Submit Fabricator's Certificates of Compliance for approved fabricators.
- H. Provide reasonable auxiliary services as requested by the Special Inspector. Auxiliary services required include, but not limited to:
  - 1. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests to assist the Special Inspector in performing test/inspections.

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UV SYSTEM UPGRADES

2. Providing storage space for the Special Inspector’s exclusive use, such as for storing and curing concrete test samples and delivery of samples to testing laboratories.
  3. Providing the Special Inspector with access to all approved submittals.
  4. Providing security and protection of samples and test equipment at the Project Site.
  5. Provide samples of materials to be tested in required quantities.
- I. Materials and systems shall be inspected during placement where Continuous Special Inspection is required.
- J. Where Periodic Special Inspection is indicated in the Statement of Special Inspections:
1. Schedule inspections for either during or at completion of their placement or a combination or both.
  2. Schedule periodically inspected Work (either inspected during or after its placement) so that corrections can be completed and re-inspected before Work is inaccessible.
  3. Sampling a portion of the Work is not allowed. Schedules shall provide for inspection of all Work requiring periodic inspection.

3.02 SUPPLEMENTS

- A. The supplements listed below, following “End of Section,” are a part of this Specification:
1. Fabricator’s Certificate of Compliance.
  2. Statement of Special Inspections.
  3. Schedule of Special Inspections.

**END OF SECTION**

**FABRICATOR’S CERTIFICATE OF COMPLIANCE**

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per Section 1704.2.5 of 2018 IBC must submit Fabricator’s Certificate of Compliance at the completion of fabrication.

---

(Project)

---

(Fabricator’s Name)

---

(Business Address)

---

(Certification or Approval Agency)

---

(Certification Number)

---

(Date of Last Audit or Approval)

Description of structural members and assemblies that have been fabricated:

---

---

---

---

---

I hereby certify that items described above were fabricated in strict accordance with approved construction documents.

---

(Name and Title) type or print

---

(Signature and Date)

Attach copies of fabricator’s certification or building code evaluation service report and fabricator’s quality control manual.





## STATEMENT OF SPECIAL INSPECTIONS

### GENERAL NOTES

1. The statement of special inspections provide project compliance with the provisions of the 2018 international building code (IBC) Chapter 17 and the 2020 and 2022 State of Georgia amendments to the IBC for special inspection, structural observation, and testing for wind and seismic resistance as applicable. Except where otherwise noted, this inspection is owner-furnished.
2. Standard special inspection requirements for nonstructural components are contained in Table 1.
3. Standard special inspection requirements for structural components, regardless of wind or seismic design categories, are contained in Table 2. Standard testing requirements for structural components are contained in Table 3.
4. Project specific requirements for structures assigned to seismic design categories c, d, e, or f are contained in Table 4. Additional testing requirements for structural resistance are contained in Table 6.
5. Project specific requirements for structures subject to basic wind speeds ( $V_{asd}$ ) in excess of 110 mph are contained in Table 5.
6. For additional requirements, refer to Section 01 45 33, Special Inspection, Observation, and Testing. These include:
  - A. Contractor's requirements to provide access to the Work for required inspections, and to provide notice of required inspections and structural observation.
  - B. Contractor's statement of responsibility for work to be performed on systems designated under the statement of special inspections for wind or seismic resistance.
  - C. Definitions and terminology used in this statement of special inspections.

### SPECIAL INSPECTION

1. Special inspection will be in accordance with IBC Sections 1704 and 1705 together with local and state amendments. Refer to the following tables for project specific inspection types and frequencies.
2. Special inspections will be provided by a certified or qualified inspector and associated testing will be performed by an approved accredited independent agency. The Owner or Owner's registered design professional in responsible charge will secure and pay for the services of the agency to perform all special inspection and associated tests. Inspectors for each system and material will be international code council (ICC) certified or otherwise approved by the building official.

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UV SYSTEM UPGRADES

3. The special inspector will observe the indicated work for compliance with the approved Contract Documents and submit records of inspection. All discrepancies will be brought to the immediate attention of the Contractor for correction.
4. Special inspection and associated testing reports will be submitted to the Engineer, Contractor, building official, and Owner within one week of inspection or within one week of test completion. Inspections for which reporting will be required are noted in the following tables.
5. At the conclusion of construction, a final report documenting required special inspections and correction of previously noted discrepancies will be submitted.

**GEOTECHNICAL OBSERVATION**

1. All foundation bearing surfaces shall be inspected by geotechnical engineer prior to placement of reinforcing steel. Additional special inspection requirements are listed in Table 1.
2. Geotechnical testing requirements are listed in Table 3.

**STRUCTURAL OBSERVATION**

1. Structural observation will be in accordance with IBC Section 1704.6 together with local and state amendments.
2. Onsite structural observation will be performed for each identified seismic force- or wind force-resisting system, including foundations and connections. Refer to the general structural notes on the Drawings for the basic seismic and wind force-resisting systems for the structures included in the Work.
3. Structural observation will be performed by a registered project design professional for general conformance to the approved construction documents. Structural observation does not include or waive the responsibility for any required special inspections or inspections by the building official.
4. Structural observation reports, noting any deficiencies in observed construction, will be delivered to the Contractor, building official, and Owner following each observation. The Contractor will be notified onsite or by phone or e-mail within 24 hours upon finding deficiencies.
5. At the conclusion of construction, a written statement will be provided to verify that the structural observation site visits were made and whether there remain any structural deficiencies that have not been resolved.
6. Structural observation will include visual observation of the structural system at significant construction stages and at completion of the structural system for each structure contained in the Work. The Contractor shall schedule and facilitate structural observation, including the elements described in the structural observation tables (attached).

**SPECIAL INSPECTIONS FOR WIND RESISTANCE**

1. Special inspections requirements for wind resistance in accordance with IBC Section 1705.11 are not applicable to this Project.
2. Special inspections requirements for wind resistance will be in accordance with IBC Section 1705.11 together with local and state amendments.
3. Special inspections requirements shall apply to the following:
  - A. Wind force-resisting systems in structures in wind exposure category b, where the 3-second-gust basic wind speed ( $V_{asd}$ ) is 120 miles per hour or greater.
  - B. Wind force-resisting systems in structures in wind exposure categories c or d, where the 3-second-gust basic wind speed ( $V_{asd}$ ) is 110 miles per hour or greater.Refer to general structural notes on the Drawings for basic wind speed and wind exposure category.
4. Wind force-resisting systems to receive special inspection for wind resistance shall include the components listed in Table 5.

**SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE**

1. Special inspections requirements for seismic resistance in accordance with IBC Section 1705.12 and 1705.13 are not applicable to this Project.
2. Special inspections requirements for seismic resistance will be in accordance with IBC Section 1705.12 and 1705.13 together with local and state amendments. Refer to General Structural Notes on the Drawings for basic seismic-force-resisting systems for each structure and designated seismic design category.
3. Special inspections requirements for seismic resistance shall apply to the systems and components listed in Table 4.

Statement of Special Inspections Prepared by:

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Preparer's Seal



<b>TABLE 1</b> <b>REQUIRED NON-STRUCTURAL SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
SYSTEM OR MATERIAL	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
<b>GEOTECHNICAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>ARCHITECTURAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>BUILDING MECHANICAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>GENERAL</b>						
1. CONSTRUCTION MATERIALS AND SYSTEMS THAT ARE ALTERNATIVES TO MATERIALS AND SYSTEMS PRESCRIBED BY CODE	1705.1.1 ITEM 1		X			
2. UNUSUAL DESIGN APPLICATION OF CODE MATERIALS	1705.1.1 ITEM 2			X		
3. INSTALLATION OF MATERIALS THAT REQUIRE ADDITIONAL MANUFACTURER'S INSTRUCTIONS BEYOND CODE REQUIREMENTS	1703.4.2, 1705.1.1 ITEM 3	ICC-ES EVALUATION REPORTS		X		

<b>TABLE 1</b> <b>REQUIRED NON-STRUCTURAL SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
SYSTEM OR MATERIAL	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
STRUCTURAL						
SEE TABLE 2.						

NOTES:

1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING INSPECTED WORK.

<p align="center"><b>TABLE 2</b> <b>REQUIRED STRUCTURAL SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b></p>						
SYSTEM	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
<b>CONCRETE</b>						
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	1705.3, 1903.1, 1908.4	ACI 318: 20.2, Ch. 25, 26.6	X			SEE TABLE 6 FOR REINFORCING STEEL TESTING
2. INSPECTION OF ANCHORS CAST IN CONCRETE	1705.3, 1901.3	ACI 318: 17.8	X			
3. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	1705.3, 1901.3	ACI 318: 3.1.1, 3.2.2, 17.8, ICC-ES EVALUATION REPORTS	X		PROVIDE CONTINUOUS SPECIAL INSPECTION FOR ADHESIVE ANCHORS DESIGNED TO RESIST SUSTAINED TENSION LOADS AND WHERE REQUIRED BY ICC-ES REPORT	
4. VERIFYING USE OF REQUIRED DESIGN MIX	1705.3, 1908.2, 1908.3	ACI 318: Ch. 19, 26.4	X			

<b>TABLE 2</b> <b>REQUIRED STRUCTURAL SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
SYSTEM	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
5. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	1705.3, 1908.10	ASTM C 172, ASTM C 31, ACI 318: 26.4, 26.5, 26.12		X		SEE TABLE 3 FOR CONCRETE TEST REQUIREMENTS
6. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	1705.3, 1908.6, 1908.7, 1908.8	ACI 318: 26.5		X		
7. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	1705.3, 1908.9	ACI 318: 26.5	X			



<b>TABLE 2</b> <b>REQUIRED STRUCTURAL SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
SYSTEM	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	1705.3	ACI 318: 26.11.1.2(b)	X			
9. INSPECTION OF WATERSTOPS FOR PROPER SHAPE, LOCATION, JOINT QUALITY, AND SURROUNDING CONCRETE PLACEMENT			X			
<b>MASONRY LEVEL A</b>						
1. VERIFY COMPLIANCE OF MASONRY ANCHORS WITH THE APPROVED SUBMITTALS	1705.4	TMS 402: Ch. 3 TMS 602: 1.5, 1.6	X			
<b>MASONRY LEVEL B</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>MASONRY LEVEL C</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>STRUCTURAL STEEL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						

<b>TABLE 2</b>						
<b>REQUIRED STRUCTURAL SPECIAL INSPECTION</b>						
<b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
SYSTEM	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
<b>STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>WOOD</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>ALUMINUM</b>						
1. MATERIAL VERIFICATION OF ALUMINUM:						
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	1705.1.1 ITEM 2		X			
B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS	1705.1.1 ITEM 2		X			
3. INSPECTION OF WELDING:						
A. NONDESTRUCTIVE INSPECTION	1705.1.1 ITEM 2	AWS D1.2	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23

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4/22/2022

<b>TABLE 2</b> <b>REQUIRED STRUCTURAL SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
SYSTEM	2018 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION

NOTES:

1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING INSPECTED WORK.

2. VISUAL INSPECTION IS THE RESPONSIBILITY OF THE CONTRACTOR'S WELDING INSPECTOR(S) AND IS NOT CONSIDERED SPECIAL INSPECTION. CONTRACTOR MUST PROVIDE A QUALIFIED WELDING INSPECTOR TO OVERSEE CONTRACTOR'S WELDING OPERATIONS, AS REQUIRED BY AWS D1.1, SECTIONS 6.1.2 & 6.6, SPEC. SECTION 05 05 23 AND REFERENCED WELDING CODES.



