

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

Bid Number: 22-01



City of St. Augustine Beach

PROJECT MANUAL

**CONTRACT DOCUMENTS
PROJECT SPECIFICATIONS**

February 2022

PREPARED BY:

**City of St. Augustine Beach
Public Works Department
2200 SR A1A
St. Augustine, Florida 32080
(904) 471-1119**

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**BIDDING
REQUIREMENTS**



Document 00 10 00

NOTICE TO BIDDERS – CONSTRUCTION

Notice is hereby given that sealed bids will be received until 3:00 pm on Thursday March 3, 2022, by the City Manager, City of St. Augustine Beach, located at City Hall, 2200 A1A South, St. Augustine Beach, Florida 32080, for the Ocean Hammock Park Phase 2 Improvements. Bids will be opened promptly after the 3:00 P.M. deadline. **Note:** Bids delivered or received at City of St. Augustine Beach City Hall after the 3:00 P.M. deadline shall not be given consideration and shall be returned to the sender unopened.

SCOPE OF WORK:

Construction of Phase 2 Improvements to Ocean Hammock Park, including:

- New Saltwater beach accessible restroom with attached outdoor beach shower
- Educational Kiosk
- Picnic areas with slab and tables
- Beach access (ADA accessible)
- Nature trail with interpretative signs
- Water fountain with bottle filling station (attached to restroom)
- Handicap parking space

Electronic copies of Bidding Documents for Bid No. 22-01 may be downloaded from Demandstar at www.demandstar.com or free of charge from the City's website at www.staugbch.com. Electronic copies on USB drive and paper copies are available, upon request, at the City Manager's Office, 2200 S.R. A1A South, St. Augustine Beach, FL 32080, for the fees of \$5 per set (USB) and \$50 per set (paper), which is non-refundable. Make checks payable to City of St. Augustine Beach.

Any and all technical questions relative to this project shall be directed to William Tredik, P.E., Public Works Director, City of St. Augustine Beach at (904) 471-1119.

The City of St. Augustine Beach reserves the right to accept or reject any or all bids/proposals, waive minor formalities, and to award the bid/proposal that best serves the interests of The City of St. Augustine Beach.

CITY OF ST AUGUSTINE BEACH
ST AUGUSTINE BEACH, FLORIDA

**SECTION 00 21 00
INSTRUCTION TO BIDDERS**

OWNER: **City of St. Augustine Beach**
2200 S.R. A1A South
St. Augustine Beach, Florida 32080

ENGINEER: **City Engineer**
City of St. Augustine Beach
2200 S.R. A1A South
St. Augustine Beach, Florida 32080

PROJECT: **BID NO.: 22-01**
Ocean Hammock Park Phase 2

DEFINITIONS

Bidding Documents include the Advertisement/Notice to Bidders, Front End Bid Documents, Standard Agreement, Public Construction Bond, Specifications and Plans including any Addenda issued prior to receipt of Bids.

All definitions set forth in the General Conditions of the Contract for Construction or in other Contract Documents are applicable to the Bidding Documents.

Addenda are written or graphic instruments issued by the Project Director prior to the time and date for receiving Bids that modify or interpret the Bidding Documents by addition, deletion, clarification, or corrections.

Engineer is the City Engineer or designee of the City of St. Augustine Beach, responsible for all field inspections and assurance that the Contractor is conforming to the terms of the Contract

Base Bid is complete and properly signed proposal to do the work, or designated portion thereof, for the sums stipulated therein supported by data called for by the Bidding Documents.

A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials or services as described in the contract documents and shall include all labor, materials, equipment and any other item/s essential to accomplish the scope of work of the Unit Price.

A Bidder is one who submits a Bid as a prime contractor to the Owner for the work described in the proposed Contract Documents.

BIDDER'S REPRESENTATION

Each Bidder, by marking their Bid, represents that:

The Bidder has read and understands the Bidding and Contract Documents and their Bid is made in accordance herewith:

- A. The Bidder has visited the Site and has become familiar with the local conditions under which the Work is to be performed.
- B. The Bidder has asked for and received clarification through the Addenda process for any work, scope direction or design intent unclear in the Bidding Documents.
- C. The Bidder's Bid is based upon the materials, systems and equipment described in the Bidding Documents without exceptions.
- D. The Bidder has properly allocated the dollar value of each part of the work to the appropriate lump sum bid price.

SALES AND USE TAXES

All state sales and use taxes on materials and equipment to be incorporated in the Work shall be included in the Bid. However, the Owner is exempt from sales and use taxes on materials and equipment and therefore, at the Owners option, the Contractor shall be required to provide the Owner with the details of the Contractor's Purchase Order(s), including vendor name, address, vendor quotation and the quantity and type of materials and/or equipment being ordered. The Owner may choose to order the major materials and/or equipment direct. Should the Owner choose to do this, any payment that is made direct by the Owner (plus an amount equal to the sales tax that would have been paid by the Contractor) for the materials shall be a direct deduct from the Contractors contract as if the payment were made direct to the Contractor. The whole purpose of this provision is to save the amount of sales taxes that would be otherwise assessed to the Contractor for the major material purchases. The contractor will still remain responsible for all other contractual requirements including but not limited to all handling, offloading, submittals, installation, operation and maintenance manuals, startup and warranty work.

BIDDING DOCUMENTS

Copies: Bidders may obtain from the City of St. Augustine Beach, complete sets of the Bidding Documents in the number and for the purchase sum, to General Contractors, stated in the Advertisement or Invitation - Notice to Bidders.

Complete sets of Bidding Documents shall be used in preparing the Bid Proposal. The Engineer and the City of St. Augustine Beach shall not assume any responsibility for errors or misinterpretations resulting from the use of complete or incomplete sets of Bidding Documents.

The Owner or Engineer, in making copies of the Bidding Documents available on the above terms, do so only for the purpose of obtaining bids on the Work and do not confer a license or grant for any other use.

INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Bidders shall promptly notify the Engineer of any ambiguity, inconsistency, or error which they may discover upon examination of the Bidding Documents or examination of the site and local conditions.

Bidders requiring clarification of interpretation of the Bidding Documents shall make a written request to the Engineer, to reach him at least ten (10) days prior to the date for receipt of Bids.

An interpretation, correction, or change of the bidding Documents will be made by Addenda. Interpretation, corrections, or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretation, corrections, and change. No change will be made to the Bidding Documents by the Owner or the Owner's Representative later than **three (3) business days** prior to the Bid receiving date, however, the Owner reserves the authority to decrease this time by Addenda depending on the necessity of such change.

SUBSTITUTIONS

The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by the Engineer at least ten (10) days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and test data any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require, shall be included. The burden of proof of the merit of the proposed substitute is upon the proposer. The project director's approval or disapproval of a proposed substitution shall be final.

If the Engineer approves any proposed substitution, such approval will be set forth in an Addenda. Bidders shall **not** rely upon approval made in any other manner.

ADDENDA

Addenda will be distributed to all who are known by the Engineer to have received a complete set of Bidding Documents. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose. Addenda and Addendum may be used interchangeably in these documents. All issued Addenda will be posted on Demand Star.

Each Bidders shall ascertain prior to submitting their bid that they have received all Addenda issued, and they **shall** acknowledge their receipt in the space provided in the Bid Proposal Form. Failure to provide fully acknowledged copies may result in a bid proposal being deemed non-responsive.

FORM AND STYLE OF BIDS

Bids shall be submitted in **TRIPLICATE** (**one (1) original and two (2) copies**) on forms, provided in this manual. All blanks on the Bid Form shall be filled in by computer (pdf) typewriter or manually in **BLUE** ink.

Bid proposals must be placed in an envelope, sealed and placed in another envelope, plainly marked on the outside addressed to Max Royle, City Manager, City Hall, 2200 A1A South, St. Augustine Beach, FL 32080, with return address in top left hand corner and recite: **BID NO.: 22-01 – SEALED BID FOR OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS, CITY OF ST AUGUSTINE BEACH FLORIDA.**

See Example Below:

ABC Company, Inc.
123 Aviles Street
St. Augustine, FL 32084

Attn: Max Royle, City Manager
City of St. Augustine Beach
Public Works Department
2200 SR A1A
St. Augustine Beach, FL 32080

**BID NO.: 22-01 – SEALED BID FOR OCEAN HAMMOCK PARK
PHASE 2 IMPROVEMENTS**

Where so indicated by the makeup of the Bid Form, sums shall be expressed in both words and figures, and in the case of discrepancy between the two, the amount expressed in words shall govern.

Any interlineation, alteration or erasure must be initialed by the signer of the Bid, failure to do so may cause the Bidder's proposal to be considered non-responsive.

Bidder shall make no stipulation on the Bid Form nor qualify the Bidder's Bid in any manner, to do so will classify the Bid as being non-responsive.

Contractor shall complete the Unit Price List fully, even if some items are not in the Contract Documents.

Each copy of the Bid Proposal shall include the company name, address, telephone number and legal name of Bidder and a statement whether Bidder is sole proprietor, a partnership, a corporation or any other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporation seal affixed. A Bid submitted by an agent shall have a current Power of Attorney attached certifying agent's authority to bind the Bidder.

BID SECURITY

The Total Lump Sum Bid shall be accompanied by a Bid Security in the required Bid Bond form in the amount of 5% of the Total Bid, pledging that the Bidder will enter into a contract with the Owner on the terms stated in the Bidder's Bid and will, if required, furnish bonds as described hereunder covering the faithful performance of the Contract and the payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds to the Owner, if required, the amount of the Bid Security shall be forfeited, not as penalty, but as liquidated damages.

A Bid Security may be in the form of a Bid Bond or certified cashiers check in the amount of 5 percent of the Total Bid amount, being the sum of the separate lump sum price for the improvements, made payable to City of St. Augustine Beach City Commissioners.

If a Bid Bond is submitted, it shall be written in the form of the attached sample, with an acceptable surety, and the Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of their Power of Attorney. Acceptable surety companies are defined in "Instruction to Bidders". The Surety Company shall be licensed to do business in the State of Florida and shall be listed by the U.S. Treasury Department.

The Owner shall have the right to retain the Bid Security of Bidders until either: (a) the Contract is executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected.

BID BOND INSTRUCTIONS

Prepare and submit one (1) original and two (2) copies of the required Bid Bond as shown above. Type or print Bidder's and Surety's names in the same language as in the Advertisement, or Invitation to Bid. The Corporate seal must be affixed. Type or print the name of the Surety on the line provided and affix its corporate seal.

Attach a copy of Surety agent's Power of Attorney, unless the Power of Attorney has been recorded in St. Johns County. If it has been recorded, give the record book and page. If not recorded, the copy of the Power of Attorney must have an original signature of the Secretary or Assistant Secretary of Surety certifying the copy. The Surety's corporate seal must be affixed.

SUBMISSION OF BIDS

All copies of the Bid, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope.

The envelope shall be addressed as required in the "Instruction to Bidders", and shall be identified with the Bid Number, Project Name, the Bidder's Name, and return address, and portion of the project or category of work for which the Bid is submitted. The envelope containing the above Bid Documents shall be enclosed in an outer envelope and identified in the same manner as shown above.

Bidder shall assume full responsibility for timely delivery at location designated for receipts of Bids. Bids shall be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Advertisement/Notice to Bidders, or any time extension thereof made by Addendum. Bids received after the time and date for receipt of Bids will be returned to the sender unopened.

Oral, telephonic, telegraphic or electronic Bids are invalid and will not receive consideration.

MODIFICATION OR WITHDRAWAL OF BID

A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and Bidder so agrees in submitting the Bidder's Bid.

Prior to time and date designated for receipt of Bids, a Bid submitted early may be modified or withdrawn only by notice to the party receiving Bids at the place and prior to the time designated for receipt of Bids.

Such notice shall be in writing over the signature of the Bidder. If by telephone, written confirmation over the signature of Bidder must be mailed and postmarked on or before the date and time set for receipt of Bids; it shall be so worded as not to reveal the amount of the original Bid.

Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders. Bid Security shall be in the amount of 5 percent (5%) of the Total Bid as modified or resubmitted.

CONSIDERATION OF BIDS

Opening of Bids: Unless stated otherwise in an Addenda to the Advertisement/Notice to Bidders, the properly identified Bids received on time will be opened publicly as specified in the Advertisement and a tabulation of the Total bid amounts of Part No.1 and Part No.2 Bids and major Alternates, if any, will be made available to Bidders. The Bid Tabulation will be posted on the City of St. Augustine Beach bulletin board for 72 hours.

Any bidder, proposer or person substantially and adversely affected by an intended decision or by a term, condition, procedure or specification with respect to any bid, invitation, solicitation of proposals or requests for qualifications, shall file with the City of St. Augustine Beach, a written notice of intent to protest no later than 72 hours (excluding Saturdays, Sundays and legal holidays) after the posting either electronically or by other means of the notice of intended action, not of intended award, bid tabulation, publication by posting electronically or by other means of a procedure, specification, term or condition which the person intends to protest, or the right to protest such matter shall be waived. The protest procedures may be obtained from the City of St. Augustine Beach. All the terms and conditions of the City Purchasing Procedures are incorporated by reference and are fully binding.

Rejection of Bids: The Owner reserves the right to reject any or all Bids and in particular to reject a Bid not accompanied by any required Bid Security or data required by the Bidding Documents or a Bid in any way incomplete or irregular, non-responsive, or non-responsible.

Acceptance of Bid (Award): The Owner shall have the right to reject any or all Bids or waive any minor formality or irregularity in any Bid received.

It is the intent of this bid to award a contract to the single lowest Qualified Bidder for the Project (or portions thereof) provided the Bid has been submitted in accordance with the requirements of the Bidding Documents, is judged to be reasonable, balanced and does not exceed the funds budgeted for the Project. The City of St. Augustine Beach reserves the right to accept or reject any bid that is not considered in the best interest of the City. Additionally, the City of St. Augustine Beach reserves the right to award a contract to the lowest responsible Bidder for the applicable portion of the bid to be awarded either the Base Bid or the Base bid plus the Alternate bid. If the bid is awarded, it will be the contractor's responsibility to coordinate all work and associated scheduling to ensure a timely and technically compliant project.

The successful bidder shall be required to contract with the City of St. Augustine Beach for the Project Improvements as specified.

If a Contract is awarded, it will be awarded within sixty (60) days from the date of the Bid opening, or as designated in the Bid Documents.

QUALIFICATION OF CONTRACTORS

Minimum Qualifications: Prime Bidders must be fully licensed to do business in the State of Florida and must have successfully constructed, as a prime contractor or subcontractor, at least three (3) projects of the type, size, and dollar value of the construction proposed for this project (as provided for in Attachment B). The Prime Bidder must have been in business for at least two (2) years and retained a licensed contractor for at least five (5) years. Bidder's must complete Attachment "E" – License/Certification List and attach a copy of each license and certificate shown and submit the with their Bid Proposal.

Evidence of contractor's experience shall be provided by completing all requested information and submitting Project List showing previous experience of successful construction of projects comparable in size and dollar value to that being proposed.

Additionally, The Prime Bidder or Subcontractor who is performing the work must have a current Certified General Contractor license at the time the bid is submitted. The Prime Bidder or Subcontractor who is performing the underground utility construction must have a current Certified Underground Utility Contractor license at the time the bid is submitted. Evidence of all required qualifications must be submitted with the bid proposal by submitting a License/Certification List listing all licenses, certifications, pre-certifications, etc. and attaching copies of each item listed for **BOTH** prime and all subcontractors.

- A. Each bid must contain either evidence of the Bidder's qualifications to do business in the area where the projects are located or covenant to obtain such qualifications prior to award of Contract.

To demonstrate their qualifications to perform the Work, Bidders shall submit with their Bid written evidence as to experience in similar work including references, description, and evidence of possession of, or covenant to obtain prior to award of Contract, valid state, county, and local licenses and Certificates of Competency covering all operations and all areas of political jurisdiction involved in the Work of this project and such other data as may be requested by the OWNER. No bidder/company will be issued a contract for the work, who in the past seven (7) years has filed for bankruptcy personally or has been an owner/officer or principal of a firm, which has filed bankruptcy in the past seven (7) years. Bidder/company shall submit a written certification enclosed as Attachment G. The owner, at its discretion and upon evidence by the bidder/company, may waive the non-insurance provision for a bankruptcy, by the bidder/company.

LIST OF SUBCONTRACTORS - (Required 7 days after bid date, and **only** by the apparent low bidder)

Submit to Owner a list of Subcontractors and major materials suppliers to be used if awarded the contract. If no Subcontractors or major material suppliers are required, so state there on.

Upon request by the Engineer, the successful Bidder shall within seven (7) days thereafter, submit all Bidder shall, submit all data required to establish to the satisfaction of the Engineer and Owner, the

reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the Sections of the Specifications pertaining to such proposed Subcontractor's respective trades.

Prior to the award of the Contract, the Engineer will notify the Bidder in writing if either the Owner or the Engineer, after due investigation, has reasonable and substantial objection to any person or organization proposed as a Subcontractor. The Bidder then may, at their option, withdraw the Bid without forfeiture of Bid Security or submit an acceptable substitute at no increase in Bid price. If the Bidder fails to submit an acceptable substitute within seven (7) days of the original notification, the Owner then may, at their option, disqualify the Bidder, at no cost to the Owner.

The Owner reserves the right to disqualify any Contractor, Subcontractor, Vendor, or material supplier due to previously documented project problems, either with performance or quality. Subcontractors and other persons and organizations proposed by the Bidder and accepted by the Owner and the Engineer, must be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the Owner and Engineer. Successful bidder shall not subcontract more than 40 percent (40%) of the bid amount without prior approval.

PUBLIC CONSTRUCTION BOND

City of St. Augustine Beach Required Bonds: The Bidder shall furnish the required bond, in the form provided herein, covering the faithful performance of the Contract and the payment of all obligations arising thereunder in full amount of the Contract, with such acceptable sureties, secured through the Bidder's usual sources as may be agreeable to all parties.

SURETY BOND

Acceptable Surety Companies: To be responsible to the Owner as Surety on Bonds, Surety shall comply with the following provisions:

Surety must be licensed to do business in Florida.

Surety must have been in business and have a record of successful continuous operations for at least three years.

Surety shall not have exposed itself to any loss on any one risk in an amount exceeding twenty percent (20%) of its surplus to policyholders.

Surety must have fulfilled all of its obligations on all other bonds given to the Owner.

Surety must have good underwriting, economic management, adequate reserves for undisclosed liabilities, net resources for unusual stock and sound investment.

Time of Delivery and Form of Bonds: The Public Construction Bond form contained herein or will be forwarded to the successful Bidder with their copy of the fully executed contract. **The Public Construction Bond must be recorded after the contract is signed by all parties.** The bidder will have three (3) days from receipt of fully executed contract to have the Public Construction Bond recorded. The bidder shall have the Public Construction Bond recorded at the St. Johns County Clerk of

Courts office, in St. Augustine, Florida.

After the book and page number have been assigned to the bond by the recording person, the Bidder is to obtain from the recording person a certified copy of the recorded bond and deliver the certified copy to the Owner's Contract Administrator. No work can commence until the required bond and Insurance Certificates have been delivered to the Owner. Upon receipt of the certified copy of the recorded bond, the Owner may issue a Notice to Proceed.

Unless specified in the Bidding Documents, the bonds must be written in the form of those bound in this Project Manual.

The Bidder shall require the Attorney-in-Fact who executes the required bonds on behalf of the Surety to affix thereto a certified and current copy of their Power of Attorney authorizing their firm to act as agent for the Surety in issuing the bonds

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Form to be Used: Unless otherwise provided in the Bidding Documents, the Agreement for Work will be written on the Standard Fixed Price Agreement between Owner and Contractor where the basis of payment is a Stipulated Sum.

CONTRACT TIME - LIQUIDATED DAMAGES

The following will be made a part of the Contract:

The Contractor shall have ten (10) days to return Contract originals from the time the Contractor receives a "Notice of Award". The Owner will return a "fully executed" Contract to the Contractor no later than seven (7) days after the return of the executed Contract originals (but no later than seventeen (17) days from the Notice of Award).

The Contractor will furnish a recorded original of the Public Construction Bond three (3) business days after receipt of the fully executed Contract (the Public Construction Bond must be recorded after the Contract is fully executed by all parties including the County Clerk). Upon receipt of the recorded Public Construction Bond, the City will issue a Notice to Proceed. If the Contractor fails to meet any of the dates and timeframes set forth in this section, or fails to execute the Contract, or to provide a Public Construction Bond, the City may elect at it's option to consider the Contractor non-responsive and Contract with the next responsive responsible Bidder.

"The work to be performed per under this Agreement shall be commenced within **ten (10)** days of the date of the Notice to Proceed, in writing. Construction of the project, the drainage improvements and sewer service utility adjustments, shall be substantially complete within **Two-Hundred Forty 240** consecutive calendar days total, for both parts, from the date of the Notice to Proceed. Final completion shall be attained **Thirty (30)** consecutive calendar days from the date of substantial completion".

Conditions under which Liquidated Damages are Imposed:

Should the Contractor or, in case of the Contractor's default, the Surety fail to complete the work within the time stipulated in the contract, or within such extra time as may have been granted by

the Owner, the Contractor or, in case of the Contractor's default, the Surety shall pay to the Owner, not as a penalty but as liquidated damages, the amount so due as determined by the following schedule:

<u>Original Contract Amount</u>	<u>Daily Charge Per Calendar Day</u>
\$50,000 and under	\$ 313.00
Over \$50,000 but less than \$250,000	\$ 580.00
\$250,000 or more but less than \$500,000	\$ 715.00
\$500,000 or more but less than \$2,500,000	\$1,423.00
\$2,500,000 but less than \$5,000,000	\$2,121.00
\$5,000,000 but less than \$10,000,000	\$3,057.00
\$10,000,000 but less than \$15,000,000	\$3,598.00
\$15,000,000 but less than \$20,000,000	\$4,544.00
\$20,000,000 and over	\$8,537.00
.....	0.00027 of any amount over \$20 Million

All additional fees and costs incurred by the Engineer and Owner resulting from the Contractor's failure to complete the work will be charged to the Contractor.

INSURANCE

Liability Insurance, Workmen's Compensation, and Vehicle Coverage will be required to be retained in force during the Contract Period (See Article XIII in Standard Fixed Price Agreement Between Owner & Contractor). An original insurance certificate, naming the City of St. Augustine Beach City Commissioners and St. Johns County Board of County Commissioners as additionally insured will be provided by the Contractor, prior to issuing "Notice to Proceed."

TAXES

Project is subject to Federal Excise and Florida Sales Taxes, which must be included in Bidder's proposal.

FLORIDA TRENCH SAFETY ACT

Bidders shall complete Bid Form Attachment F, Certificate of Compliance with Florida Trench Safety Act, in accordance with the requirements of Chapter 553, Florida Statutes. If trenching is not required for this project, state so thereon. Contractor shall be responsible for compliance with all trenching shoring safety requirements.

END OF SECTION

SECTION 00 41 00
CITY BID FORM

ST. AUGUSTINE BEACH, FLORIDA
LUMP SUM BID PROPOSAL

PROJECT: OCEAN HAMMOCK PARK
PHASE 2 IMPROVEMENTS

TO: THE CITY OF ST. AUGUSTINE BEACH

DATE SUBMITTED: _____

BID PROPOSAL OF

FULL LEGAL COMPANY NAME

Address

Telephone No.

Having become familiar with site conditions of the project, and having carefully examined the Bidding requirements, including the Advertisement, Instructions to Bidders, and Contract Documents, including the General Conditions, Supplementary Conditions, Specifications, and Drawing entitled **OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS** in St. Johns County, Florida. The undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents for the following base bids quoted in this Bid Proposal summarized as follows:

BID PART NO. A – Accessible Restrooms with Attached Outdoor Beach Shower:

FOR: Construction of New Saltwater Beach Accessible Restrooms with Attached Outdoor Beach Shower at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

BID PART NO. B – Educational Kiosk:

FOR: Construction of an Educational Kiosk at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

BID PART NO. C – Two (2) Picnic Areas with Concrete Slab and Tables:

FOR: Construction of two (2) picnic areas with concrete slabs and picnic at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

BID PART NO. D – ADA Accessible Beach Access:

FOR: Construction of ADA Accessible Beach access tying into existing Beach Boardwalk at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

BID PART NO. E – Nature Trail with Interpretative Signs

FOR: Construction of a Nature Trail with Interpretative Signs at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

BID PART NO. F – Water Fountain with Bottle Filling Station

FOR: Construction of a Water Fountain and Bottle Filling Station at the proposed restroom (Bid Part No. A) at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

BID PART NO. G – Handicap Parking Space and Accessible Connections

FOR: Construction of a Handicap Parking Space at Ocean Hammock Park per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

TOTAL BID: BID PART NO. A + BID PART NO. B + BID PART NO. C + BID PART NO. D + BID PART NO. E + BID PART NO. F + BID PART NO. G = TOTAL LUMP SUM BID

FOR: Construction of Ocean Hammock Park Phase 2 Improvements as per plans and specifications.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)
The Total Bid must equal the total of the individual Part A and Part B Bids

BID PART NO. D ALTERNATE– At-Grade ADA Accessible Beach Access:

FOR: Construction of ADA Accessible Beach access tying into existing Beach Boardwalk at Ocean Hammock Park, substituting 4” thick concrete sidewalk (8’ wide) in lieu of elevated walkway.

\$ _____
Total Lump Sum Price (Numerical)

_____/100 Dollars
(Amount written or typed in words)

Bidder will enter written (in words) and numerically by the Lump Sum Price in the space provided above. In the event of a conflict, the written Lump Sum Price shall be considered as the Bidder correct bid.

Time of Substantial Completion to be 240 consecutive calendar days total for both parts from Notice to Proceed date from Owner.

Note: The listing order of bid items reflects a construction sequence in general terms for bidding purposes only and is not a specific construction schedule.

During the preparation of the Bid, the following addenda, if any, were received:

No.: _____ Date Received:

No.: _____ Date Received:

No.: _____ Date Received:

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the Project Specifications and form of Contract and Public Construction Bonds, together with the Plans.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, and equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by Architect, within the same time limit specified in the Contract Documents for the following total sum price as indicated above.

If the Undersigned is notified of the acceptance of this Bid Proposal by the Board within sixty (60) calendar days for the time set for the opening of Bids, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the Owner.

The Undersigned agrees, if awarded the Contract, to Substantially Complete all work in the time frames indicated on the prior page. Undersigned further agrees that from the compensation otherwise to be paid, the Owner may retain the liquidated damages as provided in the Contract, which sum is agreed upon as the proper measure of liquidated damages which the Owner will sustain each day by the failure of the Undersigned to complete the work in the time stipulated, and this sum is not to be construed as penalty.

The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than five percent (5%) total Bid Price, payable to the Owner, accompanies this Bid; that the amount is not to be construed as a penalty, but as liquidated damages which said Owner will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the Owner, but if this Bid is not accepted within sixty (60) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract and Public Construction Bond upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

Should a cost adjustment for unanticipated work be unable to be negotiated between the Owner and Contractor, the costs for unanticipated work will be established by FDOT statewide averages or RS Means data at the discretion of the City of St. Augustine Beach Public Works Department or its representative.

CORPORATE/COMPANY

Company Name: _____ (Seal)

By: _____
(Name typed or printed)

By: _____
(Name typed or printed)

Address: _____

Telephone No.: (____) _____ Fax No.: (____) _____

DUNS Number: _____

Federal I.D. Tax Number: _____

INDIVIDUAL

Name: _____
(Signature) (Name typed or printed) (Title)

Address: _____

Telephone No.: (____) _____

Federal I.D. Tax Number: _____

Bid Proposal Attachments: "A" - Affidavit
"B" – Project List Form
"C" - Certificate as to Corporate Principal
"D" - Certificate of Compliance with Florida Trench Safety Act
"E" - License/Certification List
"F" - Bankruptcy Certification
Bid Bond
Fully Acknowledged Addenda Applicable to this bid

Attachments "A","B", "C", "D", "E", "F" and Bid Bond must be completed and attached to Bidder's bid proposal along with a fully acknowledged copy of each Addendum applicable to this Bid.

END OF SECTION

00 41 00 - 6

**SECTION 00 45 00
ATTACHMENTS**

**ATTACHMENT A
AFFIDAVIT**

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

**TO: ST AUGUSTINE BEACH CITY COMMISSIONERS
CITY OF ST AUGUSTINE BEACH, FLORIDA**

At the time the proposal is submitted, the Bidder shall attach to his Bid a sworn statement.

This sworn statement shall be an affidavit in the following form, executed by an officer of the firm, association, or corporation submitting the proposal, and shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF _____
COUNTY OF _____

Before me, the Undersigned authority, personally appeared _____ who
being duly sworn, deposes and says he is _____ (Title) of
_____ (Firm) the Bidder submitting the attached proposal
for the work covered by the Documents in Bid No. 22-01, **Ocean Hammock Park Phase 2 Improvements** in
the City of St. Augustine Beach, Florida.

The affiant further states that no more that one proposal for the above-referenced project will be submitted from the individual, his firm or corporation under the same or different name, and that such Bidder has no financial interest in the firm of another bidder for the same work. That he, his firm, association or corporation has neither directly, nor indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this firm's Bid on the above-described project. Furthermore, neither firm nor any of its officers are barred from participating in public contract lettings in the State of Florida or any other state.

