

PROJECT MANUAL



BAYOU MARCUS BOARDWALK AND EFFLUENT PIPE IMPROVEMENTS - REBID ECUA PROJECT NUMBER RS 332

EMERALD COAST UTILITIES AUTHORITY

Bid Number 2024-04

**Gerry Piscopo
Deputy Executive Director of Maintenance & Construction**

**Emerald Coast Utilities Authority
Maintenance & Construction Department**

November 2023

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PROJECT SUMMARY PAGE

Project Name:	Bayou Marcus Boardwalk and Effluent Piping Improvements
ECUA CIP Project Number:	RS 332
Bid Number:	CC 2024-04
Bid Advertisement:	December 7, 2023
Mandatory Pre-Bid Conference:	December 19, 2023
Pre-Bid Conference Location:	ECUA Bayou Marcus Water Reclamation Facility (BMWRF), Conference Room, 3050 Fayal Drive, Pensacola, FL 32526
Bid Opening:	January 9, 2024
Cost Estimate:	\$2,100,000
Description of Project:	Replace effluent piping for the Bayou Marcus Plant and replace deck and handrails.
Engineer of Record/Company:	Chad Lyner, PE/ Mott McDonald
ECUA Project Engineer:	Gerry Piscopo; Inspector - Clay Helton
Days to Substantial Completion:	330
Days to Final Completion:	90
Total Construction Time:	420
Liquidated Damages:	\$150 /day late for Substantial Completion, \$150 /day late for Final Completion

This information is subject to change. Please refer to any addendum(s) that may supersede the Project Summary Page.

**Emerald Coast Utilities Authority
Purchasing and Stores Division
9255 Sturdevant Street
Pensacola, Florida 32514-7038
850-969-6529**

STATEMENT OF NO BID

If you **do not** intend to bid on this commodity/service, please return this form to the above address immediately. If this statement is not completed and returned, your company may be deleted from the Emerald Coast Utilities Authority Vendors' list for this commodity/service.

We the undersigned, have declined to bid on requested commodity/service **Bid Number CC2024-02, Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid** for the following reasons:

- _____ Specifications too "tight," i.e., geared toward one brand or manufacturer only (explain below).
- _____ Insufficient time to respond to the Invitation to Bid.
- _____ We do not offer this product or service.
- _____ Our schedule would not permit us to perform.
- _____ Unable to meet bond/insurance requirements.
- _____ Specifications are unclear (explain below).
- _____ Remove us from your vendors' list for this commodity/service.
- _____ Other (specify below).

Remarks: _____

Company Name: _____

Signature: _____

Telephone: _____ Date: _____

NOTE: Statement of No Bid may be faxed into the Purchasing and Stores Division, (850-969-3384) Attention: Paul Nobles or emailed to paul.nobles@ecua.fl.gov

INVITATION TO BID

Sealed bids for the construction of Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid will be received in the office of the Purchasing and Stores Division, Emerald Coast Utilities Authority, located in the Emergency Operations & Support Addition, 9255 Sturdevant Street, Ellyson Industrial Park, Pensacola, Florida 32514, until **2:00 p.m., CT, January, 9, 2024.**

- A. **Hard Copy Submittal – In a sealed envelope (or other packaging) containing Technical and Fee Proposal, provide one (1) original (so identified), one (1) paper copy, and one (1) electronic copy (USB flash drive); or**
- B. **Electronic Submittal – One (1) electronic copy through www.bidnetdirect.com/florida/emeraldcoastutilitiesauthority;**

at which time bids submitted will be publicly opened and read aloud in the adjacent Room 2202, Finance Conference Room. Bids received after **2:00 p.m., CT, January, 9, 2024**, will be returned unopened. A mandatory pre-bid conference will be held in the ECUA Bayou Marcus Water Reclamation Facility (BMWRF), Conference Room, 3050 Fayal Drive, Pensacola, FL 32526, at 10:00 a.m., CT, on December, 19, 2023. **Attendance at the pre-bid conference is mandatory, and attendance is required.**

The principal features of the work to be known as:

**Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA Project Number RS332
Bid Number CC2024-04**

will consist of the replacement of the effluent piping for the Bayou Marcus Plant and replacement of the decking and handrails.

The Official Plans, Project Manual, and Addenda may be obtained free of charge from ECUA, Purchasing and Stores Division via telephone at (850) 969-6530, via email at bids@ecua.fl.gov, or at the BidNet Direct website at www.bidnetdirect.com/florida/emeraldcoastutilitiesauthority. The BidNet Direct service will also alert registrants about updates and/or addenda when tracking of this Project is selected. Each potential bidder shall be responsible for selecting tracking in BidNet Direct, as ECUA assumes no responsibility for same. Absent specific request, potential bidders will only be advised of updates and/or addenda when tracking is established by the potential bidder in BidNet Direct. ECUA advises potential bidders, suppliers, and sub-contractors to only rely on information personally obtained from BidNet Direct and not from third parties.

All questions about the meaning or intent of the bidding documents are to be submitted to ECUA Purchasing and Stores Division (850-969-6530) or via email at bids@ecua.fl.gov up to seven (7) days prior to the bid opening. Interpretations or clarification considered necessary by the Purchasing and Stores Division in response to such questions will be issued by addenda to BidNet Direct website to all parties registered to receive documents about this bid via the website. Questions received less than seven (7) calendar days prior to the date for the opening of bids will not be answered. Only questions answered by addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or

perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO (\$35,000) for a period of 36 months from the date of being placed on the convicted vendor list.

Bids may not be withdrawn for a period of at least 90 days from date of opening. Complete insurance coverage will be required from the successful bidder prior to signing the contract.

The Emerald Coast Utilities Authority reserves the right to waive informalities in any bid; reject any or all bids, in whole or in part, re-advertise a project, in whole or in part; and to accept a bid that in its judgment is the lowest and best bid of a responsible bidder. In accepting a bid, ECUA may award a contract based only on the base bid, the base bid plus all alternates, or the base bid plus any alternates which ECUA selects -- with all decisions being made based upon what ECUA believes to be the best interests of its ratepayers, in the reasonable exercise of its discretion. ECUA further reserves the right to increase or decrease quantities as may be required to meet the needs of ECUA, at the unit price which was bid.

ECUA does not discriminate on the basis of race, color, national origin, sex, creed/religion, age, marital status, disability/handicapped status, veteran status, or any other legally protected status in employment or provision of service.

If submitting a Hard Copy Submittal, the Bid project name and bid number must be clearly marked on the envelope as follows:

BID: Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid

CIP PROJECT #: RS332

BID NUMBER: CC2024-04

INSTRUCTIONS TO BIDDERS

General

Bids must be in the possession of the Emerald Coast Utilities Authority Purchasing and Stores Division to be considered. Bids may be electronically submitted through BidNet Direct, mailed or hand delivered to the Purchasing and Stores Division at 9255 Sturdevant Street, Ellyson Industrial Park, Pensacola, Florida, 32514, until 2:00 p.m. CT, **January, 9, 2024**.

- A. **Hard Copy Submittal** - In a sealed envelope (or other packaging) containing Technical and Fee Proposal, provide one (1) original (so identified), one (1) paper copy, and one (1) electronic copy (USB flash drive), in a sealed envelope clearly marked with the proposal name, time and date of the opening; or
- B. **Electronic Submittal** - one (1) electronic copy through BidNet Direct www.bidnetdirect.com/florida/emeraldcoastutilitiesauthority.

Regardless of the method of delivery, each bidder shall be responsible for his/her bid(s) being delivered on time, as the Emerald Coast Utilities Authority assumes no responsibility for same. Bids offered or received after the time set for the bid opening will be rejected and returned unopened to the bidder.

BIDDERS must satisfy themselves as to the accuracy of the estimated quantities in the BID schedule by examination of the site and a review of the drawings and specifications including any addenda. After BIDS have been submitted the BIDDER shall not assert that there has been any misunderstanding concerning the quantities of work or of the nature of the work to be done.

The OWNER provided to the BIDDERS prior to BIDDING through the PROJECT MANUAL all of the information in its possession which is deemed pertinent to and which delineates and describes the land owned, easements, and rights-of-way acquired.

A mandatory pre-bid conference will be held in the ECUA Bayou Marcus Water Reclamation Facility (BMWRF), Conference Room, 3050 Fayal Drive, Pensacola, FL 32526, at 10:00 a.m., CT, on December, 19, 2023. Attendance at the pre-bid conference is mandatory, and attendance is required.

The PROJECT MANUAL contains the provisions required for construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER 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, unless properly documented by issuance of an addendum.

All BIDS must be made on the required BID form. 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. The BID should include one (1) original BID form.

A BIDDER may not modify its BID after BID opening. Errors in the extension of unit prices stated in a BID or in multiplication, division, addition, or subtraction in a BID may be corrected by the Director of Engineering prior to award. In such cases, unit prices shall not be changed. Additionally, in the event of a conflict between a written number and a numerically listed number, the written number shall control, and the Director of

Engineering may correct the numeric number, so it conforms to the written number prior to award.

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 90 days after the actual date of the opening thereof.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. A conditional or qualified BID may not be accepted.

BID tabulations will be posted for review to the ECUA website, www.ecua.fl.gov/business/bid-opportunities, and BidNet Direct at <https://www.bidnetdirect.com/florida/emeraldcoastutilitiesauthority> on or about January 9, 2024 and will remain posted for 72 hours excluding weekends and holidays. **The verified/audited bid tabulation will be available within two (2) business days following the bid opening.**

Each BID must be accompanied by a BID BOND payable to the OWNER for five percent of the total amount of the BID. Electronic BID BONDS shall be accepted for electronic bids submitted through BidNet Direct. As soon as the BID prices have been checked and compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the AGREEMENT is executed, and the PAYMENT and PERFORMANCE BONDS have been executed and approved, the BID BONDS of the remaining BIDDERS will be returned. A certified check may be used in lieu of the BID BOND.

The OWNER may make such investigations as deemed necessary to determine the ability of the BIDDER to perform the work, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the AGREEMENT and to complete the work contemplated herein. The low BIDDER will be required to perform at least fifty percent (50%) of the contract work with his/her own employees. The BIDDER to whom the contract is being awarded shall supply the names and addresses of major material suppliers and subcontractors when required to do so by the OWNER.

A PERFORMANCE BOND and PAYMENT BOND each in the amount of 100 percent of the contract price, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract, when the AGREEMENT is executed. Attorneys-in-fact who sign BID BONDS or PAYMENT BONDS and PERFORMANCE BONDS must file with each BOND a current certified copy of their power of attorney.

Certificate(s) of Insurance, as specified herein, shall be submitted at the time of signing the AGREEMENT.

The BIDDER to whom the contract is being awarded will be required to execute the AGREEMENT and obtain the PERFORMANCE BOND, PAYMENT BOND and Insurance on or before ten (10) calendar days following delivery of the notice of award to the BIDDER. If the BIDDER fails to properly execute the AGREEMENT or obtain the required PERFORMANCE BOND, PAYMENT BOND, or Insurance within the allotted time, the OWNER may consider the BIDDER in default, in which case the BID BOND or check accompanying the bid shall become payable to the OWNER.

The OWNER within ten (10) days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND, Insurance Certificates and the AGREEMENT signed by the CONTRACTOR to whom the contract is being awarded shall sign the AGREEMENT and return to such CONTRACTOR an executed duplicate of the AGREEMENT. Should the OWNER not execute the AGREEMENT within such period, the BIDDER may by written notice withdraw the signed AGREEMENT.

The CONTRACTOR shall thereupon record the PAYMENT and PERFORMANCE BONDS at the Escambia County Courthouse and return the recorded originals to the OWNER within seven (7) days.

The NOTICE TO PROCEED shall be issued within ten (10) days of the receipt of the recorded bonds by the OWNER. 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 ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the AGREEMENT by written notice to the OWNER.

Bid Protest Procedure

Any person whose substantial interests are directly and adversely affected by the award or intended award of a purchase order or contract or by plans or specifications contained in an invitation to bid or request for proposals may file a protest in accordance with the following rules and section 12 of the ECUA Act (chapter 2001-324, laws of Florida as amended).

Notice of protest of plans, specifications or other requirements contained in an invitation to bid or in a request for proposals shall be filed not later than 5:00 p.m. of the third business day following receipt of the plans or specifications. Notice of protest of the rejection of a bid or proposal as non-responsive shall be filed not later than 5:00 p.m. of the third business day following notice to the bidder of the rejection. Notice of protest of the award or intended award of a purchase order or contract to the lowest bidder shown on a posted bid tabulation shall be filed not later than 5:00 p.m. of the third business day following the posting of the bid tabulation. Notice of protest of the award or intended award of a purchase order or contract to a bidder other than the lowest bidder shown on a posted bid tabulation shall be filed not later than 5:00 p.m. of the third business day following notice of the award of a purchase order or contract.

A notice of protest shall be in writing, shall state the subject matter of the protest, and shall be submitted to the following via hand delivery, registered or certified mail, postage prepaid, or electronic email with the subject "Bid Protest with Contract Number" to:

Emerald Coast Utilities Authority
Attn: Executive Director
9255 Sturdevant Street
Pensacola, FL 32514
Bidprotest@ecua.fl.gov

With a hard copy and electronic copy being provided to:

ECUA General Counsel, Robert O. Beasley
40 Palafox Place, Suite 300
Pensacola, FL 32502
ROBservice@lawpensacola.com

Or subsequent Board Attorney

A formal written protest shall be filed within ten (10) business days after the filing of notice of protest. A formal written protest shall state with particularity the facts and the law on which the protest is based.

Notice of protest and formal written protest of plans or specifications for or the award or intended award of

a contract shall be filed with the Executive Director or his or her designee at the addresses provided above.

Failure to file a notice of protest or failure to file a formal written protest within the times permitted shall constitute a waiver of proceedings under these rules and under section 12 of chapter 2001-324, laws of Florida, as amended.

Upon receipt of a notice of protest which has been timely filed, the Executive Director shall stop the bid solicitation or purchase order or contract award process until the protest has been resolved. However, the bid solicitation or purchase order or contract award process may proceed when the Executive Director determines that delay would be detrimental to the interests of ECUA. Any award of a purchase order or contract under such conditions shall be subject to the outcome of the protest. After the award of a contract or purchase order resulting from a bid in which a timely protest was received and in which ECUA did not prevail, ECUA may take such action as it considers appropriate, which may include, but shall not be limited to, award of the contract or purchase order to the prevailing party, cancellation of the contract or purchase order, or rebidding.

The Executive Director shall provide reasonable opportunity to resolve a protest by agreement. If agreement is not reached within such time as the Executive Director or his or her designee considers reasonable under the circumstances, the Executive Director or his or her designee shall review the facts and the law on which the protest is based and shall render a decision which shall be in writing and shall be promptly transmitted to the protestor.

If the protestor wishes to continue the protest beyond the decision of the Executive Director or his or her designee, the protestor shall be required to file a petition for review by the ECUA board. This petition shall be made in writing and presented to the Executive Director within ten (10) days after notice of the decision of the Executive Director or his or her designee; otherwise, the decision of the Executive Director or his or her designee shall be final and binding. Such petition shall state the particular grounds on which it is based and may include pertinent documents and evidence relating thereto. Any grounds not stated shall be deemed to have been waived by the protestor. This petition must also be accompanied by a protest bond of an amount equal to one percent (1%) of the value of the solicitation, but in no case less than \$1,000 nor greater than \$10,000.00. This bond shall be in the form of a money order, certified cashier's check, or certified bank check made payable to the Emerald Coast Utilities Authority. Failure to post such bond within ten (10) business days after the decision of the Executive Director or his or her designee shall result in the protest being dismissed by the Executive Director.

The bond required by the above paragraph shall be conditioned upon the payment of all costs and charges which may be adjudged against the person filing the petition for review. If the protestor prevails, the bond shall be returned to the protestor. If, however, ECUA prevails, the bond shall be forfeited, and ECUA shall be entitled to recover the costs and charges, excluding attorney's fees, of such hearing. The entire amount of the bond also shall be forfeited if it is determined that a protest was filed for a frivolous or improper purpose, including, but not limited to, the purpose of harassing, causing unnecessary delay, or causing needless cost for ECUA or another interested party/parties.

Any notice required or permitted under this bid protest procedure shall be effective when delivered personally, by facsimile, when deposited in the U.S. mail, or via electronic delivery as described above. If notice is given only by mail, three (3) days shall be added to the time within which a protestor may file a notice of protest or petition for review.

Non-Discrimination and Solicitation Requirements

All bidders are required to make efforts to ensure that businesses are not discriminated against on the basis of their race, gender, ethnicity, or any other protected status. Moreover, all bidders must solicit small and minority businesses, and women's business enterprises whenever they are potential sources for goods and/or services. In order to demonstrate compliance with this requirement, **at the time it submits its bid** each bidder shall meet solicitation requirements concerning each of its subcontractors or suppliers anticipated to receive five percent (5%) or more of the contract value, as follows:

1. **Required Solicitation Efforts and Documentation Thereof.** All bidders must demonstrate that they have made reasonable efforts to solicit small and minority businesses, and women's business enterprises whenever they are potential sources for goods and/or services. Generally, this can be demonstrated, regarding each particular service or product solicited, by the bidder's showing that it contacted at least three possible subcontractors/suppliers reasonably suspected of being capable of providing this service or product in sufficient time (at least 48 hours prior to bid opening) for the business to submit a quote to bidder, and if available, at least one of those three possible subcontractors/suppliers was an MBE, SBE, WBE, or other disadvantaged business (collectively "DBEs").¹ Each bidder shall submit **with its bid** a listing of each potential subcontractor or supplier it contacted regarding this Project on the form provided by ECUA for this purpose as well as the results of that contact. Note: Although bidders should contact each of the agencies identified in footnote one in order to locate potential subcontractors and suppliers, reliance upon the solicitation lists maintained by ECUA shall be deemed to satisfy the requirements of this paragraph.
2. **Subcontractor/Supplier Project Plan.** Each bidder shall also submit **with its bid** a complete and signed Subcontractor/Supplier Project Plan which identifies each subcontractor or other business anticipated to receive five percent (5%) or more of the contract value to be used on this Project as well as a brief description of the type of service or product each business will provide. The bidder shall also disclose whether any of these identified subcontractors qualify as an MBE, SBE, WBE, or have some other disadvantaged status.

ECUA shall determine whether a bidder has satisfied the non-discrimination and solicitation requirements of this section based upon its review of the above-referenced documents and all relevant facts and circumstances. Should ECUA determine that a bidder has not satisfied the non-discrimination and solicitation requirements set forth herein, that bidder's bid will be deemed non-responsive and will not be further considered.

After submittal of the bid, the Subcontractor/Supplier Project Plan shall not be changed or altered without the prior written approval of ECUA's Executive Director. Moreover, a written letter to ECUA's Executive Director requesting approval to change the Subcontractor/Supplier Project Plan must be submitted at least ten (10) calendar days prior to the date of the proposed date of change, and such request will only be approved for demonstrated good cause.

ECUA reserves the right to request additional information later concerning the use of subcontractors or suppliers receiving less than five percent (5%) of the contract value, but more than \$1,000 which were not identified at the time of bidding.

¹ECUA maintains solicitation lists of small and minority businesses and women's business enterprises who might be capable of providing services or products. The Small Business Administration, the Minority Business Development Agency of the Department of Commerce, the State of Florida Office of Supplier Diversity, the City of Pensacola, and Escambia County may also be able to identify available businesses to provide services or equipment on this Project, including MBEs, SBEs, and WBEs.

ECUA may also require the successful bidder on this Project to complete and submit to ECUA documentation on ECUA provided forms regarding its utilization of MBEs, SBEs, WBEs, or other disadvantaged businesses on this project. This documentation is required of all subcontractors as well. These records will be submitted to ECUA within ten (10) calendar days of the beginning of each quarter of the calendar year or as otherwise agreed upon by the parties.