<b>TABLE 3</b> <b>TESTING FOR REQUIRED SPECIAL INSPECTION</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
MATERIAL	TYPE OR SCOPE	STANDARD	2018 IBC CODE REFERENCE	FREQUENCY	BY WHOM	COMMENTS
GEOTECHNICAL						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
CONCRETE						
CONCRETE	STRENGTH	ASTM C39	1705.3	ONCE EACH DAY, BUT NOT LESS THAN ONE SAMPLE FOR EACH 150 CUBIC YARDS OR 5,000 SFT OF WALLS OR SLABS PLACED	OWNER'S TESTING AGENCY	
CONCRETE	SLUMP	ASTM C143, C94	1705.3	ONE SAMPLE PER STRENGTH TEST	OWNER'S TESTING AGENCY	
CONCRETE	AIR CONTENT	ASTM C231, C94	1705.3	ONE SAMPLE PER STRENGTH TEST	OWNER'S TESTING AGENCY	
CONCRETE	TEMPERATURE	ASTM C1064	1705.3	ONE SAMPLE PER STRENGTH TEST	OWNER'S TESTING AGENCY	
MASONRY						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
STEEL						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
ARCHITECTURAL COMPONENTS						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						



**TABLE 4**  
**REQUIRED SPECIAL INSPECTION FOR SEISMIC RESISTANCE FOR STRUCTURAL SYSTEMS**  
**REFER TO TABLE 2 FOR STANDARD STRUCTURAL SPECIAL INSPECTION REQUIREMENTS**  
**REFER TO SPECIFICATION SECTION 01 45 33**

The Seismic Design Category (SDC) for this Project is B.

SYSTEM	INSPECTION REQUIRED FOR FOLLOWING SEISMIC DESIGN CATEGORIES	2018 IBC CODE REFERENCE	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
<b>ARCHITECTURAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>ELECTRICAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>PROCESS MECHANICAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>BUILDING MECHANICAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
<b>STRUCTURAL</b>						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						

**NOTES:**

1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING THE INSPECTED WORK
2. TESTING OF SYSTEMS AND THEIR ANCHORAGE SHALL BE IN CONFORMANCE WITH 2012 IBC SECTION 1705.12.3.
3. CERTIFICATION OF SYSTEMS AND THEIR ANCHORAGE SHALL BE IN CONFORMANCE WITH 2012 IBC SECTION 1705.12.3.
4. NOT REQUIRED IF SHEATHING IS GYPSUM BOARD OR FIBERBOARD OR IF SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONE SIDE OF PANEL OR DIAPHRAGM ONLY AND THE FASTENER SPACING IS MORE THAN 4 INCHES.





**TABLE 5**  
**REQUIRED SPECIAL INSPECTION FOR WIND RESISTANCE FOR STRUCTURAL SYSTEMS**  
**REFER TO SPECIFICATION SECTION 01 45 33**

The Nominal Design Wind Speed (3-second-gust) for this Project is N/A to this project.  
 The Wind Exposure is Category N/A to this project.

SYSTEM	2018 IBC CODE REFERENCE	STANDARD OR CODE	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS
<b>STRUCTURAL</b>					
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY					
<b>ARCHITECTURAL</b>					
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY					

NOTES:

1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING THE INSPECTED WORK.
2. SPECIAL INSPECTIONS FOR WIND RESISTANCE ARE REQUIRED FOR BUILDINGS AND STRUCTURES CONSTRUCTED IN WIND EXPOSURE CATEGORY B, WHERE THE 3-SECOND-GUST NOMINAL DESIGN WIND SPEED IS 120 MPH OR GREATER, OR IN WIND EXPOSURE CATEGORIES C OR D, WHERE THE 3-SECOND-GUST NOMINAL DESIGN WIND SPEED IS 110 MPH OR GREATER.
3. NOT REQUIRED IF SHEATHING IS GYPSUM BOARD OR FIBERBOARD, OR IF SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONE SIDE OF PANEL OR DIAPHRAGM ONLY AND THE FASTENER SPACING IS MORE THAN 4 INCHES.



<b>TABLE 6</b> <b>TESTING FOR SEISMIC RESISTANCE</b> <b>REFER TO SPECIFICATION SECTION 01 45 33</b>						
MATERIAL	TYPE OR SCOPE	STANDARD	2018 IBC CODE REFERENCE	FREQUENCY	BY WHOM	COMMENTS
REINFORCING STEEL						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
STEEL						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						
OTHER						
NO SPECIAL INSPECTIONS REQUIRED FOR THIS CATEGORY						

NOTES:

1. TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE ARE REQUIRED FOR SEISMIC-FORCE-RESISTING SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F, UNLESS OTHERWISE NOTED.
2. BASED ON ACTUAL TEST ON SHAKE TABLE, BY THREE-DIMENSIONAL SHOCK TESTS, BY AN ANALYTICAL METHOD USING DYNAMIC CHARACTERISTICS AND FORCES, BY THE USE OF EXPERIENCE DATA, OR BY MORE RIGOROUS ANALYSIS PROVIDING FOR EQUIVALENT SAFETY.



**SECTION 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. American Association of Nurserymen (AAN): American Standards for Nursery Stock.
  2. Federal Emergency Management Agency (FEMA).
  3. National Fire Prevention Association (NFPA): 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.
  4. Telecommunications Industry Association (TIA); Electronic Industries Alliance (EIA): 568B, Commercial Building Telecommunications Cabling Standard.
  5. U.S. Department of Agriculture (USDA): Urban Hydrology for Small Watersheds.
  6. U.S. Weather Bureau: Rainfall-Frequency Atlas of the U.S. for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years.

1.02 SUBMITTALS

- A. Informational Submittals:
1. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.
  2. Temporary Utility Submittals:
    - a. Electric power supply and distribution plans.
    - b. Water supply and distribution plans.
    - c. Dewatering well locations.
    - d. Sanitary.
  3. Temporary Construction Submittals:
    - a. Access Roads: Routes, cross-sections, and drainage facilities.
    - b. Parking area plans.
    - c. Contractor's field office, storage yard, and storage building plans, including gravel surfaced area.
    - d. Fencing and protective barrier locations and details.
    - e. Engineer's field office plans.
    - f. Staging area location plan.
    - g. Traffic and Pedestrian Control and Routing Plans.
    - h. Plan for maintenance of existing plant operations.

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UV SYSTEM UPGRADES

4. Temporary Control Submittals:
  - a. Noise control plan.
  - b. Dust control plan.
  - c. Plan for disposal of waste materials and intended haul routes.

1.03 MOBILIZATION

- A. Mobilization includes, but is not limited to, these principal items:
  1. Obtaining required permits.
  2. Moving Contractor's field office and equipment required for first month operations onto Site.
  3. Installing temporary construction power, wiring, and lighting facilities.
  4. Providing onsite Internet service.
  5. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
  6. Arranging for and erection of Contractor's work and storage yard.
  7. Posting OSHA required notices and establishing safety programs and procedures.
  8. Having Contractor's superintendent at Site full time.
  9. Providing Engineer's facilities.
- B. Use area designated for Engineers and Contractor's temporary facilities to be located at the CCWA Hooper facility. This will be the main office location for the administration offices.
- C. Progress payment for mobilization will not be approved prior to installation of Engineer's Field Office, including internet service.

1.04 PROTECTION OF WORK AND PROPERTY

- A. Comply with Owner's safety rules while on Owner's property.
- B. Keep Owner informed of serious onsite accidents and related claims.
- C. Use of Explosives: No blasting or use of explosives will be allowed onsite.

1.05 VEHICULAR TRAFFIC

- A. Traffic Control Plan:
  1. Adhere to traffic control plan reviewed and accepted by Engineer. Changes to this plan shall be made only by written approval of appropriate public authority and Engineer. Secure approvals for necessary changes so as not to delay progress of the Work.

- B. Traffic Routing Plan: Show sequences of construction affecting use of roadways, time required for each phase of the Work, provisions for decking over excavations and phasing of operations to provide necessary access, and plans for signing, barricading, and striping to provide passages for pedestrians and vehicles.

## **PART 2 PRODUCTS**

### **2.01 ENGINEER'S AND CONTRACTORS FIELD OFFICES**

- A. The Engineers and Contractor's temporary facilities for the administration offices will be staged at the CCWA's Hooper facility. The Contractor will also provide a small Conex type Engineers office at the Hicks site, location to be coordinated with CCWA. This office shall have 110-volt power and be heated and cooled. The Contractor shall be responsible for the cost of all electric power to the trailers.
- B. The Contractor shall provide a temporary field office for their staff at the Hooper facility. The Contractor shall house their administrative office in this trailer for this Project. The Contractor shall have the project manager and superintendent for the Project with their supporting staff working from this trailer for this Project.
- C. Furnish equipment specified for exclusive use of Engineer and its' representatives.
- D. Ownership of equipment furnished under this article will remain, unless otherwise specified, that of Contractor.
- E. Equipment furnished shall be new or like new in appearance and function.
- F. Minimum Features:
  - 1. 110-volt lighting and wall plugs.
  - 2. Fluorescent ceiling lights.
  - 3. Electric heating and self-contained air conditioning unit, properly sized for Project locale and conditions. Provide ample electric power to operate installed systems.
  - 4. Covered entrances with railed stairways, landings and exterior lighting at entrances.
  - 5. Sign on entrance door reading CCWA/ JACOBS, letter height 6 inches minimum.
  - 6. Exterior Door(s):
    - a. Number: Minimum Two.
    - b. Type: Solid core.
    - c. Lock(s): Cylindrical with a security door bar with pad lock.

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UV SYSTEM UPGRADES

7. Number of Windows: Seven with security screens on windows.
  8. Minimum Interior Height: 8 feet.
- G. Trailer Type Mobile Structure: One, double wide.
- H. Floor Space: Minimum 1,000 square feet.
- I. All-metal frame; all-metal exterior, sides, and roof; and insulated double walls, floor, and roof.
- J. Security guard screens on windows.
- K. Separate washrooms for men and women with toilet, urinal and wash basin in separate compartments with hot and cold water and sanitary water drain connections. Bathroom Tissue, hand soap and hand sanitizer to be included. The washrooms shall be ADA compliant.
- L. Number of Private Offices: Four, minimum 10 feet by 10 feet.
- M. Storage Room: One, 6 feet by 8 feet, with door with cylinder lock, keyed differently than exterior door locks. Provide two sets of keys.
- N. Shelving in Storage Room: 72 linear feet, 18 inches deep.
- O. Blinds on windows.
- P. Work Surface: One, 30 inches by 10 feet at desk height of 29 inches from floor.
- Q. Office Equipment—General:
1. All-in one-color laser printer, copier, and scanner with the following features:
    - a. Duplex Automatic Document Feeder (DADF) with two 520 sheet paper trays.
    - b. Wi-Fi 80 2.11n/g/b/and Wi-Fi Direct with optional Wi-Fi Kit
    - c. Color Printing/Scanning and copying up to 11-inch by 17-inch sheets.
    - d. Two-sided printing with a maximum print resolution of 1200 by 2400 dpi.
    - e. Scan to Email.
    - f. Print from USB thumb drive, Scan to USB thumb drive.
    - g. All required paper, ink, supplies, maintenance, service, and repairs to keep fully functional until office trailer is removed.
    - h. Set/up and installation. Provided and coordinate with the Wi-fi gateway provider to be able to print/scan from the office computers through Wi-fi to the all-in one-color laser printer.