(Bidder)

Sworn and Subscribed to me this _____ day
of _____, 2022.

By: _____
Signature

Notary Public

Title

Signature

Print or Type Name
My commission Expires: _____

NOTE: This form must be completed and attached to the Bidder's Bid Proposal

LIST OF PROPOSED SUBCONTRACTORS

PREVIOUS WORK EXPERIENCE TOGETHER

YES OR NO

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

ATTACHMENT C

CERTIFICATES AS TO CORPORATE PRINCIPAL

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

I, _____, certify that I am the Secretary of the Corporation named as Principal in the attached bond; that _____ who signed the said bond on behalf of the Principal, was then _____ of said Corporation; that I know his signature, and his signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in Behalf of said Corporation by authority of its governing body.

Secretary

Corporate Seal

(Contractor to complete upper portion)

(Surety to complete lower portion)

STATE OF _____

COUNTY OF _____

Before me, a Notary Public duly commissioned, qualified and acting, personally appeared _____ to me well known, who being by me first duly sworn upon oath, says that he is the Attorney-In-Fact, for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the surety named therein in favor of the City of St. Augustine Beach, Florida.

Subscribed and sworn to me this _____ day of _____, 2022, A.D.

NOTARY PUBLIC
State of Florida-at-large
My Commission Expires:

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

ATTACHMENT D

CERTIFICATE OF COMPLIANCE WITH FLORIDA TRENCH SAFETY ACT

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

Bidder acknowledges that he is solely responsible for complying with the Florida Trench Safety Act (ACT) and Occupational Safety and Health Administrations excavation safety standard 29 CFR 1926.650 (Subpart P as amended). Bidder further acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990 and the Occupational Safety and Health Administrations excavation safety standard.

By: _____
Bidder

Date: _____

Authorized Signature

ATTACHMENT “E”

License/Certification List

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

In the space below, the Bidder shall list all **current** licenses and certifications held.

The bidder shall attach a copy of each current license or certification listed below to this form.

License Name	License #	Issuing Agency	Expiration Date

ATTACHMENT “F”

UNIT PRICES FOR ADJUSTMENT/SCHEDULE OF VALUES

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

The following unit prices, if approved by the Owner, will be used for adjusting the Contract Price for changes in the work (additions or deletions) in accordance with the provisions of an approved change order and any other modifications of the Contract. Unit prices shall include all labor, materials, equipment, transportation, supervision, insurance cost, bond cost, overhead and profit representing an in-place price for each item. Scope or size of each item not otherwise indicated is as described in the construction specifications and drawings.

ITEM NO.	UNIT MEASURE	DESCRIPTION	UNIT PRICE
1	EA	2” BACKFLOW PREVENTER	
2	LF	2” HDPE WATER SERVICE	
3	LF	2” HDPE SEWER SERVICE	
4	EA	FIRE HYDRANT ASS’Y (COUNTY STANDARD)	
5	EA	2” GATE VALVE WITH BOX AND COVER	
6	EA	6” GATE VALVE WITH BOC AND COVER	
7	EA	BACTERIOLOGICAL SAMPLING POINT	
8	EA	6” M.J. TEE	
9	EA	HDPE TO PVC ADAPTER	
10	EA	8”x2” SANITARY TAPPING SLEEVE AND VALVE	
11	EA	10”x6” WATER TAPPING SLEEVE AND VALVE	
12	EA	2” M.J. TEE	
13	LF	2” PVC WATER LINE	
14	EA	2” ISOLATION VALVE	
15	EA	2” CHECK VALVE	
16	LF	SILT FENCING	
17	LF	TREE PROTECTION FENCING	
18	SY	4” THICK CONCRETE (3,000 PSI)	
19	SY	6” THICK CONCRETE (4,000 PSI)	
20	SY	8” THICK CONCRETE (4,000 PSI)	
21	SY	4’ WIDE DECOMPOSED GRANITE NATURE TRAIL	
22	LF	CONCRETE REBAR REINFORCEMENT	
23	EA	REMOVE WOOD PARING LOT POST	
24	EA	TYPE C INLET	
25	EA	CONCRETE BENCH	
26	EA	H/C PICNIC TABLE WITH BENCHES	
27	EA	STANDARD PICNIC TABLE W/BENCHES	

ATTACHMENT G

BANKRUPTCY CERTIFICATION**OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS**

At the time the proposal is submitted, the Bidder shall attach to this Bid a sworn statement.

This sworn statement shall be an affidavit in the following form, executed by an officer of the firm, association, or corporation submitting the proposal, and shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF _____

COUNTY OF _____

Before me, the Undersigned authority, personally appeared _____
(Print Name)

who being duly sworn, deposes and says they are _____
(Title)

of _____ the Bidder
(Firm)

submitting the attached proposal for the work covered by the Documents in Bid No. 22-02, **2nd Street Extension and Widening Improvements** in the City of St. Augustine Beach, FL.

The affiant states that the company nor owner/officer or principal of the firm either corporately or individually have filed for bankruptcy in the past seven (7) years.

(Bidder Name)

Sworn and Subscribed to me this ____ day
of _____, 2022.

By: _____
Signature

Notary Public

Title

Signature

Print or Type Name
My commission Expires: _____

NOTE: This form must be completed and attached to the Bidder's Bid Proposal

SECTION 00 43 00
BID BOND

STATE OF FLORIDA
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS , t h a t _____ as
Principal, and _____ as Surety, are held and firmly bound unto
St. Augustine Beach, Florida, in the penal total sum of _____ Dollars
(\$ _____) lawful money of the United States, we bind ourselves, our heirs,
executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH, that whereas the Principal has submitted the
accompanying Bid, dated _____, 2022.

For
OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS
St. Augustine Beach, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Total Bid within sixty (60) days after Total Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the City of St. Augustine Beach, Florida in accordance with the Total Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Total Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the City of St. Augustine Beach, Florida the difference between the amount specified, in said Total Bid and the amount for which the City of St. Augustine Beach may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this _____ day of _____ A.D., 2022, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of it's governing body.

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

PRINCIPAL:

NAME OF FIRM:

SIGNATURE OF AUTHORIZED
OFFICER (AFFIX SEAL)

TITLE

BUSINESS ADDRESS

CITY

STATE

WITNESS:

SURETY:

CORPORATE SURETY

ATTORNEY-IN-FACT (AFFIX
SEAL)

BUSINESS ADDRESS

CITY

STATE

NAME OF LOCAL INSURANCE
AGENCY

END OF SECTION

Request for Taxpayer Identification Number and Certification

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the
requester. Do not
send to the IRS.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ►	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
	6 City, state, and ZIP code	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-			-		
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ►	Date ►
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a) J—

A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor [*]
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.



**CITY CONTRACT FORMS
AND CONDITIONS**



CONTRACTING REQUIREMENTS

SECTION 00 50 50 – Notice of Intent to Award

TO: _____
(Apparent Low Bidder)

PROJECT: **OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS**

You are hereby notified that your Bid dated _____, for the above Project has been considered by the Owner. You are the Apparent Low Bidder and it is the Owner's intent to award this contract to you within the bid opening period stated in the Contract Documents.

The Contract Price of your contract is _____ Dollars and No Cents
(\$ _____ .00)

You must acknowledge and return two (2) original copies of this Notice-of-Intent-to-Award to the Owner within seven (7) calendar days of the date of this notice, that is by _____.

By order of the _____, Issued and dated the ____ day of _____.

OWNER: City of St. Augustine Beach

By _____
(Signature of authorized person)

(Name of authorized person)

(Title of authorized person)

Receipt and acceptance of the above Notice-of-Intent-to-Award is hereby acknowledged this
_____ day of _____, by:

APPARENT LOW BIDDER: _____

By _____
(Signature of authorized person)

(Name of authorized person)

(Title of authorized person)

END OF SECTION

00 50 50 - 1

CONTRACTING REQUIREMENTS

Document 00 51 00 - Notice of Award

Dated _____, 2022.

TO: _____
(Bidder)

OWNER'S PROJECT NO.: _____

PROJECT: Ocean Hammock Park Phase 2 Improvements

The intent is to provide for the construction and completion in every detail of the work described in the Contract. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies, required to complete the work in accordance with the Plans, Specifications and terms of the Contract.

The Contract shall be for the **Ocean Hammock Park Phase 2 Improvements** for the City of St. Augustine Beach, Florida. This project includes Accessible Restrooms, including sanitary sewer pump station, two (2) Picnic Areas with slabs and tables, nature trail with interpretative signs, informational kiosk, water fountain with bottle filling station, accessible walkway with connection to beach boardwalk, and relate improvements as shown on the Project Plans for the City of St. Augustine Beach.

You are notified that your Proposal dated _____, 2022, for the above Contract has been considered. You are the apparent successful bidder and have been awarded a contract for the **Ocean Hammock Park Phase 2 Improvements**.

The Contract Price of your contract is _____ Dollars
(_____).

Three copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award. Three sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within fifteen days of the date of this Notice of Award, that is by _____, 2022.

1. You must deliver to the OWNER three fully executed counterparts of the Agreement including all the Contract Documents.

2. You must deliver with the executed Agreement the Contract Security (Bonds) as specified in the Instructions to Bidders (Paragraph 1.18) and the General Conditions (paragraph 5.1).

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

Within ten days after you comply with those conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

City of St. Augustine Beach
(Owner)

BY _____
(Authorized Signature)

(Name)

(Title)

ACCEPTANCE OF NOTICE
Receipt of the Notice of Award is hereby acknowledged,

by _____,

this the _____ day of _____, 2022.

By _____
(Signature)

(Name)

(Title)

END OF SECTION

00 52 00 STANDARD AGREEMENT BETWEEN OWNER AND CONTRACTOR

2021 EDITION

These Contract Documents should be used only after consultation with counsel. The documents are not intended as legal advice appropriate to any specific situation, nor do they purport to address all issues which may arise between the contracting parties. The documents should be amended or supplemented where appropriate in order to address contractual concerns.

This Agreement is made on this _____ day of _____, 2022 by and between **the St. Augustine Beach City Commissioners, 2200 SR A1A, St. Augustine Beach, FL. 32080** (hereinafter referred to as the Owner) and _____ (hereinafter referred to as the Contractor) under seal for construction of **Ocean Hammock Park Phase 2 Improvements** (hereinafter referred to as the Project), the Owner and the Contractor hereby agreeing as follows:

ARTICLE 1 - THE CONTRACT AND THE CONTRACT DOCUMENTS

1.1 The Contract

1.1.1 The Contract between the Owner and the Contractor, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

1.2 The Contract Documents

1.2.1 The Contract Documents consist of this Agreement, the Bid Documents and Bid Forms, Specifications, all Change Orders and Field Orders issued hereafter and executed by the parties and the Engineers, any other amendments hereto executed by the parties hereafter, together with the following (if any):

Documents not enumerated in this Paragraph 1.2.1 are not Contract Documents and do not form part of this Contract.

1.3 Entire Agreement

1.3.1 This Contract, together with the Contractor's Public Construction Bond for the Project, constitutes the entire and exclusive agreement between the Owner and the Contractor with reference to the Project. Specifically, but without limitation, this Contract supersedes any Bid Documents not listed among the Contract Documents described above and all prior written or oral communications, representations, and negotiations, if any, between the Owner and Contractor.

1.4 No Privity with Others

1.4.1 Nothing contained in this Contract shall create or be interpreted to create privity or any other contractual agreement between the Owner and any person or entity other than the Contractor.

1.5 Intent and Interpretation

1.5.1 The intent of this Contract is to require complete, correct, and timely execution of the work. Any work that may be required, implied, or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price.

- 1.5.2 This Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.
- 1.5.3 When a word, term or phrase is used in this Contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage.
- 1.5.4 The words include, includes or including, as used in this Contract, shall be deemed to be followed by the phrase without limitation.
- 1.5.5 The specification herein of any act, failure, refusal, omission, event, occurrence, or condition as constituting a material breach of this Contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence, or condition shall be deemed not to constitute a material breach of this Contract.
- 1.5.6 Words or terms used as nouns in this Contract shall be inclusive of their singular and plural forms unless the context of their usage clearly requires a contrary meaning.
- 1.5.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the Shop Drawings and the Product Data and shall give written notice to the Engineer and the Owner of any inconsistency, ambiguity, error, or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance, or the express or implied approval by the Owner or the Engineer of the Contract Documents, Shop Drawings, or Product Data shall not be evidence of the Contractor's compliance with this Contract. The Owner has requested the Engineer to only prepare documents for the Project, including the Drawings and Specifications for the Project, which are accurate, adequate, consistent, coordinated, and sufficient for construction. **HOWEVER, THE OWNER MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS.** By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed, and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated, and sufficient for construction, and that the Contractor has not, does not, and shall not rely upon any representation or warranties by the Owner concerning such documents as no such representation or warranties have been or are hereby made.
- 1.5.8 As between numbers and scaled measurements on the Drawings and in the Design, the numbers shall govern; as between larger scale and smaller scale drawings, the larger scale shall govern.
- 1.5.9 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the Design, shall control the Contractor in dividing the Work or in establishing the extent or Scope of Work to be performed by Subcontractors.

1.6 Ownership of Contract Documents

- 1.6.1 The Contract Documents shall remain the property of the Owner. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all of such Contract Documents on other projects without Owner's prior written authorization.

ARTICLE 2 - THE WORK

2.1 The Contractor shall perform all the Work required, implied or reasonably inferable from, this Contract.

2.2 The term Work shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Contract, including the following: construction of the whole or a designated part of the Project in the manner set forth in the Contract Documents; furnishing of any required Surety Bonds and insurance; and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Contract. The Work to be performed by the Contractor is generally described as follows:

Construction of Ocean Hammock Park Phase 2 Improvements and shall include furnishing the Owner with as-built drawings for all of the Work completed as well as Operation and maintenance manuals for all components of the work.

ARTICLE 3 - CONTRACT TIME

3.1 Time and Liquidated Damages

3.1.1 The Contractor shall commence the Work within **ten (10)** calendar days from the date of the Notice to Proceed and shall Substantially Complete all Work within **two hundred forty (240)** consecutive calendar days from the date of the Notice to Proceed. Final Completion shall be **thirty (30)** consecutive calendar days after Substantial Completion. The number of calendar days from the date on which the Work is permitted to proceed, through the date set forth for Final Completion, shall constitute the Contract Time. The Contract time has considered normal rainfall conditions and storm events as well as equipment, production and delivery times.

3.1.2 The Contractor shall pay the Owner the sum of **\$580.00** (as per Instructions to Bidders section) per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sum due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing this Contract. When the Owner reasonably believes that Substantial Completion shall be inexcusably delayed the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for

which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

3.2 Substantial Completion

3.2.1 Substantial Completion shall mean that stage in the progression of the Work when the Work is sufficiently complete in accordance with this Contract that the Owner can enjoy beneficial use or occupancy of the Work and can fully utilize the Work for its intended purpose.

3.3 Time is of the Essence

3.3.1 All limitations of time set forth in the Contract Documents are of the essence of this Contract.

ARTICLE 4 - CONTRACT PRICE

4.1 The Contract Price

4.1.1 The Owner shall pay, and the Contractor shall accept, as full and complete payment for all the Work required herein the fixed sum of _____ . The sum set forth in the Paragraph 4.1 shall constitute the Contract Price which shall not be modified except by Change Order as provided in this Contract.

ARTICLE 5 - PAYMENT OF THE CONTRACT PRICE

5.1 Schedule of Values

5.1.1 Within **ten (10)** calendar days of the effective date hereof, the Contractor shall submit to the Owner and to the Project Manager a Schedule of Values allocating the Contract Price to the various portions of the Work. The Contractor's Schedule of Values shall be prepared in such form, with such detail, and supported by such data as the Project Manager or the Owner may require substantiating its accuracy. The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of this Contract. The Schedule of Values shall be used only as a basis for the Contractor's Applications for Payment and shall only constitute such basis after it has been agreed upon in writing by the Project Manager and the Owner. The Owner may terminate this Contract without liability of any kind if the Schedule of Values is not agreed upon within fifteen (15) calendar days of the effective date hereof.

5.2 Payment Procedure

5.2.1 The Owner shall pay the Contract Price to the Contractor as provided below.

5.2.2 Progress Payments – Based upon the Contractor's Applications for Payment submitted to the Project Manager and upon certificates for Payment subsequently issued to the Owner by the Project Manager, the Owner shall make progress payments to the Contractor on account of the Contract Price.

5.2.3 On or before the fifteenth (15th) day of each month after commencement of the Work, the Contractor shall submit an Application for Payment for the period ending the thirtieth (30th) day of the previous month to the Project Manager in such form and manner, and with such supporting data and content, as the Project Manager

may require. Therein, the Contractor may request payment for ninety percent (90%) of that portion of the Contract Price properly incorporated in the Work less the total amount of previous payments received from the Owner.

Such Application for Payment shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested that the Work has been properly installed or performed in full accordance with this Contract, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the Engineer shall review the Application for Payment and may also review the Work at the project site or elsewhere to determine whether the quantity and quality of the Work is as represented in the Application for Payment and is as required by this Contract. The Project Manager shall determine and certify to the Owner the amount properly owing to the Contractor. The Owner shall make partial payments on accounts of the Contract Price within thirty (30) days following the Project Managers certification of each Application for Payment. The amount of each partial payment shall be the amount certified for payment by the Project Manager less such amounts, if any, otherwise owing by the Contractor to the Owner or which the Owner shall have the right to withhold as authorized by this Contract. The Project Managers certification of the Contractor's Application for Payment shall not preclude the Owner from the exercise of any of its rights as set forth in Paragraph 5.3 herein below.

- 5.2.4 The Contractor warrants that title to all Work covered by an Application shall pass to the Owner no later than time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which payments have been received from the Owner shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.
- 5.2.5 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the Owner becomes informed that the Contractor has not paid a Subcontractor as herein provided, the Owner shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the Owner, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the Owner to repeat the procedure in the future.
- 5.2.6 No progress payment, nor any use or occupancy of the Project by the Owner, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Contract.

5.3 Withheld Payment

- 5.3.1 Owner may decline to make payment, may withhold funds and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the Owner from loss because of:

- a) Defective Work not remedied by the Contractor nor, in the opinion of the Owner, likely to be remedied by the Contractor.
- b) Claims of third parties against the Owner or the Owner's property.
- c) Failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion.
- d) Evidence that the balance of the Work cannot be completed in accordance with the Contract for unpaid balance of the Contract Price.
- e) Evidence that the Work shall not be completed in the time required for Substantial or Final Completion.
- f) Persistent failure to carry out the Work in accordance with the Contract.
- g) Damage to the Owner or a third party to whom the Owner is, or may be, liable.

In the event that the Owner makes written demand upon the Contractor for amounts previously paid by the Owner as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand.

5.4 Unexcused Failure to Pay

5.4.1 If within ten (10) days after the date established herein for payment to the Contractor by the Owner, the Owner, without cause or basis hereunder, fails to pay the Contractor any amount due and payable to the Contractor, then the Contractor may after seven (7) additional days written notice to the Owner and the Project Manager and without prejudice to any other available rights or remedies it may have, stop the Work until payment of those amounts due from the Owner have been received. Any payment not made within ten (10) days after the date due shall bear interest at the rate of 12 percent (12%) per annum.

5.5 Substantial Completion

5.5.1 When the Contractor believes the Work is Substantially Complete, including testing, verification data evidencing substantial, operational, completion. The Contractor shall submit to the Project Manager a list of items to be completed or corrected and shall include any required submittal information and documentation to close out the project. When the Project Manager, on the basis of an inspection, determines that the Work is in fact Substantially Complete, he shall prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for Project security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Guarantees required by the Contract shall commence on the date of Substantial Completion of the Work. Unless those instruments and equipment of guaranties remain of the "To Be Completed" list. Accordingly, the guarantees shall coincide with final completion date. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such certificate.

Until Final Completion and acceptance of the Work by the Owner, the Owner shall pay the Contractor an amount equal to ninety percent (90%) of the Contract price.

Ten percent (10%) of the Contract Price shall be retained until Final Completion, acceptance of the Work by the Owner and Final Payment to the Contractor.

5.6 Final Completion and Final Payment

5.6.1 When all the Work is finally complete and the Contractor is ready for a Final Inspection, it shall notify the Owner and the Project Manager thereof in writing. Thereupon, the Project Manager shall make Final Inspection of the Work and, if the Work is complete in full accordance with this Contract and this Contract has been fully performed, the Project Manager shall promptly issue a Final Certificate for Payment and if required to repeat its Final Inspection of the Work, the Contractor shall bear the cost of such repeat Final Inspection(s) which cost may be deducted by the Owner and all other Authorities having jurisdiction under Florida Laws or regulations.

5.6.1.1 If the Contractor fails to achieve Final Completion within the time fixed therefor by the Engineer in its Certificate of Substantial Completion, the Contractor shall pay the Owner the sum of **\$580.00** per day for each and every calendar day of unexcused delay in achieving Final Completion beyond the date set forth herein for Final Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing the Contract. When the Owner reasonably believes that Final Completion shall be inexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Final Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.6.2 The Contractor shall not be entitled to Final Payment unless and until it submits to the Project Manager its affidavit that all payrolls, invoices for materials and equipment, warranty, Bill of Sale, Record Drawings, test performance data and other liabilities connected with the Work for which the Owner, or the Owner's property might be responsible, have been fully paid or otherwise satisfied; releases and waivers of claims and lien from all Subcontractors of the Contractor and of any and all other parties required by the Project Manager or the Owner; consent of Surety, if any, to Final Payment. If any third party fails or refuses to provide a release of claim or waiver of a lien as required by Owner, the Contractor shall furnish a bond satisfactory to the Owner to discharge any such lien or indemnify the Owner from liability.

5.6.3 The Owner shall make Final Payment of all sums due the Contractor within thirty (30) days of the Project Managers execution of a Final Certificate for Payment.

5.6.4. Acceptance of Final Payment shall constitute a waiver of all claims against the Owner by the Contractor except for those claims previously made in writing against

the Owner by the Contractor, pending at the time of Final Payment, and identified in writing by the Contractor as unsettled at the time of its request for Final Payment.

ARTICLE 6 - THE OWNER

6.1 Information, Services and Things Required from Owner

- 6.1.1 The Owner shall furnish to the Contractor, at the time of executing this Contract, any and all written and tangible material in its possession concerning conditions below ground at the site of the Project. Such written and tangible material is furnished to the Contractor only in order to make complete disclosure of such material and for no other purpose. By furnishing such material, the Owner does not represent, warrant, or guarantee its accuracy either in whole, in part, implicitly, or at all, and shall have no liability therefor. The Owner shall also furnish surveys, legal limitations, and utility locations (if known), and a legal description of the Project site. Copies may be provided instead of originals.
- 6.1.2 Excluding permits and fees normally the responsibility of the Contractor, the Owner shall obtain all approvals, easements, and the like required for construction.
- 6.1.3 The Owner shall furnish the Contractor, free of charge, electronic copies of the Contract Documents for execution of the Work. The Contractor shall be charged a fee by the Owner of \$50.00 per additional printed set of Contract Documents if they require any.

6.2 Right to Stop Work

- 6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Contract, the Owner may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected, no longer exists, or the Owner orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

6.3 Owner's Right to Perform Work

- 6.3.1 If the Contractor's Work is stopped by the Owner under Paragraph 6.2, and the Contractor fails within seven (7) days of such stoppage to provide adequate assurance to the Owner that the cause of such stoppage shall be eliminated or corrected, the Owner may, without prejudice to any other rights or remedies the Owner may have against the Contractor, proceed to carry out the subject Work. In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies, and compensation for the Owner's additional services and expenses necessitated thereby, if any. If the unpaid portion of the Contract Price is insufficient to cover the amount due the Owner, the Contractor shall pay the difference to the Owner.

ARTICLE 7 - THE CONTRACTOR

- 7.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.5.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved Shop Drawings, Product Data or Samples for such portion of the Work. If the Contractor performs any of the Work where Contractor knows or should know such work involves a recognized error, inconsistency, or omission in the Contract Documents without

such notice to the Project Manager and the Owner, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

7.2 The Contractor shall perform the Work strictly in accordance with this Contract.

7.3 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort, and attention. The Contractor shall be responsible to the Owner for any and all acts or omissions of the Contractor, its employees and other engaged in the Work on behalf of the Contractor.

7.4. Warranty

7.4.1 The Contractor warrants to the Owner that all labor furnished to progress the Work under this Contract shall be competent to perform the tasks undertaken, that the product of such labor shall yield only first-class results, that materials and equipment furnished shall be of good quality, free from faults and defects and in strict conformance with this Contract. This warranty shall survive termination of this Contract and shall not be affected by Final Payment hereunder. All Work not conforming to these requirements may be considered defective. The warranty period will be for **two (2) years** from the final completion certified date or such other agreed upon completion date.

7.5 Contractor shall obtain and pay for all permits, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law pertaining to the Work.

7.6 Supervision

7.6.1 The Contractor shall employ and maintain at the Project site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor's authorized representative at the site and shall be authorized to receive and accept any and all communications from the Owner or Assignees.

7.6.2 Key supervisory personnel assigned by the Contractor to this Project are as follows:

Name	Function

So long as the individuals named above remain actively employed or retained by the Contractor, they shall perform the functions indicated next to their names unless the Owner agrees to the contrary in writing. In the event one or more individuals not listed above subsequently assume one or more of those functions listed above, the Contractor shall be bound by the provisions of this Subparagraph 7.6.2 as though such individuals have been listed above.

- 7.7** The Contractor, prior to commencing the Work, shall submit to the Project Manager for his information, the Contractor's schedule for completing the Work. The Contractor's schedule shall be revised no less frequently than monthly (unless the parties otherwise agree in writing) and shall be revised to reflect conditions encountered from time to time and shall be related to the entire Project. Each sum revision shall be furnished to the Project Manager. Failure by the Contractor to strictly comply with the provisions of this Paragraph 7.7 shall constitute a material breach of this Contract.
- 7.8** The Contractor shall continuously maintain at the site, for the benefit of the Project Manager, one record copy of this Contract marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the site for the Project Manager the approved Product Data, Samples, and other similar required submittals. Upon Final Completion of the Work, all of these record documents shall be delivered to the Owner.
- 7.9 Product Data and Samples**
- 7.9.1 Product Data, Samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with the information received from the Contract Documents. All Product Data, Samples and other submittals shall belong to the Owner and shall be delivered, or returned to Owner, as applicable, prior to Substantial Completion.
- 7.10 Cleaning the Site and the Project**
- 7.10.1 The Contractor shall keep the site reasonably clean during performance of the Work. Upon Substantial Completion of the Work, the Contractor shall clean the site and the Project and remove all waste, together with all of the Contractor's property therefrom.
- 7.11 Access to Work**
- 7.11.1 The Owner, Project Manager, and any designee of the Owner, shall have access to the Work at all times from commencement of the Work through Final Completion. The Contractor shall take whatever steps necessary to provide access when requested.
- 7.12 Indemnity**
- 7.12.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and employees from and against liability, claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from performance of the Work, provided that such liability, claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction to tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Contractor, a Subcontractor, or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.
- 7.12.2 In claims against any person or entity indemnified under this Paragraph 7.12 by an employee of the Contractor, a Subcontractor, any one directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification

obligation under this Paragraph 7.12 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers compensation acts, disability benefits acts or other employee benefit acts.

7.13 Safety

7.13.1 The Contractor shall be responsible for supervising all safety precautions, including initiating, and maintaining such programs in connection with the performance of the Contract and for adequate site maintenance and function for the intended purpose.

7.13.2 The Contractor shall designate a member of the on-site construction team whose duty shall be the prevention of accidents. Unless otherwise in writing by the Contractor to the Owner and the Engineer, this person shall be the Contractor's Superintendent.

7.14 Progress Meetings

7.14.1 Progress meetings between the Owner, Contractor, Engineer or any additional appointed representatives will be completed at least on a bi-weekly basis or as otherwise determined by one or all parties and agreed upon by all parties. Meeting will take place at the Field Office or in the Site unless otherwise stated and agreed upon. Meeting frequency and location can be adjusted as needed during project construction as determined by each of the above parties and agreed to by all others.

ARTICLE 8 - CONTRACT ADMINISTRATION

8.1 Project Manager

8.1.1 The Project Manager unless otherwise directed by the Owner shall perform those duties and discharge those responsibilities allocated to the Project Manager as set forth in this Contract. The Project Manager shall be the Owner's representative from the effective date of this Contract until Final Payment has been made. The Project Manager shall be authorized to act on behalf of the Owner only to the extent provided in this Contract.

8.1.2 The Owner and the Contractor shall communicate with each other in the first instance through the Project Manager.

8.1.3 The Project Manager shall be the initial interpreter of the requirements of the drawings and specifications and the judge of the performance thereunder by the Contractor. The Project Manager shall render written or graphic interpretations necessary for the proper execution or progress of the Work with reasonable promptness on request of the Contractor.