End

CONTRACTOR'S BID

Bayou Marcus Boardwalk and Effluent Improvements

**ECUA Project Number RS 332
Bid Number CC2024-04**

**Emerald Coast Utilities Authority
9255 Sturdevant Street
Pensacola, Florida 32514**

Company Name/Bidder: _____

Date: _____

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid as principal or principals is or are named herein; that this Bid is made without connection with any other person, company, or parties making bid; and that it is in all respects fair and in good faith, without collusion or fraud.

The Bidder further declares that he or she has examined the site of the work, the Plans and Specifications for the work, the Project Manual relative thereto, and has read all Special Provisions and Addenda furnished prior to the opening of bids; and the Bidder further declares that he or she has informed himself or herself fully in regard to all conditions pertaining to the work.

The Bidder proposes and agrees, if this Bid is accepted, to contract with the Owner in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, and labor necessary to complete the work in full and in accordance with the shown, note, described, and reasonably intended requirements of the Project Manual.

The Bidder must execute and include the following exhibits with this Bid: Exhibit A - Equal Opportunity Clause, Exhibit B - Certification of Nonsegregated Facilities, Exhibit C - Drug-Free Workplace Form, Exhibit D - E-Verify Compliance.

The Bidder also agrees that, at the time of signing the Contract, he or she will furnish the required insurance certificates.

The Bidder further agrees that in case of failure on his or her part to execute said Contract, with the Certificates of Insurance and Payment and Performance Bonds within ten (10) consecutive calendar days after written notice of award of the Contract, the Contract may be awarded to the next higher responsible bidder, and the undersigned may not be considered as a responsible bidder for future contracts for a period of at least one year.

Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA Project Number RS332
Bid Number CC2024-04
BASE BID – BID PACK 01
ZONES 1, 1&2 CONNECTOR, 2 &3

Item No.	Description	Units	Quantity	Unit Cost	Total
1.	Mobilization / Demobilization (≤2% of Total Base Bid)	LS	1	\$ _____	\$ _____
2. 2	Demolition of the existing effluent piping system	LS	1	\$ _____	\$ _____
3.	Demolition of the existing boardwalk guardrail components	LS	1	\$ _____	\$ _____
4.	Demolition of the existing boardwalk decking	LS	1	\$ _____	\$ _____
5.	New effluent piping system	LS	1	\$ _____	\$ _____
6.	New boardwalk guardrail system	LS	1	\$ _____	\$ _____
7.	New deck board members	LS	1	\$ _____	\$ _____
8.	Stringer and Pile Cap Repairs	LS	1	\$ _____	\$ _____
9.	Piling Repairs	LS	1	\$ _____	\$ _____
10.	Closeout Documentation (≥1.5% of Total Base Bid)	LS	1	\$ _____	\$ _____
11.	As-built drawings	LS	1	\$ _____	\$ _____
12.	Administration and All Other Work Requirements for Base Bid Items	LS	1	\$ _____	\$ _____

Total Base for Bid Pack 01

\$ _____

(In Words) _____

Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA Project Number RS332

Bid Number CC2024-04RS332

BID PACK 02 – BID ALTERNATE 02
ZONES 4, 5 & 6

Item No.	Description	Units	Quantity	Unit Cost	Total
1.	Mobilization / Demobilization (≤2% of Total Base Bid)	LS	1	\$ _____	\$ _____
2.	Demolition of the existing effluent piping system	LS	1	\$ _____	\$ _____
3.	Demolition of the existing boardwalk guardrail components	LS	1	\$ _____	\$ _____
4.	Demolition of the existing boardwalk decking	LS	1	\$ _____	\$ _____
5.	New effluent piping system	LS	1	\$ _____	\$ _____
6.	New boardwalk guardrail system	LS	1	\$ _____	\$ _____
7.	New deck board members	LS	1	\$ _____	\$ _____
8.	Stringer and Pile Cap Repairs	LS	1	\$ _____	\$ _____
9.	Piling Repairs	LS	1	\$ _____	\$ _____
10.	Closeout Documentation (≥1.5% of Total Base Bid)	LS	1	\$ _____	\$ _____
11.	As-built drawings	LS	1	\$ _____	\$ _____
12.	Administration and All Other Work Requirements for Base Bid Items	LS	1	\$ _____	\$ _____

Alternate 1 Bid for Bid Pack 02

\$ _____

(In Words) _____

Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA Project Number RS332
Bid Number CC2024-04
BID PACK 03 – BID ALTERNATE 03
ZONES 6 THRU 9 CONNECTOR & 9

Item No.	Description	Units	Quantity	Unit Cost	Total
1.	Mobilization / Demobilization (≤2% of Total Base Bid)	LS	1	\$ _____	\$ _____
2.	Demolition of the existing effluent piping system	LS	1	\$ _____	\$ _____
3.	Demolition of the existing boardwalk guardrail components	LS	1	\$ _____	\$ _____
4.	Demolition of the existing boardwalk decking	LS	1	\$ _____	\$ _____
5.	New effluent piping system	LS	1	\$ _____	\$ _____
6.	New boardwalk guardrail system	LS	1	\$ _____	\$ _____
7.	New deck board members	LS	1	\$ _____	\$ _____
8.	Stringer and Pile Cap Repairs	LS	1	\$ _____	\$ _____
9.	Piling Repairs	LS	1	\$ _____	\$ _____
10.	Closeout Documentation (≥1.5% of Total Base Bid)	LS	1	\$ _____	\$ _____
11.	As-built drawings	LS	1	\$ _____	\$ _____
12.	Administration and All Other Work Requirements for Base Bid Items	LS	1	\$ _____	\$ _____

Total Alternate 2 Bid Pack 03

\$ _____

(In Words) _____

**Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA BID Number CC2024-04**

SUBCONTRACTOR/SUPPLIER SOLICITATION DOCUMENTATION FORM

CATEGORY: I. _____ (including categories listed in ECUA's solicitation lists:
_____, _____, _____)

1. Will bidder self-perform this category of work using its own forces? [] Yes [] No

2. Will this subcontract category amount to less than 5% of the contract value? [] Yes [] No

If the answer to either question is [Yes], then STOP HERE/do not fill out the rest of this page.

	Name of Company Solicited	Solicited Company's Status (i.e., MBE, WBE, SBE, or not a DBE)	Date/s Solicited	Point of Contact (i.e., person/s at company contacted and/or spoken to)	Results of Solicitation and, if applicable, reason not contracted with
I.a (required)					
I.b (required)					
I.c (required)					
I.d (optional)					
I.e (optional)					
I.f (optional)					

**Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA BID Number CC2024-04**

SUBCONTRACTOR/SUPPLIER SOLICITATION DOCUMENTATION FORM

CATEGORY: II. _____ (including categories listed in ECUA's solicitation lists:
_____, _____, _____)

1. Will bidder self-perform this category of work using its own forces? [] Yes [] No

2. Will this subcontract category amount to less than 5% of the contract value? [] Yes [] No

If the answer to either question is [Yes], then STOP HERE/do not fill out the rest of this page.

	Name of Company Solicited	Solicited Company's Status (i.e., MBE, WBE, SBE, or not a DBE)	Date/s Solicited	Point of Contact (i.e., person/s at company contacted and/or spoken to)	Results of Solicitation and, if applicable, reason not contracted with
II.a (required)					
II.b (required)					
II.c (required)					
II.d (optional)					
II.e (optional)					
II.f (optional)					

**Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA BID Number CC2024-04**

SUBCONTRACTOR/SUPPLIER SOLICITATION DOCUMENTATION FORM

CATEGORY: ____ (filled in by bidder - attach additional sheets as necessary, which should be consecutively labeled III., IV., etc., as well as in the first column below.)

1. Will bidder self-perform this category of work using its own forces? [] Yes [] No
2. Will this subcontract category amount to less than 5% of the contract value? [] Yes [] No

If the answer to either question is [Yes], then STOP HERE/do not fill out the rest of this page.

	Name of Company Solicited	Solicited Company's Status (i.e., MBE, WBE, SBE, or not a DBE)	Date/s Solicited	Point of Contact (i.e., person/s at company contacted and/or spoken to)	Results of Solicitation and, if applicable, reason not contracted with
___.a (required)					
___.b (required)					
___.c (required)					
___.d (optional)					
___.e (optional)					
___.f (optional)					

(attach additional forms as necessary)

**Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid
ECUA BID Number CC2024-04**

SUBCONTRACTOR/SUPPLIER SOLICITATION DOCUMENTATION FORM

I hereby swear or affirm under penalty of perjury that the information provided on these Subcontractor/Supplier Solicitation Documentation Forms is true and correct.

Sign:_____

Print Name:_____

Title:_____

Date:_____

SUBCONTRACTOR/SUPPLIER PROJECT PLAN

If awarded the contract for this Project, Bidder hereby warrants the following subcontractors and/or suppliers anticipated to receive five percent (5%) or more of the contract value for this Project will be used, as follows:

Category	Number of Subcontractor/Supplier as listed on solicitation documentation form	Name of Subcontractor/Supplier	Subcontractor/Supplier's status (i.e., WBE, SBE, etc.)
I.			
II.			
III.			
IV.			
V.			
VI.			
*VII.			
*VIII. _____			
*IX. _____			

*NOTE: To be completed in the event that other categories of work are anticipated to receive five percent (5%) or more of the contract value.

As explained in more detail in the Non-Discrimination and Solicitation Requirements, this Subcontractor/Supplier Project Plan may not be changed or altered without the prior written approval of ECUA's Executive Director and only for demonstrated good cause. After execution of the Standard Form of Agreement, ECUA may request additional information concerning the use of subcontractors or suppliers receiving less than five percent (5%) of the contract value, but more than \$1,000 which were not identified at the time of bidding.

I hereby swear or affirm under penalty of perjury that the information provided on this Subcontractor/Supplier Solicitation Project Plan Form is true and correct and is being submitted on behalf of Bidder

Sign: _____

Name: _____

Title: _____

Date: _____

TRENCH SAFETY COMPLIANCE CERTIFICATION

Any trench or similar excavation having a depth in excess of five (5) feet will be subject to the Excavation Safety Standards established by the Occupational Safety and Health Administration, 29.C.F.R., Part 1926 - Safety and Health Regulations for Construction, Subpart P – Excavations.

By the signature of its undersigned authorized representatives, the Bidder hereby assures ECUA that any such excavation performed by the Bidder will be performed in compliance with all applicable trench safety standards.

The cost of compliance with applicable trench safety standards is estimated by the Bidder to be \$_____, which cost is included in the amount of the bid.

The specific methods of compliance with applicable Trench Safety Standards, and the cost of compliance are as follows:

Authorized Official

(Print/Type)

EQUAL OPPORTUNITY CLAUSE / EXHIBIT A

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

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, creed/religion, sex, national origin, disability/handicap, age, marital status, veteran status, or any other legally protected status. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed/religion, sex, national origin, disability/handicap, age, marital status, veteran status, or any other legally protected status. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
2. The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, creed/religion, sex, national origin, disability/handicap, age, marital status, veteran status, or any other legally protected status.
3. The contractor will send to each labor union or representative of workers which he or she has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965 and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further contracts with the Emerald Coast Utilities Authority. Provided, however, that no such action shall be taken without prior notice to the contractor and an opportunity for a hearing before the governing Board of the Emerald Coast Utilities Authority or its designee.
5. The contractor will include the provisions of paragraphs (1) through (4) in every subcontract or purchase order for an amount exceeding ten thousand dollars (\$10,000) in any twelve (12) month period, so that such provisions will be binding upon each subcontractor or vendor.

Signature

Date

Name & Title of Signer

CERTIFICATION OF NONSEGREGATED FACILITIES / EXHIBIT B

By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he or she does not maintain or provide for his or her employees any segregated facilities at any of his or her establishments, and that he or she does not permit his or her employees to perform their services at any location under his or her control, where segregated facilities are maintained. He or she certifies further that he or she will not maintain or provide for his or her employees any segregated facilities at any of his or her establishments, and that he or she will not permit his or her employees to perform their services at any location, under his or her control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, creed/religion, national origin, age, marital status, or veteran status because of habit, local custom, or otherwise. He or she further agrees that (except where he or she has obtained identical certifications from proposed subcontractors for specific time periods) he or she will obtain identical certifications from proposed subcontractors prior to the award of subcontracts or purchase orders exceeding \$10,000; that he or she will retain such certifications in his or her files and make them available to the Emerald Coast Utilities Authority upon request.

Provided, however, that such certifications shall not be required in the case of purchase orders or contracts which, in case of a Federal Government contract or subcontract, would be exempt from compliance with the Equal Opportunity Clause by 41 CFR S60-1.5. This section provides for the exemption of transactions not exceeding \$10,000, contracts and subcontracts for indefinite quantities established not to exceed \$ 10,000 in any contract year, contracts with certain educational institutions, work on or near Indian reservations, facilities (including, but not limited to, agencies, instrumentalities or subdivision of state or local government) which are separate and distinct from activities of the prime contractor or subcontractor related to the performance of the contract or subcontract, and emergencies involving national security.

Signature

Date

Name & Title of Signer

DRUG-FREE WORKPLACE FORM / EXHIBIT C

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that _____
 _____ does: (Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 1893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

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

 Bidder's Signature

 Date

Company: _____ Bid/RFP/PO: _____

E-VERIFY COMPLIANCE / EXHIBIT D

Contractor hereby certifies compliance with the following:

Pursuant to § 448.095(2) Florida Statutes (2020), Contractor shall register with and use the E-Verify system operated by the United States Department of Homeland Security to verify the work authorization status of all new employees hired by Contractor while performing work or providing services for ECUA. Contractor shall also include in any related subcontracts a requirement that subcontractors performing work or providing services for ECUA on its behalf register with and use the E-Verify system to verify the work authorization status of all new employees hired by the subcontractor while performing work or providing services for ECUA. Additionally, Contractor shall include in any related subcontracts a requirement that subcontractors performing work or providing services for ECUA on its behalf provide Contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with any unauthorized alien as defined in 8 U.S.C. § 1324a(h)(3). Contractor shall maintain a copy of such affidavit for the duration of its contract with ECUA.

Signature

Date

Name & Title of Signer

NON-DISCRIMINATION AND SOLICITATION REQUIREMENT CHECKLIST

INITIAL	REQUIREMENT
	Bidder completed "Subcontractor/Supplier Documentation Form" for all categories of work
	Bidder filled out last page of "Subcontractor/Supplier Solicitation Documentation Form" certifying forms are true and correct
	Bidder completed the "Subcontractor/Supplier Project Plan" form summarizing the information provided on the "Subcontractor/Supplier Solicitation Documentation Form". Only those listed on the Solicitation Forms should appear on the Plan Form.
	Bidder filled out last page of "Subcontractor/Supplier Project Plan Form" certifying forms are true, correct, and will be followed.

Copies of all of the above forms shall be submitted with the bid.

COMPLIANCE REQUIREMENTS CHECKLIST

INITIAL	REQUIREMENT
	Bidder completed and signed form "Confined Space Entry Compliance Certification"
	Bidder completed and signed form "Trench Safety Compliance Certification"
	Bidder completed and signed form "Equal Opportunity Clause / Exhibit A"
	Bidder completed and signed form "Certification of Nonsegregated Facilities / Exhibit B"
	Bidder completed and signed form "Drug-Free Workplace Form / Exhibit C"
	Bidder completed and signed form "E-Verify Compliance / Exhibit D"

Copies of all of the above forms shall be submitted with the bid.

Receipt is acknowledged of the following addenda:

Number _____ Dated _____
 Number _____ Dated _____
 Number _____ Dated _____
 Number _____ Dated _____

BIDDER agrees that the OWNER has the right to waive informalities in any bid; reject any or all bids, in whole or in part; re-advertise a project, in whole or in part; and to accept a bid that in its judgment is the lowest and best bid of a responsible bidder. BIDDER further agrees that the OWNER may award a contract based only on the base bid, the base bid plus all alternates, or the base bid plus any alternates—with all decisions being made based upon what OWNER believes to be the best interest of its ratepayers, in the reasonable exercise of its discretion. BIDDER also acknowledges and agrees that the OWNER reserves the right to increase or decrease quantities as may be required to meet the needs of OWNER, at the unit price which was bid.

Respectfully submitted,

By:

 (Date)

 (Signature)

 (Print/Type)

 (Title)

 (Company)

 (Business Address)

 (Telephone Number)

 (Email Address)

 (Federal ID Number)

Florida Licenses Held:

Type: _____ Number _____

Type: _____ Number _____

Type: _____ Number _____

(SEAL - IF BIDDER IS A CORPORATION)

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____ as
Principal, hereinafter _____, called the Bidder, and the
_____ a corporation duly organized under the laws of the State of
_____ as Surety, hereinafter called Surety, are held and firmly bound unto the Emerald Coast Utilities
Authority as Oblige, hereinafter called Owner, in the sum of

_____ for the payment of which sum, well and truly to be made, the said Bidder and the said Surety, bind
ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the Bidder has submitted a bid for construction of Bayou Marcus Boardwalk and Effluent Piping
Improvements, Bid Number CC2024-04, known as

Bayou Marcus Boardwalk and Effluent Piping Improvements - Rebid

ECUA Project Number CC 2024-04

NOW THEREFORE, if the Owner shall accept the bid of the Bidder and the Bidder shall enter into a
contract with the Owner in accordance with the terms of such bid, and give such bond or bonds as may be
specified in the bidding or contract documents with good and sufficient surety for the faithful performance
of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or
in the event of the failure of the Bidder to enter such contract and give such bond or bonds, if the Bidder
shall pay to the Owner the penalty hereof, then this obligation shall be null and void, otherwise to remain
in full force and effect, unless returned by Owner to Bidder; until Owner shall demand payment by Surety,
all as allowed in the Contract Documents.

Signed and sealed this _____ day of _____ A.D.

_____ ATTEST:

	(Principal)	(SEAL)
	(Print/Type)	
	(Title)	

ATTEST:

(Attach Certified Copy of Power of Attorney)

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NOTICE OF AWARD

To Be Provided Upon Board Approval

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STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

(This document has important legal consequences; consultation with an attorney is encouraged with respect to its completion or modification).

THIS AGREEMENT made as of the _____ day of _____ in the year 20____ by and between, the EMERALD COAST UTILITIES AUTHORITY, (hereinafter called OWNER) and _____ (hereinafter called CONTRACTOR),

WITNESSETH THAT OWNER and CONTRACTOR in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK. The CONTRACTOR shall perform all Work as specified or indicated in the Project Manual for the completion of the Project generally described as follows:

Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid

ECUA Project Number RS332 BID NUMBER CC 2024-04

Article 2. ENGINEER. This Project has been designed by the ECUA Maintenance & Construction Department. The Deputy Executive Director of Maintenance & Construction hereby designates Chad Lyner, PE, Mott MacDonald, SunTrust Tower, 220 W Garden St #700, Pensacola, FL 32502, to act as Engineer and perform all duties of Engineer in accordance with the Project Manual in connection with this Contract until such time as the Deputy Executive Director of Maintenance & Construction may appoint some other individual.

Article 3. CONTRACT TIME. The Work shall be completed (Final) within Four Hundred Twenty (420) calendar days after the date on which the Contract Times commence to run as provided in paragraph 4.01.A of the General Conditions in accordance with paragraph 18.02 of the General Conditions and Article 8 of this agreement.

Article 4. CONTRACT PRICE. Owner shall pay Contractor for performance of the Work in accordance with the Project Manual in current funds as follows: Unit Prices per Bid included.

Article 5. APPLICATIONS FOR PAYMENT. Contractor may submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be reviewed and approved by Engineer as provided in the General Conditions.

Article 6. PROGRESS AND FINAL PAYMENTS. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as approved by Engineer, within thirty (30) days following receipt of approved request, during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 15.01 of the General Conditions.

- 6.1 Prior to Substantial Completion, progress payments shall be in an amount equal to 90% of the Work completed, and 90% of stored materials that have been paid for, less any Reduction in Payment as provided in paragraph 15.01.C.6 of the General Conditions.