W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Cooler capable of producing hot water and cold water.
3. Minimum 8-foot kitchen countertop:
  - a. Provide with upper and lower cabinets for storage.
  - b. Sink with hot and cold water.
  - c. Microwave oven, 1 CF and 1000-watt power.
  - d. Refrigerator with freezer – 14 CF.
  - e. Built in dishwasher.
  - f. K-Cup Coffee maker supplied with coffee, creamer, cups, and stirrers.
  - g. Electric Freestanding Range.
  - h. Metal Flatware with Paper plates and plastic utensils.
4. Paper Cup Dispenser with Cups.
5. Paper Towel Dispenser with Towels.
6. Desk: four, steel, 30 inches by 60 inches with desk surface located 29 inches from floor.
7. Desk Chair: four, with the following characteristics:
  - a. Five castor base.
  - b. Adjustable height.
  - c. Swivels.
  - d. Locking Back.
  - e. Adjustable seat back for height and angle.
  - f. Adjustable arms.
8. Folding Table: four, 36 inches by 72 inches.
9. Conference Room Table: 12-foot by 6-foot with twelve steel folding chairs.
10. Four-Drawer Steel File with Lock: Four legal width.
11. Bookcase: Four, 36 inches wide by 48 inches high.
12. Wastepaper Basket: Six.
13. Blue Recycling Basket: Two.
14. Four 36-inch by 36-inch white board and one 72-inch by 48-inch with markers.
15. First-Aid Kit: One.
16. Tri-Class (ABC), Dry Chemical Fire Extinguisher, 10-Pound: One.

2.02 PROJECT SIGN

- A. Provide and maintain one, 8-foot-wide by 4-foot-high sign constructed of 3/4-inch exterior high density overlaid plywood. Sign shall bear name of Project, Owner, Contractor, Engineer, and other participating agencies. Lettering shall be blue and applied on white background by an experienced sign painter. Include Owner's, Project's and agency's logos in full color. Provide exterior type enamel paint. Information to be included and logo graphic will be provided by Engineer.

**PART 3 EXECUTION**

3.01 ENGINEER’S FIELD OFFICE

- A. Make available for Engineer’s use prior to start of the Work at Site and to remain on Site for minimum of 30 days after final acceptance of the Work.
- B. Locate where directed by Engineer; level, block, tie down, skirt, provide stairways, and relocate when necessary and approved. Construct on proper foundations and provide proper surface drainage and connections for utility services.
- C. Provide minimum 100 square feet of gravel or crushed rock base, minimum depth of 4 inches, at each entrance.
- D. Raise grade under field office, as necessary, to elevation adequate to avoid flooding.
- E. Provide sanitary facilities in compliance with state and local health authorities.
- F. Exterior Door Keys: Furnish two sets of keys.
- G. Local Area Network (LAN)
  - 1. Ethernet wireless hub shall be capable of a minimum of five connections.
  - 2. Wireless Hub shall be able to connect to all-in-one color wireless copier printer and scanner. Contractor shall coordinate the installation of the internet Hub provider and all-in-one color wireless copier printer and scanner to make systems fully functional.
- H. Telecommunications:
  - 1. Provide cable Internet connection with a wireless Gateway with a minimum connection speed of 100 Mbps.
  - 2. Provide appropriate jacks, wiring, and equipment required for a complete telecommunications system.
  - 3. Arrange and provide for telecommunication service for use during construction. Pay costs of installation, maintenance, and monthly service of internet connection.
- I. Maintain in good repair and appearance and provide weekly cleaning service and replenishment, as required, of paper towels, paper cups, hand soap, toilet paper, first-aid kit supplies, and bottled water.
- J. Replenish, as needed, copy paper and toner.

3.02 TEMPORARY UTILITIES

A. Power:

1. Make arrangements to obtain and pay for electrical power used until final payment and acceptance by Owner, unless otherwise recommended by Engineer at Substantial Completion.
2. Electric power will be available at or near Site. Determine type and amount available and make arrangements for obtaining temporary electric power service, metering equipment, and pay costs for electric power used during Contract period, except for portions of the Work designated in writing by Engineer as substantially complete.
3. Cost of electric power will be borne by Contractor.

B. Lighting: Provide temporary lighting to meet applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.

C. Heating, Cooling, and Ventilating:

1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage because of temperature or humidity. Costs for temporary heat/cooling shall be borne by Contractor responsible for constructing structure or building as specified in Section 01 11 00, Summary of Work.
2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
3. Pay costs of installation, maintenance, operation, removal, and fuel consumed.
4. Provide portable unit heaters, complete with controls, oil- or gas-fired, and suitably vented to outside as required for protection of health and property.
5. If permanent natural gas piping is used for temporary heating units, do not modify or reroute gas piping without approval of utility company. Provide separate gas metering as required by utility.

D. Water:

1. Make arrangements for and bear costs of providing water required for construction purposes and for drinking by construction personnel during construction.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Hydrant Water:
  - a. Is available from nearby hydrants. Secure written permission for connection and use from water department and meet requirements for use. Notify fire department before obtaining water from fire hydrants.
  - b. Use only special hydrant-operating wrenches to open hydrants. Make certain hydrant valve is open full, since cracking valve causes damage to hydrant. Repair damaged hydrants and notify appropriate agency as quickly as possible. Hydrants shall be completely accessible to fire department at all times.
3. Owner will provide a place of temporary connection for construction and drinking water at Site. Provide temporary facilities and piping required to bring water to point of use and remove when no longer needed. Install an acceptable metering device and pay for water used at Owner's current rate.
4. Owner will furnish construction and drinking water required at no cost to Contractor on Site. Furnish and install temporary piping and facilities to transport water to the Work.
5. Provide means to prevent water used for testing from flowing back into source pipeline.

E. Sanitary and Personnel Facilities:

1. Provide and maintain facilities for Contractor's employees, Subcontractors, and other onsite employers' employees. Service, clean, and maintain facilities and enclosures.
2. Use of Owner's existing sanitary facilities by construction personnel will not be allowed.

F. Fire Protection: Furnish and maintain on Site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of NFPA 241.

3.03 PROTECTION OF WORK AND PROPERTY

A. General:

1. Perform Work within right-of-way and easements in a systematic manner that minimizes inconvenience to property owners and the public.
2. No residence or business shall be cut off from vehicular traffic for a period exceeding 4 hours, unless special arrangements have been made.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

3. Maintain in continuous service existing oil and gas pipelines, underground power, telephone or communication cable, water mains, irrigation lines, sewers, poles and overhead power, and other utilities encountered a long line of the Work, unless other arrangements satisfactory to owners of said utilities have been made.
4. Where completion of the Work requires temporary or permanent removal or relocation of existing utility, coordinate activities with owner of said utility and perform work to their satisfaction.
5. Protect, shore, brace, support, and maintain underground pipes, conduits, drains, and other underground utility construction uncovered or otherwise affected by construction operations.
6. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
7. In areas where Contractor's operations are adjacent to or near a utility, such as gas, telephone, television, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by Contractor.
8. Notify property owners and utility offices that may be affected by construction operation at least 2 days in advance: Before exposing a utility, obtain utility owner's permission. Should service of utility be interrupted due to Contractor's operation, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
9. Do not impair operation of existing sewer system. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, or other sewer structures.
10. Maintain original Site drainage wherever possible.

B. Site Security:

1. Erect a temporary security fence for protection of Owner-furnished products and existing facilities as necessary. Maintain fence throughout construction period. Obtain Engineer's written permission before removal of temporary security fencing.
2. Provide and maintain additional temporary security fences as necessary to protect the Work and Contractor-furnished products not yet installed.

C. Barricades and Lights:

1. Provide as required by the State and Local Code and in sufficient quantity to safeguard public and the Work.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alleyways, inside and outside of fenced area, and as required to ensure public safety and the safety of Contractor's employees, other employer's employees, and others who may be affected by the Work.
3. Provide to protect existing facilities and adjacent properties from potential damage.
4. Locate to enable access by facility operators and property owners.
5. Protect streets, roads, highways, and other public thoroughfares that are closed to traffic by effective barricades with acceptable warning signs.
6. Locate barricades at the nearest intersecting public thoroughfare on each side of blocked section.
7. Illuminate barricades and obstructions with warning lights from sunset to sunrise.

D. Signs and Equipment:

1. Conform to requirements of manual published by the State and County Department of Transportation.
2. Portable TOW-AWAY-NO STOPPING Signs: Place where approved by police department and Owner.
3. Traffic Cones: Provide to delineate traffic lanes to guide and separate traffic movements.
4. High-Level Warning Flag Units: Provide two in advance of traffic approaching the Work, each displaying three flags mounted at a height of 9 feet.
5. ROAD CONSTRUCTION AHEAD Signs: Provide four, size 48 inches by 48 inches. Place in conspicuous locations, approximately 200 feet in advance of the Work, and facing approaching traffic.
6. DETOUR Signs: Provide two, right arrow or left arrow, placed as approved by State and Local DOT.
7. RIGHT or LEFT LANE CLOSED AHEAD Signs: Provide two place in advance of lane to be closed.
8. Provide at obstructions, such as material piles and equipment.
9. Use to alert general public of construction hazards, which would include surface irregularities, un-ramped walkways, grade changes, and trenches or excavations in roadways and in other public access areas.

E. Trees and Plantings:

1. Protect from damage and preserve trees, shrubs, and other plants outside limits of the Work and within limits of the Work, which are designated on the Drawings to remain undisturbed.
  - a. Where practical, tunnel beneath trees when on or near line of trench.

- b. Employ hand excavation as necessary to prevent tree injury.
  - c. Do not stockpile materials or permit traffic within drip lines of trees.
  - d. Provide and maintain temporary barricades around trees.
  - e. Water vegetation as necessary to maintain health.
  - f. Cover temporarily exposed roots with wet burlap and keep burlap moist until soil is replaced around roots.
  - g. No trees, except those specifically shown on the Drawings to be removed, shall be removed without written approval of Engineer.
  - h. Dispose of removed trees in a legal manner off the Site.
2. Balling and burlapping of trees indicated for replacement shall conform to recommended specifications set forth in the American Standards for Nursery Stock, published by American Association of Nurserymen. Balls shall be firm and intact and made-balls will not be accepted. Handle ball and burlap trees by ball and not by top.
  3. In event of damage to bark, trunks, limbs, or roots of plants that are not designated for removal, treat damage by corrective pruning, bark tracing, application of a heavy coating of tree paint, and other accepted horticultural and tree surgery practices.
  4. Replace each plant that dies as a result of construction activities.
- F. Existing Structures:
1. Where Contractor contemplates removal of small structures such as mailboxes, signposts, and culverts that interfere with Contractor's operations, obtain approval of property owner and Engineer.
  2. Move mailboxes to temporary locations accessible to postal service.
  3. Replace items removed in their original location and a condition equal to or better than original.
- G. Finished Construction: Protect finished floors and concrete floors exposed as well as those covered with composition tile or other applied surfacing.
- H. Waterways: Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.
- I. Dewatering: Construct, maintain, and operate cofferdams, channels, flume drains, sumps, pumps, or other temporary diversion and protection works. Furnish materials required, install, maintain, and operate necessary pumping and other equipment for the environmentally safe removal and disposal of water from the various parts of the Work. Maintain foundations and parts of the Work free from water.