8.1.4 The Project Manager shall review the Contractor's Applications for Payment and shall certify to the Owner for payment to the Contractor, those amounts then due to the Contractor as provided in this Contract.

8.1.5 The Project Manager shall have authority to reject Work which is defective or does not conform to the requirements of this Contract. If the Project Manager deems it necessary or advisable, the Project Manager shall authority to require additional

inspection or testing of the Work for compliance with Contract requirements at Contractor's expense.

- 8.1.6 The Project Manager shall review and approve, or take other appropriate action as necessary, concerning the Contractor's submittals including Product Data and Samples. Such review, approval or other action shall be for the sole purpose of determining conformance with the design concept and information given through the Contract Documents.
- 8.1.7 The Project Manager shall prepare Change Orders and may authorize minor changes in the Work by field order as provided elsewhere herein.
- 8.1.8 The Project Manager shall, upon written request from the Contractor, conduct inspections to determine the date of Substantial Completion and the date of Final Completion, shall receive and forward to the Owner for the Owner's review and records, written warranties and related documents required by this Contract and shall issue a Final Certificate for Payment upon compliance with the requirements of this Contract.
- 8.1.9 The Project Managers decision in matters relating to aesthetic effect shall be final if consistent with the intent of this Contract.

8.2 Claims by the Contractor

- 8.2.1 All Contractor claims shall be initiated by written notice and claim to the Project Manager. Such written notice and claims must be furnished within seven (7) days after occurrence of the event, or the first appearance of the condition, giving rise to the claim.
- 8.2.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with performance of this Contract and the Owner shall continue to make payments to the Contractor in accordance with this Contract. The resolution of any claim under this Paragraph 8.2 shall be reflected by a Change Order initiated by the Project Manager and the Contractor.
- 8.2.3 Claims for Concealed and Unknown Conditions - Should concealed and unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Contract, or should unknown conditions of an usual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Contract, be encountered, wherein the Contract Documents or Standard Construction industry practices have not placed the responsibility of discovering such concealed and unknown conditions upon the Contractor prior to the Contractor submitting his Bid for the Work, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the Owner observance of the condition. As a condition precedent to the Owner having any liability to the Contractor for concealed or unknown conditions, the Contract must give the Project Manager written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the

Contractor of any claim arising out of or relating to such concealed or unknown condition.

- 8.2.4 Claims for Additional Costs - If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the Owner therefor, the Contractor shall give the Project Manager written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

- 8.2.4.1 In connection with any claim by the Contractor against the Owner for compensation in excess of the Contract Price, any liability of the Owner for the Contractor's costs shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor.

The Owner shall not be liable to the Contractor for claims of third parties, including Subcontractors, unless and until liability of the Contractor has been established therefore in a court of competent jurisdiction.

- 8.2.5 Claims for Additional Time - If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the Owner or someone acting in the Owner's behalf, or by changes ordered in the Work, unusual delay in transportation, unusually adverse weather conditions not reasonably anticipated, fire or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the Project Manager, for such reasonable time as the Project Manager may determine.

Any notice and claims for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving the rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is a continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim for an extension shall be waived. This paragraph shall not be deemed to waive any damages for delay that are covered by insurance.

- 8.2.5.1 Delays and Extensions of Time – An extension of Contract Time will not be given due to weather conditions unless such weather conditions (wind and rain) for any 30-day period are, on the average for that 30 days, more severe than average for the same 30 days for the previous ten years and caused delay. In requesting extensions of time for weather conditions, Contractor shall present complete records and averages referred to above, and such requests shall document how weather conditions delays progress of the Work. Hurricane and

Tropical Storm weather conditions may warrant extension based upon the level of damage and the disruption of the contractor's work.

8.3 Field Orders

8.3.1 The Project Manager shall have authority to order minor changes in the Work not involving a change in the Contract Price or in Contract Time and not inconsistent with the intent of the Contract. Such changes shall be affected by field order and shall be binding upon the Contractor. The Contractor shall carry out such field orders promptly.

ARTICLE 9 - SUBCONTRACTORS

9.1 Definition

9.1.1 A Subcontractor is an entity that has a direct Contract with the Contractor to perform a portion of the Work.

9.2 Award of Subcontracts

9.2.1 Upon execution of the Contract, the Contractor shall furnish the Project Manager, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The Project Manager shall promptly reply to the Contractor, in writing, stating any objections the Project Manager may have to such proposed Subcontractor. The Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the Project Manager has made a timely objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor which correspond to those rights afforded to the Owner by Subparagraph 12.2.1 below.

ARTICLE 10 - CHANGES IN THE WORK

10.1 Changes Permitted

10.1.1 Changes in the Work within the general scope of this Contract, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Contract, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Contract and the Contractor shall proceed promptly with such changes.

10.2 Change Order Defined

10.2.1 Change Order shall mean a written order to the Contractor executed by the Project Manager, issued after execution of this Contract, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. The Contract Price and the Contract Time may be changed only by the Change Order.

10.3 Changes in the Contract Price

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows: (a) by mutual agreement between the Owner and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initialed by both parties and (3)

the Contractor's execution of the Change Order, or (b) if no mutual agreement occurs between the Owner and the Contractor, then, as provided in Subparagraph 10.3.2 below.

10.3.2 If no mutual agreement occurs between the Owner and the Contractor as contemplated in Subparagraph 10.3.1 above, the change in the Contract Price, if any, shall than be determined by the Project Manager based on the reasonable expenditures or savings of those performing, deleting or revising the Work attributable to the change, including, in the case of an increase or decrease in the Contract Price, a reasonable allowance for direct job site overhead and profit. In such case, the Contractor shall present, in such form and with such content as the Owner or the Project Manager requires, an itemized accounting of such expenditures or savings shall be limited to the following: reasonable costs of materials, supplies, or equipment including delivery costs, reasonable costs of labor, including social security, old age and unemployment insurance, fringe benefits required by a pre-existing agreement or by custom, and workers compensation insurance, reasonable costs of premiums for all Bonds and insurance, permit fees, and sales, use or other taxes related to the Work and paid by the Contractor, and reasonable costs of directly attributable to the change. In no event shall any expenditure or savings associated with the Contractors home office or other non-jobsite overhead expenses be included in any change in the Contract Price. Pending final determination of reasonable expenditures or savings to the Owner, payments on account shall be made to the Contractor on the Owner's Certificate of Payment.

10.3.3 Unit Prices for adjustments are provided in the Contract, and if the quantities contemplated are so changed in proposed Change Order that application of such Unit Prices to the quantities of Work proposed shall cause substantial inequity to the Owner or to the Contractor, that applicable Unit Prices shall be equitable adjusted.

10.4 Minor Changes

10.4.1 The Project Manager shall have authority to order minor changes in the Work not involving a change in the Contract Price or an extension of the Contract Time and not inconsistent with the intent of this Contract. Such minor changes shall be made by written Field Order and shall be binding upon the Owner and the Contractor. The Contractor shall promptly carry out such written Field Orders.

10.5 Effect of Executed Change Order

10.5.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Contract as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the Owner for additional time or compensation for matters relating to or arising out or resulting from the Work included within or affected by the executed Change Order.

10.6 Notice to Surety; Consent

10.6.1 The Contractor shall notify and obtain the timely consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent, or approval is required by the Contractor's surety or by law. The Contractor's

warranty to the Owner that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

ARTICLE 11 - UNCOVERING AND CORRECTING WORK

11.1 Uncovering Work

11.1.1 If any of the Work is covered contrary to the Project Managers request or is subject of additional work as part of a change order or to any provision of this Contract, it shall, if required by the Project Manager, be uncovered for the Project Managers inspection and concurrence of the work acceptability and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not described in Subparagraph 11.1.1 above, it shall, if required by the Project Manager or Owner, be uncovered for the Project Managers inspection. If such Work conforms strictly with this Contract, costs of uncovering and proper replacement shall by Change Order be charged to the Owner. If such Work does not strictly conform with this Contract, the Contractor shall pay the costs of uncovering and proper replacement.

11.2 Correcting Work

11.2.1 The Contractor shall immediately proceed to correct Work rejected by the Project Manager as defective or failing to conform to this Contract. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the Owner for the Project Manager's services and expenses made necessary thereby.

11.2.2 If within one (1) year after Substantial Completion of the Work, if any of the Work is found to be defective or not in accordance with this Contract, the Contractor shall correct it within seven (7) days at the Contractor's expense upon receipt of written notice from the Owner. This obligation shall survive Final Payment by the Owner and termination of this Contract. With respect to Work first performed and completed after Substantial Completion, this one (1) year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations which the Contractor has under this Contract. Establishment of the one (1) year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work and has no relationship to the time which the obligation to comply with the Contract Documents may be sought to be enforced.

11.3 Owner May Accept Defective or Nonconforming Work

11.3.1 If the Owner chooses to accept defective or nonconforming Work, the Owner may do so. In such events, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project had it not been constructed in such manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to

compensate the Owner for its acceptance or defective or nonconforming Work, the Contractor shall, upon written demand from the Owner, pay the Owner such remaining compensation for accepting defective or nonconforming Work.

ARTICLE 12 - CONTRACT TERMINATION

12.1 Termination by the Contractor

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or as a result of an act of the Government, through no fault of the Contractor or any person or entity working directly or indirectly for the Contractor, the Contractor may, upon ten (10) days written notice to the Owner, terminate performance under this Contract and recover from the Owner's payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the Owner shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate if such failure is not substantially corrected within fifteen (15) days, the Contractor may terminate performance under this Contract by written notice to the Project Manager. In such event, the Contractor shall be entitled to recover from the Owner as though the Owner had terminated the Contractor's performance under this Contract for convenience pursuant to Subparagraph 12.2.1 hereunder.

12.2 Termination by the Owner

12.2.1 For Convenience

12.2.1.1 The Owner may for any reason whatsoever terminate performance under this Contract by the Contractor for convenience. The Owner shall give written notice of such termination to the Contractor specifying when termination becomes effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle liabilities and claims arising out of the termination of subcontracts and orders. The Owner may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the Owner or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the Owner such completed or partially completed Work and materials, equipment, parts, fixtures, information, and Contract rights as the Contractor has.

12.2.1.4 (a) The Contractor shall submit a termination claim to the Project Manager specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the Project Manager. If the Contractor fails to file a termination

claim within one (1) year from the effective date of termination, the Owner shall pay the Contractor, an amount derived in accordance with subparagraph (c) below.

- (b) The Owner and the Contractor may agree to compensation, if any, due to the Contractor hereunder.
- (c) Absent agreement to the amount due to the Contractor, the Owner shall pay the Contractor the following amounts.

- i. Contract prices for labor, materials, equipment and other services accepted under this Contract.

- ii. Reasonable costs incurred in preparing to perform and in performing a portion of the Work prior to termination and not included in (i) or (ii), and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided, however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract had been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any.

- iii. Reasonable costs of settling and paying claims arising out of the termination of Subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the number of payments otherwise made, and shall in no event include duplication of payment.

12.2.2 For Cause

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to prosecute the Work in a timely manner, supply enough properly skilled Workers, supervisory personnel or proper equipment or materials, or if it fails to make prompt payment to Subcontractors, or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a material provision of this Contract, then the Owner may, by written notice to the Contractor, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2. If the unpaid balance of the Contract Price less any liquidated damages due under this Contract, exceeds the cost of finishing the Work, including compensation for the Project Managers additional services

and expenses made necessary thereby, such exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive the termination of the Contract.

- 12.2.2.3 In the event the employment of the Contractor is terminated by the Owner for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause; such termination shall thereupon be deemed a Termination for Convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

ARTICLE 13 - INSURANCE

13.1 Contractor's Insurance:

13.1.1 The successful Bidder shall indemnify and hold the Owner harmless against all loss, damage, or expense by reason of injury to person or damage to property arising out of the use of or activities on any said premises by the successful Bidder, its agents, representatives, Contractors, Subcontractors, or employees. Prior to commencement of services under this Contract the successful Bidder's insurance coverage shall comply with the following insurance requirements:

- a. Worker's Compensation/Employer's Liability Insurance as required by the Worker's Compensation Laws of the State of Florida.
- b. General Liability Insurance on the Comprehensive form for all operations of the successful Bidder under the Contract, including coverage for, but not limited to Personal Injury Broad Form Property Damage and Project Liability for a minimum limit of \$1,000,000 per occurrence.
- c. Automobile/Truck Injury and Property Damage Liability Insurance covering all vehicles, whether owned, non-owned, leased or hired, with not less than \$100,000 per person/\$300,000 per occurrence combined single limits.

Insurance companies providing the required insurance coverages for the successful Bidder must be rated into the current issue of "Bests" Insurance Key Rating Guide at "A" for the policyholder's category and XIII for the financial category to be specifically approved by the Owner.

13.2 Insurance Certificate

13.2.1 A Certificate of Insurance, naming St. Augustine Beach City Commissioners as additional insured, shall be required at the signing of the Contract by the successful Bidder. Certificates of Insurance are to be authorized in writing by an officer of the insurance company or companies, identifying their agent and executed by the agent with a copy of the agent's license by the insurance company attached. The Certificate must reflect the required coverages and guarantee the City of St. Augustine Beach Commissioners. Certified copies of all policies must accompany the Certificate of Insurance when requested by the City.

ARTICLE 14 - MISCELLANEOUS

14.1 Governing Law

14.1.1 The Contract shall be governed by the law of the place where the Project is located.

14.2 Successors and Assigns

14.2.1 The Owner and Contractor bind themselves, their successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Contract. The Contractor shall not assign this Contract without written consent of the Owner.

14.3 Surety Bonds

14.3.1 The Contractor shall furnish a separate Public Construction Bond to the Owner. Such Bonds shall set forth a penal sum in an amount not less than the Contract Price. The Bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such Bonds. The Public Construction Bond shall provide that in the event the Contract Price is adjusted by Change Order executed by the Contractor. The Public Construction Bond furnished by the Contractor shall be in form suitable to the Owner and shall be executed by a Surety, or Sureties, reasonably suitable to the Owner.

14.4. Safety of Persons and Property

14.4.1 When existing utility lines shown on the Drawings are to be removed or relocated, the Contractor shall notify the Engineer in ample time for taking measures for prevention of the interruption of any required services prior to the beginning of operations. If the Contractor damages any existing utility lines not shown on the Drawings, the location of which is not known to the Contractor, report thereof shall be made immediately to the Engineer.

14.4.2 Locations of existing utility lines shown on the Drawings are based on the best information available to the Engineer but shall not be considered exact either as to location or number of such lines.

14.4.3 Contractor shall protect utility lines constructed under terms of the agreement and those discovered or shown on Drawings to be existing. Damage occurring to utility lines due to Contractor's operations shall be repaired at no cost to the Owner.

14.5 Compliance with Federal Contracts and Grants pursuant to 2 CFR 200

14.5.1 Contractor shall be knowledgeable in the requirements of Federal Contracts and Grants and acknowledges this contract requires compliance with Federal Grant requirements. In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

14.5.2 Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

14.5.3 All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be affected and the basis for settlement.

- 14.5.4 Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”
- 14.5.5 Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- 14.5.6 Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of “funding agreement” under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.
- 14.5.7 Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended - Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
- 14.5.8 Debarment and Suspension (Executive Orders 12549 and 12689) - A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989

Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

- 14.5.9 Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) - Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

ARTICLE 15 - EQUAL EMPLOYMENT OPPORTUNITY

15.1 Contractor's Employment Opportunity

- 15.1.1 The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, or age.

The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertisement, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

- 15.1.2 The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants shall receive consideration for employment without regard to race, religion, color, sex, national origin or age.

ARTICLE 16 - ELECTRONIC DOCUMENT SUBMISSIONS

- 16.1 All final documents/work products must be delivered in Adobe "pdf" format in one "pdf" file. The purpose of this file format is for electronic transmittal and publishing of final work products. Any plans, specifications, reports, or other documents regulated by Chapters 471 and 472, Florida Statutes, or by any other Federal or State law rule or regulation are exempted from this requirement.
- 16.2 For Documents regulated by Chapters 471 and 472, Florida Statutes, the Contractor/Consultant shall provide a flash drive with the digital files of any plans, specifications, reports or other deliverable documents for informational purposes only or archive a digital copy of such files which shall be retained by the Contractor Consultant for a period of ten (10) years following the acceptance of the final work product, and which shall be made available to the City upon request from an authorized City official/employee,

and payment by the City of the cost of reproduction. For documents regulated by any other Federal or State law, rule, or regulation, the Contractor/Consultant shall abide by, and comply with, the provisions contained in the applicable Federal/State law/rule/regulation.

[Remainder of page intentionally left blank]

Contract No. 22-01 Ocean Hammock Park Phase 2 Improvements

Owner: City of St. Augustine Beach

Contractor:

Type or Print Name Seal

Type or Print Name Seal

By:_____
Signature

By:_____
Signature

Print or Type Title

Print or Type Title

Date of Execution

Date of Execution

By:_____
Clerk

Date of Execution

CONTRACTING REQUIREMENTS

SECTION 00 55 00 - Notice to Proceed

Dated _____, 2022

TO: _____

PROJECT: Ocean Hammock Park Phase 2 Improvements

CONTRACT FOR: _____

You are notified that the Contract Time under the above contract will commence to run on _____, 2022. By that date, you are to start performing the Work and your other obligations under the Contract Documents. The dates of Substantial Completion and Final Completion are set forth in the Agreement;

they are _____, 2022 and _____, 202__, respectively.

Before you may start any Work at the site, you must each deliver to the OWNER certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any work at the site you must:

- A. Obtain all permits required by state and local agencies for the completion of the work.

City of St. Augustine Beach
(Owner)

BY _____
(Authorized Signature)

(Name and Title)

ACCEPTANCE OF NOTICE

Receipt of the Notice of Award is hereby acknowledged,

by _____,

this the _____ day of _____, 2022.

By _____
(Signature)

(Name)

(Title)

END OF SECTION

00 55 00 - 1

00 61 00
PUBLIC CONSTRUCTION BOND

BOND NO.: _____

KNOW ALL PERSONS BY THESE PRESENTS, that _____
of _____ hereinafter called the CONTRACTOR (Principal), and
_____, a corporation duly organized and existing under
and by virtue of the laws of the **State of Florida**, hereinafter called SURETY, and authorized to
transact business within the State of Florida, as SURETY, are held and firmly bond unto the City of
St. Augustine Beach as OWNER (Oblige), in the sum of \$ _____ lawful money of
the United States of America, for the payment of which, well and truly be made to the OWNER, the
CONTRACTOR and the SURETY bind themselves and each of their heirs, executors.,
administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated, _____, 2022,
between Principal and Owner for **Ocean Hammock Park Phase 2 Improvements**. The
City of St. Augustine Beach, Florida, the contract being made a part of this bond by
reference, and the times and in the manner prescribed in the contract; and
2. Promptly makes payment to all claimants, as defined in Section 255.05(1), Florida Statutes,
supplying Principal with labor, materials, or supplies, used directly or indirectly by
Principal in the prosecution of the work provided for in the contract; and
3. Promptly pays Owner all losses, damages, expenses, costs and attorney's fees, including
appellate proceedings, that Owner sustains because of a default by Principal under the
contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time
specified in the contract, then this bond is void; otherwise it remains in full force.

PROVIDED, FURTHER, that the Surety, for value received hereby stipulates and agrees that
no change, extension of time, alteration or addition to the terms of the Contract or to work to be
performed thereunder or the Plans or Specifications accompanying same shall in any way affect its
obligation on this Bond, and it does hereby waive notice of any such change, extension of time
alternations or addition to the terms of the Contract or to work to be performed thereunder or the
Plans or Specifications.

PROVIDED FURTHER, that it is expressly agreed that the Bond shall be deemed amended
automatically and immediately, without formal and separate amendments hereto, upon amendment to
the Contract not increasing the contract price more than 20 percent, so as to bind the Principal and the
Surety to the full and faithful performance of the Contract as so amended.

The term "Amendment" wherever used in this Bond, and whether referring to this Bond or the Contract shall include any alteration, addition, extension, or modification of any character whatsoever.

This Bond incorporates herein all the provisions of Florida Statute 255.05.

IN WITNESS WHEREOF, this instrument is executed in _____
counterparts, each of which shall be deemed an original, this _____ day of _____, 2022.

ATTEST:

Principal

(Principal) Secretary

By: _____

(SEAL)

Witness as to Principal

Address

Address

ATTEST:

(Surety) Secretary

Surety

(SEAL)

Witness to Surety

By: _____
Attorney-in-Fact

Address

Address

NOTE: Date of BOND must not be prior to date of Contract. IF CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Departments most current list (Circular 570 as amended) and be authorized to transact business in the State of Florida.

END OF SECTION

00 61 00 - 2

SUBMITTAL TRANSMITTAL

CITY OF ST. AUGUSTINE BEACH

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

DATE: _____ SUBMITTAL NO. _____

FROM:

TO: Public Works Director
City of St. Augustine Beach
2200 S.R. A1A South
St. Augustine Beach, FL 32080

VENDOR:

_____ This is: An original submittal: _____ A revised submittal _____
 _____ Previous Submittal No. _____ No. of submittal copies _____

SUBJECT OF SUBMITTAL:

SPECIFICATION AND/OR DRAWING NUMBER:

We have verified that this submittal contains all applicable material and information required for evaluation against the project specifications. Furthermore, we submit these items, which comply with the plans and specifications.

Check One: _____ with no exceptions, _____ except for the following deviations:

NO.

DEVIATIONS

CONTRACTOR'S AUTHORIZING STAMP	ENGINEER'S REVIEW STAMP
(Contractor's Authorized Signature)	

ADDITIONAL COMMENTS FROM SIDE 1:

[illegible]

END OF DOCUMENT

APPLICATION AND CERTIFICATE FOR PAYMENT

TO (OWNER): City of St. Augustine Beach
2200 AIA South
St. Augustine Beach, FL. 32080

PROJECT: Ocean Hammock Park Phase 2
Improvements

OWNER: City of St. Augustine Beach

FROM (CONTRACTOR):

Florida licensed contractor #

CONTRACT FOR: Ocean Hammock Park Phase 2 Improvements

CONTRACTOR'S APPLICATION FOR PAYMENT

MODIFICATION SUMMARY

Change Orders approved in previous months by Owner		ADDITIONS	DEDUCTIONS
TOTAL			
Approved this Month			
Number	Date Approved		
TOTALS			

Net change by Modifications

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payments has been completed in accordance with the Contract Documents, that the amounts have been paid by the Contractor for the work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

Contractor Name: _____
Contractor Address: _____
Contractor Address: _____
Contractor Phone: _____
Contractor Fax: _____
By: _____ Date: _____

Print Name:

CONTRACTOR'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application, the Contractor certifies to the Owner that to the best of the Contractor's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

DOCUMENT AIA- G703

PAGE 1 OF 2 PAGES

APPLICATION NO: _____
PERIOD TO: _____
ENGINEER'S PROJECT NO: _____

Distribution to:
OWNER
ENGINEER
CONTRACTOR

COMPLETE TO DATE:

Application is made for Payment as shown below, in connection with the Contract Continuation Sheets, Documents PBM-G703, are attached.

1. ORIGINAL CONTRACT SUM	\$
2. Net change by Change Orders	\$
3. CONTRACT SUM TO DATE (Line 1 + 2)	\$
4. TOTAL COMPLETED & STORED TO DATE (Column G on C703)	\$
5. RETAINAGE:	
a. % of Completed Work (Column D + E on G703)	\$
b. % of Stored Material (Column F on G703)	\$
Total Retainage (Line 5a + 5b or (Total in Column I of G703)	\$
6. TOTAL EARNED LESS RETAINAGE (Line 4 less Line 5 Total)	\$
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)	\$
8. CURRENT PAYMENT DUE	\$
9. BALANCE TO FINISH, PLUS RETAINAGE (Line 3 less Line 6)	\$

State of Florida
Subscribed and sworn to before me this date: _____
County of: _____
Notary Public: _____
Seal: _____
My Commission Expires: _____

AMOUNT CERTIFIED

(Attach explanation if amount certified differs from the amount applied for.)

OWNER: City of St. Augustine Beach

Print: _____
By: _____ Date: _____

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT, containing

Contractor's signed Certificate is attached

In tabulations below, amounts are stated to the nearest dollar.

Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NUMBER:

APPLICATION DATE:

PERIOD FROM:

TO:

ARCHITECT'S PROJECT NO:

[illegible]

CONTRACTING REQUIREMENTS

Document 00 68 30

BID NO.: 22-01

CHANGE ORDER

No. _____

PROJECT: OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

DATE OF ISSUANCE: _____

EFFECTIVE DATE: _____

OWNER: City of St. Augustine Beach

OWNER'S Contract No.

CONTRACTOR: _____

You are directed to make the following changes in the Contract Documents.

Description:

Reason for Change Order:

Attachments: (List documents supporting change)

<p>CHANGE IN CONTRACT PRICE:</p> <p>Original Contract Price</p> <p>\$ _____</p>	<p>CHANGE IN CONTRACT TIMES:</p> <p>Original Contract Times</p> <p>Substantial Completion _____</p> <p>Ready for final payment _____</p> <p>days or dates</p>
<p>Net changes from previous Change Orders</p> <p>No. _____ to No. _____</p> <p>\$ _____</p>	<p>Net change from previous Change Orders No. _____ to No. _____</p> <p>_____</p> <p>days</p>
<p>Contract Price prior to this Change Order</p> <p>\$ _____</p>	<p>Contract Times prior to this Change Order</p> <p>Substantial Completion _____</p> <p>Ready for final payment _____</p> <p>days or dates</p>
<p>Net Increase (decrease) of this Change Order</p> <p>\$ _____</p>	<p>Net Increase (decrease) of this Change Order</p> <p>_____</p> <p>days</p>
<p>Contract Price with all approved Change Orders</p> <p>\$ _____</p>	<p>Contract Times with all approved Change Orders</p> <p>Substantial Completion _____</p> <p>Ready for final payment _____</p> <p>days or dates</p>

RECOMMENDED:	APPROVED:	ACCEPTED:
By: _____ Engineer: (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)

Date: _____	Date: _____	Date: _____
-------------	-------------	-------------

FEDERAL AGENCY APPROVAL (where applicable):

By: _____ Date: _____

[Rest of page intentionally left blank]

CHANGE ORDER

INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Contract Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating change order items to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order may be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Contractor for approval. After approval by Contractor, all copies should be sent to Owner for approval. Engineer should make distribution of executed copies after approval by Owner.

If a change only applies to Contract Price or to Contract Times, cross out the part of the tabulation that does not apply.

ADDITIONAL COMMENTS FROM SIDE 1:

END OF SECTION

WORK DIRECTIVE CHANGE

No. _____

PROJECT: **OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS**

DATE OF ISSUANCE: _____

EFFECTIVE DATE: _____

OWNER: **City of St. Augustine Beach**

OWNER'S Contract No. _____

CONTRACTOR: _____

You are directed to proceed promptly with the following changes:

Description: _____

Purpose of Work Directive Change: _____

Attachments: (List documents supporting change) _____

If a claim is made that the above change(s) have affected Contract Price or Contract Times any claim for a Change Order based thereon will involve one or more of the following methods of determining the effect of the change(s).

<p>Method of determining change in Contract Price:</p> <p><input type="checkbox"/> Unit Price</p> <p><input type="checkbox"/> Lump Sum</p> <p><input type="checkbox"/> Other</p>	<p>Method of determining change in Contract Times:</p> <p><input type="checkbox"/> Contractor's records</p> <p><input type="checkbox"/> Engineer's records</p> <p><input type="checkbox"/> Other</p>
<p>Estimated increase (decrease) in Contract Price:</p> <p>\$ _____</p> <p>If the change involves an increase, the estimated amount is not to be exceeded without further authorization.</p>	<p>Estimated increase (decrease) in Contract Times:</p> <p>Substantial Completion: _____ days;</p> <p>Ready for final payment: _____ days.</p> <p>If the change involves an increase, the estimated times are not to be exceeded without further authorization.</p>

AUTHORIZED:

By: _____

Public Works Director (Print)

(Signature)_____
Date:

WORK DIRECTIVE CHANGE

INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Times. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a possible change in the Contract Price or the Contract Times a Field Order may be used.

B. COMPLETING THE WORK DIRECTIVE CHANGE FORM

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer completes the following:

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE: Mark the method to be used in determining the final cost of Work involved and the estimated net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed Work is completed, another Work Directive Change must be issued to change the estimated price or Contractor may stop the changed Work when the estimated price is reached. If the Work Directive Change is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable".

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIMES: Mark the method to be used in determining the change in Contract Times and the estimated increase or decrease in Contract Times. If the change involves an increase in the Contract Times and the estimates times are approached before the additional or changed Work is completed, another Work Directive Change must be issued to change the times or Contractor may stop the changed Work when the estimated times are reached. If the Work Directive Change is not likely to change the Contract Times, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed the form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Times. Once authorized by Owner, a copy should be sent by Engineer to Contractor. Price and Times may only be changed by Change Order signed by Owner and Contractor with Engineer's recommendation.

Once the Work covered by this directive is completed or final cost and times are determined, Contractor should submit documentation for inclusion in a Change Order.

THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIMES. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.