- 6.2 Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 98% of the Final Contract Price, less any Reduction in Payment as provided in paragraph 15.01.C.6 of the General Conditions.
- 6.3 Upon final completion of the Work, including receipt of "As Built" drawings, Contractor's Final Affidavit, Warranty and settlement of all claims, Owner shall pay the remainder of the Final Contract Price.

Article 7. PROJECT MANUAL. The Project Manual which comprises the Contract between Owner and Contractor are attached hereto and made a part hereof and consist of the following (all of which are the "Contract Documents" as defined in Section 1.01.A.13 of the Standard General Conditions):

- 7.1 Instructions to Bidders (5 pages)
- 7.2 Contractor's Bid consisting of ____ pages
- 7.3 Addenda Numbers _____, dated _____
- 7.4 Notice of Award, dated _____
- 7.5 This Agreement (4 pages)
- 7.6 Risk Management/Insurance Requirements (pages IR-1 thru IR-8)
- 7.7 Contractor's Insurance Certificates consisting of __ page(s)
- 7.8 Standard General Conditions (GC-1 thru GC-70)
- 7.9 Supplementary General Conditions (pages SGC-1 thru SGC-5)
- 7.10 Special Conditions (SC-1 thru SC-4)
- 7.11 ECUA Engineering Manual Incorporated by Reference (1 page)
- 7.12 Project Management and Coordination (11 pages)
- 7.13 Plans consisting of __ sheets (including cover sheet)

Article 8. TIME FOR COMPLETION; LIQUIDATED DAMAGES. Contractor agrees to commence work under the Project Manual within ten (10) calendar days after written Notice to Proceed and, subject to authorized adjustments, to achieve Substantial Completion not later than Three Hundred Thirty (330) calendar days after being given Notice to Proceed, and to achieve Final Completion in accordance with section 6.3 of this Agreement and Standard General Condition 15.06.D not later than Ninety (90) calendar days after Substantial Completion. Contractor further agrees to pay liquidated damages in the amount of \$150.00 for each consecutive calendar day Contractor is late in achieving Substantial Completion and \$150.00 for each consecutive calendar day Contractor is late in achieving Final Completion.

Article 9. MISCELLANEOUS.

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

- 9.2 Neither Owner nor Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his or her interest under any of the Project Manual; and, specifically, Contractor shall not assign any monies due or to become due without the prior written consent of Owner.
- 9.3 Owner and Contractor each binds himself or herself, his or her partners, successors, assigns, and legal representatives to the other party hereto in respect to all covenants, agreements and obligations contained in the Project Manual.
- 9.4 The Project Manual constitutes the entire Agreement between Owner and Contractor and may be altered, amended or repealed only by a duly executed written instrument, in the form of a Change Order.
- 9.5 In the event of any conflict between this Standard Form of Agreement and any of the other Contract Documents, the Addenda shall prevail, regardless of the Addenda being executed prior to the Standard Form of Agreement.

Article 10. OTHER PROVISIONS.

- 10.1 Contractor is required to comply with public records laws codified in Chapter 119, Florida Statutes, and is specifically required to:
 - a. Keep and maintain public records required by ECUA to perform the service.
 - b. Upon request from ECUA's custodian of public records, provide ECUA with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law.
 - c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to ECUA.
 - d. Upon completion of the contract, transfer, at no cost, to ECUA all public records in possession of the Contractor or keep and maintain public records required by ECUA to perform the service. If the Contractor transfers all public records to ECUA upon completion of the contract, the Contractor shall destroy any duplicate public records are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to ECUA, upon request from ECUA's custodian of public records, in a format that is compatible with the information technology systems of ECUA.

10.2 IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, AS TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT ECUA'S CUSTODIAN OF PUBLIC RECORDS AT 850-969-3302, PUBLICRECORDS@ECUA.FL.GOV, AND "PUBLIC RECORDS CUSTODIAN," 9255 STURDEVANT STREET, PENSACOLA, FLORIDA 32514.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

OWNER:

EMERALD COAST UTILITIES AUTHORITY

By _____
J. Bruce Woody, P.E.
Executive Director

Attest _____
(SEAL)

CONTRACTOR:

By _____

Print/Type _____
(President)

Attest _____
(SEAL)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____, as Principal hereinafter called Contractor, whose business address is _____, and whose telephone number is _____, and _____, a corporation duly organized under the laws of the State of _____, as Surety, whose business address is _____, and whose telephone number is _____, are held and firmly bound unto Emerald Coast Utilities Authority, as Obligee, whose business address is 9255 Sturdevant Street, Pensacola, Florida 32514, and whose telephone number is (850) 476-5110, hereinafter called Owner, in the sum of _____ Dollars (\$ _____), for the payment of which sum, well and truly to be made, the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Contractor has entered into a written contract dated _____, with the Owner for ECUA Project Number _____, _____ in accordance with drawings and specifications prepared by the Emerald Coast Utilities Authority, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract, for work to be performed at the following location(s): _____, said property owned by _____, whose business address is _____, and whose telephone number is _____.

THE PRINCIPAL FEATURES of the work are briefly described as follows: will consist of the _____.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and voided otherwise shall remain in full force and effect. The Surety hereby waives notice of any alteration or extension of time made by the Owner. Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligation thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or,
2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price", as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this Bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

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The notice and time limitation provisions of Section 255.05, Florida Statutes, are incorporated in this Bond by reference.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of Owner.

Signed, sealed and delivered _____

(Seal)

(Witness)

(Signature)

(Print/Type)

(Title)

(Surety)

By _____

(Attach Certified Copy of Power of Attorney)

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LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____, as Principal hereinafter called Contractor, whose business address is _____, and whose telephone number is _____, and _____, a corporation duly organized under the laws of the State of _____, as Surety, whose business address is _____, and whose telephone number is _____, are held and firmly bound unto Emerald Coast Utilities Authority, as Obligee, whose business address is 9255 Sturdevant Street, Pensacola, Florida 32514, and whose telephone number is (850) 476-5110, hereinafter called Owner, in the sum of _____ Dollars (\$_____), for the payment of which sum, well and truly to be made, the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Contractor has entered into a written contract dated _____, with the Owner for ECUA Project Number _____, _____ in accordance with drawings and specifications prepared by the Emerald Coast Utilities Authority, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract, for work to be performed at the following location(s): _____, said property owned by _____, whose business address is _____, and whose telephone number is _____.

THE PRINCIPAL FEATURES of the work are briefly described as follows: will consist of the (description).

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Contractor or with a Subcontractor of the Contractor for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being constructed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Contractor and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant.
 - a. Unless claimant, other than one having a direct contract with the Contractor shall have given written notice to any two of the following, the Contractor, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom

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the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid in an envelope addressed to the Contractor, Owner or Surety, at any place where an office is regularly maintained for the transaction of business or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

- b. After the expiration of two (2) years following the date on which Contractor ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- c. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof, is situated, or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.
4. The amount of this Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed on record against said improvement, whether or not claim for the amount of such lien be presented under and against this Bond.
5. The notice and time limitation provisions of Section 255.05, Florida Statutes are incorporated in this Bond by reference.

Signed, sealed and dated _____

(Seal)

(Witness)

(Signature)

Print/Type)

(Title)

(Surety)

By _____

(Attach Certified Copy of Power of Attorney)

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CONTRACTOR'S FINAL AFFIDAVIT

STATE OF FLORIDA
COUNTY OF ESCAMBIA

BEFORE ME, the undersigned authority, personally appeared _____ who, after being duly sworn, deposes and says that:

1. He/She is the _____ of _____, hereinafter called the "Contractor", and as such makes this affidavit upon person knowledge.
2. This affidavit is made for the purpose of inducing final payment from the Emerald Coast Utilities Authority to the Contractor for the following project:

Bayou Marcus Boardwalk and Effluent Piping Improvements

ECUA Project Number RS332

under contract dated _____, as amended.

3. All laborers, materialmen, and subcontractors who have provided materials or services to or for the Contractor under said contract or who have or may have liens against any property of the Emerald Coast Utilities Authority or any claim against the Emerald Coast Utilities Authority or against the payment bond if any on said project, have been paid in full, except the following:

(If none, state "None")

DATED this _____ day of _____, _____.

BY: _____

PRINT/TYPE: _____

TITLE: _____

of _____

(Contractor)

The foregoing instrument was acknowledged before me this _____ day of _____, _____ by _____, who is known by me to be the _____ of _____, the Contractor, and who is personally known to me.

SIGN: _____

PRINT/TYPE: _____

Notary Public, State of Florida

My Commission Expires: _____

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WARRANTY

(Date)

**PROJECT: RS332
ECUA Project Number CC 2024.04**

_____ warrants that all work shall remain in serviceable and good condition (ordinary wear and tear abuse and causes beyond the control of _____ excluded) for a period of two years from the date of final acceptance of the work, and states that they will repair or replace without cost to the EMERALD COAST UTILITIES AUTHORITY, any imperfection in whole or in part which may develop in the work during the period above stated and any damage to other work caused by imperfections or the repairing of same.

Witness

BY: _____

Witness

PRINT/TYPE TITLE _____

of _____
Contractor

STATE OF FLORIDA
COUNTY OF ESCAMBIA

Before me this day personally appeared, _____, _____ who, being first duly sworn, deposes and says that he/she executed the foregoing instrument for the uses and purposes set forth therein.

Sworn to and subscribed before me this _____ day of _____, _____

SIGN: _____

PRINT/TYPE: _____
Notary Public, State of Florida

My Commission Expires: _____

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RISK MANAGEMENT POLICY AND STANDARDS FOR AGREEMENTS, CONTRACTS AND LEASES

DEFINITIONS

The following definitions apply to these Risk Management Provisions:

Contract - The contract or agreement of which these Risk Management Provisions are a part for the construction, alteration, repair, or demolition of a structure or facility.

Organization - The Emerald Coast Utilities Authority, an independent special district created by the Laws of the State of Florida, its Board, officers, employees, volunteers, representatives, and agents.

Other Party - The other party to the Contract of which these Risk Management Provisions are a part, any subsidiaries or affiliates, officers, employees, volunteers, representatives, agents, contractors, and subcontractors.

HOLD HARMLESS

The Other Party agrees to hold the Organization and the members of its governing board and its other officers and employees harmless against all claims for bodily injury, sickness, disease, death, personal injury, or damage to property or loss of use resulting therefrom, arising out of or related to the Contract, to the extent such claims are caused by the negligence, recklessness, or intentional wrongful misconduct of the Other Party and persons or entities employed or utilized by the Other Party in the performance of the Contract.

PAYMENT ON BEHALF OF ORGANIZATION

The Other Party agrees to pay on behalf of the Organization all claims described in the above "Hold Harmless" paragraph, and to pay the reasonable costs and fees of the attorneys selected by the Organization, at trial and on appeal, to defend the Organization and its officers and employees against such claims. Provided, however, that the total liability of the Other Party to the Organization under the above "Hold Harmless" paragraph and this "Payment on Behalf of Organization" paragraph shall not exceed the sum of One Million Dollars (\$1,000,000) per claim or occurrence.

Such payment on behalf of the Organization shall be in addition to any and all other legal remedies available to the Organization and shall not be considered to the exclusive remedy of the Organization.

LOSS CONTROLS/SAFETY

Precaution shall be exercised at all times by the Other Party for the protection of all persons, including employees, and property. The Other Party shall comply with all laws, regulations, or ordinances relating to safety and health, and shall make special effort to detect hazardous conditions and shall take prompt action where loss control/safety measures should reasonably be expected.

The Organization may order work to be stopped if conditions exist that present immediate danger to persons or property. The Other party acknowledges that such stoppage will not shift

responsibility for any loss or damages from the Other Party to the Organization.

SEVERABILITY

The provisions of these Risk Management Provisions are severable. In the event a court of competent jurisdiction should declare any provision of these Risk Management Provisions to be void or contrary to public policy such provision shall be stricken from these Risk Management Provisions, and the remaining provisions shall be enforced as though the provision determined to be void or contrary to public policy had not been included herein.

INSURANCE - BASIC COVERAGES REQUIRED

The Other Party shall procure and maintain the following described insurance, except for coverages specifically waived by the Organization, on policies and with insurers acceptable to the Organization. These insurers shall have A.M. Best (or equivalent) rating of no less than A:VII unless otherwise agreed to by the Organization.

These insurance requirements shall not limit the liability of the Other Party. The Organization does not represent these types or amounts of insurance to be sufficient or adequate to protect the Other Party's interests or liabilities, but are merely minimums.

Except for workers compensation, the Other Party waives its right of recovery against the Organization, to the extent permitted by its insurance policies.

The Other Party's deductibles/self-insured retentions shall be disclosed to the Organization and may be disapproved by the Organization. They shall be reduced or eliminated at the option of the Organization. The Other Party is responsible for the amount of any deductible or self-insured retention.

Insurance required of the Other Party or any other insurance of the Other Party shall be considered primary, and insurance of the Organization, if any, shall be considered excess, as may be applicable to claims which arise out of the Hold Harmless, Payment on Behalf of Organization, Insurance, Certificates of Insurance and any Additional Insurance provisions of this agreement, contract or lease.

Additional Insured

Except for workers compensation and professional liability, the Other Party's insurance policies shall be endorsed to name the Organization as an additional insured for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by the Other Party's acts or omissions; or the acts or omissions of those acting on the Other Party's behalf; in the performance of the Other Party's ongoing operations for the Organization. The preferred Commercial General Liability coverage endorsement is ISO Form CG 20 10.

Workers Compensation Coverage

The Other Party shall purchase and maintain workers compensation insurance for all workers compensation obligations imposed by state law and employer's liability limits of at least \$100,000 each accident and \$100,000 each employee/\$500,000 policy limit for disease.

The Other Party shall also purchase any other coverages required by law for the benefit of employees.

General, Automobile and Excess or Umbrella Liability Coverage

The Other Party shall purchase and maintain coverage on forms no more restrictive than the latest editions of the Commercial General Liability and Business Auto policies of the Insurance Services Office.

Minimum limits of \$1,000,000 per occurrence for all liability must be provided, with excess or umbrella insurance making up the difference, if any, between the policy limits of underlying policies (including employers liability required in the Workers Compensation Coverage section) and the total amount of coverage required.

Commercial General Liability Coverage - Occurrence Form Required

Coverage A shall include bodily injury and property damage liability for premises, operations, products and completed operations, independent contractors, contractual liability covering this agreement, contract or lease, broad form property damage, and property damage resulting from explosion, collapse or underground (x,c,u) exposures.

Coverage B shall include personal injury.

Coverage C, medical payments, is not required.

The Other Party is required to continue to purchase products and completed operations coverage, at least to satisfy this agreement, contract or lease, for a minimum of three years beyond the Organization's acceptance of renovation or construction projects.

Business Auto Liability Coverage

Business Auto Liability coverage is to include bodily injury and property damage arising out of ownership, maintenance or use of any auto, including owned, nonowned and hired automobiles and employee nonownership use.

Excess or Umbrella Liability Coverage

Umbrella Liability insurance is preferred, but an Excess Liability equivalent may be allowed. Whichever type of coverage is provided, it should be at least "following form" and shall not be more restrictive than the underlying insurance policy coverages.

EVIDENCE/CERTIFICATES OF INSURANCE

Required insurance shall be documented in Certificates of Insurance, including indication that the policy(s) is endorsed to provide the Organization at least 30 days in advance notice of cancellation, nonrenewal or adverse change.

New Certificates of Insurance are to be provided to the Organization at least 15 days prior to

coverage renewals.

If requested by the Organization, the Other Party shall furnish complete copies of the Other Party's insurance policies, forms and endorsements.

For Commercial General Liability coverage, the Other Party shall, at the option of the Organization, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage.

Receipt of certificates or other documentation of insurance or policies or copies of policies by the Organization, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of the Other Party's obligation to fulfill the insurance requirements herein.

ADDITIONAL INSURANCE

If checked below, the Organization requires the following additional types of insurance.

☐ **Property Coverage for Leases**

The Other Party shall procure and maintain for the life of the lease, all risk/special perils (including sinkhole) property insurance (or its equivalent) to cover loss resulting from damage to or destruction of the building, improvements and personal property/contents. The policy shall cover 100% replacement cost, and shall include an agreed value endorsement to waive coinsurance.

Coverage shall also include continued full payment of rents to the Organization for up to one year after damage or destruction of the property.

☒ **Commercial General Liability Coverage Project Aggregate**

Because the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit of \$1,000,000 is required by the Organization for this agreement or contract.

☐ **Liquor Liability Coverage**

In anticipation of alcohol being served, the Other Party shall provide evidence of coverage for liquor liability in an amount equal to the general/umbrella/excess liability coverage. If the general liability insurance covers liquor liability (e.g. host or other coverage), the Other Party's agent or insurer should provide written documentation to confirm that coverage already applies to this agreement, contract or lease. If needed coverage is not included in the general/umbrella/excess liability policy(ies), the policy(ies) must be endorsed to extend coverage for liquor liability, or a separate policy must be purchased to provide liquor liability coverage in the amount required.

☒ **Owners Protective Liability Coverage**

For renovation or construction contracts the Other Party shall provide for the Organization an owner's protective liability insurance policy (preferably through the Other Party's insurer) in the name of the Organization.

This is redundant coverage if the Organization is named as an additional insured in the Other Party's Commercial General Liability insurance policy. However, this separate policy may be the only source of coverage if the Other Party's liability coverage limit is used up by other claims.

☐ **Builders Risk Coverage**

Builders Risk insurance is to be purchased to cover subject property for special perils (all risks or equivalent) of loss (including theft and sinkhole), subject to a waiver of coinsurance, and covering on-site and off-site storage, transit and installation risks as indicated in the Installation Floater and Motor Truck Cargo insurance described hereafter, if such coverages are not separately provided.

If flood and/or earthquake risks exist, flood and/or earthquake insurance are to be purchased.

If there is loss of income, extra expense and/or expediting expense exposure, such coverage is to be purchased.

If boiler and machinery risks are involved, boiler and machinery insurance, including coverage for testing, is to be purchased.

The Builders Risk insurance is to be endorsed to cover the interests of all parties, including the Organization and all contractors and subcontractors. The insurance is to be endorsed to cover testing and to grant permission to occupy.

☒ **Installation Floater Coverage**

Installation Floater insurance is to be purchased when Builder's Risk insurance is inappropriate, or when Builder's Risk insurance will not respond, to cover damage or destruction to renovations, repairs or equipment being installed or otherwise being handled or stored by the Other Party, including off-site storage, transit and installation. The amount of coverage should be adequate to provide full replacement value of the property, repairs, additions or equipment being installed, otherwise being handled or stored on or off premises. All risks coverage is preferred.

☐ **Motor Truck Cargo Coverage**

If the Installation Floater insurance does not provide transportation coverage, separate Motor Truck Cargo or Transportation insurance is to be provided for materials or equipment transported in the Other Party's or other vehicles from place of receipt to building sites or other storage sites. All risks coverage is preferred.

☒ **Contractor's Equipment Coverage**

Contractor's Equipment insurance is to be purchased to cover loss of equipment and machinery utilized in the performance of work by the Other Party. All risks coverage is preferred.

☐ **Fidelity/Dishonesty Coverage - for Employer**

Fidelity/Dishonesty insurance is to be purchased to cover dishonest acts of the Other Party's employees, including but not limited to theft of vehicles, materials, supplies, equipment, tools, etc., especially property necessary to work performed.

☐ **Fidelity/Dishonesty/Liability Coverage - for Organization**

Fidelity/Dishonesty/Liability insurance is to be purchased or extended to cover dishonest acts of the Other Party's employees resulting in loss to the Organization.

☐ **Garage Liability Coverage**

Garage Liability insurance is to be purchased to cover the Other Party and its employees for its garage and related operations while in the care, custody and control of the Organization's vehicles.