J. Endangered and Threatened Species:

1. Take precautions necessary and prudent to protect native endangered and threatened flora and fauna.
2. Notify Engineer of construction activities that might threaten endangered and threatened species or their habitats.
3. Engineer will mark areas known as habitats of endangered and threatened species prior to commencement of onsite activities.
4. Additional areas will be marked by Engineer as other habitats of endangered and threatened species become known during construction.

3.04 TEMPORARY CONTROLS

A. Air Pollution Control:

1. Minimize air pollution from construction operations.
2. Burning of waste materials, rubbish, or other debris will not be permitted on or adjacent to Site.
3. Conduct operations of dumping rock and of carrying rock away in trucks to cause a minimum of dust. Give unpaved streets, roads, detours, or haul roads used in construction area a dust-preventive treatment or periodically water to prevent dust. Strictly adhere to applicable environmental regulations for dust prevention.
4. Provide and maintain temporary dust-tight partitions, bulkheads, or other protective devices during construction to permit normal operation of existing facilities. Construct partitions of plywood, insulating board, plastic sheets, or similar material. Construct partitions in such a manner that dust and dirt from demolition and cutting will not enter other parts of existing building or facilities. Remove temporary partitions as soon as need no longer exists.

B. Noise Control:

1. Provide acoustical barriers so noise emanating from tools or equipment will not exceed legal noise levels.
2. Noise Control Plan: Propose plan to mitigate construction noise and to comply with noise control ordinances, including method of construction, equipment to be used, and acoustical treatments.

C. Water Pollution Control:

1. Divert sanitary sewage and nonstorm waste flow interfering with construction and requiring diversion to sanitary sewers. Do not cause or permit action to occur which would cause an overflow to existing waterway.



2. Prior to commencing excavation and construction, obtain Engineer's and Owner's agreement with detailed plans showing procedures intended to handle and dispose of sewage, groundwater, and dewatering pump discharges.
  3. Comply with Section 01 57 13, Temporary Erosion and Sedimentation Control, for stormwater flow and surface runoff.
  4. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.
- D. Erosion, Sediment, and Flood Control: Provide, maintain, and operate temporary facilities as specified in Section 01 57 13, Temporary Erosion and Sedimentation Control, to control erosion and sediment releases, and to protect the Work and existing facilities from flooding during construction period.

### 3.05 STORAGE YARDS AND BUILDINGS

- A. Coordinate requirements with Section 01 61 00, Common Product Requirements.
- B. Temporary Storage Yards: Construct temporary storage yards for storage of products that are not subject to damage by weather conditions.
- C. Temporary Storage Buildings:
  1. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored.
  2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
  3. Store combustible materials (paints, solvents, fuels) in a well-ventilated and remote building meeting safety standard.

### 3.06 ACCESS ROADS

- A. Construct access roads as shown and within easements, rights-of-way, or Project limits.
- B. Maintain drainage ways. Install and maintain culverts to allow water to flow beneath access roads. Provide corrosion-resistant culvert pipe of adequate strength to resist construction loads.
- C. Provide gravel, crushed rock, or other stabilization material to permit access by all motor vehicles at all times.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- D. Maintain road grade and crown to eliminate potholes, rutting, and other irregularities that restrict access.
- E. Coordinate with Engineer detours and other operations affecting traffic and access. Provide at least 72 hours' notice to Engineer of operations that will alter access to Site.
- F. Where access road crosses existing fences, install and maintain gates.
- G. Upon completion of construction, restore ground surface disturbed by access road construction to original grade.

3.07 PARKING AREAS

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.
- B. Provide parking facilities for personnel working on Project. No employee or equipment parking will be permitted on Owner's existing paved areas, except as specifically designated for Contractor's use.

3.08 VEHICULAR TRAFFIC

- A. Comply with Laws and Regulations regarding closing or restricting use of public streets or highways. No public or private road shall be closed, except by written permission of proper authority. Ensure the least possible obstruction to traffic and normal commercial pursuits.
- B. Conduct the Work to interfere as little as possible with public travel, whether vehicular or pedestrian.
- C. Whenever it is necessary to cross, close, or obstruct roads, driveways, and walks, whether public or private, provide and maintain suitable and safe bridges, detours, or other temporary expedients for accommodation of public and private travel.
- D. Road Closures: Maintain satisfactory means of exit for persons residing or having occasion to transact business along route of the Work. If it is necessary to close off roadway or alley providing sole vehicular access to property for periods greater than 2 hours, provide written notice to each owner so affected 3 days prior to such closure. In such cases, closings of up to 4 hours may be allowed. Closures of up to 10 hours may be allowed if a week's written notice is given and undue hardship does not result.

- E. Maintenance of traffic is not required if Contractor obtains written permission from Owner and tenant of private property, or from authority having jurisdiction over public property involved, to obstruct traffic at designated point.
- F. In making street crossings, do not block more than one-half the street at a time. Whenever possible, widen shoulder on opposite side to facilitate traffic flow. Provide temporary surfacing on shoulders as necessary.
- G. Maintain top of backfilled trenches before they are paved, to allow normal vehicular traffic to pass over. Provide temporary access driveways where required. Cleanup operations shall follow immediately behind backfilling.
- H. When flaggers and guards are required by regulation or when deemed necessary for safety, furnish them with approved orange wearing apparel and other regulation traffic control devices.
- I. Notify fire department and police department before closing street or portion thereof. Notify said departments when streets are again passable for emergency vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without written permission from fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access. Furnish Contractor's night emergency telephone numbers to police department.
- J. Coordinate traffic routing with that of others working in same or adjacent areas.

### 3.09 CLEANING DURING CONSTRUCTION

- A. In accordance with General Conditions, as may be specified in other Specification sections, and as required herein.
- B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep floors (basins, tunnels, platforms, walkways, roof surfaces), and pick up and dispose of debris.
- C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish. At least weekly, dispose of such waste materials, debris, and rubbish offsite.
- D. At least weekly, brush sweep entry drive, roadways, and other streets and walkways affected by the Work and where adjacent to the Work.

### END OF SECTION



**SECTION 01 61 00**  
**COMMON PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

1.01 DEFINITIONS

A. Products:

1. New items for incorporation in the Work, whether purchased by Contractor or Owner for the Project, or taken from previously purchased stock, and may also include existing materials or components required for reuse.
2. Includes the terms material, equipment, machinery, components, subsystem, system, hardware, software, and terms of similar intent and is not intended to change meaning of such other terms used in Contract Documents, as those terms are self-explanatory and have well recognized meanings in construction industry.
3. Items identified by manufacturer's product name, including make or model designation, indicated in manufacturer's published product literature, that is current as of the date of the Contract Documents.

1.02 DESIGN REQUIREMENTS

A. Where Contractor design is specified, design of installation, systems, equipment, and components, including supports and anchorage, shall be in accordance with provisions of the 2018 International Building Code (IBC) by International Code Council; the 2020 and 2022 Georgia Amendments to the IBC; the Code of Henry County; the Code of Clayton County; Occupational Safety and Health Administration; and all other requirements by state and applicable local agencies.

1. Refer to the General Structural Notes on the Drawings for Project-specific design criteria.
2. Refer to individual Specification sections and to the Drawings for additional design criteria.

B. Where Contractor design is specified; installation, systems, equipment, and components, including supports and anchorage, shall be designed by a qualified professional engineer registered in the State of Georgia.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

1.03 QUALITY ASSURANCE

A. Qualifications:

1. Where Contractor design is specified, the following submittals shall be sealed, signed and dated by a registered professional engineer licensed in the State of Georgia and competent in the area of practice for the specified design:
  - a. Shop, fabrication, erection and installation drawings.
  - b. Calculations.

1.04 SUBMITTALS

- A. Where Contractor design is specified, submit shop, fabrication, erection and installation drawings as Action Submittals, unless otherwise specified.
- B. Where Contractor design is specified, submit calculations as Informational Submittals, unless otherwise specified.
- C. Sealed submittals shall be in accordance with the laws, rules and regulations of the State of Georgia.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Altitude: Provide materials and equipment suitable for installation and operation under rated conditions at 1,000 feet above sea level.

1.06 PREPARATION FOR SHIPMENT

- A. When practical, factory assemble products. Mark or tag separate parts and assemblies to facilitate field assembly. Cover machined and unpainted parts that may be damaged by the elements with strippable protective coating.
- B. Package products to facilitate handling and protect from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, contents by name, name of Project and Contractor, equipment number, and approximate weight. Include complete packing list and bill of materials with each shipment.
- C. Extra Materials, Special Tools, Test Equipment, and Expendables:
  1. Furnish as required by individual Specifications.
  2. Schedule:
    - a. Ensure that shipment and delivery occurs concurrent with shipment of associated equipment.

- b. Transfer to Owner shall occur immediately subsequent to Contractor's acceptance of equipment from Supplier.
  - 3. Packaging and Shipment:
    - a. Package and ship extra materials and special tools to avoid damage during long term storage in original cartons insofar as possible, or in appropriately sized, hinged-cover, wood, plastic, or metal box.
    - b. Prominently displayed on each package, the following:
      - 1) Manufacturer's part nomenclature and number, consistent with Operation and Maintenance Manual identification system.
      - 2) Applicable equipment description.
      - 3) Quantity of parts in package.
      - 4) Equipment manufacturer.
  - 4. Deliver materials to appropriate Site (W.J Hooper WPP or Terry R. Hicks WPP, as applicable to Work).
  - 5. Notify Engineer upon arrival for transfer of materials.
  - 6. Replace extra materials and special tools found to be damaged or otherwise inoperable at time of transfer to Owner.
- D. Request a minimum 7-day advance notice of shipment from manufacturer. Upon receipt of manufacturer's advance notice of shipment, promptly notify Engineer of anticipated date and place of equipment arrival.
- E. Factory Test Results: Reviewed and accepted by Engineer before product shipment as required in individual Specification sections.

#### 1.07 DELIVERY AND INSPECTION

- A. Deliver products in accordance with accepted current Progress Schedule and coordinate to avoid conflict with the Work and conditions at Site. Deliver anchor bolts and templates sufficiently early to permit setting prior to placement of structural concrete.
- B. Deliver products in undamaged condition, in manufacturer's original container or packaging, with identifying labels intact and legible. Include on label, date of manufacture and shelf life, where applicable.
- C. Unload products in accordance with manufacturer's instructions for unloading or as specified. Record receipt of products at Site. Promptly inspect for completeness and evidence of damage during shipment.
- D. Remove damaged products from Site and expedite delivery of identical new undamaged products, and remedy incomplete or lost products to provide that specified, so as not to delay progress of the Work.

1.08 HANDLING, STORAGE, AND PROTECTION

- A. Handle and store products in accordance with manufacturer's written instructions and in a manner to prevent damage. Store in approved storage yards or sheds provided in accordance with Section 01 50 00, Temporary Facilities and Controls. Provide manufacturer's recommended maintenance during storage, installation, and until products are accepted for use by Owner.
- B. Manufacturer's instructions for material requiring special handling, storage, or protection shall be provided prior to delivery of material.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to ensure that products are maintained under specified conditions, and free from damage or deterioration. Keep running account of products in storage to facilitate inspection and to estimate progress payments for products delivered, but not installed in the Work.
- D. Store electrical, instrumentation, and control products, and equipment with bearings in weather-tight structures maintained above 60 degrees F. Protect electrical, instrumentation, and control products, and insulate against moisture, water, and dust damage. Connect and operate continuously space heaters furnished in electrical equipment.
- E. Store fabricated products above ground on blocking or skids, and prevent soiling or staining. Store loose granular materials in well-drained area on solid surface to prevent mixing with foreign matter. Cover products that are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.
- F. Store finished products that are ready for installation in dry and well-ventilated areas. Do not subject to extreme changes in temperature or humidity.
- G. After installation, provide coverings to protect products from damage due to traffic and construction operations. Remove coverings when no longer needed.
- H. Hazardous Materials: Prevent contamination of personnel, storage area, and Site. Meet requirements of product specification, codes, and manufacturer's instructions.