END OF SECTION

REQUEST FOR INTERPRETATION

RFI No. _____

Project: **OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS**

Owner: **For the City of St. Augustine Beach**

Project Number: _____

Date: _____

To: **Public Works Director**

From: _____

Specification Section: _____ Paragraph: _____ Drawing Reference: _____ Detail: _____

Request: _____

By: _____
Contractor (Authorized Signature)

Date: _____

Response:

Response From: _____

Response To: _____

By: _____ Date: _____

Public Works Director

END OF SECTION

FIELD ORDER

Field Order No. _____

Project: **OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS**

Owner: **City of St. Augustine Beach**

RE: _____

Date of Issuance: _____ Effective Date: _____

To: _____

From: **Public Works Director**

Project Number: _____

You are hereby directed to execute promptly this Field Order which interprets the Contract Documents or orders minor changes in the Work without change in Contract Time or Contract Price.

If you consider that a change in Contract Time or Contract Price is required, submit a Change Order Request to the Engineer immediately and prior to proceeding with this portion of the Work.

Specification Section: _____ Paragraph: _____ Drawing Reference: _____ Detail: _____

Description of Interpretation or Change:

By: _____
Public Works Director (Print Name)

Public Works Director (signature)

Date: _____

Additional Description of Interpretation or Change from Side 1:

[illegible]

END OF SECTION

PART 1 GENERAL

1.01 DEFINED TERMS

- A. Terms which are defined in the Standard General Conditions of the Construction Contract, Engineers Joint Contract Documents Committee No. C-700, (2018 Edition) have the meanings assigned to them in the General Conditions.
- B. Terms which are defined in Document 00 20 00 - Instructions to Bidders have the meanings assigned to them in that Document included in this Contract Document by this reference.
- C. Certain additional terms used in Contract Documents are defined generally in this Document.
- D. A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including Drawings which must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon. Definitions and explanations of this Section are not necessarily either complete or exclusive but are general for work to the extent not stated more explicitly in another provision of contract documents.

1.02 DEFINITIONS

- A. A/E and Architect/Engineer: ENGINEER as defined in Agreement.
- B. Approve: Where used in conjunction with Engineer's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be held to limitations of Engineer's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "approval" by Engineer be interpreted as a release of Contractor from responsibilities to fulfill requirements of Contract Documents.
- C. Bidding Requirements: The portion of the Bidding Documents consisting of Documents numbered between 00 10 00 and 00 45 00 as listed in the Table of Contents of the Contract Documents.
- D. Contracting Requirements: The portion of the Contract Documents consisting of Documents numbered between 00 50 00 and 01 00 00 as listed in the Table of Contents of the Contract Documents.
- E. Directed, Requested, Etc.: Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted", mean "directed by Engineer", "requested by Engineer", etc. However, no such implied meaning will be interpreted to extend Engineer's responsibility into Contractor's area of construction supervision.
- F. Furnish: Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc. as applicable in each instance.

- G. General Requirements: Provisions or requirements of Division 1 Sections, General Requirements, apply to entire work of Contract and, where so indicated, to other elements which are included in project.
- H. Indicated: A cross-reference to details, notes or schedules on drawings, to other paragraphs or schedules in the Specifications, and to similar means of recording requirements in the contract documents. Where terms such as "shown", "noted", "scheduled", and "specified", are used in lieu of "indicated", it is for purpose of helping reader locate cross-reference, and no limitation is intended except as specifically noted.
- I. Install: Except as otherwise defined in greater detail, term "install" is used to describe operations at project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.
- J. Installer: Entity (person or firm) engaged by Contractor or its subcontractor or sub-subcontractor for performance of a particular unit of work at project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in operations they are engaged to perform.
- K. Project Site: Space available to Contractor for performance of work, either exclusively or in conjunction with others performing other work as part of project. Extent of project site is shown on drawings.
- L. Provide: Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
- M. Testing Laboratory: An independent entity engaged to perform specific inspections or tests of the work, either at project site or elsewhere; and to report and (if required) interpret results of those inspections or tests.

1.03 FORMAT AND SPECIFICATION EXPLANATIONS

- A. Specification Production: None of these explanations will be interpreted to modify substance of requirements. Portions of these specifications have been produced by Engineer's standard methods of editing master specifications and may contain minor deviations from traditional writing formats. Such deviations are a normal result of this production technique and no other meaning will be implied or permitted.
- B. Format Explanation: Format of principal portions of these specifications can be described as follows; although other portions may not fully comply, and no particular significance will be attached to such compliance or non-compliance.
 - 1. Sections and Divisions: For convenience, basic unit of specification text is a "section", each unit of which is named and numbered. These are organized "divisions", which are recognized as the present industry-consensus on uniform organization and sequencing of specifications. The section title is not intended to limit meaning or content of section, nor to be fully descriptive of requirements specified therein, nor to be an integral part of text.

2. Section Parts: Each section of specifications has been subdivided into 3 (or less) "parts" for uniformity and convenience (Part 1 - General; Part 2 - Products; and Part 3 - Execution). These do not limit the meaning of and are not an integral part of text which specifies requirements.
- C. Underscoring: Used strictly to assist reader of specification text in scanning text for key words in content (for quick recall). No emphasis on or relative importance of text is intended where underscoring is used.
 - D. Imperative Language: Used generally in specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by Contractor. For clarity of reading at certain locations, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by Contractor, or when so noted, by others.
 - E. Section Numbering: Used to facilitate cross-references in contract documents. Sections are placed in Project Manual in numeric sequence; however, numbering sequence is not complete, and listing of sections at beginning of Project Manual must be consulted to determine numbers and names of specification sections in contract documents.
 - F. Page Numbering: Numbered independently for each section; recorded in listing of sections (Index or Table of Contents) in Project Manual. Section name is shown with page number at bottom of each page, to facilitate location of text in Project Manual.
 - G. Specification Content: Because of methods by which this project specification has been produced, certain general characteristics of content, and conventions in use of language are explained as follows:
 1. Specifying Methods: Techniques or methods of specifying to record requirements varies throughout text, and may include "prescriptive", "open generic-descriptive", or "compliance with standards", "performance", "proprietary", or a combination of these. Method used for specifying one unit of work has no bearing on requirements for another unit of work.
 2. Overlapping and Conflicting Requirements: Where compliance with 2 or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, most stringent requirement is intended and will be enforced, unless specifically detailed language written into Contract Documents (not by way of reference to an industry standard) clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently equal but different requirements, and uncertainties as to which level of quality is more stringent, to Engineer for a decision before proceeding.
 - a. Contractor's Option: Except for overlapping or conflicting requirements, where more than one set of requirements are specified for a particular unit of work, option is intended to be Contractor's regardless of whether specifically indicated as such.
 - H. Minimum Quality/Quantity: In every instance, quality level or quantity shown or specified is intended as minimum for the work to be performed or provided. Except as otherwise specifically indicated, actual work may either comply exactly with that minimum (within specified tolerances) or may exceed that minimum (within specified tolerances) or may exceed that minimum within reasonable limits. In complying with requirements, indicated numeric values are either minimums or maximums as noted or as appropriate for context of requirements. Refer instances of uncertainty to Engineer for decision before proceeding.

- I. Specialists; Assignments: In certain instances, specification text requires (or at least implies) that specific work be assigned to specialists or expert entities, who must be engaged for performance of those units of work. These must be recognized as special requirements over which Contractor has no choice or option. These assignments must not be confused with (and are not intended to interfere with) normal application of regulations, union jurisdictions and similar conventions. One purpose of such assignments is to establish which party or entity involved in a specific unit of work is recognized as "expert" for indicated construction processes or operations. Nevertheless, final responsibility for fulfillment of entire set of requirements remains with Contractor.

- J. Trades: Except as otherwise indicated, the use of titles such as "carpentry" in specification text, implies neither that the work must be performed by an accredited or unionized tradesperson of corresponding generic name (such as "carpenter"), nor that specified requirements apply exclusively to work by tradespersons of that corresponding generic name.

- K. Abbreviations: Language of specifications and other contract documents is of the abbreviated type in certain instances and implies words and meanings which will be appropriately interpreted. Actual word abbreviations of self-explanatory nature have been included in texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirements with notations on drawings and in schedules. These are defined in Section 01092 - Abbreviations or are frequently defined in section at first instance of use. Trade association names and titles of general standards are frequently abbreviated.
 - 1. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of contract documents so indicates.

END OF DOCUMENT 00 71 00

CONTRACTING REQUIREMENTS

**SECTION 00 72 00
General Conditions**

1.1 **GENERAL:**

- A. The GENERAL CONDITIONS for this Contract are the Standard General Conditions of the Construction Contract, C-700, 2018 Edition, prepared by Engineers Joint Contract Documents Committee (EJCDC) and issued and published jointly by National Society of Professional Engineers (NSPE), ACEC, ASCE and CSI (EJCDC).
- B. NSPE C-700 Document, by reference, is hereby made a part of the Contract Documents and shall have the same force and effect as if included herein in full printed form.
- C. All provisions of the GENERAL CONDITIONS of EJCDC C-700, not amended or supplemented herein, or in the GENERAL CONDITIONS, shall remain in full force and effect.

1.2 **SPECIAL CONDITIONS:**

The provisions of the GENERAL CONDITIONS and the Modifications herein, may be further modified in the GENERAL CONDITIONS and in Division 1, GENERAL REQUIREMENTS.

END OF SECTION

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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

1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT

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

2.0 OTHER DOCUMENTS

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

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

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

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

3.0 ORGANIZATION OF INFORMATION

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

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

4.0 EDITING THIS DOCUMENT

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

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

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

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

5.0 LICENSE AGREEMENT

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

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

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

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

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

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

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

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

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

2.05 *Acceptance of Schedules*

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

2.06 *Electronic Transmittals*

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

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

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

3.02 *Reference Standards*

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

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

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

B. *Resolving Discrepancies*

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

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

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

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

4.02 *Starting the Work*

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

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

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

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

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

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

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

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

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

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

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

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

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

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

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

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

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

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

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

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

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

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

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

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

6.02 *Insurance—General Provisions*

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

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur:* Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities:* Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

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

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

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

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

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

7.04 *Services, Materials, and Equipment*

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

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

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

- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

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

7.09 *Permits*

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

7.10 *Taxes*

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

7.11 *Laws and Regulations*

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

7.12 *Record Documents*

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

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

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

7.14 *Hazard Communication Programs*

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

7.15 *Emergencies*

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

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

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

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

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

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

D. Resubmittal Procedures for Shop Drawings and Samples

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

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

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

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

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

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

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

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

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

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

8.03 *Legal Relationships*

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

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

- 9.05 *Lands and Easements; Reports, Tests, and Drawings*
- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
 - B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
 - C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 9.06 *Insurance*
- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.
- 9.07 *Change Orders*
- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 *Inspections, Tests, and Approvals*
- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 *Limitations on Owner's Responsibilities*
- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 9.10 *Undisclosed Hazardous Environmental Condition*
- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 *Evidence of Financial Arrangements*
- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).
- 9.12 *Safety Programs*
- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
 - B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

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

10.04 *Engineer's Authority*

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

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

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

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

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

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

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

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

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

11.02 *Change Orders*

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

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

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

11.05 *Owner-Authorized Changes in the Work*

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

11.06 *Unauthorized Changes in the Work*

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

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

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

11.09 *Change Proposals*

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

- B. *Change Proposal Procedures*

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

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

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

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

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
 - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 6. Expenses incurred in preparing and advancing Claims.
 - 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee*
- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
 - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

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

13.02 Allowances

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

13.03 Unit Price Work

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

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

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

14.01 *Access to Work*

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

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

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

14.03 *Defective Work*

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

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

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

14.05 *Uncovering Work*

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

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

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

14.07 Owner May Correct Defective Work

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

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

15.01 Progress Payments

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

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications

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

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

D. *Payment Becomes Due*

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

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

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

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

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

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

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

15.05 *Final Inspection*

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

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

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

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

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

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

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

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

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

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

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

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Assignment of Contract*

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

18.09 *Successors and Assigns*

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

18.10 *Headings*

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

CONTRACTING REQUIREMENTS

Document 00 73 00 Supplementary Conditions

PART 1 - GENERAL

SUPPLEMENTARY CONDITIONS

- A. These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (2018 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 – DEFINITIONS

SC-1.01.18 DRAWINGS

- A. Add the following language at the end of paragraph 1.01.18 of the General Conditions:

The Drawings applicable to this Project are titled Ocean Hammock Park Phase 2 Improvements. The Drawings accompany these specifications will become a part hereof. Each sheet of the Drawings is listed in Section 00 86 00, List of Drawings

SC-1.01.22 Engineer

- A. Amend the first sentence of paragraph 1.01.22 of the General Conditions to read as follows:

The term ENGINEER, when used in the Contract Documents, shall mean the City of St. Augustine Beach City Engineer, 2200 S.R. A1A S, St. Augustine Beach, FL 32080.

SC-1.01.30 Owner

- A. Add the following language at the end of the first sentence of paragraph 1.01.30 of the General Conditions:

The OWNER is the City of St. Augustine Beach, 2200 A1A South, St. Augustine Beach, FL 32080

SC-1.01.34 Samples

- A. Amend the first sentence of paragraph 1.01.34 of the General Conditions to read as follows:

Physical examples produced by a supplier or the CONTRACTOR and furnished by

the CONTRACTOR to illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

ARTICLE 3 - CONTRACT DOCUMENTS, INTENT, AMENDING, REUSE

SC-3.01 Intent

- A. Add a new sub-paragraph to Paragraph 3.01 of the General Conditions which is to read as follows:

H. Each and every provision of law and clause required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be physically amended to make such insertion.

SC-3.03 Reporting and Resolving Discrepancies

- A. Add a new paragraph immediately after Paragraph 3.03B of the General Conditions which is to read as follows:

C. In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

- A. CONTRACT*
- B. PROPOSAL*
- C. SUPPLEMENTARY CONDITIONS*
- D. INVITATION TO BID*
- E. INSTRUCTIONS TO BIDDERS*
- F. GENERAL CONDITIONS*
- G. SPECIFICATIONS*
- H. DRAWINGS*

- B. Addenda shall take precedence over all sections referenced therein. Figure dimensions on Drawings shall take precedence over scale dimensions. Detailed Drawings shall take precedence over General Drawings. In any instance where the design includes written specifications or details in the plans, then the more stringent of the two shall govern.

ARTICLE 6 - BONDS AND INSURANCE

SC-6.03 Contractor's Insurance:

A. Add the following paragraphs to 6.03 of the General Conditions which are to read as follows:

1. *The limits of liability for the insurance required by paragraph 6.03 of the GENERAL CONDITIONS shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:*
2. *Workers' Compensation, etc., in the GENERAL CONDITIONS:*
 - a. *State:* *Statutory*
 - b. *Employer's Liability* *\$1,000,000*
including U.S.L. & A if over water
3. *Comprehensive General Liability in the GENERAL CONDITIONS (Including Premises - Operations: Independent Contractor's Protective; Broad Form Property Damage):*
 - a. *Bodily Injury (including completed operation and products liability):*

<i>\$1,000,000</i>	<i>Each Occurrence</i>
<i>\$1,000,000</i>	<i>Annual Aggregate</i>
 - b. *Property Damage:*

<i>\$1,000,000</i>	<i>Each Occurrence</i>
<i>\$1,000,000</i>	<i>Annual Aggregate or combined</i>
<i>single limit of \$1,000,000</i>	

Property Damage liability insurance shall provide Explosion, Collapse and Underground coverages where applicable.
 - c. *Personal Injury, with employment exclusion deleted.*

<i>\$1,000,000</i>	<i>Annual Aggregate</i>
--------------------	-------------------------
4. *Comprehensive Automobile Liability (Owner, leased, non-owned and hired):*
 - a. *Bodily Injury:*

<i>\$1,000,000</i>	<i>Each Person</i>
<i>\$1,000,000</i>	<i>Each Occurrence</i>

- b. *Property Damage:*

\$1,000,000 *Each Occurrence*
or combined single limit of \$1,000,000

5. *Excess Liability:*

\$1,000,000	Each Occurrence
\$1,000,000	Annual Aggregate

6. *Additional liability coverage for OWNER shall be provided by endorsement as additional insurers on Contractor's General Liability Policy. Add the following names:*

OWNER - City of St. Augustine Beach
2200 A1A South
St. Augustine Beach, FL 32080

7. Insurance Coverage and Requirements:

- a. *Products and Completed Operations coverage shall be maintained for a minimum period of two years after Final Payment.*
- b. *Each listed policy shall be endorsed to reflect the company's obligation to provide the addressee 30 days written notice prior to cancellation or non-renewal.*
- c. *The Contractual Liability required by Paragraph 6.03 of the GENERAL CONDITIONS shall provide coverage for Indemnification under Paragraphs 6.02 of the GENERAL CONDITIONS.*
- d. *All property damage or destruction insurance and all proceeds received from the condemnation of any project shall designate the OWNER as the loss-payee and shall be made payable to OWNER.*
- e. *The Certificate of Insurance shall be executed on AIA Document G705, or an insurance agency standard form showing the same data and format.*
- f. *Certificate of Insurance shall be provided to the OWNER prior to mobilization.*

SC-6.04 BUILDERS RISK AND OTHER PROPERTY INSURANCE:

- A. DELETE PARAGRAPH 6.04.B OF THE GENERAL CONDITIONS IN ITS ENTIRETY.

ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

SC-7.03 Labor; Working Hours

- A. Add new paragraphs immediately after paragraph 7.03.C of the General Conditions which are to read as follows:

D. *This Agreement is subject to the applicable provisions of the Contract Work Hours and Safety Standards Act, Public Law 87-581, 87th Congress. No Contractor or Subcontractor contracting for any part of the Work shall require or permit any laborer or mechanic to be employed on the Work in excess of forty hours in any work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his/her basic rate or permit any laborer or mechanic to be employed on the Work in excess of forty hours in any work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his/her basic rate of pay for all hours worked in excess of forty hours in such work week, as the case may be.*

SC-7.04 Services, Materials and Equipment

- A. Add a new paragraph immediately after paragraph 7.04.C of the General Conditions which is to read as follows:

D. *The Contractor shall not use or allow to be used and shall not furnish or install any material, product, equipment or tool that contains asbestos, PCBs or any like material for use in or on the Project, whether temporary or permanent. Should the Contractor determine that a material, product or requirement that is specified or indicated in the Contract Documents contains asbestos or PCBs, the Contractor shall not install the material, product or equipment and shall notify the Engineer immediately.*

SC-7.13 Safety and Protection:

- A. Add a new sentence at the end of Paragraph 7.13.E to read as follows:

The Contractor shall be solely responsible for compliance with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990.

SC-7.16 Submittals:

- A. Amend the following sub-paragraph in paragraph 7.16.B.1 of the General Conditions:

a. *Drawing Submittal for Approval: Submit one print or PDF electronic file of all shop drawings.*

- B. Amend the following sub-paragraph in paragraph 7.16.B.2 of the General Conditions:

a. *Product Samples for Approval: Submit two copies of all product samples and other required printed data.*

ARTICLE 11 – CHANGES TO THE CONTRACT

SC-11.01 Amending and Supplementing the Contract

- A. Add a new sentence at the end of paragraph 11.01.A of the General Conditions which is to read as follows:

The itemized cost breakdown shall show labor, material and equipment separate for the CONTRACTOR and all Subcontractors cost and shall show CONTRACTOR'S Fee and each subcontractor's overhead and profit.

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

SC-13.03 Unit Price Work:

- A. Delete Paragraph E in its entirety and replace with the following:

E. Adjustments in Unit Price

- 1. Owner reserves the right to delete, reduce or increase the unit price work without a claim from Contractor for an adjustment in the unit price.*

ARTICLE 15 - PAYMENT TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC-15.01.D PAYMENT BECOMES DUE:

- A. AMEND PARAGRAPH 15.01.D.1 OF THE GENERAL CONDITIONS BY STRIKING OUT THE WORD "TEN" AND INSERTING THE WORD "THIRTY" IN ITS PLACE, AND AS SO AMENDED, PARAGRAPH 15.01 REMAINS IN EFFECT.

SC-15.02 CONTRACTOR'S WARRANTY OF TITLE:

A. ADD TWO NEW PARAGRAPHS IMMEDIATELY AFTER PARAGRAPH 15.02.A OF THE GENERAL CONDITIONS WHICH ARE TO READ AS FOLLOWS:

B. No materials or supplies for the Work shall be purchased by CONTRACTOR or Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. CONTRACTOR warrants that he/she has good title to all materials and supplies used by him/her in the Work, free from all liens, claims or encumbrances.

C. CONTRACTOR shall indemnify and save OWNER harmless from all claims arising from the lawful demands of Subcontractors, laborers, workmen, mechanics, material men, and furnisher of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. CONTRACTOR shall at OWNER's request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If CONTRACTOR fails to do so, then OWNER may, after having served written notice on the said CONTRACTOR either pay unpaid bills, of which OWNER has written notice, direct, or withhold from the CONTRACTOR's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to CONTRACTOR shall be resumed, in accordance with the terms of this contract, but in no event shall the provision of this sentence be construed to impose any obligations upon OWNER to either CONTRACTOR or his/her Surety. In paying any unpaid bills of the CONTRACTOR, OWNER shall be deemed the agent of CONTRACTOR and any payment so made by OWNER, shall be considered as payment made under the Contract by OWNER to CONTRACTOR and OWNER shall not be liable to CONTRACTOR for any such payment made in good faith.

ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION

SC-16.02 Owner May Terminate for Cause:

- A. Add a new paragraph immediately after Paragraph 16.02.G of the General Conditions which isto read as follows:

H. If CONTRACTOR abandons the Work, or sublets this Contract or any part thereof, without the previous written consent of OWNER, or if the Contract or any claim thereunder shall be assigned by CONTRACTOR otherwise than as herein specified;

ARTICLE 17 -FINAL RESOLUTION OF DISPUTES

C-17.01 Methods and Procedures

- A. Add a new sentence at the end of paragraph 17.01.B.3 of the General Conditions which is to read as follows:

C. Contractor shall carry on the Work and maintain the progress schedule during the dispute resolution proceedings, unless otherwise agreed by him/her and OWNER in writing.

END OF SECTION

CONDITIONS OF THE CONTRACT

Document 00 86 00

List of Drawings

PART 1 GENERAL

1.01 DESCRIPTION:

- A. Applicable Drawings: The drawings applicable to this Project are titled:
1. Civil Plans Ocean Hammock Park Phase 2 Improvements
 2. Architectural Plans Restrooms for the Ocean Hammock Park
 3. Structural Plans Ocean Hammock Park Bathrooms
- B. The drawings are part of the Contract Documents and are bound separately. The applicable drawings consist of the following sheets:

Plan Set	Sheet No.	Description
Civil Plans	C-1	Cover Sheet
Civil Plans	C-2	General Notes
Civil Plans	C-3	Existing Conditions
Civil Plans	C-4	Overall Site Plan
Civil Plans	C-5	Horizontal Geometry Plan
Civil Plans	C-6	Grading Plan
Civil Plans	C-7	Utility Plan
Civil Plans	C-8	Utility Plan – Lift Station
Civil Plans	C-9	Utility Notes and Details
Civil Plans	C-10	Utility Details
Civil Plans	C-11	Details
Restrooms for the Ocean Hammock Park	A1.1	Architectural Plans: Building Plan
Restrooms for the Ocean Hammock Park	A2.1	Architectural Plans: Wall Sections
Restrooms for the Ocean Hammock Park	A3.1	Architectural Plans: Elevations
Ocean Hammock Park Bathrooms	ST-1	Restroom Structural Plans
Ocean Hammock Park Bathrooms	ST-2	Foundation Plan
Ocean Hammock Park Bathrooms	ST-2D	Foundation Plans Details
Ocean Hammock Park Bathrooms	ST-3	1 st Level Structural Plan
Ocean Hammock Park Bathrooms	ST-3A	1 st Level Framing Plan
Ocean Hammock Park Bathrooms	ST-5	Connection and Framing Details

END OF SECTION



DIVISION 1

GENERAL REQUIREMENTS



**SECTION 01 11 00
SUMMARY OF WORK**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Intent of Contract
- B. Work by Owner

1.02 INTENT OF CONTRACT

- A. The intent is to provide for the construction and completion in every detail of the work described in the Contract. The Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies, required to complete the work in accordance with the Plans, Specifications and terms of the Contract.
- B. The Contract shall be for the Ocean Hammock Park Phase 2 Improvements for the City of St. Augustine Beach, Florida. This project includes handicap accessible restrooms with outdoor beach shower, water and sewer services, including a sanitary sewer pump station, fire hydrant assembly, drinking fountain with bottle filling station, information kiosk, concrete and decomposed granite nature trails with interpretative signage, two (2) accessible picnic areas with slab and tables, handicap parking space with accessible connections, concrete sidewalk, and curbing, concrete crosswalks, elevated walkway and other items as shown on the Contract Documents.
- C. The Project Manager, staff or designee will inspect the work associated with their respective facilities.

1.03 PROJECT RESTORATION

- A. The Contractor shall perform restoration in disturbed areas under this contract. Restoration shall include, but not limited to, rough grading, sodding (like kind), removal of field office and temporary facilities, removal of temporary fencing and erosion control measures.

1.04 CONTRACTOR PROVIDED ENGINEERING SERVICES

- A. The Contractor shall submit, during the building permitting or shop drawing process, whichever applicable, plans signed and sealed by a licensed Florida professional engineer for the following components of work:
 - 1. Elevated Walkway Plans by a Florida licensed professional structural engineer certifying the design complies with the loading requirements of the Florida Building code, latest edition.
 - 2. Pump Station Electrical Connection Design Plans by a Florida licensed professional electrical engineer.

1.05 WORK BY OWNER

A. The Owner has received permits from the following agencies:

1. St. Johns River Water Management District

1.06 PERMITS REQUIRED BY CONTRACTOR

The Contractor shall apply for and obtain building permits as required to complete all components of work.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 01 11 10
SITE CONDITIONS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. The Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this Contract.

1.02 INFORMATION ON SITE CONDITIONS

- A. All information obtained by the Owner regarding site conditions, topography, subsurface information, groundwater elevations, existing construction of site facilities as applicable, and similar data will be available for inspection at the City of St. Augustine Beach City Hall upon request. Such information is offered as supplementary information only. Neither the Engineer nor the Owner assumes any responsibility for the completeness or for the Contractor's interpretation of such supplementary information.

1.03 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Before excavating, the Contractor shall contact Sunshine-811.
- B. Where the Contractor's operations could cause damage or inconvenience to telephone, television, power, oil, gas, water, sewer, the Contractor shall make all arrangements necessary for the protection of these utilities and services.
- C. The Contractor shall be solely and directly responsible to the Owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.
- D. Neither the Owner nor its officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.
- E. The Contractor shall replace, at his own expense, any and all other existing utilities to existing structures removed or damaged during construction, unless otherwise provided for in these Contract Documents.

1.04 INTERFERING STRUCTURES

- A. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 01 19 00
CONTRACT CONSIDERATIONS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Application of Payment
- B. Schedule of Values
- C. Change procedures
- D. Unit Prices

1.02 RELATED SECTIONS

- A. Standard Fixed Price Agreement-Owner/Contractor Agreement: Contract Sum/Price including Allowances.
- B. Section 01 33 00 - Submittals: Schedule of Values.
- C. Section 01 60 00 - Material and Equipment: Product Substitutions and Alternates.

1.03 SCHEDULE OF VALUES

- A. Submit Schedule of Values in duplicate within ten (10) days after date of Owner-Contractor Agreement
- B. Format: Identify each line item with number and title of the major specification section.
- C. Revise schedule to list approved Change Orders with each Application for Payment.

1.04 APPLICATIONS FOR PAYMENT

- A. Submit a notarized electronic pdf copy of each application on the Form provided by the Owner, Application and/or Certificate for Payment, and attach Current Construction Schedule and a Schedule of Values if applicable, once approved by the Engineer. Each application for payment shall be numbered consecutively. Email a copy as a preapplication to the Engineer for review and comment prior to the formal submission for pay application review, and approval to prevent any unnecessary delays.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: 30 days.

- D. Include lien release and any partial consent of surety forms required.

1.05 CHANGE PROCEDURES

- A. The Engineer shall advise of minor changes in the work not involving an adjustment to Contract Sum/Price or Contract Time.
- B. The Engineer may issue a Notice of Change that includes a detailed description of a proposed change with supplementary or revised drawings and specifications and change in Contract Time for executing the change. Contractor shall prepare and submit quotation within ten (10) days.
- C. The Contractor may propose a change by submitting request for change to the Engineer, describing the proposed change and its full effect on the work. Include a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01600.
- D. Stipulated Sum/Price Change Order: Based on Notice of Change and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Engineer.
- E. Unit Price Change Order: For predetermined unit prices and quantities, the Change Order shall be executed on a fixed unit price basis. For unit costs or quantities of units of work that are not predetermined, execute work under a Construction Change Authorization. Change in Contract Sum of Contract Time shall be computed as specified for Change Orders.
- F. Construction Change Directive: Engineer may issue a directive, instructing the Contractor to proceed with a change in the work, for subsequent inclusion in a Change Order. The document shall describe changes in the work and designate the method of determining any change in the Contract Sum/Price or Contract Time. Promptly execute the change.
- G. Execution of Change Orders: Engineer shall issue Change Orders for signature of parties as provided in the Conditions of the Contract.