☐ **Garagekeepers Coverage (Legal Liability Form)**

Garagekeepers Liability insurance is to be purchased to cover the Other Party's liability for damage or other loss, including comprehensive and collision risks, to the Organization's vehicles while in the care, custody and control of the Other Party. This form of coverage responds only when the Other Party is legally liable for the loss.

☐ **Garagekeepers Coverage (Direct-Excess Form)**

Garagekeepers Liability insurance is to be purchased to cover damage or other loss, including comprehensive and collision risks, to the Organization's vehicles while in the care, custody and control of the Other Party. This form of coverage responds on a legal liability basis, and also without regard to legal liability on an excess basis over any other collectible insurance.

☐ **Watercraft Liability Coverage**

Because the Other Party's provision of services involves utilization of watercraft, watercraft liability coverage must be provided to include bodily injury and property damage arising out of ownership, maintenance or use of any watercraft, including owned, nonowned and hired.

Coverage may be provided in the form of an endorsement to the general liability policy, or in the form of a separate policy covering Watercraft Liability or Protection and Indemnity for bodily injury and property damage.

☐ **United States Longshoremen and Harborworkers Act Coverage**

The Workers Compensation policy is to be endorsed to include United States Longshoremen and Harborworkers Act Coverage for exposures which may arise from this agreement or contract.

☐ **Jones Act Coverage**

The Workers Compensation policy is to be endorsed to include Jones Act Coverage for applicable

exposures (for work on, over or in navigable waters) which may arise from this agreement or contract.

☐ **Aircraft Liability Coverage**

Because the Other Party's provision of services involves utilization of aircraft, aircraft liability coverage must be provided to include bodily injury and property damage arising out of ownership, maintenance or use of any aircraft, including owned, nonowned and hired.

The minimum limits of coverage shall be \$_,000,000 per occurrence, Combined Single Limit for Bodily Injury (including passenger liability) and Property Damage.

☒ **Pollution/Environmental Impairment Liability Coverage**

Pollution/environmental impairment liability insurance is to be purchased to cover pollution and/or environmental impairment which may arise from this agreement or contract. The recommended minimum coverage is \$1,000,000. The coverage period shall be extended beyond the date of the completed project, until the expiration date of the performance bond.

☐ **Limited Pollution Liability – Commercial General Liability (CGL) with Endorsement**

Covers third-party damages caused by the accidental release of pollutants at a work site. Covers pollution incidents that commence during the policy period. The minimum limits of coverage shall be \$1,000,000. Defense costs outside the limit of liability. Coverage is provided for gradual releases. Includes clean-up costs if part of otherwise covered property damage.

PROFESSIONAL LIABILITY, MALPRACTICE AND/OR ERRORS OR OMISSIONS

If checked below, the Organization requires the following terms and types of insurance for professional, malpractice, and errors or omissions liability.

☐ **Hold Harmless**

The following replaces the previous Hold Harmless wording.

The Organization shall be held harmless against all claims for bodily injury, sickness, disease, death or personal injury or damage to property or loss of use resulting therefrom arising out of performance of the agreement or contract, unless such claims are a result of the Organization's sole negligence.

The Organization shall also be held harmless against all claims for financial loss with respect to the provision of or failure to provide professional or other services resulting in professional, malpractice, or errors or omissions liability arising out of performance of the agreement or contract, unless such claims are a result of the Organization's sole negligence.

☐ **Professional Liability/Malpractice/Errors or Omissions Insurance**

The Other Party shall purchase and maintain professional liability or malpractice or errors or omissions insurance with minimum limits of \$_,000,000 per occurrence.

If a claims-made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts.

Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great duration as available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provide a retroactive date no later than the inception date of claims made coverage.

INSURANCE CERTIFICATES

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STANDARD GENERAL CONDITIONS

Implemented 01/01/2022 to 2018 EJCDC C-700

EMERALD COAST UTILITIES AUTHORITY

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



**EMERALD COAST UTILITIES AUTHORITY STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT**

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EMERALD COAST UTILITIES AUTHORITY STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.1 *Defined Terms*

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

10. Claim

- a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
 - b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. **Constituent of Concern**—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. **Contract**—The entire and integrated written contract between Owner and Contractor concerning the Work.
13. **Contract Documents**—Those items so designated in the Agreement, and which together comprise the Contract.
14. **Contract Price**—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
15. **Contract Times**—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. **Contractor**—The individual or entity with which Owner has contracted for performance of the Work.
17. **Cost of the Work**—See Paragraph 13.01 for definition.
18. **Drawings**—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. **Effective Date of the Contract**—The date, indicated in the Agreement, on which the Contract becomes effective.
20. **Electronic Document**—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but

not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for

Payment, and requests for interpretation or clarification are not Submittals.

42. **Substantial Completion**—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

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

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

45. **Supplier**—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

46. Technical Data

- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. **Underground Facilities**—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. **Unit Price Work**—Work to be paid for on the basis of unit prices.
49. **Work**—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment

into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.2 **Terminology**

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day*: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. Does not conform to the Contract Documents;
 - 2. Does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. Has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. ***Furnish, Install, Perform, Provide***
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to
- (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.1 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.2 *Copies of Documents*

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

2.3 ***Before Starting Construction***

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

2.4 ***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.

2.5 ***Acceptance of Schedules***

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

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

2.6 ***Electronic Transmittals***

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long- term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.1 ***Intent***

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity,

except as may otherwise be required by Laws and Regulations.

3.2 Reference Standards

A. Standards Specifications, Codes, Laws and Regulations

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

3.3 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.4 Requirements of the Contract Documents

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

3.5 Reuse of Documents

- A. Contractor and its Subcontractors and Suppliers shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.1 Commencement of Contract Times; Notice to Proceed

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

4.2 Starting the Work

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

4.3 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.

4.4 Progress Schedule

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.5 ***Delays in Contractor's Progress***

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
 - 1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 - 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 - 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
 - 1. The circumstances that form the basis for the requested adjustment;

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

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

- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

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

5.1 *Availability of Lands*

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

5.2 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and

Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
 - D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.3 ***Subsurface and Physical Conditions***

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

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

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

C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.4 ***Differing Subsurface or Physical Conditions***

A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
2. is of such a nature as to require a change in the Drawings or Specifications;
3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.
- B. **Engineer's Review:** After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
 - C. **Owner's Statement to Contractor Regarding Site Condition:** After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
 - D. **Early Resumption of Work:** If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
 - E. **Possible Price and Times Adjustments**
 1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.5 ***Underground Facilities***

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;
 3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is

uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.

c. *Engineer's Review: Engineer will:*

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary, issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

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

D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

- b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.6 **Hazardous Environmental Conditions at Site**

A. Reports and Drawings: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article

8.

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

ARTICLE 6—BONDS AND INSURANCE

6.1 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided

otherwise by Laws or Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

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

6.2 Insurance—General Provisions

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also

furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may

impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.

- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.3 Contractor's Insurance

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.

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

6.4 ***Builder's Risk and Other Property Insurance***

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior

to commencing such partial occupancy or use.

- E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.5 Property Losses; Subrogation

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss

covered by such policies.

- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.6 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.1 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to

(1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.2 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.3 Labor; Working Hours

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

7.4 Services, Materials, and Equipment

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

7.5 “Or Equals”

- A. *Contractor’s Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or equal” item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an “or equal” item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
 - b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor’s Expense:* Contractor shall provide all data in support of any proposed “or equal” item at Contractor’s expense.
- C. *Engineer’s Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each “or-equal” request. Engineer may require Contractor to furnish additional data about the proposed “or-equal” item. Engineer will be the sole judge of acceptability. No “or-equal” item will be ordered, furnished, installed, or utilized until Engineer’s review is complete and Engineer determines that the proposed item is an “or-equal,” which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.6 **Substitutes**

- A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) Whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

- c. Will identify:
 - 1) All variations of the proposed substitute item from the item specified; and
 - 2) Available engineering, sales, maintenance, repair, and replacement services.
 - d. Will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. **Contractor's Expense:** Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.7 **Concerning Subcontractors and Suppliers**

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

of designated parts of the Work if required by the Contract to do so.

- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

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

7.8 Patent Fees and Royalties

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

7.9 Permits

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

7.10 Taxes

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

7.11 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 Record Documents

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

7.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 Hazard Communication Programs

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

7.15 Emergencies

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

7.16 Submittals

A. Shop Drawing and Sample Requirements

1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. Confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

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

Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

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

D. *Resubmittal Procedures for Shop Drawings and Samples*

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

E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the

time established in the Schedule of Submittals will be deemed accepted.

- c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
 - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. Normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;

2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. Use or occupancy of the Work or any part thereof by Owner;
 5. Any review and approval of a Shop Drawing or Sample submittal;
 6. The issuance of a notice of acceptability by Engineer;
 7. The end of the correction period established in Paragraph 15.08;
 8. Any inspection, test, or approval by others; or
 9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 Delegation of Professional Design Services

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.
- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.1 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or

through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.2 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.

8.3 Legal Relationships

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the

Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and

against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER’S RESPONSIBILITIES

9.1 *Communications to Contractor*

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

9.2 *Replacement of Engineer*

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

9.3 *Furnish Data*

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

9.4 *Pay When Due*

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

9.5 *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.

9.6 *Insurance*

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

9.7 *Change Orders*

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

9.8 Inspections, Tests, and Approvals

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

9.9 Limitations on Owner's Responsibilities

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

9.10 Undisclosed Hazardous Environmental Condition

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

9.11 Evidence of Financial Arrangements

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

9.12 Safety Programs

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

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION**10.1 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.

10.2 Visits to Site

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

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.3 Resident Project Representative

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.4 Engineer's Authority

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

10.5 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.

10.6 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.

10.7 Limitations on Engineer's Authority and Responsibilities

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other

provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.8 Compliance with Safety Program

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

ARTICLE 11—CHANGES TO THE CONTRACT

11.1 Amending and Supplementing the Contract

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.2 **Change Orders**

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.3 **Work Change Directives**

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.
- B. If Owner has issued a Work Change Directive and:
1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.4 Field Orders

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

11.5 Owner-Authorized Changes in the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.6 Unauthorized Changes in the Work

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.7 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- c. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs,

Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.8 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.9 Change Proposals

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

B. Change Proposal Procedures

- 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
- 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

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

4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- c. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion:* Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 Notification to Surety

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

ARTICLE 12—CLAIMS

12.1 Claims

- A. *Claims Process:* The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to

Paragraph 15.06.B.

- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. **Mediation**
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the

Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.1 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.
 - c. **Construction Equipment Rental**
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in

use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- c. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
 - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent

payments.

5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. Contractor's Fee

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

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

13.2 Allowances

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

B. Cash Allowances: Contractor agrees that:

1. The cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

C. Owner's Contingency Allowance: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.3 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. Adjustments in Unit Price

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. The quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related

changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

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

14.1 Access to Work

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

14.2 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 those costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 1. By the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. To attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. By manufacturers of equipment furnished under the Contract Documents;
 4. For testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. For acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections and tests will be performed by independent inspectors, testing

laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.3 **Defective Work**

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

14.4 **Acceptance of Defective Work**

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the

diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.5 Uncovering Work

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.6 Owner May Stop the Work

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

14.7 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**15.1 Progress Payments**

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by:

- (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
- 3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
- 4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

c. *Review of Applications*

- 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
- 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. The Work has progressed to the point indicated;
 - b. The quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. The conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
- 3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. Inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. There may not be other matters or issues between the parties that might

entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. To supervise, direct, or control the Work;
 - b. For the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. For Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. To make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. To determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

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

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or

furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.2 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and

other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.3 Substantial Completion

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

15.4 Partial Use or Occupancy

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
 2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.5 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.

15.6 Final Payment

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;

- b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is

entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.7 Waiver of Claims

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.8 Correction Period

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will

be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so, provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.1 *Owner May Suspend Work*

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

16.2 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written

- notice that the Contract is terminated; and
2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
 - D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
 - E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
 - F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
 - G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.3 Owner May Terminate for Convenience

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.4 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.1 Methods and Procedures

- A. **Disputes Subject to Final Resolution:** The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. **Final Resolution of Disputes:** For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.1 ***Giving Notice***

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.2 ***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.

18.3 ***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.

18.4 ***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.

18.5 ***No Waiver***

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

18.6 ***Survival of Obligations***

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

18.7 Controlling Law

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

18.8 Assignment of Contract

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

18.9 Successors and Assigns

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

18.10 Headings

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

SUPPLEMENTARY GENERAL CONDITIONS

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

Refer to:

- GC-1.01 The terms used in these Supplementary General Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.
- GC-2.02.A In the first sentence after the word Contractor, add "up to."
- GC-2.03.A In the first sentence delete "after the Effective Date of the Contract and replace with "of receipt of the Notice to Proceed"
- GC-4.01.A In the first sentence after the word run, delete "on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given." Delete the last sentence in paragraph 4.01.A and replace with "Within ten (10) days of issuance of the Notice of Award to the Contractor, recorded bonds, insurance, and signed Standard Form of Agreement must be received by Owner, unless otherwise agreed to by the parties in writing. Upon receipt of all Contract Documents, unless otherwise agreed by the parties in writing, a Notice to Proceed may be given within thirty (30) days."
- GC-4.05.C After the word causes in the second sentence, add "(other than abnormal weather conditions)"
- GC-4.05.C.1 After fires, delete the word "floods."
- GC-4.05.C.2 Delete paragraph 4.05.C.2 in its entirety.
- GC-4.05.H Add "Paragraph 11.07.B.4 addresses damages claims arising out of any change in the work."
- GC-4.05.I. Add "The procedure below explains the Emerald Coast Utilities Authority consideration of claims for a contract time extension due to abnormal weather. All days shall be considered as calendar days.
- A. ECUA maintains a spreadsheet that documents the number of rainfall days each month when rainfall at the Pensacola Regional Airport was 0.1" or greater. The data set time period that will be used is the 10-year period immediately prior to the year in which the bid was opened on the subject contract (e.g., the 10-year period of January 2013 through December 2022 will be used for all contracts bid in calendar year 2023). From this spreadsheet the average rainfall for each month is calculated (See page SGC-3). The source for this historical data can be accessed through <https://w2.weather.gov/climate/index.php?wfo=mob>.
- B. Any time there is a documented rainfall of 0.1" or greater, this is counted as a rainfall day. The official measurement used is rainfall at the Pensacola Regional Airport. If another measurement location is desired, this must be proposed and accepted by ECUA at the beginning of the project.

- C. Each month the number of rainfall days is determined by the Contractor and verified by the Engineer. This information shall be submitted with each pay application for the last full calendar month (e.g., the pay application is for the period November 22, 2022 through December 21, 2022, the rainfall data submitted would be the month of November 2022).
- D. The number of rainfall days for the month is then compared to the historical recorded average of rainfall days (0.1" and greater of rainfall) for the month.
- E. If the number of rainfall days is more than the historical average, then the Contractor has a positive value of rainfall days for the month.
- F. If the number of rainfall days is less than the historical average, then the Contractor has a negative value of rainfall days.
- G. Upon reaching Substantial Completion for the project, all positive and negative rainfall days for each individual month of the project will be added together for a total number of rainfall days for the project.
- H. If this final rainfall day number is a positive number, then the contract has been impacted by that number of rainfall days and the Contract Time will be adjusted accordingly. If the final rainfall day number is either zero or a negative number, then no modification of the Contract Time will be made.
- I. The time period for which rainfall days will be considered shall coincide with the dates for commencement of work and Substantial Completion, as defined in the Standard Form of Agreement of the Contract. For partial months, a prorated number of days shall be calculated using the number of Contract days in that month divided by the total number of days in that month, multiplied by the historical number of rainfall days for that month. This calculation shall be rounded to the nearest whole number.
- J. If there is a significant, recorded, rainfall event in one, or more, consecutive day(s), the Contractor may submit a claim for additional delay in accordance with the timeframes delineated in paragraph 12.034.05.C of the Standard General Conditions of the Construction Contract. ECUA will review any such timely filed claim and determine (at ECUA's sole discretion) if an additional equitable Contract Time extension is warranted. A decision by ECUA of such adjustments will occur within a reasonable time of the submission of the claim; ECUA will not wait until Substantial Completion of the project as described in Item G above.
- K. Other than precipitation, ECUA may, in its sole discretion, consider on a case-by-case basis other abnormal weather conditions (e.g., temperature, tropical storm activity) that the Contractor can affirmatively demonstrate have had an impact on construction. If the Contractor believes such an event has occurred, the Contractor may submit a claim for additional delay in accordance with the timeframes delineated in paragraph 12.034.05.C of the Standard General Conditions of the Construction Contract. ECUA will review any such timely filed claim and determine (at ECUA's sole discretion) if an equitable Contract Time extension is warranted. A decision by ECUA of such adjustments will occur within a reasonable time of the submission of the claim; ECUA will not wait until Substantial Completion of the project as described in Item G above.

10 YEAR HISTORICAL RECORD OF RAINFALL FOR PENSACOLA

Number of days in each month receiving 0.1 inches or more of rainfall

Updated: 1/10/2023

Source of Information NOAA, National Weather Service Forecast Office, Mobile/Pensacola

Recording Location: Pensacola Regional Airport (KPNS)

Chart Prepared by: Wendy K. Gavin, P.E., ECUA

Year	Month												Yearly Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2022	4	5	9	4	7	8	19	9	4	2	5	5	81
2021	5	8	7	8	7	10	16	12	12	6	1	5	97
2020	11	5	2	6	5	8	13	12	7	3	4	7	83
2019	6	5	2	5	4	7	8	12	0	10	3	9	71
2018	5	8	5	5	7	10	10	8	13	3	11	13	98
2017	8	3	5	5	10	19	11	12	4	7	0	8	92
2016	12	5	10	7	6	13	16	17	8	0	3	7	104
2015	4	7	3	10	8	9	11	8	6	4	5	8	83
2014	7	6	6	8	4	9	9	3	8	4	4	9	77
2013	5	11	2	6	4	10	16	10	7	3	4	5	83
Totals:	67	63	51	64	62	103	129	103	69	42	40	76	
Averages:	7	6	5	6	6	10	13	10	7	4	4	8	87

GC-5.03.A The verbiage appearing in paragraph 5.03.A is deleted and replaced with the following:

5.03.A In the preparation of Drawings and Specifications, ENGINEER has relied upon the following reports and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work:

Title/Author

Report Location

 NONE

5.03.A.1 Any geotechnical information included is for information only. The ECUA and the Engineer do not assume any responsibility for the Contractor's interpretation or conclusions drawn from the data.

The Contractor may, at his option perform additional subsurface investigations at his own expense. Copies of the results of these investigations shall be furnished to the ECUA and Engineer within ten days of Contractor's receipt of those results or Contractor's commencement of construction, whichever is later.

5.03.A.2

Drawings

Drawing Location

GC-5.06.I Delete paragraph 5.06.I. of the General Conditions in its entirety.

GC 6.02 – 6.03 Delete paragraphs 6.02 through 6.03 of the General Conditions in their entirety.