**PART 2 PRODUCTS**

2.01 GENERAL

- A. Provide manufacturer's standard materials suitable for service conditions, unless otherwise specified in the individual Specifications.
- B. Where product specifications include a named manufacturer, with or without model number, and also include performance requirements, named manufacturer's products must meet the performance specifications.
- C. Like items of products furnished and installed in the Work shall be end products of one manufacturer and of the same series or family of models to achieve standardization for appearance, operation and maintenance, spare parts and replacement, manufacturer's services, and implement same or similar process instrumentation and control functions in same or similar manner.
- D. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
- E. Provide interchangeable components of the same manufacturer, for similar components, unless otherwise specified.
- F. Equipment, Components, Systems, and Subsystems: Design and manufacture with due regard for health and safety of operation, maintenance, and accessibility, durability of parts, and shall comply with applicable OSHA, state, and local health and safety regulations.
- G. Regulatory Requirement: Coating materials shall meet federal, state, and local requirements limiting the emission of volatile organic compounds and for worker exposure.
- H. Safety Guards: Provide for all belt or chain drives, fan blades, couplings, or other moving or rotary parts. Cover rotating part on all sides. Design for easy installation and removal. Use 16-gauge or heavier; galvanized steel, aluminum coated steel, or galvanized or aluminum coated 1/2-inch mesh expanded steel. Provide galvanized steel accessories and supports, including bolts. For outdoors application, prevent entrance of rain and dripping water.
- I. Authority Having Jurisdiction (AHJ):
  - 1. Provide the Work in accordance with NFPA 70, National Electrical Code (NEC). Where required by the AHJ, material and equipment shall be labeled or listed by a nationally recognized testing laboratory or other organization acceptable to the AHJ in order to provide a basis for approval under NEC.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

2. Materials and equipment manufactured within the scope of standards published by Underwriters Laboratories, Inc. shall conform to those standards and shall have an applied UL listing mark.
- J. Equipment Finish:
1. Provide manufacturer's standard finish and color, except where specific color is indicated.
  2. If manufacturer has no standard color, provide equipment with finish as approved by Engineer.
- K. Special Tools and Accessories: Furnish to Owner, upon acceptance of equipment, all accessories required to place each item of equipment in full operation. These accessory items include, but are not limited to, adequate oil and grease (as required for first lubrication of equipment after field testing), light bulbs, fuses, hydrant wrenches, valve keys, handwheels, chain operators, special tools, and other spare parts as required for maintenance.
- L. Lubricant: Provide initial lubricant recommended by equipment manufacturer in sufficient quantity to fill lubricant reservoirs and to replace consumption during testing, startup, and operation until final acceptance by Owner.
- M. Components and Materials in Contact with Water for Human Consumption: Comply with the requirements of the Safe Drinking Water Act and other applicable federal, state, and local requirements. Provide certification by manufacturer or an accredited certification organization recognized by the Authority Having Jurisdiction that components and materials comply with the maximum lead content standard in accordance with NSF/ANSI 61 and NSF/ANSI 372.
1. Use or reuse of components and materials without a traceable certification is prohibited.

2.02 FABRICATION AND MANUFACTURE

- A. General:
1. Manufacture parts to U.S.A. standard sizes and gauges.
  2. Two or more items of the same type shall be identical, by the same manufacturer, and interchangeable.
  3. Design structural members for anticipated shock and vibratory loads.
  4. Use 1/4-inch minimum thickness for steel that will be submerged, wholly or partially, during normal operation.
  5. Modify standard products as necessary to meet performance Specifications.

B. Lubrication System:

1. Require no more than weekly attention during continuous operation.
2. Convenient and accessible; oil drains with bronze or stainless steel valves and fill-plugs easily accessible from the normal operating area or platform. Locate drains to allow convenient collection of oil during oil changes without removing equipment from its installed position.
3. Provide constant-level oilers or oil level indicators for oil lubrication systems.
4. For grease type bearings, which are not easily accessible, provide and install stainless steel tubing; protect and extend tubing to convenient location with suitable grease fitting.

2.03 SOURCE QUALITY CONTROL

- A. Where Specifications call for factory testing to be witnessed by Engineer, notify Engineer not less than 14 days prior to scheduled test date, unless otherwise specified.
- B. Calibration Instruments: Bear the seal of a reputable laboratory certifying instrument has been calibrated within the previous 12 months to a standard endorsed by the National Institute of Standards and Technology (NIST).
- C. Factory Tests: Perform in accordance with accepted test procedures and document successful completion.

**PART 3 EXECUTION**

3.01 INSPECTION

- A. Inspect materials and equipment for signs of pitting, rust decay, or other deleterious effects of storage. Do not install material or equipment showing such effects. Remove damaged material or equipment from the Site and expedite delivery of identical new material or equipment. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delays within Contractor's control.

3.02 MANUFACTURER'S CERTIFICATE OF COMPLIANCE

- A. When so specified, a Manufacturer's Certificate of Compliance, a copy of which is attached to this section, shall be completed in full, signed by entity supplying the product, material, or service, and submitted prior to shipment of product or material or execution of the services.
- B. Engineer may permit use of certain materials or assemblies prior to sampling and testing if accompanied by accepted certification of compliance.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- C. Such form shall certify proposed product, material, or service complies with that specified. Attach supporting reference data, affidavits, and certifications as appropriate.
- D. May reflect recent or previous test results on material or product, if acceptable to Engineer.

3.03 INSTALLATION

- A. Equipment Drawings show general locations of equipment, devices, and raceway, unless specifically dimensioned.
- B. No shimming between machined surfaces is allowed.
- C. Install the Work in accordance with NECA Standard of Installation, unless otherwise specified.
- D. Repaint painted surfaces that are damaged prior to equipment acceptance.
- E. Do not cut or notch any structural member or building surface without specific approval of Engineer.
- F. Handle, install, connect, clean, condition, and adjust products in accordance with manufacturer's instructions, and as may be specified. Retain a copy of manufacturers' instruction at Site, available for review at all times.
- G. For material and equipment specifically indicated or specified to be reused in the Work:
  - 1. Use special care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
  - 2. Arrange for transportation, storage, and handling of products that require offsite storage, restoration, or renovation. Include costs for such Work in the Contract Price.

3.04 FIELD FINISHING

- A. In accordance with Section 09 90 00, Painting and Coating, and individual Specification sections.

3.05 ADJUSTMENT AND CLEANING

- A. Perform required adjustments, tests, operation checks, and other startup activities.

3.06 LUBRICANTS

- A. Fill lubricant reservoirs and replace consumption during testing, startup, and operation prior to acceptance of equipment by Owner.

3.07 SUPPLEMENTS

- A. The supplement listed below, following “End of Section”, is part of this Specification.

- 1. Form: Manufacturer’s Certificate of Compliance.

**END OF SECTION**



**MANUFACTURER’S CERTIFICATE OF COMPLIANCE**

OWNER: \_\_\_\_\_ PRODUCT, MATERIAL, OR SERVICE  
PROJECT NAME: \_\_\_\_\_ SUBMITTED: \_\_\_\_\_  
PROJECT NO: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I hereby certify that the above-referenced product, material, or service called for by the Contract for the named Project will be furnished in accordance with all applicable requirements. I further certify that the product, material, or service are of the quality specified and conform in all respects with the Contract requirements, and are in the quantity shown.

Date of Execution: \_\_\_\_\_, 20\_\_

Manufacturer: \_\_\_\_\_

Manufacturer’s Authorized Representative (*print*): \_\_\_\_\_

(Authorized Signature)





**SECTION 01 77 00**  
**CLOSEOUT PROCEDURES**

**PART 1 GENERAL**

1.01 SUBMITTALS

A. Informational Submittals:

1. Submit prior to application for final payment.
  - a. Record Documents: As required in General Conditions.
  - b. Approved Shop Drawings and Samples: As required in the General Conditions.
  - c. Special bonds, Special Guarantees, and Service Agreements.
  - d. Consent of Surety to Final Payment: As required in General Conditions.
  - e. Releases or Waivers of Liens and Claims: As required in General Conditions.
  - f. Releases from Agreements.
  - g. Final Application for Payment: Submit in accordance with procedures and requirements stated in Section 01 29 00, Payment Procedures.
  - h. Extra Materials: As required by individual Specification sections.

1.02 RECORD DOCUMENTS

A. Quality Assurance:

1. Furnish qualified and experienced person, whose duty and responsibility shall be to maintain record documents.
2. Accuracy of Records:
  - a. Coordinate changes within record documents, making legible and accurate entries on each sheet of Drawings and other documents where such entry is required to show change.
  - b. Purpose of Project record documents is to document factual information regarding aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive Site measurement, investigation, and examination.
3. Make entries within 24 hours after receipt of information that a change in the Work has occurred.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

4. Prior to submitting each request for progress payment, request Engineer's review and approval of current status of record documents. Failure to properly maintain, update, and submit record documents may result in a deferral by Engineer to recommend whole or any part of Contractor's Application for Payment, either partial or final.

B. As-Built Drawings:

1. As-built drawings documenting the construction as it occurs and is actually completed shall be maintained on a full-size set of Drawings issued to the Contractor at the time of project award. The Drawings shall be maintained as described herein.
2. The Contractor shall legibly mark drawings to record actual construction, including:
  - a. All Construction:
    - 1) Changes of dimension and/or detail.
    - 2) Changes made as a result of Request for Information (RFI), Work Change Directive, or Change Order.
    - 3) Details not on original Drawings.
    - 4) All deviations from as-designed conditions.
3. Contractor may elect to use a PDF markup software for recording of as-builts. If this method is chosen, Contractor shall:
  - 1) Submit a plan for fulfilling all documentation requirements covered herein. Plan shall include:
    - a) PDF markup software description and version.
    - b) File storage location.
    - c) File management plan.
    - d) Method of documenting all changes required herein.
    - e) Method of signing/certifying PDF upon project completion.

- C. Contractor will be provided the design model files in DGN format.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 MAINTENANCE OF RECORD DOCUMENTS

A. General:

1. Promptly following commencement of Contract Times, secure from Engineer at no cost to Contractor, one complete set of Contract Documents. Drawings will be full size (22-inch by 34-inch).

2. Label or stamp each record document with title, “RECORD DOCUMENTS,” in neat large printed letters.
3. Record information concurrently with construction progress and within 24 hours after receipt of information that change has occurred. Do not cover or conceal Work until required information is recorded.

B. Preservation:

1. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
2. Make documents and Samples available at all times for observation by Engineer.
3. At Contractor’s request, a digital record (PDF) of the As-Built Drawings may substituted for the hard-copy described herein. All other requirements listed herein remain.