1.06 UNIT PRICES

- A. Authority: Measurement methods may be delineated in the individual specification sections.
- B. The Engineer or his designee shall take measurements and compute quantities accordingly.
- C. Unit Quantities and measurements indicated in the Bid Form are for contract change order purposed only.

- D. Payment Includes: Full compensation for all required labor, products, tools, equipment, plant, transportation, services, and incidentals; erection, application, or installation of an item of the Work; overhead and profit.

1.07 DEFECT ASSESSMENT

- A. The Work, or portions of the Work, not conforming to specified requirements, shall be replaced. If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer shall direct an appropriate remedy or adjust payment.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

**SECTION 01 20 00
PAYMENT PROCEDURES**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes
 - 1. Procedures for preparation and submittal of schedule of values and applications for payment.
- A. Related Requirements
 - 1. Document AIA-G703 – Application and Certification for Payment.
 - 2. Section 01 19 00 – Contract Considerations
 - 3. Section 01 20 10 – Measurement and Payment
 - 4. Section 01 32 00 – Construction Progress Documentation.
 - 5. Section 01 33 10 – Submittal Procedures: Procedural requirements for submittals.

1.02 SCHEDULE OF VALUES

- A. Contractor shall submit Schedule of Values:
 - 1. Submit to Engineer, Schedule of Values at least 14 days prior to submitting first Application for Payment.
 - 2. Upon request by Engineer, support values given with data that will substantiate their correctness.
 - 3. List separate values of designated materials and labor to install item.
 - 4. List values of each item of work by subcontractors and suppliers.
 - 5. Use Schedule of Values only as basis for Contractor's Application for Payment.
- B. Form of Submittal:
 - 1. Submit typewritten Schedule of Values on page 2 of Document PBM-702 – Pay Application Continuation Sheet.

2. Use Bid Booklet Table of Contents as basis of format for listing costs of work for Sections under Division 2-16. Include labor separate from material cost.
 3. Identify each line item with and title as listed in Bid Booklet Table of Contents and with name of subcontractor or supplier.
- C. Update:
1. Update Schedule of Values when:
 - a. Directed by Engineer.
 - b. Change of subcontractor or supplier occurs.
 - c. Change or product or equipment occurs.
 2. Send separate letter of notification to Engineer explaining reason for change to schedule.

1.03 PAYMENT APPLICATIONS

- A. Present required information in legible form on Document AIA-G703 – Application and Certification for Payment.
- B. Execute certification by signature of authorized officer.
- C. Use itemized breakdown data from approved Contractor's Schedule of Values. Provide dollar value in each column for each line item for portion of Work Completed and for Material Stored.
- D. List each authorized Change Order as an extension Pay Application Continuation Sheet, listing Change Order number and dollar amount as for an original item of Work.

1.04 SUBMITTAL PROCEDURES

- A. Submit the draft Application for review and approval to the Engineer on or before the last Monday (of a full work week) of each month, for that month's pay application.
- B. Upon review and approval, the application for payment will be returned by the Engineer by the 5th of the next month for correction or completion.
- C. Submit a notarized, electronic pdf copy (completed in BLUE ink) of each Application for Payment and all attachments, once approved. The application will be forwarded to the Owner for authorizing the payment at its next Council meeting.
- D. Submit an updated construction schedule with each Application for Payment.

1.05 SUBSTANTIATING DATA

- A. When Engineer requires substantiating information, submit data justifying dollar amounts in question.
- B. Provide one (1) copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- C. Include the following with the application:
 - 1. Partial release of liens from major subcontractors and vendors related to work covered by previous payment and from contractor for current payment.
 - 2. Construction progress schedules, revised and current as specified in Section 01 32 00 – Construction Progress Documentation.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 01 20 10
MEASUREMENT AND PAYMENT

A. Payment

1. Work under this contract will be paid for on a lump sum basis as outlined on the Bid Form for the quantity of work installed. The amount of payment will be as defined in the Standard form of Agreement Between Owner and Contractor, Article 5.
2. The quotations for the work are intended to establish a total price cost for completing the work in its entirety.
3. Additions, deletions, modifications or changes to the work as defined by this contract will be performed by change order according to the Standard General Conditions and will be paid for on the basis of the Cost of the Work.

B. General

1. All work under this contract shall be included in the pay items listed on the Bid Form. Any items for which a specific pay item is not included shall be included in the price of the item to which it pertains or is associated.
2. Any items not shown or omitted that are required for a complete installation shall be furnished and installed by the Contractor at no additional cost to the Owner.
3. The prices shall include all labor, materials, tools, equipment required to complete the work.
4. Payment for repair and replacement of existing utilities damaged as a result of the work of the project will be by the Contractor at no additional cost to the Owner.
4. Payment for lump sum items shall be on a percentage of completion of the particular item basis.

C. Partial Pay Request

1. When measurements of the amount of work constructed each month are made, for the purpose of partial payment, the following will be considered:
 - a. The percentage of completion of the project as determined by the ENGINEER.
 - b. Retainage as set out in Article 5.1 of the Agreement.

D. Description of Pay Items

Described below is a brief summary of the work to be accomplished for the pay items in the Bid Form and the way to measure for payment purposes. Each pay item will include restoring the site to as found or better condition. The summary is not intended to describe all items in detail, but to clarify the items on which the price is to be based. The summary does not relieve the Contractor of his responsibility to supply all items complete.

1. Accessible Restrooms with Attached Outdoor Beach Shower (Bid Part No. A)

Furnish and Install Handicap Accessible Restrooms with Attached Beach Shower per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials, and equipment necessary to complete the work, including, but not limited to, obtaining building permit(s) and other applicable permits, survey and stakeout, erosion and sedimentation controls, clearing and grubbing, excavation, earthwork, temporary and permanent electric service, restroom construction, potable water and sewer services and connections (including all required fittings, values and appurtenances), tapping of water and sewer mains per St. Johns County Utility Department Requirements, fire hydrant assembly, sanitary sewer pump station (including all wet well and dry well components, electrical engineering, electrical panels, valves, backflow devices and other appurtenances), drainage modifications (Type C Inlet and connection), restoration, including driveway restoration, post replacement, grassing, and project as-builts. Payment for this item shall be by Lump Sum.

2. Educational Kiosk (Bid Part No. B)

Furnish and Install an Educational Kiosk per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials, and equipment necessary to complete the work per the Contract Documents, including, but not limited to, survey and stakeout, erosion and sedimentation controls, clearing and grubbing, excavation, kiosk construction, formwork, concrete slab construction and as-builts. Payment for this item shall be by Lump Sum.

3. Two (2) Picnic Areas with Concrete Slab and Tables (Bid Part No. C)

Furnish and Install Two (2) Picnic Areas with concrete Slab and Tables per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials, and equipment necessary to complete the work per the Contract Documents, including, but not limited to, survey and stakeout, erosion and sedimentation controls, clearing and grubbing, excavation, formwork, concrete picnic area slabs, handicap accessible picnic tables, fasteners and as-builts. Payment for this item shall be by Lump Sum.

4. ADA Accessible Beach Access (Bid Part No. D)

Furnish and Install ADA Accessible Beach Access per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials, and equipment necessary to complete the work per the Contract Documents, including, but not limited to; structural engineering design of the elevated walkway, meeting the Florida Building Code, latest edition; securing a building permit for the elevated walkway; sedimentation and erosion controls, clearing and grubbing; excavation, elevated walkway construction, connection to existing beach boardwalk. Payment for this item shall be by Lump Sum.

5. Nature Trail with Interpretative Signs (Bid Part No. E)

Furnish and Install Nature Trail with Interpretive Signs per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials and equipment necessary to complete the work, including, but not limited to, survey, stakeout, erosion and sedimentation controls, clearing and grubbing, earthwork, formwork, sub-base and base construction, 4' wide concrete trail construction, 6' wide concrete trail construction, 4' wide

decomposed granite trail construction, five (5) interpretative signs, park benches, restoration and as-builts. Payment for this item shall be by Lump Sum.

6. Water Fountain with Bottle Filling Station (Bid Part No. F)

Furnish and Install Water Fountain with Bottle Filling Station per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials and equipment necessary to complete the work as shown on the Contract Documents. No portion of payment for this item is included in Bid Part No. A. Payment for this item shall be by Lump Sum.

7. Handicap Parking Space and Accessible Connections

Furnish and Install Handicap Parking Space and Accessible Connections per the Contract Documents. Payment includes full compensation to the Contractor for all labor, materials and equipment necessary to complete the work, including, but not limited to, survey, stakeout, erosion and sedimentation controls, clearing and grubbing, earthwork, formwork, sub-base and base construction, 6" thick concrete handicap parking space with signage and striping, 5' wide access isle, ADA curb ramps, 5' wide concrete sidewalk construction from elevated walkway (Bid Part No. 4) to the eastern Picnic Area, curbing, two (2) concrete crosswalk slabs with striping, detectable warnings, and signage. Payment for this item shall be by Lump Sum.

END OF SECTION

SECTION 01 21 00 ALLOWANCES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Procedures for adjusting cash allowances.
- B. Related Requirements:
 - 1. Document 00 41 00 – Lump Sum Bid Form: Value of allowance included in Bid.
 - 2. Document 00 70 0 – General Conditions: Requirements for adjusting cash allowances.
 - 3. Section 01 19 00 – Contract Considerations

1.02 COSTS

- A. Costs Included in Cash Allowances: Cost of Product to Contractor, less applicable trade discounts, to include delivery to site and applicable taxes.
- B. Costs Not Included in Cash Allowances but Included in the Contract Price: Product handling at the site, including unloading, uncrating, storage, protection of Products from elements and from damage, and labor for installation, finishing, starting, and adjusting.
- C. Differences in Cash Allowances and actual costs will be adjusted by Change Order.

1.03 RESPONSIBILITIES

- A. Engineer Responsibilities:
 - 1. Consult with Contractor for consideration and selection of Products.
 - 2. Select Products in consultation with Owner and transmit decision to Contractor.
 - 3. Prepare Change Order.
- B. Contractor Responsibilities:

1. Assist Engineer in selection of Products.
2. Obtain proposals from suppliers and offer recommendations.
3. On notification of selection by Engineer execute purchase agreement with designated supplier.
4. Arrange for and process shop drawings, product data, and samples.
5. Arrange for delivery.
6. Promptly inspect Products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
7. Submit information for Change Order as required by Section 01 19 00 Contract Considerations.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

**SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION**

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Coordination Drawings.
 - 2. Administrative and supervisory personnel.
 - 3. Project meetings.

1.02 RELATED SECTIONS

- A. Section 01 70 00 – Closeout Procedures.

1.03 COORDINATION

- A. 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. Where installation of one component depends on installation of other components before or after its own installation, schedule activities in the sequence required to obtain the best results.
 - 2. Where space is limited, coordinate installation of different components to ensure maximum accessibility for maintenance, service, and repair.
 - 3. Make provisions to accommodate items scheduled for later installation.
 - 4. Coordinate Manufacturer's Representative's activities.
- B. 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.

- C. 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 meetings.
 - 7. Startup and adjustment of systems.
 - 8. Project closeout activities.

- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

- E. Establish on-site lines of authority for communication with:
 - 1. Owner's Representative.
 - 2. Engineer.
 - 3. Consultants.
 - 4. Subcontractors.

1.04 SUBMITTALS

- A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
 - 1. Content: Project-specific information, drawn accurately to scale. Coordination Drawings shall not be based on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:

- a. Indicate functional and spatial relationships of components of structural, civil, mechanical, and electrical systems.
 - b. Indicate required installation sequences.
 - c. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Engineer for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
 2. Sheet Size: At least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
 3. Number of Copies: Submit three (3) opaque copies of each submittal to be retained by Engineer and Owner plus the number of copies to be retained by Contractor.
 - a. Submit four (4) copies where Coordination Drawings are required for operation and maintenance manuals. Engineer will retain 2 copies; remainder will be returned.
 4. Refer to individual Sections for Coordination Drawings requirements for Work in those Sections.
- B. Key Personnel Names: Within fifteen (15) days of starting construction operations, 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 and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys 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.

1.05 PROJECT MEETINGS

- A. General: Schedule and conduct meetings 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: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, and Contractor within seven (7) days of the meeting.

- B. Preconstruction Meeting: Schedule a preconstruction meeting before starting construction, at a time convenient to Owner and Engineer, but no later than five (5) business days after Notice of Award. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Engineer, General Contractor, major subcontractors, suppliers, and other concerned parties shall attend the conference. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. 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. Establish chain of authority.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for requests for interpretations (RFIs).
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittals and Submittal procedures. Submittals shall include:
 - i. Shop drawings, product data and samples.
 - ii. Test reports.
 - iii. Manufacturer's certification of products.
 - iv. Schedule of values.
 - v. Manpower reports.
 - vi. Copies of all permits.
 - l. Procedure for preparing and maintaining Record Documentation.
 - m. Use of the premises (including any existing facilities).
 - n. Work restrictions.
 - o. Permit acquisition.

- p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities, controls, and utilities.
 - r. Construction waste management and recycling.
 - s. Access to site and parking availability.
 - t. Office, work, and storage areas.
 - u. Equipment deliveries and priorities.
 - v. Safety and first aid procedures.
 - w. Security procedures.
 - x. Progress cleaning.
 - y. Working hours.
 - z. Engineer observation.
 - aa. Barriers.
3. Minutes: Engineer will record and issue meeting minutes.
- C. Preinstallation Meeting: Conduct a preinstallation meeting 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 the Engineer of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparation for the particular activity under consideration, including requirements for the following:
 - a. The Contract Documents.
 - b. Options.
 - c. Related requests for interpretations (RFIs).
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.

- i. Possible conflicts.
 - j. Compatibility problems.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
- 3. Record significant meeting discussions, agreements, and disagreements, including required corrective measures and actions.
 - 4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
 - 5. Do not proceed with installation if the meeting 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. Progress Meetings: The Contractor shall schedule and administer monthly progress meetings including the following items:
- 1. Prepare agenda.
 - 2. Distribute written notice and agenda of meetings three (3) business days in advance of meeting date.

3. Make physical arrangements for meetings.
4. Attendees:
 - a. Owner.
 - b. Engineer.
 - c. Contractor.
 - d. Subcontractors and suppliers as requested by Engineer.
5. Agenda:
 - a. Review and correct or approve minutes of previous progress meeting.
 - b. Review other items of significance that could affect progress.
 - c. Include topics for discussion as appropriate to status of Project.
 - d. Review progress since the last meeting.
 - e. Review and discuss Contractor's Construction Schedule.
 - f. Review applications for payment.
 - g. Review present and future needs of each entity present, including the following:
 - i. Interface requirements.
 - ii. Sequence of operations.
 - iii. Status of submittals.
 - iv. Deliveries.
 - v. Off-site fabrication.
 - vi. Access.
 - vii. Site utilization.
 - viii. Temporary facilities and controls.
 - ix. Work hours.
 - x. Hazards and risks.
 - xi. Progress cleaning.
 - xii. Quality and work standards.
 - xiii. Status of correction of deficient items.
 - xiv. Field observations.

- xv. Requests for interpretations (RFIs).
 - xvi. Status of proposal requests.
 - xvii. Pending changes.
 - xviii. Status of Change Orders.
 - xix. Pending claims and disputes.
 - xx. Documentation of information for payment requests.
- 6. Minutes: The Contractor shall record meeting minutes and include significant proceedings and decisions.
 - 7. Reporting: The Contractor shall distribute minutes of the meeting to each party present and to parties who should have been present within four (4) business days after meetings.
 - a. Schedule Updating: The Contractor shall revise the Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. The Contractor shall issue the revised schedule.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 01 31 19 COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Coordination
- B. Field engineering.
- C. Pre-construction conference.
- D. Progress meetings.

1.02 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements with provisions for accommodating items installed later.
- B. Notify utility companies for an on-site verification of service line locations at least forty-eight (48) hours prior to construction.
- C. Comply with all applicable provisions of permits issued by various governmental agencies in conjunction with the work.
- D. Coordinate completion and cleanup of work of separate sections in preparation for Substantial Completion.
- E. The Contractor shall closely coordinate the removal and replacement of existing overhead and underground facilities (if required).

1.03 FIELD SURVEY

- A. The Contractor shall employ a Land Surveyor registered in the State of Florida and acceptable to the Engineer.
- B. The Contractor shall establish elevations, lines, and levels, utilizing recognized engineering survey.
- C. Upon final completion, the Contractor shall submit Owner as built drawing prepared by a registered Land Surveyor certifying that the elevations and locations of the work are in conformance with the Contract Documents.

1.04 PRE-CONSTRUCTION CONFERENCE

- A. Owner or designee shall schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Engineer, and Contractor Job Superintendent (others as needed).
- C. Agenda:
 - 1. Distribution of Contract Documents

2. Submission of list of Subcontractors, list of products, Schedule of Designation of personnel representing the parties in Contract, and the Engineer.
3. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
4. Scheduling of Construction Activities.

1.05 PROGRESS MEETINGS

- A. Contractor shall schedule and administer meetings throughout progress of the work as needed.
- B. Contractor shall make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to Engineer, Owner, participants, and those affected by decisions made.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers (as required), Owner, and Engineer as appropriate to agenda topics for each meeting.
- D. Agenda:
 1. Review minutes of previous meetings.
 2. Review of work progress
 3. Field observations, problems, and decisions.
 4. Identification of problems that impede planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review of off-site fabrication and delivery schedules.
 7. Maintenance of progress schedule.
 8. Corrective measure to regain projected schedules.
 9. Planned progress during succeeding work period.
 10. Coordination of projected progress.
 11. Maintenance of quality and work standards.
 12. Effect of proposed changes on progress schedule and coordination.
 13. Other business relating to work.

PART 2 – PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION**

PART 1 - GENERAL

1.01 SUMMARY

- A. Construction progress documentation requirements and procedures.

1.02 1.02 RELATED SECTIONS

- A. Section 01 31 00 – Project Management and Coordination.
- B. Section 01 33 10 – Submittal Procedures.

1.03 FORM OF SCHEDULES

- A. Prepare a standard horizontal bar chart.
 - 1. Provide separate horizontal bar column for each class of work, activity, or long-lead equipment item.
 - 2. Columns should follow table of contents of the specifications.
 - 3. Critical path work items shall be highlighted in some manner.

1.04 CONTENT OF SCHEDULES

- A. Indicate complete sequence of construction by activity.
 - 1. Submittals: In accordance with Section 01 33 10 - Submittal Procedures.
 - a. Submittal dates.
 - b. Dates when reviewed copies will be required.
 - 2. Product procurement date, fabrication time and delivery dates.
 - 3. Dates for beginning, and completion of, each element of construction.
- B. Indicate cumulative percentage of work completed as of first day of each month.
- C. Furnish separate schedule, showing submittals, review item, procurement schedules and delivery dates as required.

- D. Define critical portions of entire schedule.

1.05 UPDATING

- A. Update monthly. Indicate:
 - 1. Progress of each activity since previous submission.
 - 2. Projected completion dates for all activities.
 - 3. Activities modified since previous submission.

1.06 SUBMITTALS

- A. Submit initial schedule at the preconstruction meeting.
 - 1. The Engineer and Owner shall review schedules and return reviewed copy within ten (10) business days after receipt.
 - 2. When directed, resubmit within five (5) business days after return of reviewed copy.
- B. Submit monthly updated schedules accurately depicting progress to first day of each month.

1.07 DISTRIBUTION

- A. Distribute copies of approved schedules to Subcontractors and suppliers on as-needed basis.
- B. Instruct recipients to report any inability to comply with projected completion dates, and to furnish a detailed explanation together with suggested remedies.

1.08 ACCELERATION

- A. If at any time during the project Contractor fails to complete an activity by its latest scheduled completion date, which late completion will impact the end date of the work past the Contract completion date, submit within five (5) calendar days plans to reorganize the work force to return to the current schedule.
- B. The Owner may require Contractor to add to equipment, or construction forces, as well as increase working hours, if operations fall behind schedule at any time.

- C. Addition of equipment or construction forces, increasing working hours, or other method, manner, or procedure to return to the contractually required completion date will not be justification for Contract modification.
- D. Contractor shall plan, schedule, and coordinate construction operations and activities in a manner that will facilitate simultaneous progress of work.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

**SECTION 01 33 00
SUBMITTALS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Construction progress schedule.

1.02 RELATED SECTIONS

- A. Section 01 19 00 - Contract Considerations: Schedule of Values.
- B. Section 01 70 00 - Contract Closeout: Contract warranty and manufacturers certificates closeout submittals.

1.03 MATERIALS

Prior to commencement of construction, submit electronic PDF version of:

- A. Certificate of Compliance
 - 1. Drainage Pipe and associated appurtenances, material mix, performance test results.
- B. Shop Drawings / Cut Sheets
 - 1. All Shop Drawings required for the project to be reviewed and approved before start of project.
 - 2. 1. Installation of any materials without prior submittal and approval by the Engineer is so installed at Contractors sole risk of rejection and expense of replacement.
- C. Materials and Equipment Sales Tax Savings:
 - 1. All materials and equipment selected by the Owner to affect savings in sales tax intended to be ordered by the General Contractor or Subcontractor are to be ordered by the Owner on Purchase Order Forms provided by the Owner. Each month invoices or quote for the materials and equipment will be forwarded to the Owner for payment. The gross amount of the invoice will be deducted from the subsequent Pay Request (i.e., Owner gets sales tax savings and discounts, if any). **Fifteen (15)** days prior to the first application for

payment the Contractor shall submit a list of major material suppliers to the Owner for review.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 10 days after date of Owner-Contractor Agreement for Engineer review.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a horizontal bar chart with separate line for each major section of work or operation identifying first workday of each week.
- E. Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of work at each submission.

END OF SECTION

**SECTION 01 33 10
SUBMITTAL PROCEDURES**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Submittal procedures and general requirements for submittals during the progress of the work.
- 1 Administrative Submittals
 - 2 Shop Drawings
 - 3 Product Data
 - 4 Samples
 - 5 Test Specimens
 - 6 Certificates of Compliance
 - 7 O & M Manuals
 - 8 Record Documents
 - 9 Contractor's Construction Schedule
 - 10 Subcontract List
 - 11 Applications for Payment
 - 12 Schedule of Values
 - 13 List of items to be completed or corrected (punch list)
- B. The Owner and Engineer each reserve the right to direct and modify the procedures and requirements for submittals as necessary to accomplish the specific purpose of each submittal.
- C. Electronic copies of CAD Drawings of the Contract Drawings will be provided by Engineer for Contractor's use in preparing submittals.

1.02 RELATED SECTIONS

- A. Section 00 70 00 – General Conditions.
- B. Section 00 73 00 – Supplementary Conditions.
- C. Section 01 20 00 – Payment Procedures.
- D. Section 01 31 00 – Project Management and Coordination.

1.03 DEFINITIONS

- A. Action or Technical Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Administrative Submittals: Written information that does not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.04 ADMINISTRATIVE SUBMITTALS

- A. Administrative Submittals include the following items:
 - a. Preconstruction submittals.
 - b. Schedules.
 - c. Certificates and Certifications.
 - d. Test and inspection reports.
 - e. Construction photographs.
 - f. Meeting minutes.
 - g. Material Safety Data Sheets (MSDSs).
 - h. Closeout submittals.
- B. Provide all of the submittals as listed above and any others specifically required in other parts of the Contract Documents.
- C. Failure to comply promptly with requirements for submittals, as required by law, to applicable federal, state, or local agencies may result in the withholding of progress payments and make the Contractor liable for other prescribed action and sanctions.
- D. Submit to the Owner and Engineer a copy of all letters relative to the Contract, transmitting notifications, reports, certifications, payrolls, and the like, that are submitted directly to a federal, state, or other governing agency.
- E. On a daily basis during the progress of the Work, maintain, and submit to the Engineer, full and correct information as to:
 - 1. The number of persons employed in connection with each subdivision of the Work.
 - 2. The classification, rate of pay, citizenship status, and address of each of these persons.
 - 3. The cost, source, and amount of each class of materials delivered, equipment received, and major construction equipment used in each subdivision of the Work.

F. When requested by the Engineer, submit to the Engineer two copies of each purchase order for all materials and equipment furnished under this Contract for incorporation in the Work. Each purchase order shall show:

1. Supplier's name.
2. Manufacturer's name.
3. Materials, type, model number, size, quantity, accessory list of the material and equipment ordered.
4. Requested delivery date of the material and equipment ordered.

1.05 TECHNICAL SUBMITTALS

A. General:

1. Requirements in this section are in addition to any specific requirements for submittals specified in other Divisions and Sections of the Specifications. The Contractor shall be responsible for the accuracy and completeness of all information contained in each submittal.
 - a. Address all hard copies of submittals and correspondence to:

City of St Augustine Beach Ocean Hammock Park Phase 2
 Attn: Public Works Director
 2200 S.R. A1A South
 St. Augustine Beach, FL 32080
2. Submit descriptive information, which will enable the Engineer to advise the Owner whether the Contractor's proposed materials, equipment, or methods of work are in general conformance to the design concept and in compliance with the Drawings and Specifications.
3. Submit Shop Drawings and Product Data for all material and equipment to be incorporated into the Work, whether or not specifically called for elsewhere in these Contract Documents. The information to be submitted shall consist of drawings, specifications, descriptive data, certificates, samples, test results, design calculations, fabrication and installation drawings, and such other information, all as required by the Engineer to evaluate the material and equipment for compliance with the requirements of these Contract Documents.
4. Equipment and materials delivered without meeting the above requirements **will not** be considered for pay requests involving the installation of said equipment and materials until the above information is received, reviewed, and approved by the Engineer.
5. The Contractor shall be responsible for the accuracy and completeness of the information contained in each and every submittal and shall assure that the

material, equipment or method of work shall be as described in the submittal. The Contractor shall indicate by a signed stamp on each submittal that:

- a. Contractor has checked and approved the submittal.
 - b. Material and equipment described in the submittal conforms to the requirements of the Specifications and Drawings.
 - c. Material and equipment described in the submittal have been checked for dimensions and coordination with other work.
6. If the information contained in a submittal shows deviations from the Specifications or Drawings, include in the submittal verification that there is no conflict with portions of the Work covered by other submittals and notify the Engineer in each and every case where the submittal may affect the work of another Contractor or the Owner.
 7. Ensure coordination of submittals among the related crafts and subcontractors.
 8. Should the Contractor fail to submit acceptable shop drawings on the second submittal, the cost of the Engineer's time to review subsequent submittals on the unacceptable item will be deducted from the Contract amount.
 9. Review, acceptance, or approval of schedules, shop drawings, lists of materials, and procedures submitted or requested by the Contractor shall not add to the Contract amount, and all additional costs which may result therefrom shall be solely the obligation of the Contractor.
 10. Shop Drawing submittals processed by the Engineer do not become Contract Documents and are not Change Orders. The purpose of the Shop Drawing review is to establish a reporting procedure and is intended for the Contractor's convenience in organizing his work and to permit the Engineer to monitor the Contractor's progress and understanding of the design.
 11. It shall not be the responsibility of the Owner to provide engineering or other services to protect the Contractor from additional costs accrued from such approvals.
 12. No equipment or material for which listings, drawings, or descriptive material is required shall be fabricated, purchased, or installed until the Engineer has on hand copies of such approved lists and the appropriately stamped final Shop Drawings.
 13. Submittals will be acted upon by the Engineer as promptly as possible and returned to the Contractor not later than the time allowed for review in Shop Drawing Submittal Procedure. Delays caused by the need for resubmittals shall not constitute reason for an extension of Contract time.

14. The Contractor's authorization stamp shall appear on each copy of each submittal and likewise the Engineer's review stamp shall appear on each copy of each submittal.