GC 6.04 Delete paragraph 6.04 of the General Conditions in its entirety. Risk

Management/Insurance Requirements shall be as shown in the ECUA Risk Management Policy and Standards

- GC 6.05 Delete paragraph 6.05 of the General Conditions in its entirety.
- GC 6.01.I Add "If Owner has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchases and maintained by Contractor in accordance with Contract Documents on the basis of non-conformance with the Contract Documents, Owner shall so notify Contractor in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.01.C. Contractor shall provide to Owner such additional information in respect of insurance provided as the other may reasonably request. If such party does not purchase or maintain all of the Bonds and insurance required of Contractor by the Contract Documents, such party shall notify Owner 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. Without prejudice to any other right or remedy, Owner may elect to obtain equivalent Bonds or insurance to protect Owner's interest at the expense of Contractor, and a Change Order shall be issued to adjust the Contract Price accordingly.
- GC-6.06.A Amend the first sentence of paragraph 6.06.A of the General Conditions as follows: Replace "insurance required by paragraph 6.04" with "Builder's Risk insurance coverage, if Builder's Risk insurance coverage is required by the ECUA Risk Management Policy and Standards."
- GC-6.06.B Amend the second sentence of paragraph 6.06.B of the General Conditions as follows: Replace "insurance required by paragraph 6.04" with "Builder's Risk insurance coverage, if Builder's Risk insurance coverage is required by the ECUA Risk Management Policy and Standards."
- GC-7.15.A Add a new paragraph immediately after paragraph 7.15.A of the General Conditions, which shall read as follows:
- "B. In the event of a storm or a threatened storm OWNER may, in its discretion, require CONTRACTOR to secure the Work site and all loose materials, to stabilize all equipment at the Work site, and to suspend the Work until authorized by OWNER to resume the Work. No adjustment to the Contract Price shall be made on account of such action by OWNER."
- GC-7.16.D.2 In the first sentence on the second line change "two" to "one" and in the second sentence on the third line change "third" to "second."
- GC-7.18 Delete paragraph 7.18 of the General Conditions in its entirety. Indemnification obligations of CONTRACTOR shall be as shown in the ECUA Risk Management Policy and Standards.
- GC-11.07.B.3 Add a new paragraph immediately after paragraph 11.07.B.3 of the General Conditions, which shall read as follows:
- "4. In no event shall any adjustment in the Contract Price be made on account of damages for delay, impact claims or similar claims arising out of any change in the Work." Any changes in Contract Times necessitated by any such change in the work shall be negotiated in the change order authorizing the change in the work.

- GC-15.01.B.2 Delete the last sentence of paragraph 15.01.B.2 of the General Conditions and replace it with the following: "Payment shall not be made on the basis of materials and equipment not incorporated in the Work."
- GC-15.01.D 1. Delete "ten days" and replace with "thirty (30) days."
- GC-15.06.A.2.e After waivers add ", Contractor's Final Affidavit and Warranty."
- GC-15.06.A.2.f Add "Contractor As Built drawings per ECUA specifications."
- GC-15.06.E Add a new paragraph immediately after paragraph 15.06.E of the General Conditions, which shall read as follows:
- "F. Final Completion. For purposes of this contract, Final completion will not have been achieved until such time as all deficiencies identified in the final inspection pursuant to paragraph 14.06.A, above, have been remedied; all "As-Built" drawings have been accepted by ENGINEER; Contractor's Final Affidavit and Warranty have been submitted; no Work remains to be completed; and the final Application for Payment has been approved by ENGINEER."
- GC-18.01.A.3 After "Formal Notice" add "with the Project Number listed" and delete "or similar."
- GC-18.01.B Add new paragraph B after paragraph 18.01.A "In addition to the requirements of paragraph 18.01.A., whenever any provision of the Contract requires the giving of written notice to Owner, a copy shall also be delivered to ECUA General Counsel, Robert O. Beasley, 40 Palafox Place, Suite 300, Pensacola, FL 32502, ROBservice@lawpensacola.com."
- GC-18.02.A Add a new paragraph immediately after paragraph 18.02.A of the General Conditions, which shall read as follows:
- "B. All time limits stated in the Contract Documents are of the essence of the Agreement."

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SPECIAL CONDITIONS

The following Special Conditions take precedence over Plans and Project Manual:

1. With each Pay Request, Contractor shall execute and deliver to ECUA a census of its employees working on this Project on the form provided by ECUA for this purpose appearing at page SC-4. This Form shall be used by ECUA in order to assess Contractor's compliance with the affirmative action and equal employment goals and requirements as well as all other applicable laws, rules, and regulations.
2. If subcontracts are to be let, Contractor is required to take the following affirmative steps in contracting with small and minority firms, women's business enterprise and labor surplus area firms: (1) placing qualified small and minority businesses and women's business enterprises on solicitation lists; (2) assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources; (3) dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises; (4) establishing delivery schedules, where the requirements permits, which encourage participation by small and minority business, and women's business enterprises, and (5) using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.
3. Contractor shall utilize ECUA solid waste collection services for contracted disposal of all construction and demolition waste. Contractor shall pay standard fees for disposal.

Presently, Standard Fees apply, subject to adjustment by the ECUA Board in accordance with the applicable law for a 30-yd. roll-off construction container and Landfill disposal.

Refer to the ECUA Rate Schedule for current rates.

Please contact ECUA Customer Service at 850-476-0480 or via email at: customer.service@ecua.fl.gov to establish roll off services.

4. Project manual and plans for this Project are available only in electronic PDF format. The official version of these documents shall be maintained by ECUA. Because electronic data can be altered, should any question arise as to the accuracy or validity of a document, the ECUA "official" versions shall be reviewed and a determination by ECUA shall be made. All individuals/entities are thus advised to review the "official" versions of all documents and specifications prior to submitting a bid and/or entering into a contract. The "official" versions in PDF format can be viewed on the ECUA website (www.ecua.fl.gov) under bid opportunities. Moreover, any documents and specifications prepared in association with this Project are solely for the use on ECUA's Bayou Marcus Boardwalk and Effluent Piping Improvements Project, ECUA Project Number RS332, Bid Number CC2024-04, and any use for any other purpose is expressly prohibited and without liability to either Owner or Engineer.
5. In the event that any sanitary sewer overflow (SSOs) occur as a result of Contractor's operations, including but not limited to bypass pumping on flow diversion activities, or any failures therein, Contractor shall be responsible for all cleanup operations required thereby as well as paying all fines and penalties attendant thereto. Any such fines and penalties would likely be in accord with stipulated penalties ECUA has entered into with the Florida Department of Environmental Protection (FDEP) pursuant to Paragraph 19 of the *First Amended Consent Order* regarding OGC File No. 11-0982B – wherein it provides stipulated penalties in the amount of \$1,000/day per discharge for discharges up

to 5,000 gallons; \$2,000/day per discharge for discharges from 5,001 gallons to 10,000 gallons; \$5,000/day per discharge for discharges from 10,001 gallons to 25,000 gallons; \$10,000/day per discharge for discharges from 25,001 gallons to 100,000 gallons; and \$20,000/day per discharge for discharges in excess of 100,000 gallons. At or around the time of any such SSO and before FDEP demands payment, ECUA may require payment from Contractor in these amounts or withhold payment from Contractor in these amounts, at ECUA's option.

6. Should the construction plans and ECUA's Engineering Manual contain conflicting information, then Contractor must consult with the Engineer of Record in writing on the appropriate resolution of that conflict as soon as possible.
7. Sewer bypass pumping/piping: On projects requiring temporary sewer bypass pumping/piping, it is the Contractor's responsibility to furnish, install, operate, and remove the appropriate sized materials and equipment and employ the site appropriate means and methods by which to complete this task without causing sewer spills, overflows, sewer backup into customers' homes, or service disruptions to ECUA sewer customers. Regardless of the means and methods chosen by the Contractor, the following conditions shall be met:
 - A. ECUA typically pays a lump sum price for bypass pumping/piping, but still desires the Contractor to minimize the time required to operate its flow diversion strategy. Time is of the essence with whatever flow diversion method chosen and implemented by Contractor.
 - B. It is the Contractor's responsibility to minimize, as much as practical, all impacts (i.e. above ground piping across roads and driveways) to local residents and motorists, and to maintain traffic and driveway access as much as practical. Contractor shall perform lane closures and/or detours on days and at hours as directed and allowed by governing roadway agency.
 - C. Contractor shall be equipped with tools, equipment, manpower, and material necessary to clean overflows resulting from failure of sewer bypass pumping/piping, to include use of environmentally friendly biodegradable disinfectant. See Special Condition Note concerning fines and penalties to be levied on Contractor due to overflows caused by faulty sewer bypass pumping/piping.
 - D. ECUA may not be readily available to assist with potential problems associated with the Contractor's selected bypass pumping/piping system, however, should ECUA respond and/or assist with issues associated with the flow diversion, then Contractor will be charged for ECUA personnel, vehicle, equipment, and material costs.
 - E. When possible, the Contractor shall construct the new infrastructure first (i.e. lift station, force main, gravity sewer, manhole) and place into service while the existing infrastructure remains in operation. When not possible to construct the new infrastructure first, the Contractor shall install its bypass pumping/piping and assure its operation prior to beginning work on the new infrastructure. For existing lift stations that must remain in operation, site must remain accessible at all times to ECUA vehicles (service trucks, tanker trucks, vacuum trucks, etc.), Gulf Power service trucks, and bypass pumps and generators.
 - F. Minimum requirements for bypass pumping/piping with gas powered engines/pumps:
 - 1.) Max dBA rating at 7 meters shall not exceed 72 dBA (less than 72 dBA is desirable) and shall be accomplished via the use of specialized residential grade noise attenuators/mufflers and/or baffles.
 - 2.) Primary system shall be backed up with redundant secondary system.
 - 3.) Secondary pump system shall be supplied and equipped with emergency float. An auto-dialer shall be installed to notify the Contractor of emergency conditions. Auto-dialer shall dial the following personnel, in order:
 - a. Contractor representative #1
 - b. Contractor representative #2
 - c. Contractor representative #3
 - d. Bypass pump company representative #1
 - e. Bypass pump company representative #2

- f. ECUA Project Inspector
 - g. ECUA lift station SCADA (850-969-2211)
- 4.) Contractor shall provide name and 2 phone numbers each of at least three Contractor representatives that will be available to respond to emergencies. This info will be supplied to the Engineer, ECUA, and the FDEP.
 - 5.) Contractor shall have crews, equipment, and supplies capable of making needed repairs on site within two hours of initial notification (first contact attempt) of an emergency situation. Contractor shall pay \$1,000 for each hour it is not on site and fully operational after the initial two-hour response window.
 - 6.) Contractor shall provide repairs and have flow diversion back in full operation within 4 hours of initial notification (first contact attempt). Contractor shall pay \$1,000 for each hour the bypass pumping/piping system is not operational after the initial four-hour response window.
 - 7.) Fuel tanks shall meet all regulatory requirements (i.e. double hull, etc.).
 - 8.) All suction and discharge piping shall be welded HDPE and all valves, check valves, and other fittings shall be flanged.
- G. Minimum requirements for bypass pumping/piping with vacuum trucks, tanker trucks, or frac (storage) tanks:
- 1.) All material collected by vacuum trucks, tanker trucks, and frac tanks must be taken to ECUA's Central WRF in Cantonment unless otherwise coordinated, allowed, and directed ECUA.
- H. Minimum requirements for bypass pumping/piping with usage of collection system storage:
- 1.) Although heavily discouraged, it is understood that very brief moments of collection system storage are needed from time to time in order to incorporate bypass piping/pumping measures. Contractor shall schedule said moments to very low flow periods and for very brief periods. Contractor is responsible for all damages resulting from sewer back-ups onto private properties as a result of its use of collection system storage. Contractor is responsible for cleaning portions of collection system used for storage should deposition as a result of system storage.
- I. Minimum requirements for bypass pumping/piping with other means and methods not contained in this section:
- 1.) Other bypass pumping/piping methods system requires review and approval by ECUA.

Contractor Census of Employees

Name of Company: _____

ECUA Project: _____

Pay Application Number: _____

From: _____ To: _____

	Total Number of Company Employees Working on this ECUA Project during the referenced period	Number of White Employees*	Number of Black Employees*	Number of Hispanic Employees*	Number of Other Employees*
MALE					
FEMALE					
TOTALS					

I hereby certify that I am over the age of nineteen. I further certify under penalty of perjury that the above-listed information accurately reflects the employee composition of the company's workforce on the particular ECUA project identified for the referenced pay application.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

***All numbers are for this ECUA Project, for the referenced pay application.**

ECUA ENGINEERING MANUAL INCORPORATED BY REFERENCE

- ECUA's Standard Technical Specifications are no longer included in Project Manuals.
- Refer to the note on the title sheet of the Project Plans on the incorporation of ECUA's Engineering Manual, which includes Standard Technical Specifications, into this Project.
- Depending on the contents of the note, there may be additional documents (typically supplemental specifications) included after this sheet.

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PROJECT MANAGEMENT & COORDINATION

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. Requests for Information (RFIs).
 - 4. Project Web site.
 - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Engineer, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
 - 1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work.

Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. **Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.**
 2. **Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.**
 3. **Make adequate provisions to accommodate items scheduled for later installation.**
- B. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections that depend on each other for proper installation, connection, and operation.**
1. **Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.**
 2. **Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.**
 3. **Make adequate provisions to accommodate items scheduled for later installation.**
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.**
1. **Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.**
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:**
1. **Preparation of Contractor's construction schedule.**
 2. **Preparation of the schedule of values.**
 3. **Installation and removal of temporary facilities and controls.**
 4. **Delivery and processing of submittals.**
 5. **Progress meetings.**
 6. **Preinstallation conferences.**
 7. **Project closeout activities.**
 8. **Startup and adjustment of systems.**
- E. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.**

1. **Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.**

1.6 COORDINATION DRAWINGS

A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.

1. **Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:**
 - a. **Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.**
 - b. **Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.**
 - c. **Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.**
 - d. **Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.**
 - e. **Show location and size of access doors required for access to concealed dampers, valves, and other controls.**
 - f. **Indicate required installation sequences.**
 - g. **Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Engineer indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.**

B. Coordination Drawing Organization: Organize coordination drawings as follows:

1. **Structural Penetrations: Indicate penetrations and openings required for all disciplines.**
2. **Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.**
3. **Mechanical and Plumbing Work: Show the following:**
 - a. **Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.**
 - b. **Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.**
 - c. **Fire-rated enclosures around ductwork.**

4. **Electrical Work: Show the following:**

- a. **Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.**
- b. **Light fixture, exit light, emergency battery pack, smoke detector, and other fire- alarm locations.**
- c. **Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.**
- d. **Location of pull boxes and junction boxes, dimensioned from column center lines.**

5. **Fire-Protection System: Show the following:**

- a. **Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.**
6. **Review: Engineer will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Engineer determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Engineer will so inform Contractor, who shall make changes as directed and resubmit.**
7. **Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in "General Conditions", Section 00700, Article 6.**

C. **Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:**

1. **File Preparation Format: Same digital data software program, version, and operating system as original Drawings.**
2. **File Preparation Format: DWG, Version 2013 or newer, operating in Microsoft Windows operating system.**
3. **File Submittal Format: Submit or post coordination drawing files using Portable Data File (PDF) format.**
4. **Engineer will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.**
 - a. **Engineer makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.**
 - b. **Digital Data Software Program: Drawings are available in AutoCAD.**
 - c. **Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Engineer.**

1.7 **REQUESTS FOR INFORMATION (RFIs)**

A. **General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.**

1. **Engineer will return RFIs submitted to Engineer by other entities controlled by Contractor with no response.**

2. **Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.**
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:**
1. **Project name.**
 2. **Project number.**
 3. **Date.**
 4. **Name of Contractor.**
 5. **Name of Engineer.**
 6. **RFI number, numbered sequentially.**
 7. **RFI subject.**
 8. **Specification Section number and title and related paragraphs, as appropriate.**
 9. **Drawing number and detail references, as appropriate.**
 10. **Field dimensions and conditions, as appropriate.**
 11. **Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.**
 12. **Contractor's signature.**
 13. **Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.**
 - a. **Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.**
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Engineer.**
1. **Attachments shall be electronic files in Adobe Acrobat PDF format.**
- D. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow seven working days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.**
1. **The following Contractor-generated RFIs will be returned without action:**
 - a. **Requests for approval of submittals.**
 - b. **Requests for approval of substitutions.**
 - c. **Requests for approval of Contractor's means and methods.**
 - d. **Requests for coordination information already indicated in the Contract Documents.**
 - e. **Requests for adjustments in the Contract Time or the Contract Sum.**
 - f. **Requests for interpretation of Engineer's actions on submittals.**
 - g. **Incomplete RFIs or inaccurately prepared RFIs.**
 2. **Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.**
 3. **Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to "General Conditions", Section 00700, Article 12.**

- a. **If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within 10 days of receipt of the RFI response.**
- E. **RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log monthly. Include the following:**
 - 1. **Project name.**
 - 2. **Name and address of Contractor.**
 - 3. **Name and address of Engineer.**
 - 4. **RFI number including RFIs that were returned without action or withdrawn.**
 - 5. **RFI description.**
 - 6. **Date the RFI was submitted.**
 - 7. **Date Engineer's response was received.**
- F. **On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within seven days if Contractor disagrees with response.**
 - 1. **Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.**
 - 2. **Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.**

1.8 PROJECT MEETINGS

- A. **General: Contractor shall schedule and conduct meetings and conferences at Project site unless otherwise indicated.**
 - 1. **Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.**
 - 2. **Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.**
 - 3. **Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, within seven days of the meeting.**
- B. **Preconstruction Conference: Engineer will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Engineer, but no later than 15 days after execution of the Agreement.**
 - 1. **Conduct the conference to review responsibilities and personnel assignments.**
 - 2. **Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.**
 - 3. **Agenda: Discuss items of significance that could affect progress, including the following:**

- a. Tentative construction schedule.
- b. Phasing.
- c. Critical work sequencing and long-lead items.
- d. Designation of key personnel and their duties.
- e. Lines of communications.
- f. Procedures for processing field decisions and Change Orders.
- g. Procedures for RFIs.
- h. Procedures for testing and inspecting.
- i. Procedures for processing Applications for Payment.
- j. Distribution of the Contract Documents.
- k. Submittal procedures.
- l. Sustainable design requirements.
- m. Preparation of record documents.
- n. Use of the premises and existing building.
- o. Work restrictions.
- p. Working hours.
- q. Owner's occupancy requirements.
- r. Responsibility for temporary facilities and controls.
- s. Procedures for moisture and mold control.
- t. Procedures for disruptions and shutdowns.
- u. Construction waste management and recycling.
- v. Parking availability.
- w. Office, work, and storage areas.
- x. Equipment deliveries and priorities.
- y. First aid.
- z. Security.
- aa. Progress cleaning.

- 4. **Minutes:** Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Pre-installation Conferences: Contractor shall schedule and conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

- 1. **Attendees:** Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Engineer of scheduled meeting dates.
- 2. **Agenda:** Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Sustainable design requirements.
 - i. Review of mockups.

- j. Possible conflicts.
- k. Compatibility requirements.
- l. Time schedules.
- m. Weather limitations.
- n. Manufacturer's written instructions.
- o. Warranty requirements.
- p. Compatibility of materials.
- q. Acceptability of substrates.
- r. Temporary facilities and controls.
- s. Space and access limitations.
- t. Regulations of authorities having jurisdiction.
- u. Testing and inspecting requirements.
- v. Installation procedures.
- w. Coordination with other work.
- x. Required performance results.
- y. Protection of adjacent work.
- z. Protection of construction and personnel.

- 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
- 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
- 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Project Closeout Conference: Contractor shall schedule and conduct a project closeout conference, at a time convenient to Owner and Engineer, but no later than 30 days prior to the scheduled date of Substantial Completion.

- 1. Conduct the conference to review requirements and responsibilities related to Project closeout.
- 2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
- 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for completing sustainable design documentation.
 - e. Requirements for preparing operations and maintenance data.
 - f. Requirements for delivery of material samples, attic stock, and spare parts.
 - g. Requirements for demonstration and training.

h. Preparation of Contractor's punch list.

i. Procedures for processing Applications for Payment at Substantial Completion and for final payment.