C. Making Entries on the Drawings:

1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note as required.
  - a. Color Coding:
    - 1) Green when showing information deleted from the Drawings.
    - 2) Red when showing information added to the Drawings.
    - 3) Blue and circled in blue to show notes.
2. Date entries.
3. Call attention to entry by “cloud” drawn around area or areas affected.
4. Legibly mark to record actual changes made during construction, including, but not limited to:
  - a. Depths of various elements of foundation in relation to finished first floor data if not shown or where depth differs from that shown.
  - b. Horizontal and vertical locations of existing and new Underground Facilities and appurtenances, and other underground structures, equipment, or Work. Reference to at least two measurements to permanent surface improvements.
  - c. Location of internal utilities and appurtenances concealed in the construction referenced to visible and accessible features of the structure.
  - d. Locate existing facilities, piping, equipment, and items critical to the interface between existing physical conditions or construction and new construction.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- e. Changes made by Addenda and Field Orders, Work Change Directive, Change Order, and Engineer’s written interpretation and clarification using consistent symbols for each and showing appropriate document tracking number.
- 5. Dimensions on Schematic Layouts: Show on record drawings, by dimension, the centerline of each run of items such as are described in previous subparagraph above.
  - a. Clearly identify the item by accurate note such as “cast iron drain,” “galv. water,” and the like.
  - b. Show, by symbol or note, vertical location of item (“under slab,” “in ceiling plenum,” “exposed,” and the like).
  - c. Make identification so descriptive that it may be related reliably to Specifications.

3.02 FINAL CLEANING

- A. At completion of the Work or of a part thereof and immediately prior to Contractor’s request for certificate of Substantial Completion; or if no certificate is issued, immediately prior to Contractor’s notice of completion, clean entire Site or parts thereof, as applicable.
  - 1. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to Owner and Engineer.
  - 2. Remove grease, dirt, dust, paint or plaster splatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.
  - 3. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
  - 4. Clean all windows.
  - 5. Clean and wax wood, vinyl, or painted floors.
  - 6. Broom clean exterior paved driveways and parking areas.
  - 7. Hose clean sidewalks, loading areas, and others contiguous with principal structures.
  - 8. Rake clean all other surfaces.
  - 9. Remove snow and ice from access to buildings.
  - 10. Replace air-handling filters and clean ducts, blowers, and coils of ventilation units operated during construction.
  - 11. Leave water courses, gutters, and ditches open and clean.
- B. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.

**END OF SECTION**

**SECTION 01 78 23**  
**OPERATION AND MAINTENANCE DATA**

**PART 1 GENERAL**

1.01 SECTION INCLUDES

- A. Detailed information for the preparation, submission, and Engineer's review of Operations and Maintenance (O&M) Data, as required by individual Specification sections.

1.02 DEFINITIONS

- A. Preliminary Data: Initial and subsequent submissions for Engineer's review.
- B. Final Data: Engineer-accepted data, submitted as specified herein.
- C. Maintenance Operation: As used on Maintenance Summary Form is defined to mean any routine operation required to ensure satisfactory performance and longevity of equipment. Examples of typical maintenance operations are lubrication, belt tensioning, adjustment of pump packing glands, and routine adjustments.

1.03 SEQUENCING AND SCHEDULING

- A. Equipment and System Data:
  - 1. Preliminary Data:
    - a. Do not submit until Shop Drawing for equipment or system has been reviewed and approved by Engineer.
    - b. Submit prior to shipment date.
  - 2. Final Data: Submit Instructional Manual Formatted data not less than 30 days prior to equipment or system field functional testing.
  - 3. Materials and Finishes Data.
  - 4. Preliminary Data: Submit at least 15 days prior to request for final inspection.
  - 5. Final Data: Submit within 10 days after final inspection.

1.04 DATA FORMAT

- A. Prepare preliminary and final data in the form of an instructional manual. Prepare final data on electronic media.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

**B. Instructional Manual Format:**

1. Binder: Commercial quality, permanent, three-ring or three-post binders with durable plastic cover.
2. Size: 8-1/2 inches by 11 inches, minimum.
3. Cover: Identify manual with typed or printed title “OPERATION AND MAINTENANCE DATA” and list:
  - a. Project title.
  - b. Designate applicable system, equipment, material, or finish.
  - c. Identity of separate structure as applicable.
  - d. Identify volume number if more than one volume.
  - e. Identity of equipment number and Specification section.
4. Spine:
  - a. Project title.
  - b. Identify volume number if more than one volume.
5. Title Page:
  - a. Contractor name, address, and telephone number.
  - b. Subcontractor, Supplier, installer, or maintenance contractor’s name, address, and telephone number, as appropriate.
    - 1) Identify area of responsibility of each.
    - 2) Provide name and telephone number of local source of supply for parts and replacement.
6. Table of Contents:
  - a. Neatly typewritten and arranged in systematic order with consecutive page numbers.
  - b. Identify each product by product name and other identifying numbers or symbols as set forth in Contract Documents.
7. Paper: 20-pound minimum, white for typed pages.
8. Text: Manufacturer’s printed data, or neatly typewritten.
9. Three-hole punch data for binding and composition; arrange printing so that punched holes do not obliterate data.
10. Material shall be suitable for reproduction, with quality equal to original. Photocopying of material will be acceptable, except for material containing photographs.

**C. Electronic Media Format:**

1. Portable Document Format (PDF):
  - a. After all preliminary data has been found to be acceptable to Engineer, submit Operation and Maintenance data in PDF format.
  - b. Files to be exact duplicates of Engineer-accepted preliminary data. Arrange by Specification number and name.
  - c. Files to be fully functional and viewable in most recent version of Adobe Acrobat.

- d. All textual data shall be provided as a single electronic file in searchable Adobe Acrobat Portable Document Format (PDF). The PDF file(s) shall be fully indexed using the Table of Contents, searchable with thumbnails generated. File(s) shall be identified by utilization of an “eight dot three” convention (XXXXX.YY.pdf) where X is the five digit number corresponding to the Specification Section, and YY is an identification number. All documents shall be scanned at 300dpi or greater utilizing optical character recognition (OCR) software. All text in the document must be text selectable with the exception of pages which are in their entirety Drawings or diagrams. Word searches of the PDF document must function successfully. PDF files that fail to comply with the indexing and searchable features described above will not be acceptable. All Drawing data shall be provided in digital format compatible with AutoCAD Version 14.e. Materials not available in original digital format (available only in paper format) shall be scanned as noted above into a PDF format and cleaned to remove smudges, fingerprints, artifacts, and other extraneous marks. All notes, version stamps, etc. shall be preserved. Color maps shall be scanned in not less than the number of colors of the document or 16 colors, whichever is greater. Color photographs shall be saved in not less than 256 colors. Black and white or monochrome scans (non-text) shall not be less than 16 gray scale levels. Color maps, color photographs, and black and white and gray scale photograph files shall be saved as GIF or JPG files, compatible with Adobe Photoshop Version 4.0. Documents shall be scanned in the existing color format of the document, i.e., color documents shall be scanned in color, and black and white or monochrome in gray scale.

## 1.05 SUBMITTALS

### A. Informational:

1. Data Outline: Submit two copies of a detailed outline of proposed organization and contents of Final Data prior to preparation of Preliminary Data.
2. Preliminary Data:
  - a. Submit two copies for Engineer’s review.
  - b. If data meets conditions of the Contract:
    - 1) One copy will be returned to Contractor.
    - 2) One copy will be forwarded to Resident Project Representative.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- c. If data does not meet conditions of the Contract:
  - 1) All copies will be returned to Contractor with Engineer's comments (on separate document) for revision.
  - 2) Engineer's comments will be retained in Engineer's file.
  - 3) Resubmit two copies revised in accordance with Engineer's comments.
3. Final Data: Submit three copies in format specified herein.

1.06 DATA FOR EQUIPMENT AND SYSTEMS

A. Content For Each Unit (or Common Units) and System:

1. Product Data:
  - a. Include only those sheets that are pertinent to specific product.
  - b. Clearly annotate each sheet to:
    - 1) Identify specific product or part installed.
    - 2) Identify data applicable to installation.
    - 3) Delete references to inapplicable information.
  - c. Function, normal operating characteristics, and limiting conditions.
  - d. Performance curves, engineering data, nameplate data, and tests.
  - e. Complete nomenclature and commercial number of replaceable parts.
  - f. Original manufacturer's parts list, illustrations, detailed assembly drawings showing each part with part numbers and sequentially numbered parts list, and diagrams required for maintenance.
  - g. Spare parts ordering instructions.
  - h. Where applicable, identify installed spares and other provisions for future work (e.g., reserved panel space, unused components, wiring, terminals).
2. As-installed, color-coded piping diagrams.
3. Charts of valve tag numbers, with the location and function of each valve.
4. Drawings: Supplement product data with the Drawings as necessary to clearly illustrate:
  - a. Format:
    - 1) Provide reinforced, punched, binder tab; bind in with text.
    - 2) Reduced to 8-1/2 inches by 11 inches, or 11 inches by 17 inches folded to 8-1/2 inches by 11 inches.
    - 3) Where reduction is impractical, fold and place in 8-1/2-inch by 11-inch envelopes bound in text.
    - 4) Identify Specification section and product on the Drawings and envelopes.
  - b. Relations of component parts of equipment and systems.



- c. Control and flow diagrams.
  - d. Coordinate Drawings with Project record documents to assure correct illustration of completed installation.
  - 5. Instructions and Procedures: Within text, as required to supplement product data.
    - a. Format:
      - 1) Organize in consistent format under separate heading for each different procedure.
      - 2) Provide logical sequence of instructions for each procedure.
      - 3) Provide information sheet for Owner's personnel, including:
        - a) Proper procedures in event of failure.
        - b) Instances that might affect validity of guarantee or Bond.
    - b. Installation Instructions: Including alignment, adjusting, calibrating, and checking.
    - c. Operating Procedures:
      - 1) Startup, break-in, routine, and normal operating instructions.
      - 2) Test procedures and results of factory tests where required.
      - 3) Regulation, control, stopping, and emergency instructions.
      - 4) Description of operation sequence by control manufacturer.
      - 5) Shutdown instructions for both short and extended duration.
      - 6) Summer and winter operating instructions, as applicable.
      - 7) Safety precautions.
      - 8) Special operating instructions.
    - d. Maintenance and Overhaul Procedures:
      - 1) Routine maintenance.
      - 2) Guide to troubleshooting.
      - 3) Disassembly, removal, repair, reinstallation, and re-assembly.
  - 6. Guarantee, Bond, and Service Agreement: In accordance with Section 01 77 00, Closeout Procedures.
- B. Content for Each Electric or Electronic Item or System:
- 1. Description of Unit and Component Parts:
    - a. Function, normal operating characteristics, and limiting conditions.
    - b. Performance curves, engineering data, nameplate data, and tests.
    - c. Complete nomenclature and commercial number of replaceable parts.
    - d. Interconnection wiring diagrams, including control and lighting systems.
  - 2. Circuit Directories of Panelboards:
  - 3. Electrical service.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

4. Control requirements and interfaces.
5. Communication requirements and interfaces.
6. List of electrical relay settings, and control and alarm contact settings.
7. Electrical interconnection wiring diagram, including as applicable, single-line, three-line, schematic and internal wiring, and external interconnection wiring.
8. As-installed control diagrams by control manufacturer.
9. Operating Procedures:
  - a. Routine and normal operating instructions.
  - b. Startup and shutdown sequences, normal and emergency.
  - c. Safety precautions.
  - d. Special operating instructions.
10. Maintenance Procedures:
  - a. Routine maintenance.
  - b. Guide to troubleshooting.
  - c. Adjustment and checking.
  - d. List of relay settings, control and alarm contact settings.
11. Manufacturer's printed operating and maintenance instructions.
12. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.