B. Transmittal Procedure:

1. General - All submittal shall be addressed to the engineer.
2. Submittal Numbering System - The submittal numbering system shall be coordinated with the Engineer's document control system. Each submittal shall be numbered in consecutive sequence starting with number 1, then number 2, etc. Resubmittals are to be numbered with the original submittal number and the appropriate alphabetic letter. Example: If submittal number 12 is to be resubmitted, the resubmittal will be number 12A (Consecutive Alphabetical Designation) until the submittal is "NO EXCEPTIONS TAKEN" or "EXCEPTIONS TAKEN AS NOTED".
3. Deviation From the Contract – There shall be no deviations from the Contract.
4. Submittal Completeness – Submittals which do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review. The practice of submitting incomplete or unchecked shop drawings for the Engineer to correct or finish will not be acceptable, and shop drawings which, in the sole opinion of the Engineer, clearly indicate that they have not been checked by the Contractor will be considered as not complying with the intent of the Contract Documents and will be returned to the Contractor without review for resubmission in the proper form. Should the Contractor submit incomplete or unchecked shop drawings on the second submittal they will be returned to the Contractor without review for resubmission in the proper form. The cost of the Engineer's time to review subsequent resubmittals will be deducted from the Contract amount.
5. Review Procedure - When the Contract Documents require a submittal, the Contractor shall submit sufficient copies such that the Engineer will retain five (5) copies of all submittal information following Shop Drawing approval. Unless otherwise specified, within thirty (30) calendar days after receipt of the submittal, the Engineer shall review the submittal. The returned submittal shall indicate one of the following actions:
 - a. NO EXCEPTIONS TAKEN: If the review indicated that the material, equipment, or work method is in general conformance with the design concept and complies with the drawings and specifications, submittal copies will be marked "NO EXCEPTIONS TAKEN". In this event the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

- b. EXCEPTIONS TAKEN AS NOTED: If the review indicates limited corrections are required, copies will be marked "EXCEPTIONS TAKEN AS NOTED". The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in O&M data, a corrected copy shall be provided.
 - c. RESUBMIT WITH CORRECTIONS: If the review reveals that the submittal is insufficient or contains incorrect data, or indicates that the material, equipment or work method is not in general conformance with the design concept or in compliance with the Drawings and Specifications, copies of the submittal will be marked "RESUBMIT WITH CORRECTIONS". Submittals with deviations which have not been identified clearly may be rejected. The Contractor shall not undertake work covered by such submittals until a new submittal is submitted and returned marked either "NO EXCEPTIONS TAKEN" or "EXCEPTIONS TAKEN AS NOTED".
 - d. The Engineer will not recommend payment for any work done without a submittal marked either "NO EXCEPTIONS TAKEN" or "EXCEPTIONS TAKEN AS NOTED".
6. Effect of Review of Contractor's Submittals: The review of Shop Drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or the Owner, or by any officer or employee thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed.
- a. A mark of "NO EXCEPTIONS TAKEN" or "EXCEPTIONS TAKEN AS NOTED" shall mean that the Owner has no objection to the Contractor, upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.
 - b. Submittals with deviations from the contract requirements which have not been clearly identified by the Contractor at the time the submittal is transmitted to the Engineer for review may be rejected by the Owner and/or Engineer at a later date, even though the submittal may have been marked "NO EXCEPTIONS TAKEN" or "EXCEPTIONS TAKEN AS NOTED".

C. Record Documents

1. Record documents shall be prepared and maintained in accordance with Section 01781 - Project Record Documents.
2. Upon satisfactory completion of the Contract, submit record documents to the Engineer. Accompany submittal with transmittal containing submittal date, Contract title and number, the Contractor's name and address, title and number of each record document, certification that each document as submitted is complete and accurate, and the Contractor's signature.
3. The contract closeout and final payment under this contract **will not** be finalized and approved until a complete and accurate set of record documents, as described in Section 01781 - Project Record Documents, have been submitted to the Engineer, reviewed for accuracy and accepted.

D. Operation and Maintenance Manual (O&M)

1. O & M Manuals shall be prepared and submitted to the Engineer only as required.

E. Shop Drawings

1. The Shop Drawing submittal shall be made after the award of contract and before fabrication.
2. Shop Drawings may be detailed on 8-1/2 by 11-inch and/or 11 by 17-inch sheets.

F. Professional Seals

1. Provide seal on drawings of structural components and assemblies that are submitted for review and where required by the Specifications.
2. Each copy of a submittal requiring a Professional Seal shall bear an original seal. Reproductions of Professional Seals will not be accepted.

G. Samples and Test Specimens

1. Where required in the Specifications, and as determined necessary by the Engineer, test specimens or samples of materials, appliances, and fittings to be used or offered for use in connection with the Work shall be submitted to the Engineer at the Contractor's expense, with information as to their sources, with all cartage charges prepaid, and in such quantities and sizes as may be required for proper examination and tests to establish the quality or equality thereof, as applicable.

2. All samples and test specimens shall be submitted in ample time to enable the Engineer to make any tests or examinations necessary, without delay to the Work. The Contractor will be held responsible for any loss of time due to his neglect or failure to deliver the required samples to the Engineer, as specified.
3. The Contractor shall submit additional samples as required by the Engineer to ensure equality with the original approved sample and/or for determination of Specification compliance.
4. Laboratory tests and examinations that are not required by the Specifications and that the Owner elects to make will be made at no cost to the Contractor, except that, if a sample of any material or equipment proposed for use by the Contractor fails to meet the Specifications, the cost of testing subsequent samples shall be borne by the Contractor.
5. Submit, in duplicate, to the Engineer test results that are certified by laboratory as specified in Section 01450 - Quality Requirements. The samples furnished and the cost for the laboratory services shall be at the expense of the Contractor and included in the prices bid for the associated work.

H. Certificates of Compliance:

1. Furnish a Certificate of Compliance for materials specified to a recognized standard or code prior to the use of any such materials in the work. The Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Specifications. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.
2. All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the Work which conforms to the requirements of the Contract Documents and any such material not conforming to such requirements will be subject to rejection whether in place or not.
3. The Engineer reserves the right to refuse permission for use of material on the basis of a Certificate of Compliance.
4. The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 01 35 20 SAFETY REQUIREMENTS & PROTECTION OF PROPERTY

PART 1 - GENERAL

1.01 CONTRACTOR'S RESPONSIBILITY FOR SAFETY

- A. The Contractor shall do whatever work is necessary for safety and be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during the Contract period. This requirement shall apply continuously and not be limited to normal working hours.

1.02 FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS

- A. Safety provisions shall conform to the Federal and State Departments of Labor Occupational Safety and Health Act (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, the requirements set forth herein, and any regulations that may be specified in other parts of these Contract Documents. Where any of these are in conflict, the more stringent requirement shall be followed.

1.03 SAFE ACCESS BY FEDERAL, STATE, AND LOCAL GOVERNMENT OFFICIALS

- A. The Contractor shall at all times provide proper facilities for safe access to the work by authorized government officials.

1.04 CONSTRUCTION SAFETY PROGRAM

- A. The Contractor shall develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions. The Contractor shall appoint an employee who is qualified and authorized to supervise and enforce compliance with the safety program.
- B. The duty of the Engineer to conduct construction review of the Contractor's performance is not intended to include a review or approval of the adequacy of the Contractor's safety supervisor, the safety program, or any safety measures taken in, on, or near the construction site.

1.05 SAFETY EQUIPMENT

- A. The Contractor, as part of his safety program, shall maintain at his office or other well-known place at the jobsite, safety equipment applicable to the work as prescribed by the governing safety authorities, all articles necessary for giving first aid to the injured, and shall establish the procedure for the immediate removal to a hospital or a doctor's care of any person who may be injured on the jobsite.

- B. The performance of all work and all completed construction, particularly with respect to ladders, platforms, structure openings, scaffolding, shoring, lagging, machinery guards and the like, shall be in accordance with the applicable governing safety authorities.

1.06 ACCIDENT REPORTS

- A. If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the Engineer. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.
- B. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

1.07 TRAFFIC SAFETY AND ACCESS TO PROPERTY

- A. Comply with all rules and regulations of the city, state, and county authorities regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by express permission of the Owner. Conduct the work to assure the least possible obstruction to traffic and normal commercial pursuits. Protect all obstructions within traveled roadways by installing approved signs, barricades, and lights where necessary for the safety of the public. The convenience of the general public and residents adjacent to the project, and the protection of persons and property are of prime importance and shall be provided for in an adequate and satisfactory manner. The Contractor shall clean public roads in the project vicinity as required by the city, state and county authorities, and Owner.

1.08 FIRE PREVENTION AND PROTECTION

- A. The Contractor shall perform all work in a fire-safe manner. He shall supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, local, and state fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

1.09 USE OF EXPLOSIVES

- A. Explosives shall not be used on this project.

1.10 CONTRACTOR TO SAFEGUARD EXISTING UTILITIES

- A. The Contractor shall perform all work, in such a manner as to avoid damage to existing fire hydrants, power poles, lighting standards, and all other existing utilities, public or private. See Section 01011 - SITE CONDITIONS, Division 1.

1.11 PROTECTION OF TREES

- A. Protect from damage all trees outside the limits of the work and trees within the limits of the work which are designated on the Drawings to remain undisturbed.

1.12 TREE REMOVAL

- A. No trees shall be removed without the express approval of the Engineer. Removed trees shall be disposed of in a legal manner off the worksite by the Contractor.

1.13 SURVEY TO ESTABLISH AUTHENTICITY OF POSSIBLE DAMAGE CLAIMS

- A. After the Contract is awarded and before the commencement of work, the Contractor shall make a thorough examination of all existing buildings, structures, and other improvements in the vicinity of the work, as applicable, which might be damaged by his operations.
- B. Records in triplicate of all observations shall be prepared by the Contractor and every copy of every document shall be signed by the authorized representative of the Contractor. Photographs shall be made by the Contractor and signed in the manner specified above. One signed copy of every document and photograph will be kept on file in the office of the Engineer.
- C. The above records and photographs are intended for use as indisputable evidence in ascertaining the extent of any damage which may occur as a result of the Contractor's operations and are for the protection of the adjacent property owners, the Contractor, and the Owner, and will be a means of determining whether and to what extent damage, resulting from the Contractor's operations, occurred during the Contract work.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 01 42 20 ABBREVIATIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section lists many of the construction industry organizations, professional and technical associations, societies and institutes, and government agencies issuing, promoting, or enforcing standards to which references may be made in the Procurement Document, along with the abbreviations commonly used for those references. Also included are certain general requirements for the use of industry standards specified, and for application of the standards in quality control.
- B. This section lists many of the construction industry technical abbreviations to which may be made in the Procurement Documents.

1.02 USE OF REFERENCE STANDARDS

- A. Goods and Special Services specified by reference to the published standard or specification of a government agency, technical association, trade association, professional society or institute, testing agency, or other organization shall conform to or surpass the minimum standards of quality for materials and workmanship established by the designated standard or specification.
- B. Where so specified, products or workmanship shall also conform to the additional prescriptive or performance requirements included within the Procurement Document to establish a higher or more stringent standard of quality than that required by the referenced standard.
- C. Where the specific date or issue of the standard is not included with the reference to the standard, the edition, including all amendments published and available on the first published date of the Invitation to Bid shall apply.
- D. Where two or more standards are specified to establish quality, the product and workmanship shall conform to or surpass the requirements of both.
- E. In case of conflict between referenced standards, the more stringent shall apply.
- F. Where both a standard and a brand name are specified for a product in the Procurement Document, the proprietary product named shall conform to or

surpass the requirements of the specified reference standard. The listing of a trade name in a Procurement Document shall not be construed as warranting that such product conforms to the respective reference standard.

G. Copies of standards:

1. Copies of applicable referenced standards have not been bound in this Procurement Document.
2. Where copies of standards are needed by the Contractor for superintendence and quality control of the work, obtain a copy or copies directly from the publication source.
3. Submittals: Submit for review the requests to use products conforming to printed standards or publications with a different publication date from that effective under the Procurement Agreement. Clearly indicate the changes in product or workmanship quality involved in the proposed change, if any, and reasons for the request.

1.03 ABBREVIATIONS

- A. Abbreviations for Trade Organizations and Government Agencies: The following is a list of construction industry organizations and government agencies to which references may be made in the Procurement Document, with abbreviations used.

AA	Aluminum Association
AAMA	American Architectural Manufacturers Association
AAMA	Architectural Aluminum Manufacturers' Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AFBMA	Anti-Friction Bearing Manufacturers' Association
AGA	American Gas Association
AGMA	American Gear Manufacturers' Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALS	American Lumber Standards
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
AREA	American Railway Engineering Association
ARI	Air Conditioning and Refrigeration Institute
ASAE	American Society of Agricultural Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWI	Architectural Woodwork Institute
AWPA	American Wood Preservers' Association
AWPB	American Wood Preservers' Bureau
AWPI	American Wood Preservers' Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers' Association
CBMA	Certified Ballast Manufacturers' Association
CDA	Copper Development Association
CGA	Compressed Gas Association
CISPI	Cast Iron Soil Pipe Institute
CMAA	Crane Manufacturers' Association of America
CRSI	Concrete Reinforcing Steel Institute
FGMA	Flat Glass Marketing Association
FM	Factory Mutual
Fed. Spec.	Federal Specifications
FS	Federal Specification
GA	Gypsum Association
HI	Hydraulic Institute
HMI	Hoist Manufacturers' Institute
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineers' Association
IDNR	Iowa Department of Natural Resources
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IES	Illuminating Engineering Society
ISA	Instrument Society of America
JIC	Joint Industry Conferences of Hydraulic Manufacturers
MIA	Marble Institute of America
Mil. Sp.	Military Specification
MS	Military Specifications
MMA	Monorail Manufacturers' Association
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBHA	National Builders' Hardware Association
NEC	National Electrical Code
NEMA	National Electrical Manufacturers' Association
NESC	National Electric Safety Code
NFPA	National Fire Protection Association
NHLA	National Hardwood Lumber Association
NLMA	National Lumber Manufacturers' Association
NTMA	National Terrazzo and Mosaic Association
NWMA	National Woodwork Manufacturers' Association
OECI	Overhead Electrical Crane Institute
OSHA	Occupational Safety and Health Act (both Federal and State)
PEI	Porcelain Enamel Institute
PS	Product Standards Section - U.S. Department of Commerce

RLM	RLM Standards Institute, Inc.
RMA	Rubber Manufacturers' Association
SAE	Society of Automotive Engineers
SDI	Steel Deck Institute
SIGMA	Sealed Insulating Glass Manufacturing Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Steel Structures Painting Council
SWI	Steel Window Institute
TEMA	Tubular Exchanger Manufacturers' Association
TCA	Tile Council of America
UBC	Uniform Building Code
UL	Underwriters' Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WWPA	Western Wood Products Association

- B. Construction Industry Technical Abbreviations: The following is a list of construction industry technical abbreviations to which may be made in the Procurement Documents.

Aband.	Abandon	Dia.	Diameter
Add'l.	Additional	D.I.P.	Ductile Iron Pipe
Alum	Aluminum	Div.	Diversion
Anc.	Anchor	Dr.	Doors
AWG	American Wire Gauge	Dwg's.	Drawings
Approx.	Approximate	Dwls.	Dowels
Avg.	Average	Ea.	Each
Bott.	Bottom	E	East
B.F.	Both Faces	E.F.	Each Face
B.L.	Baseline	El.	Elevation
BFV	Butterfly Valve	Elev.	Elevation
Bldg.	Building	Elec.	Electric
Bit.	Bituminous Concrete	Ellip.	Elliptical
Blk.	Block	Engr.	Engineer
B.M.	Benchmark	E.W.	Each Way
B.O.V.	Bottom of Vessel	Exist.	Existing
cfs	Cubic Feet Per Second	Exp.	Expansion
Cl.	Class	F.F.	First Flush
C.I.	Cast Iron	F.H.	Fire Hydrant
C	Centerline	F.D.	Floor Drain
Cl	Clearance	Fin.	Finished
CL2	Chlorine	Flg.	Flange
CMP	Corrugated Metal Pipe	Fl.	Flange
Cly	Cylinder	F.M.	Force Main
Conc.	Concrete	FRP	Fiberglass Reinforced Plastic

Const. Jts.	Construction Joints	Ft.	Feet
Ctr.	Center	Ftg.	Footing
C.W.	City Water	Ga.	Gauge
CPVC	Chlorinated Polyvinyl Chloride	Gr.	Grade
		Galv.	Galvanized
Cont.	Continuous	GPM	Gallons Per Minute
Contr.	Contractor	GRS	Galvanized Rigid Steel (Conduit)
C.O.	Clean Out		
Cor.	Corner	G.V.	Gate Valve
Cse.	Course	HB	Hose Bibb
Cts.	Centers		HDPE High Density Polyethylene
C.V.	Check Valve		
C.Y.	Cubic Yard	Hks.	Hooks
Defl.	Deflection	Horiz.	Horizontal
Det'ls.	Details	Ht.	Height
H.H.	Handhole	P.S.	Pumping Station
H.P.	Horse Power	psi	Pounds Per Square Inch
H.C.L.	Hydrogen Chloride	PVC	Polyvinyl Chloride
H.W.L.	High Water Level	Qty.	Quantity
HVAC	Heating Ventilating & Air Conditioning	R. or Rad.	Radius
		R.R.	Railroad
HW	Hot Water	R.C.P	Reinforced Concrete
		.	Pipe
I.D.	Inside Diameter	Req'd	Require
			d
In.	Inch	R.O.W.	Right-of-Way
Inv.	Invert Elevation	Rt.	Right
I.E.	Invert Elevation	S.	South
Jct.	Junction	San.	Sanitary
Jt.	Joint	Sch.	Schedule
Loc.	Location	Sht.	Sheet
Lt.	Left	Specs.	Specifications
L.W.L.	Low Water Level	Sq.	Square
Lin. Ft.	Lineal Feet	S.S.	Stainless Steel
LF	Lok-Fast	Std.	Standard
LFPE	Lok-Fast Plain End	Sta.	Station
LRB	Lok-Ring Bell	Stl.	Steel
LRPE	Lok-Ring Plain	Str.	Structure
M	Motor	Surf.	Surface
Mat'l.	Material	S.W.D.	Sidewater Depth
Max.	Maximum	T	Top

MCM	Thousand Circular Mils	T & B	Top and Bottom
Meas.	Measurement	T. or Tel.	Telephone
Mfg's	Manufacturer's	Thd.	Thread
MGD	Million Gallons Per Day	Thrshld.	Threshold
M.H.	Manhole	T.P.	Telephone Pole
Min.	Minimum	T.G.S	Top of Grate
M.J.	Mechanical Joint	T.O.C.	Top of Concrete
M.O.	Masonry Opening	Ty.	Type
N/A	Not Applicable	Typ.	Typical
N.	North	Vert.	Vertical
No.	Number	W.	West
Nom.	Nominal	w/	With
N.T.S.	Not To Scale	W.I.	Wrought Iron
Opng.	Opening	W.H.	Water Heater
O.D.	Outside Diameter	Wt.	Weight
P.E.	Plain End	WF	Wide Flange
Perf.	Perforated	W.L.	Water Level
Pl.	Plate	W.M.	Water Main
P.L.	Property Line	WOG	Water, Oil or Gas
P.P.	Power Pole	W/S or W.S.	Water Stop
Prop.	Proposed	W.W.F.	Woven Wire Fabric

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

**SECTION 01 45 00
QUALITY CONTROL**

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Quality assurance and control of installation.
- B. References
- C. Inspection and testing laboratory services.

1.02 RELATED SECTIONS

- A. Section 01 33 00 - Submittals: Submission of Manufacturer's Instructions and Certificates.

1.03 1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.

1.04 1.04 REFERENCES

- A. Conform to reference standard by date of issue current on date of Contract Documents.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification for Engineer before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.05 INSPECTION AND TESTING LABORATORY SERVICES

- A. Contractor shall employ services of an independent, firm, acceptable to the Owner, to perform inspection and testing. Contractor shall pay all costs for testing laboratory services.
- B. The independent firm shall perform inspections, tests, and other services specified in individual specification Sections and as required by the Engineer.
- C. Reports shall be submitted electronically by the independent firm to the City and Engineer indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents in PDF format.
- D. Cooperate with independent firm: furnish samples of materials, design mix, equipment, tools, storage, and assistance as requested.
- E. Notify Engineer and independent firm twenty-four (24) hours prior to expected time for operations requiring services.
- F. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instruction by the Engineer. Cost for retesting shall be absorbed by Contractor.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

**SECTION 01 55 26
TRAFFIC CONTROL**

PART 1 - GENERAL

- A. Traffic control shall be in accordance with Section 102 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition, the Latest Edition of Roadway and Traffic Design Standards Manual, and the Maintenance of Traffic Plan included in the Contract Drawings.
- B. Maintenance of traffic required within Ocean Hammock Park and any adjacent roadway shall be in accordance with City of St. Augustine Beach and St. Johns County requirements and subject to the St. Johns County ROW permit (when required) to be secured by the contractor upon contract award and notice to proceed
- C. The individual in charge of maintaining daily traffic control through the work zone shall be FDOT certified in work zone traffic control. The Contractor shall be required to furnish the names and phone numbers of at least two (2) individuals who may be contacted twenty-four (24) hours a day in the event of an emergency. Traffic control devices as required by the maintenance of traffic plan shall always be maintained in proper order throughout the duration of the contract.
- D. Construction on the project shall always be accomplished in such a manner as to provide ingress and egress for the owner and engineer during construction.
- E. All lanes on all streets shall be open to traffic each day and shall not be obstructed.
- F. No short term temporary complete road closing for delivery of equipment shall exceed ten minutes duration.

PART 1 - PRODUCTS

Not Used

PART 1 - EXECUTION

Not Used

END OF SECTION

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

- A. Erosion protection shall be in accordance with Section 104 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition, and Index Nos. 102 and 103 in the Latest Edition of Roadway and Traffic Design Standards Manual.
 - 1. Contractor shall provide a site-specific erosion and sediment control plan during the pre-construction conference.
- B. Contractor shall submit to the FDEP a notice of intent for NPDES stormwater permit.
- C. The contractor shall designate a stormwater erosion control officer to oversee daily site erosion control.
- D. Lack of erosion control and/or documented site erosion and sediment discharge to adjacent property shall be grounds for the Owners to stop work order, with cause, until such time as corrections are made.

END OF SECTION

SECTION 01 60 00 MATERIAL AND EQUIPMENT

PART 1 - GENERAL:

1.01 SECTION INCLUDES:

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.02 RELATED SECTION:

- A. Section 10 45 00 - Quality Control: Product quality monitoring.

1.03 PRODUCTS:

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components.

1.04 TRANSPORTATION AND HANDLING:

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling or damage.

1.05 STORAGE AND PROTECTION:

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- D. Store loose granular materials on solid flat surfaces in a well-drained area. Prohibit mixing with foreign matter.
- E. Provide equipment and personnel to store products by methods to prevent soiling or damage.
- F. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.06 PRODUCT OPTIONS:

- A. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

1.07 SUBSTITUTIONS:

- A. Engineer will consider requests for substitutions only within **fifteen (15)** days after date of Owner-Contractor Agreement.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the contractor.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other work which may be required for the work to be complete with no additional cost to Owner.

4. Will share with Owner any cost savings realized by the substitution.
 5. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. Substitutions will not be considered when they are indicated or implied on shop drawings or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit electronic PDF copies of Request for Substitution for consideration. Limit each request to one **(1)** proposed substitution.
 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence.
 3. Submit any anticipated cost savings, or cost increase to the Contractor due to the substitution.
 4. The Engineer will notify Contractor, in writing, of decision to accept with conditions or reject the request.

PART 2 - PRODUCTS:

Not Used.

PART 3 - EXECUTION:

Not Used.

END OF SECTION

SECTION 01 70 00 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Closeout procedures.
- B. Final Cleaning.
- C. Adjusting.
- D. Project record documents.

1.02 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Engineer shall make inspection with reasonable promptness. If work is incomplete or defective, Engineer shall notify Contractor to remedy deficiencies.
- C. Upon re-notification of completion, Engineer shall re-inspect work and, when acceptable, issue Certification of Substantial Completion.
- D. Provide submittals to Engineer that are required by contract documents, governing or other authorities.
- E. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's substantial completion inspection.
- F. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and remaining sum due.

1.03 FINAL CLEANING UP OF WORK SITE

- A. Upon substantial completion of the work, and before final acceptance and final payment, the Contractor shall remove from the project site and adjacent property, all false work, equipment, surpluses, and discarded materials, rubbish, and temporary

structures; shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work, and shall leave the site in a neat and presentable condition throughout the entire length of the work under contract. The placing of materials of any equipment, on abutting property, with or without the consent of the property owners, shall not constitute satisfactory disposal; however, the Contractor shall be allowed to temporarily store equipment, surplus materials, usable forms, etc., on a well-kept site owned or leased by him, adjacent to the project, but no discarded equipment or materials, or rubbish shall be placed on such site.

- B. Areas adjacent to the project site used as a plant site, materials storage area or equipment yard shall, at such time as they are no longer needed by the Contract for such purposed, be shaped and dressed in close conformity to their original appearance.

1.04 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revision to the Work:
 - 1. Contract Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings & product data.
- B. The Contractor shall furnish complete sets of certified as-builts, in AutoCAD v14 or higher, electronically or on a flash drive. As-built requirements can be found in Exhibit D. The cost of furnishing as-builts shall not be a separate bid item. As-builts shall be prepared and sealed by a registered surveyor.

1.05 CLOSEOUT SUBMITTALS

- A. When the Engineer has determined that the work is acceptable under the Contract Documents and the Contract fully performed, the Contractor shall prepare and submit their final Application for Payment to the Engineer together with the following:
 - 1. Contractor's lien waiver in the full amount of the Contract Sum.

2. Lien waivers from all Subcontractors and major material suppliers who have furnished material for the work under contract with the Contractor or Subcontractor. The lien waivers shall be in the full amount of the contract involved.
3. Consent of surety to final payment.
4. Evidence of compliance with requirements of governing authorities:
 - a. Certificates of Inspection from all required agencies and departments.
5. Warranties and Bonds
6. Operation and Maintenance Manuals of all equipment.
7. As-built surveys signed and sealed by a Professional Land Surveyor, registered in the State of Florida.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 01 72 50 FIELD ENGINEERING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Quality assurance, submittals, and project record document requirements for the Contractor's survey and field engineering as applicable for any supplemental work necessary for quality control.
- B. Related Sections:
 - 1. Section 01 45 00 – Quality Control
 - 2. Section 01 78 10 – Project Record Documents.

1.02 QUALITY ASSURANCE

- A. The Contractor is responsible for general construction staking as part of the Contractor's Quality Control Program. The Contractor shall be fully responsible for ensuring consistency and compliance with the Contract Documents. This may necessitate the occasional need for the Contractor to employ a Land Surveyor to assist with their Quality Control Program.
- B. If the Contractor, sub-contractor, or vendor cause a field change requiring design or re-design of any facility, the Contractor shall employ a Professional Engineer of the required discipline, licensed in the State of Florida, to complete the work.

1.03 SURVEY REQUESTS

- A. The Contractor shall provide for all surveying services to the Engineer a minimum of two (2) working days before the requested services are needed. The Contractor shall describe in detail the specific survey services needed, including: staking of structure corners, column lines, pipe centerlines, offset stakes, temporary benchmarks, and stakes for grade control.
- B. The Owner reserves the right to limit the amount of surveying services provided if in the Opinion of the Owner or the Engineer the Contractor is requesting services that are out of scope with typical construction staking.

- C. Individual staking points will be set up to 2 times at no cost to the Contractor. If the Contractor makes repeated requests for the same staking information, the Engineer reserves the right to invoice the Contractor at the Engineer's standard hourly rates for completing the work.

1.04 SUBMITTALS FOR REVIEW

- A. Submit name, address, telephone number and fax number of Surveyor before starting survey work.²¹⁷
- B. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.
- C. On request, submit documentation verifying accuracy of survey work.
- D. Submit a copy of site drawing signed by the Land Surveyor that the elevations and locations of the Work are in conformance with Contract Documents.
- E. Submit name, address, telephone number and fax number of Engineer before starting field engineering work.

1.05 PROJECT RECORD DOCUMENTS

- A. Maintain a complete and accurate log of control and survey work as it progresses.
- B. On completion of foundation walls and major site improvements, prepare a certified survey illustrating dimensions, locations, angles, and elevations of construction and site work.
- C. Submit Record Documents under provisions of Section 01781 - Project Record Documents.

1.06 EXAMINATION

- A. Verify locations of survey control points with the Engineer prior to starting work.
- B. Verify the consistency of the staking points with the plan dimensions prior to construction. Notify the Engineer of any discrepancies discovered in accordance with the General Conditions.
- C. Field check benchmarks and other points for disturbance prior to using them for layout or grade control.

1.07 SURVEY REFERENCE POINTS

- A. Protect survey control, benchmarks, and reference points in accordance with the General Conditions.
- B. Control datum for survey is that indicated on Drawings.

1.08 AS-BUILT SURVEYING

- A. The Contractor shall allow the Owner's Engineer reasonable access to the work for inspection. The Contractor shall notify the Engineer a minimum of one (1) working day prior to backfilling trenches and other excavations.

PART 1 - GENERAL

1.09 SUMMARY

- A. Section Includes:
 - 1. Requirements for site maintenance during progress of the Work and for final cleaning.
- B. Related Sections:
 - 1. Section 01 11 00 – Summary of Work.
 - 2. Divisions 2 - 16: Cleaning requirements for specific products or work.

1.10 GENERAL

- A. At all times maintain areas covered by the Contract, public properties, and adjacent properties free of waste, debris and rubbish caused by construction operations.
- B. At completion of work, or at such other times as directed by the Engineer, remove all waste, debris, rubbish, tools, equipment, machinery, and surplus materials. Clean all sight-exposed surfaces; leave work clean and ready for occupancy.
- C. At completion of project, leave project clean and ready for occupancy.

1.11 QUALITY REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
- B. Do not burn or bury rubbish or waste materials on project site.

- C. Do not dispose of volatile, harmful, or dangerous materials into drainage systems or sanitary drains. Do not dispose of wastes into streams or waterways.
- D. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.
- E. Provide approved on-site containers for collection and disposal of waste materials, debris, and rubbish as required.
- F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

1.12 SAFETY REQUIREMENTS

- A. Standards:
 - 1. Maintain project in accordance with following safety and insurance standards:
 - a. Applicable Federal and State requirements.
 - b. National Fire Protection Association 241 (NFPA).
- B. Hazards Control:
 - 1. Store volatile wastes in covered metal containers separate from other waste and remove from premises every 3 days.
 - 2. Prevent accumulation of wastes which create hazardous conditions.
 - 3. Provide adequate ventilation during use of volatile or noxious substances.