- j. **Submittal procedures.**
- k. **Coordination of separate contracts.**
- l. **Owner's partial occupancy requirements.**
- m. **Installation of Owner's furniture, fixtures, and equipment.**
- n. **Responsibility for removing temporary facilities and controls.**

4. Minutes: Entity conducting meeting will record and distribute meeting minutes.

E. Progress Meetings: Contractor shall conduct progress meetings at monthly intervals.

- 1. **Coordinate dates of meetings with preparation of payment requests.**
- 2. **Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.**
- 3. **Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.**
 - a. **Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.**
 - 1) **Review schedule for next period.**
 - b. **Review present and future needs of each entity present, including the following:**
 - 1) **Interface requirements.**
 - 2) **Sequence of operations.**
 - 3) **Resolution of BIM component conflicts.**
 - 4) **Status of submittals.**
 - 5) **Status of sustainable design documentation.**
 - 6) **Deliveries.**
 - 7) **Off-site fabrication.**
 - 8) **Access.**
 - 9) **Site utilization.**
 - 10) **Temporary facilities and controls.**
 - 11) **Progress cleaning.**
 - 12) **Quality and work standards.**
 - 13) **Status of correction of deficient items.**
 - 14) **Field observations.**
 - 15) **Status of RFIs.**
 - 16) **Status of proposal requests.**
 - 17) **Pending changes.**
 - 18) **Status of Change Orders.**

- 19) Pending claims and disputes.
- 20) Documentation of information for payment requests.
- 21) Record Drawings

4. **Minutes:** Contractor responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

- a. **Schedule Updating:** Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

F. **Coordination Meetings:** Contractor shall conduct Project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.

1. **Attendees:** In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.

2. **Agenda:** Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

- a. **Combined Contractor's Construction Schedule:** Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- b. **Schedule Updating:** Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.

- c. **Review present and future needs of each contractor present, including the following:**

- 1) Interface requirements.
- 2) Sequence of operations.
- 3) Resolution of BIM component conflicts.
- 4) Status of submittals.
- 5) Deliveries.
- 6) Off-site fabrication.
- 7) Access.
- 8) Site utilization.
- 9) Temporary facilities and controls.
- 10) Work hours.
- 11) Hazards and risks.

12) **Progress cleaning.**

13) **Quality and work standards.**

14) **Change Orders.**

3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 - PRODUCTS (Not Used) PART 3 - EXECUTION (Not Used) END OF SECTION01 31 00

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TECHNICAL SPECIFICATIONS



Bayou Marcus Boardwalk and Effluent Pipe Improvements - Rebid

Issued for Bid

SECTION 05500 – MISCELLANEOUS METALS

PART 1 – GENERAL

1.01 SCOPE

A. Description Of Work

1. The work consists of furnishing all labor, materials, equipment, tools and services necessary to furnish and install all miscellaneous metal items as shown on the Drawings and/or specified herein.
2. **All plates, shapes, metals and fasteners on this project shall be 316 stainless-steel.**

B. Miscellaneous Metal Items

Miscellaneous metal items (include, but are not limited to:)

1. Floor (and trench) grating, including frames
2. Metal connectors requiring special fabrication
3. Metal railings and brackets (including both fixed and removable type)
4. Jamb, corner and miscellaneous guards, and metal nosings
5. Structural steel frames, bucks, and sub-frames
6. Mounting plates for dock bumpers
7. Abrasive nosing for poured concrete stairs
8. Expansion bolts
9. Anchor bolts
10. Adhesive anchors

C. Related Work In Other Sections:

1. The following items of associated work are included in other sections of these specifications;
 - a. Structural steel

- b. Painting
- c. Gratings for site drainage structures

1.02 REFERENCES AND STANDARDS

- A. The following references and standards are hereby made a part of this Section and miscellaneous metal work shall conform to the applicable requirements therein except as otherwise specified herein or shown on the Drawings. Nothing contained herein shall be construed as permitting work that is contrary to code requirements or governing rules and regulations.
 - 1. "Code For Arc and Gas Welding In Building Construction" of American Welding Society, AWS D1.0, latest edition with current supplements and addenda.
 - 2. "Specification for the Design, Fabrication, And Erection of Structural Steel for Buildings" of the AISC
 - 3. "Metal Finishes Manual", published by National Assn. of Architectural Metal Manufacturers (NAAMM)
 - 4. Steel Structures Painting Council (SSPC) Surface Preparation Specification (Vol. 2)
 - 5. Aluminum Association Publications:
 - a. Aluminum Standards and Data
 - b. Designation System for Aluminum Finishes
 - c. Standards For Aluminum Sand and Permanent Mold Castings
 - d. Standards For Anodized Architectural Aluminum
 - e. Welding Aluminum
 - f. Care of Aluminum

1.03 SUBMITTALS

- A. All submittals shall be made in accordance with Section 01300, SUBMITTALS.
- B. Shop Drawings:
 - 1. Shop drawings shall show dimensions, sizes, thicknesses, gauges, finishes, joining, attachments, and relationship of work to adjoining construction. Where items must fit and coordinate with finished surfaces and/or constructed spaces, take measurements

at site and not from Drawings. Where concrete, masonry or other materials must be set to exact locations to receive work, furnish assistance and direction necessary to permit other trades to properly locate their work. Where welded connectors, concrete, or masonry inserts are required to receive work, shop drawings shall show exact locations required, and all such drawings shall be furnished to the trades responsible for installing the connectors or inserts. Catalog work sheets showing illustrated cuts of item to be furnished, scale details and dimensions may be submitted for standard manufactured items.

C. Samples

1. Submit samples of color anodized aluminum work which shall show proposed nominal colors and maximum color ranges as well as texture intended for the project. Such ranges are subject to review of the Engineer.
2. Identify all samples as to pretreatment, anodizing process, alloy, color, and portion of the work to which sample applies.
3. Do not proceed with processing of anodized aluminum until Engineer's review has been obtained.

PART 2 – PRODUCTS

2.01 BASIC MATERIALS AND ACCESSORIES

- A. Standard Structural Steel Shapes and Plates: 316 stainless-steel
- B. Architectural and Miscellaneous Steel Items: 316 stainless-steel, grade optional
- C. Anchor bolts shall conform to 316 stainless-steel.
- D. Steel Tubing: 316 stainless-steel
- E. Steel Pipe: 316 stainless-steel
- F. Aluminum Items:
 1. Aluminum Extrusions:
 - a. Color anodized finish. Alloys specially produced to best achieve the color anodized finish specified
 - b. Clear anodized finish: 6063 alloy
 - c. Structural shapes, anchors and clips: 6061 alloy

2. Aluminum Sheet and Plate

- a. Color anodized finish: Alloys specially produced to best achieve the color anodized finish specified
- b. Clear anodized finish: 6063 alloy
- c. Sheet for corrugated roofing and siding Alclad 3004
- d. Plate used in all process units: Alclad 3003
- e. Miscellaneous Plate: 6061

3. Aluminum Castings:

- a. Anodized finish: 214 alloy
- b. Structural castings: 214 or 356 alloy as per strength requirements

G. Stainless-steel Items: (unless noted otherwise)

- 1. AISI Type 302, or Type 304
- 2. Type 316 shall be provided where indicated.

H. Bronze Items:

- 1. Extrusions
- 2. Rods and bars
- 3. Cast fittings: Match color and finish of adjacent components as closely as possible.

I. Cast Iron: ASTM A48, Class 30 unless otherwise indicated

J. Fastenings (General): Furnish all bolts, nuts, screws, clips, washers, and any other fastenings necessary for proper erection of items specified herein.

- 1. For ferrous metal: Use stainless-steel or galvanized on exterior.
- 2. For aluminum: Exposed fasteners shall match adjacent material in color and appearance.
 - a. Color anodized finish: 6061-T6 alloy

- b. Clear anodized finish: 2024 alloy
 - c. All other fastenings not otherwise specified or noted. 2024 or 6061 alloy except AISI Type 304 or 316 stainless-steel shall be used for concealed fasteners and may be used for exposed fasteners if heat tempered to match color of anodized surface.
 - d. Where exposed screws are required in architectural aluminum, they shall be Phillips flat head, countersunk unless otherwise noted.
- 3. For stainless-steel: AISI Type 316 stainless-steel. Unless noted otherwise, exposed screws shall be Phillips flat head, countersunk.
 - 4. For bronze: Use brass or bronze. Match adjacent surface where exposed. Unless noted otherwise, exposed screws shall be Phillips flat head, countersunk.
- K. Welding Electrodes: As permitted by AWS Code D1.1 for stainless-steel.
- L. Paint: All painting shall be in accordance with Section 09900 PAINTING.

2.02 SPECIALTY FABRICATED AND CATALOG ITEMS

A. Expansion Bolts

- 1. Expansion bolts shall be that type requiring a drilled hole diameter equal to the bolt diameter such as Hilti Inc. "Kwik-Bolt", or equal.
- 2. All expansion bolts shall be stainless-steel, Type 316.
- 3. As a condition for approval, certified test results shall be submitted to the Engineer for approval. Tests shall have been conducted on concrete of strength equal to specified strength and a minimum of 4 tests for each diameter anchor shall be submitted. Ultimate loads in shear and tension shall be in excess of 4 times the allowable working loads shown on the Contract Drawings.

B. Anchor Bolts

- 1. Anchor bolts shall be as detailed on the Drawings. Bolts, nuts and washers shall be stainless-steel, Type 316.

C. Adhesive Anchors

- 1. Adhesive anchors shall be a non-expansion anchor using a stress-free chemical bond, such as Hilti HVA anchor, or equal.
- 2. The resin shall be contained in a premeasured, manufactured cartridge, for field

installation. The resin shall be a two component, chemically resistant adhesive that will not deteriorate or loose strength with age.

3. All anchor rods shall be stainless-steel Type 316 with a double chisel pointed end.
4. As a condition for acceptance, certified test results shall be submitted to the Engineer for review. Tests shall have been conducted on concrete of strength equal to specified strength and a minimum of 4 tests for each diameter anchor shall be submitted. Ultimate loads in shear and tension shall be in excess of 4 times the allowable working loads shown on the Drawings.

2.03 FINISHES (Except as otherwise noted on the Drawings or Specified)

- A. Ferrous metals shall be painted in accordance with Section 09900 PAINTING.
- B. Exterior Ferrous Metal: Welds, burrs, and rough surfaces ground smooth and completed assembly cleaned, hot phosphate treated, and given one (1) shop prime coat of paint.
- C. Exposed Aluminum Items:
 1. All aluminum finishing shall conform to requirements and recommendations of the References and Standards previously listed. Where color anodized finishes are required, all finishing shall be done in strict accordance with procedures established by the manufacturer of the alloy.
 2. Where more than one (1) color anodized process is utilized on the project for the same desired color and finish, such processes shall be coordinated by the Contractor to achieve matching finishes within the approved range.
 3. Commence no finishing operations until all fabrication and forming operations have been completed.
 4. Take all precautions necessary to prevent "rack" marks on exposed aluminum surfaces caused by the anodizing process. Where edges of aluminum items are exposed, the finish shall be uniform from face onto such edges.
 5. Required finishes are as specified below. Finish designations are those of the Aluminum Association. Pre-anodic finishes (mechanical and/or chemical) shall be applied before application of any anodic treatment.
 - a. Stair nosings, process items, misc. structural shall have mill finish, Aluminum Assoc. Designation M10.
- D. All Exposed Fastenings: To match color and finish of adjacent material.

PART 3 – EXECUTION

3.01 CONDITION OF SURFACES

- A. Inspect all surfaces to receive miscellaneous metal work and report all defects which would interfere with this installation. Starting work implies acceptance of surfaces as satisfactory.

3.02 WORKMANSHIP

- A. General Requirements:

1. Verify all measurements at job.
2. Coordinate all metal work with adjoining work for details of attachment, fittings, etc. Do all cutting, shearing, drilling, punching, threading, tapping, etc., required for miscellaneous metal or for attachment of adjacent work. Drill or punch holes; do not use cutting torch. Shearing and punching shall leave true lines and surfaces.
3. Conceal all fastenings where practical. Thickness of metal and details of assembly and supports shall give ample strength and stiffness. Form joints exposed to weather to exclude water.
4. Make all permanent connections in ferrous metal surfaces using welds where at all possible; do not use bolts or screws where they can be avoided.
5. The self-tapping screws or nuts for steel studs holding removable grating shall be snug tight only.
6. Provide all lugs, clips, anchors, and miscellaneous fastenings necessary for the complete assembly and installation.
7. Set all work plumb, true, rigid, and neatly trimmed out. Miter corners and angles of exposed moldings and frames unless otherwise noted.
8. Do all grouting of frames, plates, sills, bolts, and similar items with non-shrink grout.
9. Set all railings and similar items shown or required to be set in sleeves or cans with epoxy grout. Unless otherwise noted, size sleeves for a minimum 1/4-inch clearance all around.
10. All forming operations on aluminum except on painted sheet products, shall be done prior to finishing or anodizing.
11. For expansion and contraction, the work shall be so designed and anchored that there will be no objectionable distortion or serious stress of fastenings as the metal expands and contracts.

12. Make all trim in longest lengths possible. Where joints are not otherwise shown, make pieces of equal length or locate joints symmetrically. Fit adjacent pieces with hairline joints and aligned surfaces. Where exposed screws are required, space evenly and symmetrically.
13. Castings subject to foot or street traffic shall have bearing surfaces machined to prevent rocking and rattling.
14. Where items must be incorporated or built into adjacent work, deliver to trade responsible for such work in sufficient time that progress of work is not delayed. Be responsible for proper location of such items.
15. Protect all dissimilar metals from galvanic corrosion by pressure tapes, coatings or isolators as specified herein.

B. Welding:

1. Ferrous Metals

- a. Perform all welding in accordance with AWS Code D1.0.
- b. Only prequalified welding procedures in accordance with AWS Paragraph 103(a) shall be used.
- c. Welds shall be made only by operators experienced in performing the type of work indicated.
- d. Welds normally exposed to view in the finished work shall be uniformly made and shall be ground smooth.
- e. Where welding is done in proximity to glass or finished surfaces, such surfaces shall be protected from damage due to weld sparks, spatter, or tramp metal.

2. Aluminum

- a. All aluminum welding shall be done by the inert gas shielded arc or fluxless resistance techniques.
- b. Welded assemblies to be anodized shall be designed so that laying surfaces are free-rinsing and will not trap anodizing solutions.
- c. Where at all possible, welds in assemblies to be anodized shall be located so as to conceal visible discoloration in the heat-affected zone.
- d. Where weld metal must be exposed after anodizing, filler alloys shall be selected to

closely match the composition of the base metal. Follow parent metal manufacturer's recommendations for such filler alloys.

- e. Where weldments are to be made on materials that have been previously anodized, the area of fusion shall be free of the anodic film prior to welding. Parts to be so welded shall be masked during anodizing, or sanded clean in the weld areas. Only weldments that will be concealed may be so made. Crazeing or discoloring of the anodic coating in the weld area will not be acceptable in exposed areas.
- f. Weldments on exposed finished surfaces shall be ground and/or polished to match and blend with finish of adjacent parent metal.
- g. Structural welds shall be made by qualified welders and shall conform to the general recommendations and regulations of the referenced Aluminum Association Publications.
 - (1) Dirt, grease, lubricant, or other organic material shall be removed by vapor degreasing or suitable solvent.
 - (2) Joints rejected because of welding defects may be repaired only by rewelding. Defective welds shall be removed by chipping or machining. Flame cutting shall not be used.
- h. Where welding is done in proximity to glass or finished surfaces, such surfaces shall be protected from damage due to weld sparks, spatter, or tramp metal.

C. Bolted, Screwed, and Riveted Connections:

- 1. In general, use bolts for field connections only and then only as detailed. Provide washers under all heads and nuts bearing on wood. Draw all nuts tight and nick threads of permanent connections to prevent loosening. Use beveled washers where bearing is on sloped surfaces.
- 2. Where screws must be used for permanent connections in ferrous metal, use flat head type, countersunk, with screw slots filled and finished smooth and flush.
- 3. Where rivets are used, they shall be machine driven, tight, heads centered, countersunk and finished flush and smooth.

D. Surface Treatment and Protective Coatings:

1. Cleaning

- a. Thoroughly clean all mill scale, rust, dirt, grease and other foreign matter from ferrous metal prior to any galvanizing, hot phosphate treatment or painting. Conditions which are too severe to be removed by hand cleaning methods shall be cleaned as per

SSPC "Surface Preparation Specifications", "Solvent Cleaning, SSPC-SP 1-63", "Power Tool Cleaning, SSPC-SP-63", or "Brush-Off Blast Cleaning, SSPC-SP 7-63; as required.

2. Hot phosphate treatment

- b. Conform to SSPC-PT-4.

3. Painting

- a. After material has been properly cleaned and treated, apply shop prime coat of paint to all surfaces except those encased in concrete or masonry. Apply all paint as per manufacturer's directions. Spot paint all abrasions and field connections after assembly. Shop coat shall be dry prior to shipment to job site. Unless otherwise specified or directed, do not apply shop prime coats or any stenciled or painted identification markings to any galvanized surfaces.

4. Dissimilar Materials:

- a. Protective Materials:

- (1) Primer: Section 09900, PAINTING - System "1"

- (2) Finish Coat: Section 09900, PAINTING - System "1".

- (3) Alkali-Resistant Lacquer: Conform to Aluminum Association Standards for Anodized Architectural Aluminum.

- b. Dissimilar Metals: Where aluminum is placed in contact with or fastened to dissimilar metals (excepting galvanized steel, zinc, or small areas of stainless-steel or nickel silver), treat the contact surfaces by one of the following methods. If drainage from dissimilar metals passes over aluminum work, paint the dissimilar metal as specified in paragraph (1) below.

- (1) Apply prime coat of zinc chromate primer to the dissimilar metal followed by one or two coats of aluminum metal and masonry paint.

- (2) Apply a coat of bituminous paint to the dissimilar metal.

- (3) Separate contact surfaces with pressure tape or approved non-absorptive gaskets.

- c. Concrete, masonry, and plaster

- (1) Where aluminum is placed in contact with, or built with, or will receive drainage from masonry, including lime mortar, concrete, or plaster, apply a clear coat of

alkali-resistant lacquer or a heavy coat of bituminous paint, to the aluminum areas affected.

d. Moisture-absorbent materials

- (1) Where aluminum is placed in contact with wood or other absorptive materials subject to repeated wetting, or wood treated with a preservative which is not compatible with aluminum, apply two coats of approved aluminum house paint to such materials. Seal joints with non-drying, non-skinning polyisobutylene caulking compound.

E. Protection of Surfaces

1. Protection of work and initial cleaning shall be the responsibility of each installer or erector until the installation is finally completed, whereupon the responsibility for subsequent protection and final cleaning shall pass to the Contractor for the entire project.
2. Protection shall be provided by strippable coating, protective sleeves, polyethylene sheets, boarding, or other suitable means during fabrication, shipment, site storage, and erection to prevent damage to the finished work due to stains, discolorations, scratches, or any other cause. Damaged elements shall be replaced as damages occur.
3. After installation, and after danger of subsequent damage has passed, remove all protective coverings from all exposed surfaces, and clean those surfaces of all soil and discoloration, ready for acceptance.

END OF SECTION 05500

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Roofing nailers.
- B. Preservative treated wood materials.
- C. Fire retardant treated wood materials.
- D. Miscellaneous framing and sheathing.
- E. Communications and electrical room mounting boards.
- F. Concealed wood blocking, nailers, and supports.

1.2 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.
- B. ASTM D2898 - Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing; 2010.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.
- D. AWPA U1 - Use Category System: User Specification for Treated Wood; American Wood Protection Association; 2012.
- E. PS 1 - Structural Plywood; 2009.
- F. PS 20 - American Softwood Lumber Standard; National Institute of Standards and Technology, Department of Commerce; 2010.
- G. SPIB (GR) - Grading Rules; Southern Pine Inspection Bureau, Inc.; 2014.

1.3 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide technical data on wood preservative materials and application instructions.
- C. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, or installation.

1.5 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a one-year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. Species: **All wood used on the project shall be Southern Pine pressure treated #2. Pressure treated lumber shall have a rating of UC4C with a 0.80 CCA pressure treatment rating.**
 - 2. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
 - 3. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
 - 4. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.
- B. Lumber fabricated from old growth timber is not permitted.

2.2 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: Southern Pine Inspection Bureau, Inc. (SPIB).
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 - 1. Lumber: S4S, No. 2 or Standard Grade.
 - 2. Boards: Standard or No. 2.