C. Maintenance Summary:

1. Compile individual Maintenance Summary for each applicable equipment item, respective unit or system, and for components or sub-units.
2. Format:
  - a. Use Maintenance Summary Form bound with this section or electronic facsimile of such.
  - b. Each Maintenance Summary may take as many pages as required.
  - c. Use only 8-1/2-inch by 11-inch size paper.
  - d. Complete using typewriter or electronic printing.
3. Include detailed lubrication instructions and diagrams showing points to be greased or oiled; recommend type, grade, and temperature range of lubricants and frequency of lubrication.
4. Recommended Spare Parts:
  - a. Data to be consistent with manufacturer's Bill of Materials/Parts List furnished in O&M manuals.
  - b. "Unit" is the unit of measure for ordering the part.
  - c. "Quantity" is the number of units recommended.
  - d. "Unit Cost" is the current purchase price.

1.07 DATA FOR MATERIALS AND FINISHES

- A. Content for Architectural Products, Applied Materials, and Finishes:
1. Manufacturer's data, giving full information on products:
    - a. Catalog number, size, and composition.
    - b. Color and texture designations.
    - c. Information required for reordering special-manufactured products.
  2. Instructions for Care and Maintenance:
    - a. Manufacturer's recommendation for types of cleaning agents and methods.
    - b. Cautions against cleaning agents and methods that are detrimental to product.
    - c. Recommended schedule for cleaning and maintenance.
- B. Content for Moisture Protection and Weather Exposed Products:
1. Manufacturer's data, giving full information on products:
    - a. Applicable standards.
    - b. Chemical composition.
    - c. Details of installation.
  2. Instructions for inspection, maintenance, and repair.

1.08 SUPPLEMENTS

- A. The supplement listed below, following "End of Section", is part of this Specification.
1. Forms: Maintenance Summary Form.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**



W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

MAINTENANCE SUMMARY FORM

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

1. EQUIPMENT ITEM \_\_\_\_\_

2. MANUFACTURER \_\_\_\_\_

3. EQUIPMENT/TAG NUMBER(S) \_\_\_\_\_

4. WEIGHT OF INDIVIDUAL COMPONENTS (OVER 100 POUNDS) \_\_\_\_\_

5. NAMEPLATE DATA (hp, voltage, speed, etc.) \_\_\_\_\_

6. MANUFACTURER’S LOCAL REPRESENTATIVE \_\_\_\_\_

a. Name \_\_\_\_\_ Telephone No. \_\_\_\_\_

b. Address \_\_\_\_\_

7. MAINTENANCE REQUIREMENTS

<b>Maintenance Operation Comments</b>	<b>Frequency</b>	<b>Lubricant (If Applicable)</b>
List briefly each maintenance operation required and refer to specific information in manufacturer’s standard maintenance manual, if applicable. (Reference to manufacturer’s catalog or sales literature is not acceptable.)	List required frequency of each maintenance operation.	Refer by symbol to lubricant required.



**SECTION 01 88 15**  
**ANCHORAGE AND BRACING**

**PART 1 GENERAL**

1.01 SUMMARY

- A. This section covers requirements for anchorage and bracing of equipment, distribution systems, and other nonstructural components required in accordance with the ICC 2018 International Building Code (IBC), for seismic, wind, gravity, soil, and operational loads.

1.02 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
1. American Institute of Steel Construction (AISC) 360, Specification for Structural Steel Buildings.
  2. American Society of Civil Engineers (ASCE): ASCE 7, Minimum Design Loads for Buildings and Other Structures.
  3. International Code Council (ICC): International Building Code (IBC).
  4. State of Georgia Amendments to the IBC.

1.03 DEFINITIONS

- A. Authority Having Jurisdiction (AHJ): Permitting building agency; may be a federal, state, local, or other regional department, or individual including building official, fire chief, fire marshal, chief of a fire prevention bureau, labor department, or health department, electrical inspector; or others having statutory authority. AHJ may be Owner when authorized to be self-permitting by governmental permitting agency or when no governmental agency has authority.
- B. Designated Seismic System: Architectural, electrical, and mechanical system or their components for which component importance factor is greater than 1.0.

1.04 DESIGN AND PERFORMANCE REQUIREMENTS

- A. General:
1. Anchorage and bracing systems shall be designed by a qualified structural engineer (SE) registered in the State of Georgia.
  2. Design anchorage into concrete including embedment in accordance with ACI 318-14; Chapter 17 (or other industry standard approved by Engineer), and Project Specifications.
    - a. Unless otherwise noted, design for cracked concrete condition.

3. Design anchorage and bracing of architectural, mechanical, and electrical components and systems in accordance with this section, unless a design is specifically provided within Contract Documents or where exempted hereinafter.
4. Design attachments, braces, and anchors for equipment, components, and distribution systems to structure for gravity, seismic, wind, and operational loading.
5. Anchor and brace piping and ductwork, whether exempt or not exempt for this section, so that lateral or vertical displacement does not result in damage or failure to essential architectural, mechanical, or electrical equipment.
6. Architectural Components: Includes, but are not limited to, nonstructural walls and elements, partitions, cladding and veneer, access flooring, signs, cabinets, suspended ceilings, and glass in glazed curtain walls and partitions.
7. Provide supplementary framing where required to transfer anchorage and bracing loads to structure.
8. Adjust equipment pad sizes or provide additional anchorage confinement reinforcing to provide required anchorage capacities.
9. Design anchorage and bracing for:
  - a. Equipment and components that weigh more than 500 pounds and have center of mass located 4 feet or less above adjacent finished floor.
  - b. Equipment weighing more than 100 pounds that has center of mass located more than 4 feet above adjacent finished floor.
  - c. Distribution systems other than process piping supported on concrete pipe supports that weigh more than 5 pounds per foot that have center of mass located more than 4 feet above adjacent finished floor.
10. For components exempted from design requirements of this section, provide bolted, welded, or otherwise positively fastened attachments to supporting structure.

B. Design Loads:

1. Gravity: Design anchorage and bracing for self-weight and superimposed loads on components and equipment.
2. Wind: Design anchorage and bracing for wind criteria provided on General Structural Notes on the Drawings for exposed architectural components and exterior and wind-exposed mechanical and electrical equipment. Alternately, manufacturer certification may be provided for components such as roofing and flashing to verify attachments meet Project-specific design criteria.



3. Operational:
  - a. For loading supplied by equipment manufacturer for IBC required load cases.
  - b. Loads may include equipment vibration, torque, thermal effects, effects of internal contents (weight and sloshing), water hammer, and other load-inducing conditions.
  - c. Locate braces to minimize vibration to or movement of structure.
  - d. For vibrating loads, use anchors meeting requirements of Section 05 50 00, Metal Fabrications or Section 05 05 19, Post-Installed Anchors, for anchors with designated capacities for vibratory loading per manufacturer's ICC-ES report.
4. Seismic:
  - a. In accordance with 2018 IBC, Section 1613, and Chapter 13 of ASCE 7.
  - b. Design anchorage and bracing for design criteria listed on General Structural Notes on the Drawings.
  - c. Design anchorages for parts or elements of architectural, mechanical, and electrical systems in accordance with provisions of IBC and Site-specific seismic criteria, noted on General Structural Notes on the Drawings.
  - d. Design forces for anchors in concrete or masonry shall be in accordance with ASCE 7, Section 13.4.2, or IBC Section 1905.1.8 as applicable for Project Seismic Design Category.

## 1.05 SUBMITTALS

### A. Action Submittals:

1. Shop Drawings:
  - a. List of architectural, mechanical, and electrical equipment requiring Contractor-designed anchorage and bracing, unless specifically exempted.
  - b. Manufacturers' engineered seismic and non-seismic hardware product data.
  - c. Attachment assemblies' drawings including seismic attachments; include connection hardware, braces, and anchors or anchor bolts for nonexempt components, equipment, and systems.
  - d. Submittal will be rejected if proposed anchorage method would create excessive stress to supporting member. Revise anchorages and strengthen structural support to eliminate overstressed condition.

B. Informational Submittals:

1. Anchorage and Bracing Calculations: For attachments, braces, and anchorages, include IBC and Project-specific criteria as noted on General Structural Notes on the Drawings, in addition to manufacturer's specific criteria used for design; sealed by a structural engineer (SE) registered in the State of Georgia.
2. Manufacturer's hardware installation requirements.

C. Deferred Submittals:

1. Submitted seismic anchorage drawings and calculations for Designated Seismic Systems are identified as IBC deferred submittals and will be submitted to and must be accepted by AHJ prior to installation of component, equipment, or distribution system.
2. Submit deferred Action Submittals such as Shop Drawings with supporting deferred informational submittals such as calculations no less than 4 weeks in advance of installation of component, equipment or distribution system to be anchored to structure.

1.06 SOURCE QUALITY CONTROL

- A. Contractor and supplier responsibilities to accommodate Owner-furnished shop fabrication related special inspections and testing are provided in Project's Statement of Special Inspections in Supplement located at the end of Section 01 45 33, Special Inspection, Observation, and Testing, and Section 01 45 33, Special Inspection, Observation, and Testing.
- B. Provide all other specified, regulatory required, or required repair verification inspection and testing that is not listed in Statement of Special Inspections in accordance with Section 01 45 16.13, Contractor Quality Control.
- C. Provide Source Quality Control for welding and hot-dip galvanizing of anchors in accordance with Section 05 50 00, Metal Fabrications.

**PART 2 PRODUCTS**

2.01 GENERAL

- A. Design and construct attachments and supports transferring seismic and non-seismic loads to structure of materials and products suitable for application and in accordance with design criteria shown on the Drawings and nationally recognized standards.

- B. Provide anchor bolts for anchorage of equipment to concrete or masonry in accordance with Section 05 50 00, Metal Fabrications. Provide anchor bolts of the size, minimum embedment, and spacing designated in calculations submitted by Contractor and accepted by Engineer.
- C. Provide post-installed concrete and masonry anchors for anchorage of equipment to concrete or masonry in accordance with Section 05 05 19, Post-Installed Anchors. Provide post-installed anchors of the size, minimum embedment, and spacing designated in calculations submitted by Contractor and accepted by Engineer.
- D. Do not use powder-actuated fasteners or sleeve anchors for seismic attachments and anchorage where resistance to tension loads is required. Do not use expansion anchors, other than undercut anchors, for nonvibration isolated mechanical equipment rated over 10 horsepower.

### **PART 3 EXECUTION**

#### **3.01 GENERAL**

- A. Make attachments, bracing, and anchorage in such a manner that component lateral force is transferred to lateral force resisting system of structure through a complete load path.
- B. Design, provide, and install overall seismic anchorage system to provide restraint in all directions, including vertical, for each component or system so anchored.
- C. Provide snubbers in each horizontal direction and vertical restraints for components mounted on vibration isolation systems where required to resist overturning.
- D. Provide piping anchorage that maintains design flexibility and expansion capabilities at flexible connections and expansion joints.
  - 1. Piping and ductwork suspended more than 12 inches below supporting structure shall be braced for seismic effects to avoid significant bending of hangers and their attachments , unless high- or limited- deformability piping is used per ASCE 7, Section 13.6.8 or HVAC ducts have a cross-sectional area of less than 6 square feet or weigh 17 pounds per foot or less.
- E. Anchor tall and narrow equipment such as motor control centers and telemetry equipment at base and within 12 inches from top of equipment, unless approved otherwise by Engineer.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- F. Do not attach architectural, mechanical, or electrical components to more than one element of a building structure at a single restraint location where such elements may respond differently during a seismic event. Do not make such attachments across building expansion and contraction joints.