PART 2 - PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 73 10 CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Division 1 Section “Summary of Work” for demolition of selected portions of the Project.
 - 2. Divisions 2 through 16 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.02 RELATED DOCUMENTS

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

1.03 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.04 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in structures appearance and other significant visual elements.

3. Products: List products to be used and firms or entities that will perform the Work.
4. Dates: Indicate when cutting and patching will be performed.
5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
7. Project Representative's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.05 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting, and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

3.03 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 1. In general, use hand or small power tools designed for sawing and grinding, not hammering, and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond- core drill.

4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - c. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION

SECTION 01 74 00 CLEANING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Requirements for site maintenance during progress of the Work and for final cleaning.
- B. Related Sections:
 - 1. Section 01 11 00 – Summary of Work.
 - 2. Divisions 2 - 16: Cleaning requirements for specific products or work.

1.02 GENERAL

- A. At all times maintain areas covered by the Contract, public properties, and adjacent properties free of waste, debris and rubbish caused by construction operations.
- B. At completion of work, or at such other times as directed by the Engineer, remove all waste, debris, rubbish, tools, equipment, machinery, and surplus materials. Clean all sight-exposed surfaces; leave work clean and ready for occupancy.
- C. At completion of project, leave project clean and ready for occupancy.

1.03 QUALITY REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
- B. Do not burn or bury rubbish or waste materials on project site.
- C. Do not dispose of volatile, harmful, or dangerous materials into drainage systems or sanitary drains. Do not dispose of wastes into streams or waterways.
- D. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.
- E. Provide approved on-site containers for collection and disposal of waste materials, debris, and rubbish as required.
- F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

1.04 SAFETY REQUIREMENTS

- A. Standards:
 - 1. Maintain project in accordance with following safety and insurance standards:
 - a. Applicable Federal and State requirements.
 - b. National Fire Protection Association 241 (NFPA).
- B. Hazards Control:
 - 1. Store volatile wastes in covered metal containers separate from other waste and remove from premises every 3 days.
 - 2. Prevent accumulation of wastes which create hazardous conditions.
 - 3. Provide adequate ventilation during use of volatile or noxious substances.

PART 2 - PRODUCTS

2.01 CLEANING MATERIALS

- A. Select and use all cleaning materials and equipment with care to avoid scratching, marring, defacing, staining, or discoloring surfaces cleaned.
- B. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 - EXECUTION

3.01 DURING CONSTRUCTION

- A. During execution of work, clean site and public properties and dispose of waste materials, debris, and rubbish to assure that site and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down materials and rubbish to lay dust and to prevent blowing dust.
- C. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from exposed and semi-exposed surfaces that are the finished surface.
- D. Repair, patch, and touch up marred surfaces to specified finish to match adjacent surfaces.

- E. Broom clean paved and smooth surfaces; rake clean other surfaces.
- F. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.
- G. Conduct daily cleanup of adjacent roads as required due to truck traffic and transportation of materials and workers onsite and offsite.

3.02 FINAL CLEANING

- A. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion in accordance with Section 01770 - Closeout Procedures.
 - 1. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean.
 - 2. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - 3. Clean the site, including landscaping development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
 - 4. Remove grease, dust, dirt, stains, labels, fingerprints, protection and other foreign materials from sight-exposed interior and exterior finished surfaces; polish surfaces so designated to specified finish.
 - 5. Repair, patch and touch up marred surfaces to specified finish to match adjacent surfaces.
 - 6. Maintain finally cleaned areas until project or designated portion thereof, is accepted by Owner.
- C. Removal of Protection:
 - 1. Remove temporary protection and facilities installed for protection of work during construction.
- D. Compliance:

1. Where extra materials of value remaining after completion of associated work have become Owner's property, arrange for disposition of these materials as directed.

END OF SECTION

**SECTION 01 78 10
PROJECT RECORD DOCUMENTS**

PART 1 – GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Requirements for preparation of Record Documents (also known as "As-Built").
- B. Related Requirements Specified Elsewhere:
 - 1. Section 01 33 10 – Submittal Procedures: Procedural requirements for Submittals.
 - 2. Section 01 70 00 –Closeout Procedures: Substantial Completion requirements.

1.02 DESCRIPTION

- A. Project Record Documents are a complete set of Contract Documents and Drawings prepared by Contractor from a set of Base Documents furnished by Engineer and from Field Sets of Contract Documents.
- B. Field Sets of Contract Documents be used for field construction purposes shall be maintained and annotated by the Contractor during construction to record approved changes, additions, addenda, options and deviations and pertinent field notes to Contract Documents.

1.03 SUBMITTALS

- A. In accordance with Section 01330 – Submittal Procedures.
- B. Submit, at Substantial Completion, one set of Project Record Documents.

PART 2 - PRODUCTS

2.01 BASE DOCUMENTS

- A. Engineer will furnish the Contractor with one (1) set of Contract Drawings (black line prints), one set of Contract Specifications and one set of Contract Addenda to be used in preparation of Record Documents.

2.02 RECORD DOCUMENTS

- A. Record Documents shall not be used for field construction purposes.
- B. All changes, additions, addenda, options and deviations and pertinent field notes shall be clearly marked using neat, ruled lines and legible notes and dimensions as follows.
 - 1. Options and deviations to Contract Documents with red ballpoint pen.
 - 2. All notes, explanations, and sketches with blue ballpoint pen.

2.03 FIELD SETS

- A. Field Sets of Contract Documents shall be used for field construction purposes and shall be marked with information required for Project Record Documents.

2.04 INFORMATION TO RECORD

- A. Label "PROJECT RECORD DOCUMENTS" in 1" high printed letters on each document.
 - 1. Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - d. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 - e. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - f. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

2. Record actual construction to include but not be limited to the following:
 - a. Depths of various elements of foundation in relation to floor level.
 - b. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - c. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 - d. Field changes of dimension and detail.
 - e. Changes made by Change Order.
 - f. Details not on original contract drawings.

PART 3 - EXECUTION

3.01 MAINTENANCE

- A. Keep record documents up to date during progress of the Work by marking any and all changes, additions, addenda, options and deviations and pertinent field notes at the time the work is executed.
- B. Indicate on Field Sets all alterations and deviations from original documents known to Each Contractor's and Sub-Contractor's Superintendent on job during course of completion of project.
- C. Transfer required information to Record Documents using neat, ruled lines and legible notes and dimensions.

3.02 STORAGE

- A. Store documents in temporary field office apart from documents used for field construction.
- B. Provide files and racks for document storage.
- C. Maintain documents in clean, dry legible condition. Protect from deterioration and loss in secure, fire-resistive location.

- D. Make documents available during normal working hours for inspection by Engineer and Owner.

3.03 COMPLETION

- A. Maintain and store record documents until satisfactory completion of the Contract and submittal of record documents to the Engineer.
- B. The contract closeout and final payment under this contract **will not** be finalized and approved until a complete and accurate set of record documents, as described above, have been submitted to the Engineer, reviewed for accuracy, and accepted.

END OF SECTION



DIVISION 3
CONCRETE



SECTION 03 10 00

CONCRETE FORMWORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The work included in this section consists of providing all labor, materials and equipment necessary for providing and installing formwork for concrete.
- B. Related Work Described Elsewhere:
 - 1. Concrete Reinforcement: Section 03200.
 - 2. Concrete Joints and Waterstops: Section 03262.
 - 3. Cast-in-Place Concrete: Section 03300.
 - 4. Concrete Finishing and Curing: Section 03345.
- C. General Design: The Contractor shall be responsible for the design of all formwork and for safety in its construction and removal.

1.02 QUALITY ASSURANCE

- A. Qualifications: Formwork shall be constructed in accordance with the specified standards, as well as all pertinent codes and regulations. Where provisions of pertinent codes conflict with the requirements of this section of these specifications, the more stringent provisions shall govern.
- B. Standards: Unless otherwise indicated, all materials, workmanship and practices shall conform to the following standards:
 - 1. Standard Building Code.
 - 2. ACI 347 "Recommended Practice for Concrete Formwork".
 - 3. Local Codes and Regulations.
- C. Preplacement checklist. The Contractor, as part of his Quality Control Plan, shall develop and submit for approval a Preplacement Checklist form to cover the following items:
 - 1. Reference Drawings covering the placement for all trades and disciplines.
 - 2. Date and time scheduled for placement and the actual date and time of placement.

3. Foreman name, placement number, number of truckloads and number of cylinders.
 4. Checklist items such as embeds (list each), subgrade, rebar, forms, alignment, plumbness, etc.
 5. Signoff's for foreman, Contractor's Quality Control representative, each subcontractor foreman (major subs, mechanical, electrical, plumbing, etc.) and Resident Project Representative.
- D. Tolerances: Formwork shall be constructed to insure that finished concrete surfaces will be in accordance with the tolerances listed in A.C.I. 347. Camber shall be provided as necessary to compensate for anticipated deflection in formwork and concrete due to weight and pressure of fresh concrete and other construction loads.
- E. No concrete may be placed until the checklist is properly and completely signed off. Failure to comply with this provision can be grounds for rejecting the work. The checklist shall be weather protected and located with the foreman or at the foreman's station.

1.03 SUBMITTALS

Materials: Submit manufacturer's literature on form ties, spreaders, corner formers, form coatings and bond breakers.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Form Lumber: Use form lumber when in contact with exposed concrete, conforming to one of the following, a combination thereof, or equivalent as approved by the Engineer.
 1. Lumber: Douglas Fir-Larch No. 2 grade, seasoned, surfaced on four sides.
 2. Plywood: "Plyform", Class I or II, bearing the label of the Douglas Plywood Association. (Minimum 3/4-inch thickness).
- B. Fiber Forms: Column forms for round columns shall be seamless fiber forms intended for this purpose. The three plies nearest to the interior surface of the form shall be deckled or scarfed and overlapped to minimize the spiral gaps or seams on the column surface.
- C. Form Ties: Use form ties which do not leave an open hole through the concrete and which permit neat and solid patching at every hole. Use embedded rods with integral waterstops and cones to provide a 1-inch breakback. Wire ties and wood spreaders will not be permitted.
- D. Form Coatings: Form release coating shall be a paraffin base oil or mineral oil coating

which effectively prevents absorption of moisture, prevents bonding with concrete, is non-staining to concrete and leaves the concrete with a paintable surface.

- E. Chamfer Strips: Chamfer strips shall be polyvinyl strips or approved equal, designed to be nailed in the forms to provide a 3/4 inch chamfer (unless indicated otherwise) at exposed edges of concrete members.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Construction of Formwork: Forms shall be sufficiently strong to withstand the pressure resulting from the placement and vibration of concrete and shall be sufficiently rigid to maintain specified tolerances. Forms shall be sufficiently tight to prevent loss of mortar, and shall be adequately braced against lateral, upward or downward movement.
- B. Coating of Forms: Apply form coating to board forms prior to placing reinforcing. Keep form coatings off steel reinforcing, items to be embedded and previously placed concrete.
- C. Form Erection:
 - 1. Provide a means of holding adjacent edges and ends of panels and sections tightly together and in accurate alignment so as to prevent the formation of ridges, fins, offsets, or similar surface defects of the finished concrete. Insure that forms may be removed without injury to the surface of the finished concrete.
 - 2. Provide a positive means of adjustment of shores and struts. Insure that all settlement is taken up during concrete placing.
 - 3. Temporary openings shall be provided in wall forms to limit the free fall of concrete to a maximum of 6 feet unless an elephant trunk is used. Such openings shall be located to facilitate placing and consolidation and shall be spaced no more than 8 feet apart. Temporary openings shall also be provided in the bottom of wall and column forms and elsewhere as necessary to facilitate cleaning and observation immediately prior to placing.
 - 4. Do not embed any form-tying device or part thereof other than metal in concrete.
 - 5. Form surfaces of concrete members except where placement of the concrete against the ground is shown on the drawings. The dimensions of concrete members shown on the drawings apply to formed surfaces, except where otherwise indicated.
- D. Formwork Reuse: Reuse only forms which maintain a uniform surface texture on exposed concrete surfaces. Apply light sanding between uses to obtain such a uniform texture. Plug unused tie rod holes with corks, shave flush, and sandpaper on the concrete surface side.

E. Removal of Forms:

1. Forms and shoring for elevated structural slabs, girders, and/or beams shall remain in place until the concrete has reached a compressive strength equal to the specified 28-day compressive strength as determined by test cylinders. The following table indicates the minimum allowable time after the last concrete is placed before forms, shoring, and/or bracing may be removed.

<u>Structural Item</u>	<u>Minimum Allowable Time</u>
1. Bottom side of slabs girders, beams beams	When concrete reaches specified 28-day compressive strength and minimum 4-days
2. Vertical sides of girders, beams	48 hours
3. Walls not supporting vertical or horizontal loads	48 hours
4. Walls supporting vertical or horizontal loads	When concrete reaches specified 28-day compressive strength and minimum 4 days
5. Footing, pipe encasements, pipe supports	24 hours

2. Do not remove forms from concrete, which have been placed with outside air temperature below 50 degrees Fahrenheit (°F) without first determining if the concrete has properly set without regard for time. Do not apply heavy loading on green concrete. Immediately after forms are removed, the surface of the concrete shall be carefully examined and any irregularities in the surface shall be repaired and finished as specified.

- F. Formed Openings: Openings shall be of sufficient size to permit final alignment of the items within it without deflection or offsets of any kind and to allow space for packing where the items pass through the wall to ensure water tightness around openings so formed. Provide openings with continuous keyways with waterstops where required, and provide a slight flare to facilitate grouting and the escape of entrained air during grouting. Provide formed openings with reinforcement as indicated and specified. Reinforcing steel shall be at least 2 inches clear from the opening.

- G. Embedded Items: Set anchor bolts and other embedded items accurately and hold securely

in position in the forms until the concrete is placed and set. Check all special castings, channels, or other metal parts that are to be embedded in the concrete prior to and again after concreting. Check all nailing, blocks, plugs and strips necessary for the attachment of trim, finish and similar work prior to concreting.

H. Pipes and Wall Spools Cast in Concrete:

1. Install wall spools, wall flanges and wall anchors before placing concrete. Do not weld, tie or otherwise connect the wall spools to the reinforcing steel.
2. Support pipe and fabricated fittings to be encased in concrete on concrete piers or pedestals. Carry concrete supports to firm foundations so that no settlement will be possible during construction.

I. Form Tolerances:

1. Failure of the forms to produce the specified concrete surface tolerance shall be grounds for rejection of the concrete work. Rejected work shall be repaired or replaced at no cost to the Owner. Comply with A.C.I. 347 if more stringent than listed herein.
2. The following table indicates tolerances or allowable variations from dimensions or positions of structural concrete work:

	Maximum Tolerance (inches per 10 feet length)
Sleeves and Inserts	+1/3 to -1/4
Projected ends of anchors	+1/4 to -0.0
Anchor bolt setting	+1/4 to -1/4
Finished concrete, all locations	+1/4 to -1/4 in Class B +1/8 to -1/8 in Class A per Section 03300: Cast-in-Place Concrete

The planes or axes from which the above tolerances are to be measured shall be as follows:

Sleeves and Inserts	Centerline of sleeve or insert
Projected ends of anchors	Plane perpendicular to the end of the anchor as located on the drawings
Anchor bolt setting	Centerline of anchor bolt
Finish Concrete	The concrete surface as located on the drawings.

3. Where equipment is to be installed, comply with manufacturer's tolerances if more severe than above.

END OF SECTION

SECTION 03 15 13

CONCRETE JOINTS AND WATERSTOPS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The work included in this section consists of providing all labor, materials and equipment necessary to install expansion joints, construction joints, and waterstops.
- B. Related Work Described Elsewhere:
 - 1. Concrete Formwork: Section 03 11 00.
 - 3. Cast-in-place concrete: Section 03 30 00.
 - 5. Concrete Finishing and Curing: Section 03 35 00.

1.02 SUBMITTALS

Materials:

- 1. Submit manufacturer's literature, including a statement of compliance with ASTM and U.S. Federal Specifications.
- 2. Submit materials and samples of waterstops.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Preformed expansion joint filler shall be $\frac{3}{4}$ -inch thick, or as shown on the drawings, and shall be a self-expanding cork, Servicized Products, W.R. Grace and Company, Code No. 4314, or approved equal.
- B. Joint sealant for continuous immersion shall be a multi-part, gray, polyurethane sealant meeting U.S. Federal Specification TT-S-00227E (3) Type I, Class A for horizontal joints and Type II, Class A for vertical joints. Additionally, the sealant must be recommended by the manufacturer for continuous immersion in water. Products meeting this specification include PRC 270 of Products Research and Chemical Corporation and Vulkem 227 of Mameco International.
- C. Waterstops shall be extruded from a PVC compound and shall be 9-inch by $\frac{3}{8}$ -inch flat dumbbell and/or center bulb type as shown on the Drawings. Center bulb waterstops shall be used at expansion joints. Waterstops shall comply with Corps of Engineers Specification

CRD-C-572. All material shall be virgin material. The uses of reworked PVC or other substitute will not be permitted.

- D. Tongue and groove joint forms: Tongue and groove joint forms shall be 24 gauge steel forms complete with steel stakes and splice plates. Forms shall be designed for joints not to receive a poured seal.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Construction Joints:

1. Provide construction joints where shown on the Drawings, or as recommended by the Contractor and approved by the Engineer. In case of emergency, place additional construction joints. (An interval of 45 minutes between two consecutive batches of concrete shall constitute cause for an emergency construction joint.)
2. Construction joints shall be keyed, unless otherwise detailed. Form keyways by beveled strips or boards placed at right angles to the direction of shear. Except where otherwise shown on the Drawings or specified, keyways shall be at least 1-1/2 inches in depth over at least 25 percent of the area of the section.
3. When it is necessary to make a joint because of an emergency, furnish and place reinforcing dowels across the joint. Embed dowels 48 bar diameters each side of the joint. Size and number of dowels shall match reinforcing in the member. Furnishing and placing such reinforcing steel shall be at the Contractor's expenses.
4. After the pour has been completed to the construction joint and the concrete has hardened, thoroughly clean the entire surface of the joint of surface laitance, loose or defective concrete, and foreign material, and expose clean aggregate by sandblasting the surface of construction joints before placing the new concrete. Cover horizontal construction joints with mortar. Spread uniformly and work thoroughly into all irregularities of the surface. The mortar shall be flowable and shall consist of sand, water, and a minimum of 12 sacks of cement per cubic yard. Provide positive measuring device, such as a bucket, or other device that will contain only enough mortar for depositing in one place in the wall or column to ensure that portion of the form does not receive too much mortar. Do not deposit mortar from pump hoses or large concrete buckets unless inspection windows close to the joint are available to allow visual measurement of mortar thickness and means for mortar removal are available for removal of excess grout. The water-cement ratio of the mortar in place shall not exceed that of the concrete to be placed upon it, and the consistency of the mortar shall be suitable for placing and working.

B. Expansion Joints:

1. Provide expansion joints of sizes and at locations as shown on the Drawing.
 2. Place expansion joint fillers every 30 feet in straight runs of walkways, at right angle turns and wherever concrete butts into vertical services.
- C. Bonding at Construction Joints: Before depositing new concrete on or against concrete that has set, thoroughly clean the surfaces of the set concrete so as to expose the coarse aggregate and remove laitance coatings, foreign matter and loose particles. Retighten forms. Dampen, but do not saturate the hardened concrete of joints and then thoroughly cover with a coat of cement grout of similar proportions to the mortar in the concrete. Place the fresh concrete before the grout has attained its initial set.
- D. Time Between Pours: At least two (2) hours shall elapse after depositing concrete in columns or walls before depositing in beams, girders or slabs supported thereon. Place beams, girders, brackets, column capitals and haunches monolithically as part of the floor or roof system.
- E. Joint Sealants: Joint sealants shall be required where indicated on the Drawings. Preparation of surfaces, priming and the handling and preparation of materials shall be in complete compliance with the manufacturer's instructions as approved.
- F. Waterstops:
1. Waterstops shall be properly heat spliced at ends and intersections to ensure continuity. Construct forms for construction joints in such a manner as to prevent injury to waterstops. Hold waterstops securely in position in the construction joints by wire ties, continuous bars, and rings as required. Install waterstops in construction joints in hydraulic structures, which will contain liquid or resist the entry of groundwater.
 2. Make field splices with a thermostatically controlled heating iron in conformance with the manufacturer's current recommendations. Allow at least 10 minutes before pulling or straining the new splice in any way. The finished splices shall provide a cross section that is dense and free of porosity with tensile strength of not less than 80 percent of the unspliced materials. Where prefabricated intersections such as tees, crosses, and elbows are available, provide them in lieu of field-fabricated intersections.

END OF SECTION

SECTION 032000**CONCRETE REINFORCEMENT****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. Scope of Work: This section consists of providing all labor, materials, equipment and incidentals required to install all steel bars, steel wire and wire fabric required for the reinforcement of concrete, as shown on the Drawings, and as specified herein.
- B. Related Work Described Elsewhere:
 - 1. Concrete Formwork: Section 03 10 0.
 - 2. Concrete Joints and Waterstops: Section 03 15 13.
 - 3. Cast-in-Place Concrete: Section 03 30 00.
 - 4. Concrete Finishing and Curing: Section 03 35 00

1.02 QUALITY ASSURANCE

Standards: Unless otherwise indicated, all materials, workmanship and practices shall conform to the following standards:

- 1. Standard Building Code.
- 2. ACI 315 "Details and Detailing of Concrete Reinforcement", latest edition.
- 3. CRSI Manual of Standard Practices.
- 4. Local codes and regulations.

1.03 SUBMITTALS

Materials and Shop Drawings:

- 1. Submit mill test certificates identifying chemical and physical analyses for each load of reinforcing steel delivered.
- 2. Submit Shop Drawings for review in accordance with Section 01 33 00: Submittals. Submit reinforcing bending lists and placing drawings for all reinforcing. Placing drawings shall indicate all openings (mechanical, electrical, equipment), including additional reinforcing at openings and intersecting wall, beam and footing

arrangements as indicated on the structural drawings and specified herein. Placing drawings shall be coordinated with the concrete placing schedule. Each bending list and placing drawing submitted shall be complete for each major element of a structure (grade slabs, footings, walls, floor or beams), including all dowels and other bars as required. Furnishing such lists shall not be construed that the list will be reviewed for accuracy. The contractor shall be wholly and completely responsible for the accuracy of the lists and for furnishing and placing reinforcing steel in accordance with the details shown on the plans and as specified.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Reinforcement shall be shipped to the work with bars of the same size and shape fastened in bundles with metal identification tags giving size and mark securely wired on. The identification tags shall be labeled with the same designation as shown on the submitted bar lists and shop drawings.
- B. All bars shall be stored off the ground and shall be protected from moisture and be kept free from dirt, oil, or injurious contaminants.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Concrete reinforcement in sizes No. 3 (3/8-inch) and larger shall be deformed steel bars of the same sizes and shapes indicated on the Drawings. The steel shall be newly rolled stock of domestic manufacture, substantially free from mill scale rust, dirt, grease, or other foreign matter. Bars shall be of intermediate grade, deformed billet steel conforming to ASTM Specification A615, Grade 60, including all supplementary requirements.
- B. Rail-steel bars will not be allowed in the work.
- C. Reinforcement shall be accurately fabricated to the dimensions indicated on the Drawings. Particular care shall be exercised not to have stirrups oversized in order to maintain proper coverage of concrete. Stirrups and tie bars shall be made around a pin having a diameter not less than two (2) times the maximum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than five (5) times the minimum thickness of the bar except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight (8) bar diameters. All bars shall be bent cold. Bars reduced in section or with kinks or bends not shown on the Drawings will not be accepted.
- D. Wire fabric shall not be allowed. Commercial grade fiber-mesh shall be used in lieu of wire fabric in all concrete sidewalks, driveways and slabs as noted on the construction drawings.
- E. Wire tie shall be 16-gauge minimum, zinc coated annealed.
- F. Bar supports in beams and slabs exposed to view after for stripping shall be galvanized or

epoxy coated. Use concrete supports for reinforcing in concrete placed in grade.

- G. Coupler Splice Devices: Croweled, tension couplers capable of developing the ultimate strength of the bar as manufactured by Erico Products, Inc., Solon, Ohio, or equal and where approved by the Engineer.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. No reinforcing bars shall be welded either during fabrication or erection without prior written approval from the Engineer. All bars that have been welded, including tack welds, without such approval shall be immediately removed from the work.
- B. Unless otherwise shown on the Drawings, splices in reinforcement shall be lapped not less than 36 bar diameters. Splice all horizontal bars in circular structures with Class "C" tension splices. All bar splices shall be staggered wherever possible. When splicing bars of different diameters, the length of the lap is based on the larger bar. Unless indicated on the Drawings or where conventional lap splices cannot be achieved, full positive tension connection shall be provided. Such coupler devices shall be installed in accordance with the recommendations of the manufacturer.
- C. Before being placed in position, reinforcement shall be thoroughly cleaned of loose mill and rust scale, dirt, and other coatings that reduce or destroy bond. Where there is delay in depositing concrete after reinforcement is in place, bars shall be reinspected and cleaned when necessary.
- D. Reinforcement shall be accurately positioned as indicated on the Drawings, and secured against displacement by using zinc coated annealed iron wire ties of not less than No. 16 gauge, or suitable clips at intersections.
- E. All accessories such as chairs, chair bars, and the like are an integral part of the reinforcement and shall be furnished and installed in sufficient quantity to satisfactorily position all steel, in accordance with the latest (ACI 315) Manual of Standard Practice for Detailing Reinforced Concrete Reinforcement.
- F. Except as otherwise indicated on the Drawings, bars in slabs, beams and girders shall be spliced as per requirements in ACI 315. Splices and laps in columns, piers and struts shall be sufficient to transfer full stress by bond. Splices in adjacent bars shall be staggered if required.
- G. Except as otherwise indicated on the Drawings, reinforcement shall be installed with clearance for concrete coverage as follows:
 - 1. Footing bottoms: 3 inch.

2. All other surfaces: 2 inch
-
- H. All slab reinforcing shall be supported on concrete cubes or wafers of the correct height. Wafers shall contain soft steel wires embedded therein for fastening to reinforcing. Wafers shall have a minimum compressive strength of 3,500 psi and shall have been cured as specified for concrete. Masonry units will not be permitted for supporting steel in bottom mats or elsewhere. For supporting the top steel in slabs, the Contractor shall furnish extra steel supports, such as channels if required, and shall construct blocks of concrete having the same quality as specified for the structure for use in supporting both top and bottom mat steel. Wood blocks, stones, brick chips, etc., cinder blocks, or concrete building blocks will not be allowed. Alternative methods for supporting top steel in slabs, such as vertical reinforcing fastened to bottom and top mats, may be used if approved by the Engineer.
 - I. Alternate methods of supporting bottom reinforcement for slabs and beams not exposed to the weather (such as plastic chairs, but not plastic-tipped bolsters) may be used only if specifically approved by the Engineer.
 - J. Reinforcement for vertical surfaces (beams, columns, walls) shall be properly and firmly positioned from the forms at all points by means of stainless steel (tipped) bolsters or equal, subject to Engineer's approval.
 - K. Reinforcement, which is to be exposed for a considerable length of time after being placed shall be painted with a heavy coat of neat cement slurry.
 - L. In no case shall any reinforcing steel be covered with concrete until the amount and position of the reinforcement has been checked by the Resident Project Representative and has permission given to proceed with the concreting. The Resident Project Representative shall be given a minimum of 24 hours notice of the availability of set reinforcement for checking.
 - M. Do not straighten or rebend reinforcing steel in a manner that will injure the material. Do not use bars with bends not shown on the Drawings.
 - N. Place reinforcement a minimum of 2-inches clear of any metal pipe or fittings.
 - O. Secure reinforcing dowels in place prior to placing concrete. Do not press dowels into the concrete after the concrete has been placed.

END OF SECTION

SECTION 03 30 00

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The work included in this Section consists of providing cast-in-place concrete.
- B. Related Work Described Elsewhere:
 - 1. Concrete Formwork: Section 03 10 00.
 - 2. Concrete Reinforcement: Section 03 20 00.
 - 3. Concrete Joints and Waterstops: Section 03 15 13.
 - 4. Concrete Finishing and Curing: Section 03 35 00.

1.02 QUALITY ASSURANCE

- A. Standards: Unless otherwise indicated, all materials, workmanship and practices shall conform to the requirements of the following standards:
 - 1. Standard B.
 - 2. Local Codes and Regulations.
 - 3. ACI 318-83, Building Code Requirements for Reinforced Concrete.
- B. Plant Qualification: Plant equipment and facilities shall meet all requirements of the Check List for Certification of Ready Mixed Concrete Production Facilities of the National Ready Mixed Concrete Association and ASTM C-94.
- C. Evaluation and Acceptance of Concrete: Evaluation and acceptance of concrete will be in accordance with ACI-318, Chapter 4.