2.3 CONSTRUCTION PANELS

- A. Communications and Electrical Room Mounting Boards: PS 1 A-D plywood, or medium density fiberboard; 3/4 inch thick; flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM E84.

2.4 ACCESSORIES

- A. Fasteners and Anchors:

1. **All nails, fasteners, shapes, and connectors shall be 316 stainless-steel.**
2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.
3. Anchors: Toggle bolt type for anchorage to hollow masonry.

2.5 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWWA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.

1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWWA standards.

- B. Fire Retardant Treatment:

1. Manufacturers:
 - a. Arch Wood Protection, Inc: www.wolmanizedwood.com.
 - b. Hoover Treated Wood Products, Inc: www.frtw.com.
 - c. Substitutions: See Section 016000 - Product Requirements.
2. Exterior Type: AWWA U1, Category UCFB, Commodity Specification H, chemically treated and pressure impregnated; capable of providing a maximum flame spread index of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes both before and after accelerated weathering test performed in accordance with ASTM D2898.
 - a. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
 - b. Treat all exterior rough carpentry items.
 - c. Do not use treated wood in direct contact with the ground.
3. Interior Type A: AWWA U1, Use Category UCFA, Commodity Specification H, low temperature (low hygroscopic) type, chemically treated and pressure impregnated; capable of providing a maximum flame spread index of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes.
 - a. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
 - b. Treat rough carpentry items as indicated.
 - c. Do not use treated wood in applications exposed to weather or where the wood may

become wet.

C. Preservative Treatment:

1. Manufacturers:

- a. Arch Wood Protection, Inc: www.wolmanizedwood.com.
- b. Koppers Performance Chemicals, Inc: www.koppersperformancechemicals.com.
- c. Viance, LLC: www.treatedwood.com.
- d. Substitutions: See Section 016000 - Product Requirements.

D. Preservative Pressure Treatment of Lumber Above Grade: AWP U1, Use Category UC4C, Commodity Specification A using waterborne preservative to 0.80 CCA.

1. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
2. Treat lumber exposed to weather.
3. Treat lumber in contact with roofing, flashing, or waterproofing.
4. Treat lumber in contact with masonry or concrete.
5. Treat lumber less than 18 inches above grade.
6. Preservative Pressure Treatment of Plywood Above Grade: AWP U1, Use Category UC4C and UC4C, Commodity Specification F using waterborne preservative to 0.80 CCA pressure treatment ratio.
 - a. Kiln dry plywood after treatment to maximum moisture content of 19 percent.
 - b. Treat plywood in contact with roofing, flashing, or waterproofing.
 - c. Treat plywood in contact with masonry or concrete.
 - d. Treat plywood less than 18 inches above grade.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate installation of rough carpentry members specified in other sections.

3.2 INSTALLATION – GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

3.3 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may

be used in lieu of solid wood blocking.

- C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- D. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- E. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.
- F. Provide the following specific non-structural framing and blocking:
 - 1. Cabinets, casework and shelf supports.
 - 2. Wall brackets and hardware.
 - 3. Handrails.
 - 4. Grab bars.
 - 5. Towel and bath accessories.
 - 6. Wall-mounted door stops.
 - 7. Chalkboards and marker boards.
 - 8. Wall paneling and trim.
 - 9. Joints of rigid wall coverings that occur between studs.
 - 10. Projection screens, curtain tracks, draperies, blinds and other fixtures and equipment.
 - 11. Exterior equipment, fixture, bases and support elements.

3.4 ROOF-RELATED CARPENTRY

- A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.
- B. Provide wood curb at all roof openings except where specifically indicated otherwise. Form corners by alternating lapping side members.

3.5 INSTALLATION OF CONSTRUCTION PANELS

- A. Communications and Electrical Room Mounting Boards: Secure with screws to studs with edges over firm bearing; space fasteners at maximum 24 inches on center on all edges and into studs in field of board.
 - 1. At fire-rated walls, install board over wall board indicated as part of the fire-rated assembly.
 - 2. Where boards are indicated as full floor-to-ceiling height, install with long edge of board parallel to studs.
 - 3. Install adjacent boards without gaps.
 - 4. Size: 48 by 96 inches, installed horizontally at ceiling height.

3.6 SITE APPLIED WOOD TREATMENT

- A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts,

complying with manufacturer's instructions.

B. Allow preservative to dry prior to erecting members.

3.7 TOLERANCES

A. Framing Members: 1/4 inch from true position, maximum.

B. Surface Flatness of Floor: 1/8 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

C. Variation from Plane (Other than Floors): 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

3.8 CLEANING

A. Waste Disposal: Comply with the requirements of Section 017419 - Construction Waste Management and Disposal.

1. Comply with applicable regulations.

2. Do not burn scrap on project site.

3. Do not burn scraps that have been pressure treated.

4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or "waste-to-energy" facilities.

B. Do not leave any wood, shavings, sawdust, etc. on the ground or buried in fill.

C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION 06 10 00

06531 – HDPE DECK BOARDS

PART 1—GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.2 PRODUCT COMPOSITION

- A. High Density Polyethylene (HDPE) resin and a proprietary blend of additives including pigments, UV inhibitors, and AO stabilizers.
- B. WearDeck is the basis of design for the project.
- C. **Wear Deck shall have a wood grain texture on both sides so as to provide a textured surface.**
- D. **All wear deck fasteners shall be stainless-steel.**
- E. Engineer approved equivalent may be substituted only if CONTRACTOR provides technical data and specifications which illustrate the proposed products exceeds the WearDeck technical characteristics.

1.3 PRODUCT FEATURES AND BENEFITS

- A. Heat Reflective
- B. Reduces boards surface temperatures by 30 percent
- C. New Barefoot colors stay cool for bare feet
- D. 8 vibrant colors in a bold wood grain, slip-resistant finish:
 - 1. Cool Gray, Sand, Cedar, Weatherwood, Saddle, White, Barefoot Grey, Barefoot Sand
- E. Maximum color retention with 25-year UV package
- F. 25-year Commercial Warranty and Lifetime Residential Warranty
- G. Custom cut-to-order program reduces waste, cost and labor
- H. Minimal thermal expansion & contraction
 - 1. Maximum of 1/32" on a 20' board
- I. Clean with soap and water or a pressure cleaner at a safe distance
- J. Weatherproof and Waterproof
- K. Withstands harsh heat, hurricanes and saltwater
- L. Rated for ground contact and underwater installation
- M. No mold or mildew

1.4 STANDARD DECKING SIZES

- A. 5/4" X 6"
 - 1. Actual Dimensions: 1.05x5.5"
 - 2. Standard Lengths: 12' 16' 20'
 - 3. Custom Lengths: Up to 28'
 - 4. Woodgrain: One Side

5. Colors Available: All
6. 1.90 PLF

B. 5/4" X 8"

1. Actual Dimensions: 1.05x7.25"
2. Standard Lengths: 12' 16' 20'
3. Custom Lengths: Up to 28'
4. Woodgrain: One Side
5. Colors Available: All
6. 2.56 PLF

C. 2"X6"

1. Actual Dimensions: 1.35x5.5"
2. Standard Lengths: 12' 16' 20'
3. Custom Lengths: Up to 28'
4. Woodgrain: One Side
5. Colors Available: All
6. 2.42 PLF

D. 2"X4"

1. Actual Dimensions: 1.5x3.5"
2. Standard Lengths: 16' 20'
3. Custom Lengths: Not available
4. Woodgrain: Both Sides
5. Colors Available: All
6. 1.68 PLF

E. 2"X8"

1. Actual Dimensions: 1.5x7.25"
2. Standard Lengths: 12' 16' 20'
3. Custom Lengths: Not Available
4. Woodgrain: Both Sides
5. Colors Available: All colors at 12' and 16'.
6. White, Cedar, and Saddle at 20'.
7. 3.60 PLF

F. 2"X10"

1. Actual Dimensions: 1.5x9.25"
2. Standard Lengths: 12' 20'
3. Custom Lengths: Not Available
4. Woodgrain: Both Sides
5. Colors Available: All colors at 12'.
6. White, Cedar, and Saddle at 20'.
7. 4.60 PLF

- G. ½" X 6"
1. Actual Dimensions: 0.5x5.5"
 2. Standard Lengths: 18'
 3. Custom Lengths: Not Available
 4. Woodgrain: Both Sides Colors Available: All
 5. 0.90 PLF

- H. ½" X 10"
1. Actual Dimensions: 0.5x9.5"
 2. Standard Lengths: 12'
 3. Custom Lengths: Not Available
 4. Woodgrain: Both Sides
 5. Colors Available: All
 6. 1.60 PLF

1.5 INSTALLATION INFORMATION

- A. Reinforced Polymeric Lumber in all profiles produces decking that easily exceeds generally accepted standards for application.
- B. 5/4" decking spans 24 inches on center (O.C.) for deck and dock applications.
 1. 266 PSF load capacity @ 16" O.C.
 2. 120 PSF load capacity @ 24" O.C.
- C. 2"X6" decking spans 24 inches on center (O.C.) for deck and dock applications.
 3. 306 PSF load capacity @ 24" O.C.

1.6 JOISTS/STRINGERS

- A. All joists must be level to each other in order to attain a proper quality installation.
- B. Joists may require blocking/bridging in order to maintain straight and level joists based on material used to construct deck.

1.7 CANTILEVERED DECK CAPACITY

- A. For cantilevering; 5/4" x 6" maximum of 2" & 2 x 6" maximum of 4".

1.8 LONGITUDINAL GAP BETWEEN DECKING AND WALLS/PILING/POSTS

- A. Provide a minimum of a 1/8" to 1/4" inch gap between exterior walls, pilings, posts, & retaining walls or any solid fixed structure when installing all decking.

1.9 FASTENING AND WORKABILITY

- A. **316 Stainless-steel deck screws shall be utilized.**
- B. Stainless-steel Composite Deck Screws offer exceptional longevity and appearance as they capture surface material.

1.10 ACCEPTABLE FASTENERS

- A. Starborn, Simpson Strong-Tie, Deckmate, TrapEase by Fasten Master, Tiger Claw
- B. CAMO for excellent for drive tools and concealed fastening applications.

1.11 FASTENING RECOMMENDATIONS

- A. When face fastening a 5/4" board, use at a minimum, a #9 x 2 1/2" exterior rated composite type screw.
- B. When face fastening a 2" board, use at a minimum, a #10 x 2 1/2" minimum exterior rated composite type screw.
- C. Predrilling is NOT GENERALLY REQUIRED, however in the extreme cold of winter, testing to determine best method of application is recommended.
- D. A MINIMUM of 2 fasteners should be placed from 1/2 to 1 inch from ends & edges of decking at a minimum of every 24 inches or every joist for proper standard decking applications. Your particular application may require a more fasteners based on needs of your structure. Applications for other than standard decking use, example 2x8s or 2x10s, may require special bolts or screws based on your particular application or structures needs.
- E. 1/2" x 6" or 1/2" x 10" Fascia is designed for use as trim over a completely solid, level board to board, surface.
- F. 1/2" x 6" should be fastened with a minimum of 2 screws every 12 inches starting at 1" from ends and edges of each board, allowing 1/16th inch gap between ends / butt joints of each board, screw should be at least a #8 x 1 5/8" long. Example of cap capture screw would be;
- G. Deckmate #8 x 1 5/8" T20 star drive composite.
- H. 1/2" x 10" should be fastened with a minimum of 2 screws every 12 inches applied vertically starting at 1" from ends and edges of each board, allowing 1/16th inch gap between ends of each board, screw should be at least a #8 x 1 5/8 inches long. Example of cap capture screw would be; Deckmate #8 x 1 5/8" T20 star drive composite.
- I. Screws can be composite deck type screw with cap capture threads or standard style threads, cap capture style screws provide the best appearance.

1.12 DECK SPACING GUIDELINES

- A. Thermal Expansion = 1/32" in the length of a 20' 5/4 x 6" or 2 x 6" deck board
- B. End to end spacing minimum of 1/16 inch.
- C. Side to side spacing minimum of 1/16 inch.
- D. General building practices call for wider side to side spacing to allow for proper drainage, debris removal and/or air circulation, PLEASE consider these factors when installing any decking material. Deck shall be rated for ground contact and can be installed underwater.

1.13 FACE FASTENING GUIDELINES

- A. Straight at 90° to deck board.
- B. When face fastening place screws NO closer than 1/2 inch from the end and 1/2 inch from the side from side edge of deck board, using 2 screws at each joist connection. Builders most often find that installing screws approximately 1" from end and edges of boards provides a

better look and overall optimal application.

- C. A MINIMUM of 2 fasteners should be placed from ½ to 1 inch from ends & edges of decking at a minimum of every 24 inches or every joist for proper standard decking applications. Your particular application may require a more fasteners based on needs of your structure. Applications for other than standard decking use, example 2x8s or 2x10s, may require special bolts or screws based on your particular structures needs.
- D. MINIMUM requirements are stated but ALL Fastening & fastener decisions are the responsibility of the homeowner, builder or contractor.

1.14 CLEANING

- A. Generally keeping the decking surface rinsed to remove excess dirt and debris will keep surface in excellent condition. We recommend periodic cleaning for the best overall appearance.
- B. Promptly clean any stain with a good household cleaner and a natural bristle brush
- C. However, if dirt is allowed to build up on the surface for a prolonged time tougher buildup may occur which could require extra effort to remove.
- D. Deck shall have NO organic compounds and deck shall not support mildew or mold growth but if allowed to become and stay dirty the dirt, soil, debris will grow mold or mildew, requiring extra effort to clean.
- E. Cleaning solutions such as DAWN dishwashing solution, 409, Simple Green, Fantastik, etc. should work well for general cleaning needs.
- F. IF there is a grill on the deck, a non-rubber backed mat is recommended to protect against grease drops. If grease stains or any stain occurs, they should be cleaned as soon as possible. The longer they remain the harder they are to remove from any surface / any product. DAWN dishwashing solution generally does an excellent job removing most grease stains.
- G. Pressure Washing is NOT RECOMMENDED. However, if pressure washer is used always keep spray tip from 12 to 18 inches away from deck material with a wide fan spray setting at medium pressure. NEVER use a fine point spray setting when cleaning any plastic,
- H. composite or wood decking material, as fine point spray on a pressure washer can and will most often damage any decking material regardless of type.

1.15 ASTM TESTING DATA AND SPANS

A. Property	Requirement
B. Weight	ASTM D6111
C. Modulus of Elasticity	ASTM D6109
D. Flexural Strength ASTM	D6109
E. Temperature/Moisture Effect	ICC-ES AC174
F. Creep Relaxation	ICC-ES AC174
G. UV Resistance	ICC-ES AC174
H. Compressive Modulus	ASTM D6108
I. Specific Gravity	ASTM D2395
J. Screw Withdrawal	ASTM D1761
K. COF Slip Resistance	ASTM F1679

L. COF of Linear Thermal Expansion ASTM D696

END OF SECTION 06531

SECTION 09 90 00
EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:

1. Non-stainless-steel products.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of topcoat product indicated.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat indicated.
1. Submit Samples on rigid backing, 8 inches square.
 2. Step coats on Samples to show each coat required for system.
 3. Label each coat of each Sample.
 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

1.3 QUALITY ASSURANCE

- A. MPI Standards:
1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.5 PROJECT CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

1.6 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
 1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. of each material and color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Corrocoat
 2. PPG Architectural Finishes, Inc.
 3. Sherwin-Williams Company (The).

2.2 PAINT, GENERAL

- A. Material Compatibility:
 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- i. VOC Content of Field-Applied Interior Paints and Coatings: Provide products that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24); these requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop:

1. Flat Paints, Coatings, and Primers: VOC content of not more than 50 g/L.
2. Nonflat Paints, Coatings, and Primers: VOC content of not more than 150 g/L.
3. Flat Topcoat Paints: VOC content of not more than 50 g/L.
4. Nonflat Topcoat Paints: VOC content of not more than 150 g/L.
5. Primers, Sealers, and Undercoaters: VOC content of not more than 200 g/L.
6. Zinc-Rich Industrial Maintenance Primers: VOC content of not more than 340 g/L.

B. Colors: As Selected by the OWNER

2.3 PRIMERS AND FINISH COATS

A. Coating Criteria for Exterior Steel:

1. 1st Coat: Macropoxy 646 (3.0 mils)
2. Top Coat: Macropoxy 646 (5.0 mils)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- C. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Remove plates, machined surfaces, and similar items already in place that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
 2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 2. Use applicators and techniques suited for paint and substrate indicated.
 - 3. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 4. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

END OF SECTION 09 90 00

SECTION 15066 – STAINLESS-STEEL PIPE AND FITTINGS

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install, test, complete and ready for operation all stainless-steel pipe as shown on the Drawings and as specified herein.
- B. Where the word "pipe" is used, it shall refer to pipe, fittings, hangers, supports and appurtenances unless otherwise noted.
- C. The work includes, but is not necessarily limited to:
 - 1. Furnishing and installing above grade, stainless-steel pipe, fittings and specials with screwed, butt welded, or flanged and plain ends, as shown on the Drawings.
- D. Basis of Design for Supplier of Stainless-Steel Piping: Ferguson Waterworks (FEL-Pensacola Waterworks 8813 Grow Drive Pensacola, Florida 32514

1.02 RELATED WORK

- A. Valves and appurtenances are included in Section 15100.
- B. Pipe hangers and supports are included in Section 15090.

1.03 SUBMITTALS

- A. Submit shop drawings including piping layouts, spool drawings, and schedules to the ENGINEER in accordance with Section 01300, including dimensioning, fittings, expansion joints, locations of valves and appurtenances, joint details, wall penetration details, methods and locations of supports and all other pertinent technical specifications for all piping to be furnished. Shop drawings shall include all data and information required for the complete piping systems, including alloys, diameter, pipe wall thickness, flanges, and other joint preparations. All dimensions shall be based on the actual equipment to be furnished. Types and locations of pipe hangers and/or supports shall be shown on the piping layouts for each pipe submittal. Not all dimensions will be checked by the ENGINEER, nor will detailed review be performed. CONTRACTOR shall be responsible for accurate dimensioning of piping systems.
- B. Submit method and procedures for pickling and passivating by full immersion the piping spool after fabrication.
- C. Submit certifications that welders are qualified, in accordance with ASME Section IX for shop and project site welding of pipe work.

- D. Process piping layout which depict the piping layout, elevation, and all fittings.
- E. Full and complete information regarding location, size, and extend of all welds shall be shown on the shop drawings. The shop drawings shall distinguish between shop and field welds. Shop drawings shall indicate by welding symbols or sketches the details of the welded joints and include the applicable Weld Procedure Specifications (WPS) along with the supporting Procedure Qualification Records (PQR) and Welder Qualification Record.
- F. Complete piping design pressure calculations shall be submitted to the ENGINEER. The calculations shall be in conformance with the ASME B31.3 standard and the requirements specified herein.