3.02 INSTALLATION

- A. Do not install components or their anchorages or restraints prior to review and acceptance by Engineer and AHJ.
- B. Notify Engineer upon completion of installation of seismic restraints in accordance with Section 01 45 33, Special Inspection, Observation, and Testing.

3.03 FIELD QUALITY ASSURANCE AND QUALITY CONTROL

- A. In accordance with Section 05 50 00, Metal Fabrications and Section 05 05 19, Post-Installed Anchors.
- B. Owner-Furnished Quality Assurance, in accordance with IBC Chapter 17 requirements, is provided in Statement of Special Inspections Plan in Supplement located at end of Section 01 45 33, Special Inspection, Observation, and Testing. Contractor responsibilities and related information are included in Section 01 45 33, Special Inspection, Observation, and Testing.
- C. Provide any other specified, regulatory required, or required repair verification inspection and testing that is not listed in Statement of Special Inspections in accordance with Section 01 45 16.13, Contractor Quality Control.

**END OF SECTION**

**SECTION 01 91 14**  
**EQUIPMENT TESTING AND FACILITY STARTUP**

**PART 1 GENERAL**

1.01 DEFINITIONS

- A. Facility: Entire Project, or an agreed-upon portion, including all of its unit processes.
- B. Functional Test: Test or tests in presence of Engineer and Owner to demonstrate that installed equipment meets manufacturer's installation, calibration, and adjustment requirements and other requirements as specified.
- C. Performance Test: Test or tests performed after any required functional test in presence of Engineer and Owner to demonstrate and confirm individual equipment meets performance requirements specified in individual sections.
- D. Unit Process: As used in this section, a unit process is a portion of the facility that performs a specific process function.
- E. Facility Performance Demonstration:
  - 1. A demonstration, conducted by Contractor, with assistance of Owner, to demonstrate and document the performance of the entire operating facility, both manually and automatically (if required), based on criteria developed in conjunction with Owner and as accepted by Engineer.
  - 2. Such demonstration is for the purposes of (i) verifying to Owner entire facility performs as a whole, and (ii) documenting performance characteristics of completed facility for Owner's records. Neither the demonstration nor the evaluation is intended in any way to make performance of a unit process or entire facility the responsibility of Contractor, unless such performance is otherwise specified.

1.02 SUBMITTALS

- A. Informational Submittals:
  - 1. Facility Startup and Performance Demonstration Plan.
  - 2. Functional and performance test results.
  - 3. Completed Unit Process Startup Form for each unit process.
  - 4. Completed Facility Performance Demonstration/Certification Form.

1.03 FACILITY STARTUP AND PERFORMANCE DEMONSTRATION PLAN

- A. Develop a written plan, in conjunction with Owner's operations personnel; to include the following:
1. Step-by-step instructions for startup of each unit process and the complete facility.
  2. Unit Process Startup Form (sample attached), to minimally include the following:
    - a. Description of the unit process, including equipment numbers/nomenclature of each item of equipment and all included devices.
    - b. Detailed procedure for startup of the unit process, including valves to be opened/closed, order of equipment startup, etc.
    - c. Startup requirements for each unit process, including water, power, chemicals, etc.
    - d. Space for evaluation comments.
  3. Facility Performance Demonstration/Certification Form (sample attached), to minimally include the following:
    - a. Description of unit processes included in the facility startup.
    - b. Sequence of unit process startup to achieve facility startup.
    - c. Description of computerized operations, if any, included in the facility.
    - d. Contractor certification facility is capable of performing its intended function(s), including fully automatic operation.
    - e. Signature spaces for Contractor and Engineer.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION**

3.01 GENERAL

- A. Facility Startup Meetings: Schedule, in accordance with requirements of Section 01 31 19, Project Meetings, to discuss test schedule, test methods, materials, chemicals and liquids required, facilities operations interface, and Owner involvement.
- B. Contractor's Testing and Startup Representative:
1. Designate and furnish one or more personnel to coordinate and expedite testing and facility startup.
  2. Representative(s) shall be present during startup meetings and shall be available at all times during testing and startup.

- C. Provide temporary valves, gauges, piping, test equipment and other materials and equipment required for testing and startup.
- D. Provide Subcontractor and equipment manufacturers' staff adequate to prevent delays. Schedule ongoing work so as not to interfere with or delay testing and startup.
- E. Owner will:
  - 1. Provide water, power, chemicals, and other items as required for startup, unless otherwise indicated.
  - 2. Operate process units and facility with support of Contractor.
  - 3. Provide labor and materials as required for laboratory analyses.

### 3.02 EQUIPMENT TESTING

- A. Preparation:
  - 1. Complete installation before testing.
  - 2. Furnish qualified manufacturers' representatives, when required by individual Specification sections.
  - 3. Obtain and submit from equipment manufacturer's representative Manufacturer's Certificate of Proper Installation Form, in accordance with Section 01 43 33, Manufacturers' Field Services, when required by individual Specification sections.
  - 4. Equipment Test Report Form: Provide written test report for each item of equipment to be tested, to include the minimum information:
    - a. Owner/Project Name.
    - b. Equipment or item tested.
    - c. Date and time of test.
    - d. Type of test performed (Functional or Performance).
    - e. Test method.
    - f. Test conditions.
    - g. Test results.
    - h. Signature spaces for Contractor and Engineer as witness.
  - 5. Cleaning and Checking: Prior to beginning functional testing:
    - a. Calibrate testing equipment in accordance with manufacturer's instructions.
    - b. Inspect and clean equipment, devices, connected piping, and structures to ensure they are free of foreign material.
    - c. Lubricate equipment in accordance with manufacturer's instructions.
    - d. Turn rotating equipment by hand when possible to confirm that equipment is not bound.

W.J. HOOPER WPP AND TERRY R. HICKS WPP –  
UV SYSTEM UPGRADES

- e. Open and close valves by hand and operate other devices to check for binding, interference, or improper functioning.
  - f. Check power supply to electric-powered equipment for correct voltage.
  - g. Adjust clearances and torque.
  - h. Test piping for leaks.
6. Ready-to-test determination will be by Engineer based at least on the following:
- a. Acceptable Operation and Maintenance Data.
  - b. Notification by Contractor of equipment readiness for testing.
  - c. Receipt of Manufacturer's Certificate of Proper Installation, if so specified.
  - d. Adequate completion of work adjacent to, or interfacing with, equipment to be tested.
  - e. Availability and acceptability of manufacturer's representative, when specified, to assist in testing of respective equipment.
  - f. Satisfactory fulfillment of other specified manufacturer's responsibilities.
  - g. Equipment and electrical tagging complete.
  - h. Delivery of all spare parts and special tools.

B. Functional Testing:

- 1. Conduct as specified in individual Specification sections.
- 2. Notify Owner and Engineer in writing at least 10 days prior to scheduled date of testing.
- 3. Prepare Equipment Test Report summarizing test method and results.
- 4. When, in Engineer's opinion, equipment meets functional requirements specified, such equipment will be accepted for purposes of advancing to performance testing phase, if so required by individual Specification sections. Such acceptance will be evidenced by Engineer/Owner's signature as witness on Equipment Test Report.

C. Performance Testing:

- 1. Conduct as specified in individual Specification sections.
- 2. Notify Engineer and Owner in writing at least 10 days prior to scheduled date of test.
- 3. Performance testing shall not commence until equipment has been accepted by Engineer as having satisfied functional test requirements specified.
- 4. Type of fluid, gas, or solid for testing shall be as specified.
- 5. Unless otherwise indicated, furnish labor, materials, and supplies for conducting the test and taking samples and performance measurements.



6. Prepare Equipment Test Report summarizing test method and results.
7. When, in Engineer's opinion, equipment meets performance requirements specified, such equipment will be accepted as conforming to Contract requirements. Such acceptance will be evidenced by Engineer's signature on Equipment Test Report.

### 3.03 STARTUP OF UNIT PROCESSES AND ACCEPTANCE TESTING

- A. Prior to unit process startup, equipment within unit process shall be accepted by Engineer as having met functional and performance testing requirements specified.
- B. Startup sequencing of unit processes shall be as chosen by Contractor to meet schedule requirements.
- C. Make adjustments, repairs, and corrections necessary to complete unit process startup.
- D. Startup shall be considered complete when, in opinion of Engineer, unit process has operated in manner intended for 30 continuous days without significant interruption. This period is in addition to functional or performance test periods specified elsewhere.
- E. Significant Interruption: May include any of the following events:
  1. Failure of Contractor to provide and maintain qualified onsite startup personnel as scheduled.
  2. Failure to meet specified functional operation for more than 2 consecutive hours.
  3. Failure of any critical equipment or unit process that is not satisfactorily corrected within 5 hours after failure.
  4. Failure of any noncritical equipment or unit process that is not satisfactorily corrected within 8 hours after failure.
  5. Any failure of a system component that results in production of off-specification water shall be considered a failure.
  6. As determined by Engineer.
- F. A significant interruption that requires the startup then in progress to be stopped. After corrections are made, startup test period to start from beginning again.
- G. Any failure of a system component that results in production of off-specification water will require the test to be immediately stopped. After corrections are made, startup test period to start from beginning again. Any additional costs associated with the failure shall be at the Contractor's expense.

3.04 FACILITY PERFORMANCE DEMONSTRATION

- A. When, in the opinion of Engineer, startup of all unit processes has been achieved, sequence each unit process to the point that facility is operational.
- B. Demonstrate proper operation of required interfaces within and between individual unit processes.
- C. After facility is operating, complete performance testing of equipment and systems not previously tested.
- D. The following are required to be performed during the Document, as defined in Facility Startup and Performance Demonstration Plan, the performance of the facility, until all unit processes are operable and under control of computer system.
- E. Certify, on the Facility Performance Demonstration/Certification Form, that facility is capable of performing its intended function(s), including fully automatic and computerized operation.

3.05 SUPPLEMENTS

- A. Supplements listed below, following “End of Section,” are a part of this Specification:
  - 1. Unit Process Startup Form.
  - 2. Facility Performance Demonstration/Certification Form.

**END OF SECTION**

**UNIT PROCESS STARTUP FORM**

**OWNER:** \_\_\_\_\_ **PROJECT:** \_\_\_\_\_

**Unit Process Description: (Include description and equipment number of all equipment and devices):**

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**Startup Procedure (Describe procedure for sequential startup and evaluation, including valves to be opened/closed, order of equipment startup, etc.):**

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**Startup Requirements (Water, power, chemicals, etc.):** \_\_\_\_\_

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**Evaluation Comments:** \_\_\_\_\_

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**FACILITY PERFORMANCE DEMONSTRATION/CERTIFICATION FORM**

**OWNER:** \_\_\_\_\_ **PROJECT:** \_\_\_\_\_

**Unit Processes Description (List unit processes involved in facility startup):**

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**Unit Processes Startup Sequence (Describe sequence for startup, including computerized operations, if any):**

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**Contractor Certification that Facility is capable of performing its intended function(s), including fully automatic operation:**

**Contractor:** \_\_\_\_\_ **Date:** \_\_\_\_\_, 20\_\_

**Engineer:** \_\_\_\_\_ **Date:** \_\_\_\_\_, 20\_\_

(Authorized Signature)