1.04 REFERENCE STANDARDS

A. American Society for Testing and Materials (ASTM):

1. ASTM A312 - Standard Specification for Seamless and Welded Austenitic Stainless-Steel Pipe
2. ASTM A530 – Standard Specification for General Requirements for Specialized Carbon and Alloy Steel Pipe
3. ASTM A778 – Standard Specification for Welded, Unannealed Austenitic Stainless-steel Tubular Products
4. ASMT A774 – Standard Specification for Stainless-steel Pipe Fittings
5. ASTM A182 – Standard Specification for Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service
6. ASTM A240 – Standard Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless-steel Plate, Sheets and Strip for Pressure Vessels
7. ASTM A403 – Standard Specification for Wrought Austenitic Stainless-steel Piping Fittings

B. American National Standards Institute (ANSI):

1. ANSI B16.1 – Cast Iron Pipe Flanges and Flanged Fittings
2. ANSI B16.5 – Flanges
3. ANSI B16.9 – Factory-Made Wrought Steel Buttwelding Fittings
4. ANSI B36.19 – Stainless-steel Pipe

C. American Water Works Association (AWWA):

1. AWWA C111 – Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings

D. American Society of Mechanical Engineers (ASME):

1. ASME B31.1 – Power Piping

- E. American Welding Society (AWS)
- F. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.05 QUALITY ASSURANCE

- A. Stainless-steel pipe and fittings shall be furnished by a single manufacturer who is fully experienced, reputable, qualified and regularly engaged for the last five years in the manufacture of the materials to be furnished. The pipe and fittings shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with these Specifications. Pipe and fittings shall be as manufactured by Aerex Industries, Fort Pierce, Florida; Felker Brothers, Marshfield, Wisconsin, or Duhig, Los Angeles, California, or approved equal.
- B. The manufacturer shall be qualified to perform work in accordance with ASME Code Standards and shall hold one or all of the following ASME accredited code stamps: "U", "S", or "PP".
- C. Welder Qualifications: All welding shall be performed by welders, welder operators and tackers fully qualified in accordance with ASME Section IX and have adequate experience in the methods and materials to be used. All field welding shall be per pipe manufacturer's written instructions and procedures unless otherwise approved by the ENGINEER.

1.06 SYSTEM DESCRIPTION

- A. Piping shall be installed in those locations as shown on the Drawings.
- B. The equipment and materials specified herein are intended to be standard types of stainless-steel pipe and fittings for use in transporting wastewater and air.
- C. Stainless-steel piping for the system listed below shall be designed for the following conditions:
 - 1. System: Effluent Piping
 - a. Material: Type 316, Schedule 10s (Min. Yield Strength of 30 ksi)
 - b. Operating (Air) Pressure: 9.52 psig
 - c. Test Pressure: 45 psig
 - d. Temperature: Ambient to 250 degrees F

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipe and fittings. Pipe and fittings shall not be dropped. Pipe and fittings shall be examined before installation and no piece shall be installed which is found to be defective.

- B. In handling the pipe, wide cushioned slings or other devices and methods acceptable to the ENGINEER shall be used. No un-cushioned ropes, chairs, wedges or levers shall be used in handling the pipe, fittings and couplings.
- C. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe by the CONTRACTOR, at the CONTRACTOR's own expense. All pipe and fittings shall be thoroughly cleaned before installation and shall be kept clean until they are put into service.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. All stainless-steel pipe and fittings for air service shall be fabricated from stainless-steel sheet and conform to ASTM A778 and A774. All stainless-steel pipe and fittings for water service shall be fabricated from stainless-steel sheet and conform to ASTM A312 and A403. Carbon content of Type 316 (min yield strength 30 ksi) material shall be 0.03 percent maximum. Finish shall be No. 1 or No. 2B.
- B. Pipe shall be die-formed or rolled true to dimension and round. Tolerances for length, inside and outside diameter and straightness shall conform to ASTM A530. The two edges of sheet shall be brought to line so as not to leave a shoulder on the inside of the pipe. Ends of pipe and fittings shall be perpendicular to the longitudinal axis. Longitudinal seams on pipe and fittings shall be welded by either the tungsten gas or the metallic-gas method. The interior welds shall be smooth, even and shall not have an internal bead higher than 1/16-inch. All pieces shall be marked with gauge and type of stainless-steel and with the initials of the inspector marked on the inside of each piece, at each end.
- C. Pipe and fittings shall be rated for a minimum of 45 psi at 300 degrees F for air piping and a minimum of 150 psi at 300 degrees F for wastewater piping. Flanges shall be ANSI B16.5 Class 150.
- D. Fittings shall be smooth curve type up to 18-inch diameter and mitered type 20-inch diameter and greater. Fittings shall conform to ANSI B16.9.
- E. Flanges for pipe 4-inch and smaller shall be of the type of stainless-steel as the pipeline, and shall be welded directly to the pipe end, and shall be drilled to the 125 lb. ANSI B16.1 standard. Flanges for pipe larger than 4-inch shall have stub ends or rolled angle rings of the type of stainless-steel as the pipeline welded to the pipe end, with suitable gaskets between the mating surfaces and joined through the use of 125 lb. rated back-up flanges, drilled to ANSI B16.1, and made of Type 316 stainless-steel (min yield strength of 30 ksi). Where the pipe stub is to pass through a sleeve during installation, a split-type back up flange shall be used. Bolts, washers, nuts and other hardware for flange bolting shall be Type 316 stainless-steel (min yield strength of 30 ksi).

- F. Gaskets for flanged connections shall be a minimum of 1/16-inch thick and shall be rubber, Hypalon, Teflon, BUNA-N, SBR, NBR or Viton.
- G. Shop fabricated multiple output headers may be used in lieu of individual flanged fittings.
- H. Wall pipes shall have integral shop welded wall stops.
- I. All stainless-steel pipe and fittings shall be pickled at the point of manufacture, scrubbed and washed until all discoloration is removed in accordance with ASTM A380.
- J. Pipe ends shall be prepared for couplings or other type ends where required by transport and handling limitations, where required by the support layout requirements and where noted on the Drawings. Plain end pipe may be coupled with "Pressfit"-style connectors, for pipe/tubing sizes 1/2-inch and smaller, manufactured by the Victaulic Co. or by the use of grooved end couplings. Grooving (or built-up ends for Schedule 5s or 10s pipe) shall be of the coupling manufacturers standard type. CONTRACTOR is responsible for ensuring rigidity of joints where required. All normal pipe joints at valves, bends, etc., shall be flanged, drilling per ANSI B16.1, Class 150.
- K. Shop welding of fabrications shall be done according to the procedures and by welders certified per ASME Section IX. Welds shall be by an inert gas shielding process using only extra low carbon filler metals. Welds shall have a bead height of no more than 1/16-in. Butt welds shall have 100 percent penetration to the interior or backside of the weld joint. Cross-sectional thickness of welds shall be equal or greater than that of the parent metal.
- L. Where shown on the Drawings or where approved by the ENGINEER, plain end pipe shall be joined by all stainless-steel flexible couplings. Sleeve type couplings shall be of the Type 316 stainless-steel (min yield strength of 30 ksi) and shall be Style 38 as manufactured by Dresser Manufacturing Division of Dresser Industries; coupling 411 as manufactured by Smith Blair, Inc. or equivalent couplings manufactured by Depend-O-Lok Co.
- M. Where shown on the Drawings or where approved by the ENGINEER, flanged coupling adaptors shall be used to connect plain end pipe to equipment, fittings and valves. Flanged coupling adaptors shall be of the Type 316 stainless-steel (min yield strength of 30 ksi) and shall comply with AWWA C207. Flanged coupling adapters shall be manufactured by Dresser Manufacturing Division of Dresser Industries; Smith Blair, Inc. or equal.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. All pipe and fittings shall be installed true to grade and alignment and pipe anchorage and/or restraint shall be provided where required. Manufacturer's instructions shall be strictly followed.
- B. All pipe and fittings shall be protected from dirt, dust, oil, grease and other foreign matter

during installation to prevent damage to pipe and to assure no foreign matter is left in the piping.

- C. To assemble the joints in the field, thoroughly clean all joint surfaces and gaskets, if any, with soapy water before assembly. Bolts shall be tightened alternately, evenly to the manufacturer's specified torques. Under no condition shall extension wrenches or pipe-over-handle ratchet wrenches be used to secure greater leverage. All electrical bonding or insulation shall be installed as joints are made up.
- D. Fittings, in addition to those shown on the Drawings, shall be provided if required. Due consideration shall be given to thermal expansion/contraction over a temperature range of 200 degrees F.
- E. Sleeves of the proper size shall be installed for all pipes passing through floors or walls as shown on the Drawings.
- F. When cutting of pipe is required, the cutting shall be done by machine neatly, without damage to the pipe. Cut ends shall be smooth and at right angles to the axis of the pipe.
- G. After installation, stainless-steel pipe lines shall be washed clean with steam or hot water to remove any foreign material picked up during transport.
- H. Pipe Hangers and Supports
 - 1. Pipe hangers and supports shall be provided at suitable distance along the pipeline regardless of whether they are shown or not shown on the drawings.
 - 2. Pipe hangers and supports shall be as specified in Section 15090.

3.02 JOINING MECHANICAL AND RESTRAINED JOINTS

- A. Mechanical joints shall be in accordance with the "Notes on Methods of Installation" under AWWA C111 and the instructions of the manufacturer.
- B. Restrained joint pipe and fittings shall be installed in the locations shown on the Drawings and as acceptable to the ENGINEER.

3.03 JOINING FLANGED JOINTS

- A. Flanged joints shall be made with gasket, bolts and nut bolts stud with a nut on each end, or studs with nuts where the pipe is tapped. The number and size of bolts shall conform to the same standard requirements as the flange.

3.04 FIELD WELDING

- A. Welding in the field shall be done only if approved by the ENGINEER. Field welds shall be

made by welders certified under ASME Section IX and be equal in all respects to shop welds. After field welding has been done, all joints shall be thoroughly cleaned and buffed using deburring and finishing wheels.

3.05 FIELD PAINTING

- A. Final painting is included in Section 09900 except that for all stainless-steel pipe, only bands, labels, and arrows rather than full pipe painting will be required.

3.06 TESTING

- A. All pipes shall be tested for compliance with this specification. If leaks are discovered, they shall be repaired under this Section and approved by the ENGINEER. Pressure and leakage tests will be required.
- B. After installation, all piping shall be flushed, cleaned with Oakite deoxidizer or similar deoxidizer as recommended by the manufacturer to remove all foreign matter, construction stains or shop markings. Cleaned lines shall be rinsed clear with steam or hot water.

END OF SECTION 15066 SECTION 15090 - PIPE SUPPORT SYSTEMS

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. This Section includes all pipe support systems as shown on the Drawings.

1.02 REFERENCES

- A. American National Standards Institute (ANSI)
 - 1. B31.1, Power Piping
 - 2. B31.3, Chemical Plant and Petroleum Refinery Piping
- B. American Society for Testing and Materials (ASTM)
 - 1. A276, Standard Specification for Stainless and Heat Resisting Steel Bars and Shapes
 - 2. A575, Standard Specification for Steel Bars, Carbon, Merchant Quality
- C. American Welding Society (AWS)
 - 1. D1.1, Structural Welding Code
- D. Manufacturer's Standardization Society of the Valve and Fittings Industry (MSS)
 - 1. SP58, Pipe Hangers and Supports - Materials and Design
 - 2. SP69, Pipe Hangers and Supports - Selection and Application
- E. **Basis of Design for Supplier of Pipe Support Systems: Ferguson Waterworks (FEL-**

Pensacola Waterworks 8813 Grow Drive Pensacola, Florida 32514

1.03 DESIGN

- A. Assure design, materials of construction and installation of pipe hangers, supports, guides, restraints, and anchors for air and process piping are in accordance with ANSI B31.3, and MSS Standard SP-58 and SP-69, except where modified by this Specification. For steam and hot and cold-water piping, assure design, materials of construction and installation of pipe hangers, supports, guides, restraints, and anchors are in accordance with ANSI 31.1, and MSS SP-58 and SP-69.
- B. **All hanger assembly components for the 316 stainless-steel effluent piping system shall be 316 stainless-steel.**

1.04 SUBMITTALS

- A. Certifications that products used meet standards referenced.
- B. Shop Drawings consistent with Section 01300 and including:
 - 1. Product technical data
 - 2. Scaled drawing showing guides, hangers, supports, anchors, structural members and appurtenances used for pipe support system.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Concrete Inserts (Continuous Slot)
 - 1. Products as manufactured by Unistrut (P3200), or approved equal, and which meet these Specifications.
- B. Concrete Inserts (Individual Slot)
 - 2. Products as manufactured by Anvil (Figure 281), or approved equal, and which meet these Specifications.
- C. Concrete Inserts (Self Drilling Expansion Anchor)
 - 3. Products as manufactured by Phillips (Flush End or Snap Off End Type), or approved equal, and which meet these Specifications.
 - 2. Provide stainless-steel anchorage for exposed and submerged locations.
- D. Pipe Hangers
 - 1. Products as manufactured by Anvil (Figure 260SS), or approved equal, and which meet

these Specifications.

E. Stanchion Pipe Supports

2. Products as manufactured by Standon (Model C-92) with Anvil (Figure 137SS) U-Bolt, or approved equal, and which meet these Specifications.

F. Offset Pipe Clamps

3. Products as manufactured by Elcen (Figure 44), or approved equal, and which meet these Specifications.

G. Flanged Cradle Pipe Support

4. Products as manufactured by Standon (Model S-96), or approved equal, and which meet these Specifications.

H. Rigid Pipe Support

5. Products as manufactured by Standon (Model S-89) with B3088 base, or approved equal, and which meet these Specifications.

I. Wall Brackets

6. Products as manufactured by Anvil (Figure 195 or 199), or approved equal, and which meet these Specifications.

J. Channel Frame Pipe Supports

7. Products as manufactured by Unistrut Corporation, Powerstrut, Inc, or approved equal, and which meet these Specifications.

2.02 COMPONENTS

- A. All structural steel angles, rods, channels, and special devices integral to hanger and support system shall be stainless-steel unless otherwise noted on drawings.

B. Hanger Rods

1. ASTM A276 in wet/corrosive areas
2. ASTM A575 in non-corrosive areas
3. Maximum total hanger load
 - a. 3/8-inch diameter (min) rod: 610 LBS
 - b. 1/2-inch diameter rod: 1,130 LBS
 - c. 5/8-inch diameter rod: 1,810 LBS
 - d. 3/4-inch diameter rod: 2,710 LBS

- e. 7/8-inch diameter rod: 3,770 LBS
 - f. 1-inch diameter rod: 4,960 LBS
- 4. Continuous thread type with rods electro-galvanized or cadmium plated after threads are cut except where stainless-steel is specified.
- C. Expanding pipe supports: Spring hangers conforming to MSS-SP58
- D. Trapeze Hangers
 - 1. Galvanized angle iron, channels or other structural shapes unless otherwise noted on drawings
 - 2. Provide either curved or roller surfaces at support point corresponding with type of hanger scheduled.
- E. Anchors and Alignment Guides
 - 1. Stainless-steel anchors and alignment guides.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation, inspect and verify condition of substrate. Installation constitutes installer's acceptance of substrate for satisfactory installation.
- B. Prior to installation, inspect and verify condition of pipe support system. Installation constitutes installers acceptance of condition for satisfactory installation.

3.02 PREPARATION

- A. Correct defects or conditions which may interfere with or prevent a satisfactory installation.

3.03 ERECTION/INSTALLATION/APPLICATION

- A. Install in accordance with manufacturer's instructions
- B. Locate hangers, supports, and accessories to support pipe system at concentrated loads and in accordance with minimums defined in MSS-SP69.
- C. Install supports capable of supporting the pipe for service and testing conditions shown on piping Specification Schedules. Allow free expansion and contraction of the piping to prevent excessive stress resulting from service and testing conditions or from weight transferred from the piping or attached equipment.
- D. All piping systems and pipe connections to equipment shall be properly anchored and supported to prevent undue deflection, vibration, dislocation due to seismic events and line pressures, and stresses on piping, equipment, and structures.

- E. Provide piping systems exhibiting pulsation, vibration, swaying, or impact with suitable constraints to correct the condition. Movements from trap discharge, water hammer, and similar internal forces are included in this requirement.
- F. Weld supports in accordance with the requirements of AWS Code D1.1 Structural Welding. Weld anchors to pipe in accordance with ANSI B31.3.
- G. Locate piping and pipe supports as to not interfere with open accesses, walkways, platforms, and with maintenance or disassembly of equipment.
- H. Support vertical pipe runs in pipe chases at base of riser and at each floor. Support pipes for lateral movement with clamps or brackets.
- I. Install individual or continuous slot concrete inserts for use with hangers for piping and equipment. Furnish and install concrete inserts as concrete forms are installed.
- J. Size hangers to fit around outside of pipe insulation.
 - 1. Provide a pipe covering protection saddle for insulated hot pipe 4-inch and larger at support point.
 - 2. Install a 16-inch length of 9 LB density fiberglass pipe insulation between pipe and hanger or support for insulated piping without saddles.
 - 3. Insert to cover lower half of pipe utilizing insulation suited to pipe temperature.
 - 4. Thickness of pipe covering protection saddle and 9 LB density fiberglass to match final insulation thickness.
- K. Provide pipe anchors to prevent movement of pipe at point of attachment.
- L. Install pipe alignment guides on both sides on each expansion joint or loop to assure proper alignment of expanding and contracting pipe. Guides are not substitutes for hangers or other pipe supports. Provide two guides before and after each expansion joint/loop. Locate the first guide four pipe diameters away from the joint/loop, the second guide 10-12 pipe diameters from the first. Provide additional guides 75 ft on center thereafter unless anchors are present in that distance.
- M. Suspend piping installed on galvanized steel trapeze hangers from concrete inserts or approved structural clips.
- N. Provide wall bracket supports for pipe located near walls and 8 ft or more above floor elevation.
- O. Provide pipe support saddles for pipe located 3 ft or less from the floor elevation in lieu of hangers.
 - 1. Use schedule 40 stainless-steel support pipe risers recommended by saddle manufacturer.
 - 2. Provide steel floor plate with collar 3/16-inch thickness, circular in shape, and sleeve type connection to pipe.
 - 3. Size floor plate 4-inch larger than support pipe.

4. Fit collar over outside of support pipe and extend up 2-inch from the floor plate.
5. Weld floor plate to collar and grind all edges smooth. Hot-dip galvanized assembly after fabrication.

P. For hangers placed directly on copper pipes, use copper or cadmium plated type hangers or isolate copper pipe from steel hanger with electrically insulating material. For all other applications use hangers cadmium plated or galvanized.

Q. Adjust supports and hangers to allow for proper pitch of pipes.

R. Where more than two pipes run parallel, support using trapeze hanger or individual hangers.

S. Secure channel frame pipe supports to walls or floors using suitable anchors.

3.04 FIELD QUALITY CONTROL

A. After erection of piping systems, and prior to pipe testing and flushing, inspect hangers for design offset, adequacy of clearance for piping and supports in the hot and cold positions, guides to permit movement without binding, and adequacy of anchors.

3.05 SCHEDULE

A. In certain locations, pipe supports, anchors, and expansion joints have been indicated on the drawings, but no attempt has been made to indicate every pipe support, anchor, and expansion joint. It shall be the CONTRACTOR's responsibility to provide a complete system of pipe supports, to provide expansion joints, and to anchor all piping, in accordance with the following minimum requirements:

1. Steel, stainless-steel and ductile iron pipe support schedule.

Pipe sizes - IN	Maximum Spacing Between Supports - FT
1-1/2 and less	5
2 thru 4	10
5 thru 7	15
8 and greater	20

2. Copper pipe support schedule

Pipes Sizes - IN	Maximum Spacing Between Supports - FT
2-1/2 and less	5
3 thru 6	10
8 and greater	20

3. Plastic pipe support schedule

Pipes Sizes - IN	Maximum Spacing Between Supports - FT *
1-1/4 and less	3
1-1/2 thru 3	4
4 and greater	5

* Maximum fluid temperature of 100 deg F.

4. Miscellaneous. Space supports for soil and waste pipe and other piping systems, not included above, every 5 feet.
 5. Where mechanical coupling or expansion joints are used, place hanger within 2 feet of each side of fittings to keep pipes in alignment.
 6. Provide at least one support for each length of pipe, at each change of direction and at each valve.
 7. Above spacing is a minimum and where shown on the Drawings shall be installed in those locations.
- B. Pipe supports and expansion joints are not required in buried piping, unless shown on the drawings or specified in other sections. Concrete blocking or other suitable anchorage for buried piping shall be provided as indicated on the drawings or specified in other sections.
- C. All piping shall be rigidly supported and anchored so that there is no movement or visible sagging between supports.

END OF SECTION 15090