1.03 SUBMITTALS

Materials and Shop Drawings: The following information shall be submitted for approval. No concrete shall be furnished until submittal has been approved.

1. Plant Qualification: Satisfactory evidence shall be submitted indicating compliance with the specified qualification requirements.
2. Materials: Satisfactory evidence shall be submitted indicating that materials to be used, including cement, aggregates and admixtures meet the specified requirements.
3. Design Mix: The design mix to be used shall be prepared by qualified persons and submitted for approval. The design of the mix is the responsibility of the Contractor subject to the limitations of the Specifications. Approval of this submission will be required only as minimum requirements of the Specifications have been met. Such approval will in no way alter the responsibility of the Contractor to furnish concrete meeting the requirements of the Specifications relative to strength and slump.
4. Ready Mix Concrete: Provide delivery tickets or weigh-masters certificate per ASTM C-94, including weights of cement and each size aggregate, amount of water in the aggregate, and amount of water added at the plant. Write in the amount of water added on the job.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Cement

1. Cement for all concrete shall be domestic Portland cement that conforms to the requirements of ASTM Designation C-150 Type I, Type II or Type III. All storm sewer manholes, inlets, wet wells, pumping stations, tanks and structures exposed to stormwater shall be constructed with Type II cement. Type III cement for high early strength concrete shall be used only for special locations and only with the approval of the Engineer. Type I cement may be used for buildings and tremie concrete.
2. Only one brand of cement shall be used in any individual structure unless approved by the Engineer. Cement, which has become damaged, partially set, lumpy or caked, shall not be used and the entire contents of the sack or container, which contains such cement, will be rejected. No salvaged or reclaimed cement shall be used.

B. Aggregates

1. ASTM C-33. Coarse aggregates shall be size No. 67 (3/4-inch). Block cell fill shall be size #8.
2. In addition to requirements of ASTM C-33 for structures exposed to stormwater the following shall apply:
 - a. Soft particles: 2.0 percent.

- b. Chert as a soft impurity (defined in Table 3 of ASTM C-33): 1.0 percent.
 - c. Total of soft particles and chert as a soft impurity: 2.0 percent.
 - d. Flat and elongated particles (long dimension greater than 5 times short dimension): 15.0 percent.
- C. Water: Clean and free from injurious amounts of deleterious materials.
- D. Air Entraining Admixture: ASTM C-260.
- E. Water Reducing and Retarding Admixtures:
 - 1. For concrete without superplasticizer: ASTM C-494, Type D, and shall not contain more than 1 percent calcium chloride by weight of cement.
 - 2. For concrete with superplasticizer (all Type II cement mixes):
 - a. ASTM C-494, Type F or G. The admixture shall be a second-generation type, free of chlorides and alkalis (except for those attributable to water) and composed of a synthesized sulfonated complex polymer. The concrete shall be capable of maintaining its rheoplastic state in excess of two (2) hours if necessary. Superplasticizers admix shall be induced at the batch plant only, job site redosage shall not be permitted without prior approval from the Engineer.
 - b. Approved Materials:
 - (1) Rheobuild 716 as manufactured by MAC-USA, Inc., Boca Raton, Florida, telephone: (407) 368-0121 or Rheobuild 716 as manufactured by Master Builders Technologies, Cleveland, Ohio, 44122 (216) 831-5500.
 - (2) Daracen 100 as manufactured by W.R. Grace & Co. Construction Products Division, Pompano Beach, Florida, telephone: (305) 974-6700.
 - c. Manufacturer's job site representative: A competent field service representative from the manufacturer of each of the admixtures (superplasticizer) selected for use shall be available at the job site to provide advice and consultation on the use of the admixture materials, including the effect on the concrete in place. The representative shall be available on short call at any time requested by the Owner, Contractor, or concrete producer.
 - d. Manufacturer's representative will be responsible to recommend maximum discharge time for superplasticizer and to recommend method and procedure

to induce superplasticizer into mixer.

- e. Manufacturer's representative will be responsible to recommend quantities of admixtures to be used if variations are required because of temperature/humidity, wind, or other environmental considerations.
- F. Curing Compound: ASTM C-309, Type 2, Class B. The compound shall contain no ingredient, which will adversely affect the bond of coatings or toppings.
 - 1. Curing compound for exposed concrete not to receive special finishes, protective coatings and/or concrete toppings shall be "Super Rez-Seal", as manufactured by Euclid Chemical Co., Cleveland, Ohio or equal.
 - 2. Curing compound for exposed concrete to receive special finishes, protective coatings and/or concrete toppings shall be "Kurez-DR", as manufactured by Euclid Chemical Co., Cleveland, Ohio or equal.
- G. Mortar for Repair of Concrete: Mortar used for repair of concrete shall be made of the same materials as used for concrete, except that the coarse aggregate shall be omitted and the mortar shall consist of not more than one (1) part cement to two and one-half (2-1/2) parts sand by damp loose volume. The quantity of mixing water shall be no more than necessary for handling and placing.
- H. Burlap Mats: Conform to AASHTO Specification M182.
- I. Epoxy Bonding Agent: Sikastix 370, Sikadur 32 Hi Mod, Concresive 1001-LPL or equal.

2.02 MIXES

- A. General Requirements:
 - 1. Mix Design: Proportioning shall be on the basis of field experience and/or trial mixtures as specified in ACI-318, Section 4.3. Data on consecutive compression tests and standard deviation shall be submitted. Proportioning for small structures may be by the water/cement ratio under special approval by the Engineer. Concrete mix design shall comply with the Standard Building Code requirements.
 - 2. Air Content: 6 percent plus or minus 1 percent (Class A and B).
 - 3. Slump: 4 inches plus or minus 1 inch (Class A and B)
 - without superplasticizer.
 - 8 inches plus or minus 1 inch for concrete with superplasticizer.
 - 6 inches plus or minus 1 inch for tremie concrete.
 - 4. Water cement ratio = 0.45 (Class A Concrete) without

superplasticizer.

= 0.55 (Class B Concrete) without superplasticizer.

= 0.37 Concrete with superplasticizer.

5. Minimum Compressive Strength at 28 days:

- a. Class A, 4,000 psi Stormwater structures inclusive of tanks, ditches, pumping station, tremie concrete and other structures in contact with stormwater, building structures, driveways, parking areas, concrete crosswalks.
- b. Class B, 3,000 psi Slab on grade, encasements, thrust blocks, and pipe supports, concrete curbs, fills and sidewalks, etc. not in contact with storm waters.

B. Production of Concrete:

- 1. General: Concrete shall be ready mixed and shall be batched, mixed and transported in accordance with ASTM C-94, except as otherwise indicated.
- 2. Air Entraining Admixture: Air entraining admixture shall be charged into the mixture as a solution and shall be measured by means of an approved mechanical dispensing device. The liquid shall be considered a part of the mixing water.
- 3. Water Reducing and Retarding Admixture: Water reducing and retarding admixture shall be added and measured as recommended by the manufacturer. The addition of the admixture shall be separate from the air-entraining admixture. The addition of the admixture shall be completed within one minute after addition of water to the cement has been completed, or prior to the beginning of the last three-quarters of the required mixing, whichever occurs first. Admixtures shall be stored, handled and batched in accordance with the recommendation of ACI-68.

C. Delivery Tickets: In addition to the information required by ASTM C-94, delivery tickets shall indicate the cement content and the water/cement ratio.

D. Temperatures: The temperature of the concrete upon delivery from the truck shall not exceed 90 degrees Fahrenheit (°F), otherwise ice shall be used to reduce the temperature of the concrete as recommended by ACI.

E. Modifications to the Mix: No modifications to the mix shall be made in the plant or on the job which will decrease the cement content or increase the water-cement ratio beyond that specified. No modifications of any kind shall be made except by a qualified and responsible representative of the concrete producer.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Preparations Before Placing: No concrete shall be placed until the approval of the Engineer has been received. Approval will not be granted until forms are thoroughly clean, and reinforcing and all other items required to be set in concrete have been placed and thoroughly secured. The Engineer shall be notified a minimum of 24 hours before concrete is placed.
- B. Conveying:
 - 1. General: Concrete shall be handled from the truck to the place of final deposit as rapidly as practicable by methods which will prevent segregation or loss of ingredients to maintain the quality of the concrete. No concrete shall be placed more than 90 minutes after mixing has begun for that particular batch.
 - 2. Buckets and Hoppers: Buckets and hoppers shall have discharge gates with a clear opening equal to no less than one-third (1/3) of the maximum interior horizontal area, or five times the maximum aggregate size being used. Side slopes shall be no less than 60 degrees. Controls on gates shall permit opening and closing during the discharge cycle.
 - 3. Runways: Extreme care shall be exercised to avoid displacement of reinforcing during the placing of concrete.
 - 4. Elephant Trunks: Hoppers and elephant trunks shall be used to prevent the free fall of concrete for more than 6 feet.
 - 5. Chutes: Chutes shall be metal or metal lined, and shall have a slope not exceeding one vertical to two horizontal, and not less than one vertical to three horizontal. Chutes more than 20 feet long and chutes not meeting the slope requirements, may be used only if they discharge into a hopper before distribution.
 - 6. Pumping Equipment: Pumping equipment and procedures, if used, shall conform to the recommendations contained in the report of ACI Committee 304 on "Placing Concrete by Pumping Methods", ACI 304.2R-71. The specified slump shall be measured at the point of discharge. The loss of slump in pumping shall not exceed 1-1/2 inches.
 - 7. Conveying Equipment Construction: Aluminum or aluminum alloy pipe for tremies or pump lines and chutes, except for short lengths at the truck mixer shall not be permitted.
 - 8. Cleaning: Conveying equipment shall be cleaned at the end of each concrete

operation.

3.02 APPLICATION

A. Placing:

1. General: Concrete shall be deposited continuously, or in layer of such thickness (not exceeding 2 feet in depth) that no concrete will be deposited on concrete that has hardened sufficiently to cause the formation of seams and planes of weakness.
2. Supported Elements: At least two (2) hours shall elapse after depositing concrete in columns or walls before depositing in beams, girders, or slabs supported thereon.
3. Segregation: Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to rehandling or flowing. Concrete shall not be subjected to procedures, which will cause segregation, e.g., excessive vibration, pouring concrete into standing water, etc.
4. Concrete Under Water: All concrete, except that indicated on the Drawings as Tremie concrete, shall be placed in the dry.
5. Concrete Fill and Tank Bottom Slab: Concrete fill for the tank bottoms, where shown on Drawings, shall be placed within the tolerances described in this Section and as per equipment manufacturer's recommendations.

B. Seals and Tremie Concrete:

1. General:
 - a. Wherever practicable, all foundation excavations shall be dewatered and the concrete deposited in the dry. Where conditions are encountered which render it impracticable to dewater the foundation before placing concrete, a concrete foundation seal shall be placed. The foundation shall then be dewatered, and the balance of the concrete placed in the dry.
 - b. When seal concrete is required to be placed, the satisfactory performance of the seal in providing a watertight excavation for placing structural concrete shall be the responsibility of the Contractor. Seal concrete placed by the Contractor, which subsequently fails to perform properly, shall be repaired as necessary to perform its required function, at the expense of the Contractor.
2. Method of Placing: Concrete deposited under water shall be carefully placed in the space in which it is to remain by means of a tremie, a closed-bottom dump bucket of not less than one cubic yard capacity, or other approved method, and shall not be disturbed after it is deposited. All seal concrete shall be deposited in one continuous

pour. No concrete shall be placed in running water. All formwork designed to retain concrete under water shall be watertight, and the design of the form work and excavation sheeting shall be by a Professional Engineer, registered in the State of Florida.

3. Use of Tremie: The tremie shall consist of a tube having a minimum inside diameter of 10 inches, and shall be constructed in sections having tight joints. No aluminum parts which have contact with the concrete will be permitted. The discharge end shall be entirely seated at all times and the tremie tube kept full to the bottom of the hopper. When a batch is dumped into the hopper the tremie shall be slightly raised (but not out of the concrete at the bottom) until the batch discharges to the bottom of the hopper, after which the flow shall be stopped by lowering the tremie. The means of supporting the tremie shall be such as to permit the free movement of the discharge end over the entire top surface of the work, and shall permit it being lowered rapidly when necessary to choke off or retard the flow. The flow shall preferably be continuous and in no case shall be interrupted until the work is completed. Special care shall be exercised to maintain still water at the point of deposit.
4. Use of Bottom-dump Bucket: When the concrete is placed by means of a bottom-dump bucket, the bucket shall be lowered gradually and carefully until it rests upon the concrete already placed. The bucket shall then be raised very slowly during the discharge travel; the intent being to maintain, as nearly as possible, still water at the point of discharge and to avoid agitating the mixture. Aluminum buckets will not be permitted.
5. Time of Beginning Pumping: Pumping to dewater a sealed cofferdam shall not commence until the seal has set sufficiently to withstand the hydrostatic pressure, and in no case earlier than 72 hours after placement of the concrete.

C. Consolidating Concrete:

1. General: Concrete shall be consolidated by means of internal vibrators operated by competent workmen.
2. Vibrators: Vibrators shall have a minimum head diameter of at least 2 inches, a minimum centrifugal force of 700 and a minimum frequency of 8,000 vibrations per seconds.
3. Vibrators for Confined Areas: In confined areas, the specified vibrators shall be supplemented by others having a minimum head diameter of 1-1/2 inches, a minimum centrifugal force of 300 pounds and a minimum frequency of 9,000 vibrations per second.
4. Space Vibrator: One space vibrator for each three in use shall be kept on the site during all concrete placing operations.

5. Use of Vibrators: Vibrators shall be inserted and withdrawn at points approximately 18 inches apart. The duration of each insertion shall be from 5 to 15 seconds. Concrete shall not be transported in the forms by means of vibrators.
-
- D. Protection: Rainwater shall not be allowed to increase the mixing water, or to damage the surface finish. Concrete shall be protected from construction overloads. Design loads shall not be applied until the specified strength has been attained, as indicated by test cylinders.
 - E. Construction Joints: Except as otherwise indicated on the Drawings, horizontal construction joints shall be provided at top of foundation members and slabs on grade and at the soffit of supported slabs and beams. Other horizontal and vertical construction joints shall be located as indicated on the Drawings. Joints will not be permitted except in the locations shown, unless recommended by the Contractor and approved by the Engineer.
 - F. Bonding: Before depositing new concrete on or against concrete that has set, the surfaces of the set concrete shall be thoroughly cleaned so as to expose the coarse aggregate and be free of laitance, coating, foreign matter and loose particles. Forms shall be retightened. The hardened concrete of joints shall be dampened, but not saturated, and then thoroughly covered with a coat of cement grout of similar proportions to the mortar in the concrete. The grout shall be as thick as possible on vertical surfaces and at least ½-inch thick on horizontal surfaces. The fresh concrete shall be placed before the grout has attained its initial set.
 - G. Embedded Items: In addition to steel reinforcement, pipes, inserts and other metal objects as shown, specified or ordered shall be built into, set in or attached to the concrete. All necessary precautions shall be taken to prevent these objects from being displaced, broken or deformed. Before concrete is placed, care shall be taken to determine that all embedded parts are firmly and securely fastened in place as indicated. They shall be thoroughly clean and free from paint or other coating, rust, scale, oil or any foreign matter. No wood shall be embedded in concrete. The concrete shall be packed tightly around pipes and other metal work to prevent leakage and to secure proper adhesion. Drains shall be adequately protected from intrusion of concrete.
 - H. Bonding to Existing Surfaces: Existing concrete surfaces that are to have new concrete bonded thereto shall be cleaned of all grease, oil, dust, dirt and loose particles and coated with an epoxy bonding agent just prior to placing of the new concrete. Application of the bonding agent shall be as recommended by the manufacturer and the bonding agent shall be permitted to become tacky before the new concrete is placed. The bonding agent shall not be permitted to overlap or spill on the surfaces to be exposed after the work is completed.
 - I. Repair of Surface Defects:
 1. General: Surface defects, including tie holes shall be repaired immediately after form removal. The areas to be patched and an area at least 6 inches wide

surrounding it shall be dampened to prevent absorption of water from the patching mortar. The Engineer shall be notified prior to commencing operations.

2. Removal of Defective Concrete: All honeycombed and other defective concrete shall be removed down to sound concrete. Edges shall be cut perpendicular to the surface or slightly under cut. Sand blast surfaces to receive repair.
 3. Bonding Grout: Surfaces to be patched shall be thoroughly dampened and shall receive a coat of bonding grout brushed into the surface. Grout shall consist of one part cement to one part fine sand passing a No. 30 sieve. Grout shall be the consistency of thick cream.
 4. Placing Patching Mortar: After the bonding grout begins to lose its water sheen, a premixed patching mortar shall be applied. Patching mortar shall be thoroughly consolidated into place and stuck off so as to leave the patch slightly higher than the surrounding surface. It shall be left undisturbed for one hour to permit initial shrinkage and then finally finished.
 5. Tie Holes: After being cleaned and thoroughly dampened, the tie holes shall be filled solid with patching mortar.
- J. Concrete Finishes: Complete concrete surfaces in accordance with the following schedule:

<u>Finish Designation</u>	<u>Area Applied</u>
F-1	Exterior walls below grade not exposed to water. Repair defective concrete, fill depressions deeper than 1/2 inch and fill tie holes.
F-2	Exterior and interior walls of all structures. Repair defective concrete, remove fins, fill depressions and fill tie holes.
F-3	Walls of all structures or building exposed to public view and underside of formed floors or slabs. In addition to Finish F-2, fill depressions and airholes with mortar. Dampen surfaces and then spread a slurry within 72 hours of removing forms consisting of one part cement and one and one-half (1-1/2) parts sand by volume on the surface with clean burlap pads or sponge rubber floats. Remove any surplus by scraping and then rubbing with clean burlap. Apply a compatible water repellant coating.
S-1	Slabs and floors not water bearing. Smooth steel trowel finish.
S-2	Slabs and floors which are water bearing. Slab surfaces on which

mechanical equipment moves. Steel trowel finish free from trowel marks and all irregularities.

- S-3 Slabs and floors of structures or building exposed to view. Steel trowel finish without local depressions or high points and apply a light hair-broom finish. Do not use stiff bristle brooms or brushes. Leave hair-broom lines parallel to the direction of slab drainage.
 - S-4 Slabs and floors at slopes greater than 10 percent. Steel trowel finish without local depressions or high points. Apply a stiff bristle broom finish. Leave broom lines perpendicular to the direction of slope drainage.
 - E-1 Exposed edges of slabs, floors and tops of walls. Finish with a 1/4-inch radius edge if a chamfer is not indicated.
 - E-2 Tops of walls, beams and similar unformed surfaces occurring adjacent to formed surfaces shall be struck smooth after concrete is placed and shall be floated to a texture reasonably consistent with that of formed surfaces.
2. General: As soon as forms can safely be removed, all irregular projections shall be chipped off flush with the concrete surfaces. All voids produced by spacers or any honeycombing shall be pointed up with grout and troweled flush with the concrete surface immediately after removal of forms and water cured to prevent shrinkage. Honeycombing shall be cut out to expose a sound concrete surface prior to pointing. The use of mortar pointing or patching shall be confined to the repair of small defects in relatively green concrete. Where in the opinion of the Engineer substantial repairs are required, the defective concrete shall be cut out to sound concrete and repaired with gunite or the concrete shall be removed and reconstructed as directed.
 3. All concrete slabs to be troweled shall receive a floated finish. After floating, all concrete slabs except as otherwise indicated and in areas to receive roofing, insulation, tile or topping shall be troweled and immediately light broom finished. Stair treads shall receive a light broomed finish.
 4. Floated Finish: After concrete has been placed, consolidated, struck off and leveled, it shall not be worked further until water sheen has disappeared and the surface has hardened sufficiently to permit floating, the planeness of the slab shall be checked with a 10 foot straightedge applied at no less than two (2) angles. All high spots shall be cut down and all low spots shall be filled to produce a surface having a Class B Tolerance throughout. The slab shall then be refloated to a uniform sandy texture.
 5. Light Broomed Finish: After floating, slabs to receive a light broomed finish shall

be power troweled and finished struck with a soft broom rag. The troweling shall produce a smooth surface, relatively free of defects and a Class A Tolerance. Before the surface sets, the soft broom drag shall be passed over the surface to produce a surface uniform in texture and appearance.

6. Troweled Finish: After floating, slabs to receive a troweled finish shall be power troweled and finally hand troweled. The first troweling after power floating shall produce a smooth surface, relatively free of defects. Surfaces shall be hand troweled after the surface has hardened sufficiently. The final troweling shall be done by hand when a ringing sound is produced as the trowel is moved over the surfaces. Hand troweling shall produce a surface, which is thoroughly consolidated, free from trowel marks, uniform in texture and appearance and plane to a Class A tolerance.
7. Finishing Tolerance: Surfaces shall be true planes within the following limits:
 - a. Class A: 1/8-inch in 10-feet as determined by a 1-foot straightedge placed anywhere on the slab in any direction.
 - b. Class B: 1/4-inch in 10-feet is determined by a 10-foot straightedge placed anywhere on the slab in any direction.
- K. Saw Cut Joints: Joints that are to be saw cut shall be cut not sooner than 2 hours after the concrete is poured and not later than 8 hours after the pour.

3.03 PROTECTING

- A. Curing:
 1. Immediately after surface defects have been repaired, all exposed surfaces, including slabs, walls, beams and columns shall receive a spray coat of curing compound applied in accordance with the manufacturer's recommendations. Exposed steel keyways and other embedded items shall be protected from the curing compound. Concrete surfaces to be exposed to stormwater and are to be coated with an epoxy system, shall be cured by the wet burlap method. Structures that are to be partially exposed to stormwater and concrete floors requiring a bond for special finishes shall also be cured by the wet burlap method. Curing compounds shall not be used on surfaces to be exposed to stormwater.
 2. Curing compound shall be uniformly applied to the surfaces to be cured, in a single coat, continuous film, at the rate of one gallon to not more than 200 square feet, by a mechanical sprayer.
 3. Curing compound shall be applied in accordance with manufacturer's instructions. Should the film become damaged from any cause within the required curing period, the damaged portions shall be repaired immediately with additional compound.

Upon removal of forms, the newly exposed surfaces shall immediately be coated to provide a curing treatment equal to that provided for the surface.

- B. **Wet Burlap Curing Method:** All concrete, for stormwater/water retaining structures to be cured by the wet burlap method. All concrete shall be covered with a double thickness of burlap, cotton mats, or other approved material kept thoroughly saturated with water. The forms shall be kept wet until removed and upon removal, the curing specified herein shall be started immediately. Concrete shall be cured for a period of 7 days for normal Portland cement or 4 days for high early strength cement. Concrete poured in the dry shall not be submerged until it has attained sufficient strength to adequately sustain the stress involved nor shall it be subjected to flowing water across its surface until it has cured 4 days. Curing the gunite shall be started as soon as possible without damaging surface and not later than 2 hours after placing.

3.04 TESTING

- A. A testing laboratory employed by the Contractor and approved by the Owner will make such tests required. The Contractor shall pay for all tests.
- B. Standard laboratory compressive test cylinders will be obtained by the laboratory when concrete is discharged at the point placing (i.e., discharge end of pumping equipment), and cylinders will be made and cured in accordance with the requirements of ASTM Designation C-31. A set of five (5) cylinders will be obtained for each 50 cubic yards, or fraction thereof placed each day, for each type of concrete. The cylinders will be cured under laboratory conditions and will be tested in two groups of two (2) at 7 and 28 days of age, with one (1) group held until released by the Engineer in accordance with the requirements of ASTM Designation C-39.
- C. The laboratory will conduct tests of Class A and Class B concrete as it is discharged from the mixer at the point of placing. Slump tests will be made for each truckload of concrete. Slump tests may be made on any batch, and failure to meet specified slump requirements will be sufficient cause for rejection of the batch. If water is added after initial test then the "load" shall be tested.
- D. Air content of the concrete mixture will be tested on every other truck in accordance with AASHTO T199.
- E. Historical strength/break data may be submitted with mix design and may be used in the approval process provided the mix design is otherwise acceptable. If the mix design requires modifications, a test batch may still be required.

END OF SECTION

SECTION 03 35 00**CONCRETE FINISHING AND CURING****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. Scope of Work: This section describes materials and methods of concrete finishes, curing, repair of defects and surface protection.
- B. Related Work Described Elsewhere:
 - 1. Concrete Formwork: Section 03100.
 - 2. Concrete Reinforcement: Section 03200.
 - 3. Concrete Joints and Waterstops: Section 03262.
 - 4. Cast-In-Place Concrete: Section 03300.

1.02 SUBMITTALS

Curing Compound: Submit manufacturer's statement of compliance with these specifications and recommend coverage to meet or exceed the specified tests. Submit manufacturer's application instructions.

PART 2 - PRODUCTS**2.01 MATERIALS**

- A. See Section 03 30 00: Cast-In-Place Concrete.
- B. Curing Compound:
 - 1. Curing compound shall conform to ASTM C 309, Type 2, Class BN.
 - 2. Curing compound shall be compatible with required finishes and coatings.
 - 3. Curing compound for exposed concrete not to receive special finishes, protective coatings and/or concrete toppings shall be "Super Rez-Seal", as manufactured by Euclid Chemical Co., Cleveland, Ohio or equal.
 - 4. Curing compound for exposed concrete to receive special finishes, protective coatings and/or concrete toppings shall be "Kurez-DR", as manufactured by Euclid

Chemical Co., Cleveland, Ohio or equal.

- C. Mortar for Repair of Concrete: Mortar used for repair of concrete shall be made of the same materials as used for concrete, except that the coarse aggregate shall be omitted and the mortar shall consist of not more than one (1) part cement to two and one-half (2-1/2) parts sand by damp loose volume. The quantity of mixing water shall be no more than necessary for handling and placing.
- D. Burlap Mats: Conform to AASHTO Specification M182.
- E. Sisal-Kraft Paper and Polyethylene Sheets for Curing: Conform to ASTM C 171.

PART 3 - EXECUTION

3.01 CONCRETE FINISHES

- A. Complete concrete surfaces in accordance with the following schedule:

<u>Finish Designation</u>	<u>Area Applied</u>
F-1	Exterior walls below grade not exposed to water.
F-2	Exterior and interior walls exposed to water.
F-3	Walls of structures or buildings exposed to view. Underside of formed floors or slabs.
S-2	Slabs and floors not water bearing.
S-3	Slabs and floors, which are water bearing. Slab surfaces on which mechanical equipment moves.
S-4	Slabs, beams, girders, columns, and floors of structures.
S-5	Slabs and floors at slopes greater than 10 percent.
E-1	Exposed edges of slabs, floors, and walls tops.

- B. Concrete surface repair.

1. Finish F-1: Repair defective concrete, fill depressions deeper than 1/2-inch, and fill tie holes.
2. Finish F-2: Repair defective concrete, remove fins, fill depressions 1/4-inch or deeper, and fill tie holes.

3. Finish F-3: In addition to Finish F-2, fill depressions and airholes with mortar. Dampen surfaces and then spread a slurry consisting of one (1) part cement and one-half (1/2) parts sand by damp loose volume, over the surface of clean burlap pads or sponge rubber floats. Remove any surplus by scraping and then rubbing with clean burlap.
4. Finish S-2: Smooth steel trowel finish.
5. Finish S-3: Steel trowel finish free from trowel marks and all irregularities.
6. Finish S-4: Steel trowel finish without local depressions or high points and apply a light hair-broom finish. Do not use stiff bristle brooms or brushes. Leave hair-broom lines parallel to the direction of slab drainage.
7. Finish S-5: Steel trowel finish without local depressions or high points. Apply a stiff bristle broom finish. Leave broom lines parallel to the direction of slope drainage.
8. Finish E-1: Exposed edges of slabs, floors, and tops of walls, finish with a 1/4-inch radius edge if a chamfer is not indicated.

3.02 FINISHING OF FORMED SURFACES

- A. Water cure surfaces until finishing and repairing are completed.
- B. As soon as possible after forms are removed, remove fins and irregularities by grinding or rubbing, fill depressions deeper than specified with mortar, and fill tie holes.
- C. Ream tie holes with toothed reamers until surface of hole is rough and clean. Coat surface with epoxy bonding compound and fill with mortar.
- D. Finish tapered tie holes as follows:
 1. Sandblast tie rod hole and blow clean prior to filling.
 2. Drive rubber plug, with one end open, to the center of the hole. Plug size shall be larger in diameter than the diameter of the hole at the center of the wall.
 3. Coat entire annular surface of the hole with epoxy prior to filling with mortar. Apply epoxy in accordance with manufacturer's instructions.
 4. Fill each side of hole with mortar. Apply mortar to the "wet" side of the wall first. Consolidate mortar solidly into the hole.
4. Notify Owner's Representative of tie rod filling schedule.

3.03 REPAIR OF SURFACE DEFECTS

- A. Remove honeycombed and other defective concrete down to sound concrete. Edges shall be perpendicular to surface. Sandblast surfaces to receive repair.
- B. Coat sandblasted surface with epoxy bonding compound.
- C. Place mortar in layers having a compacted thickness of 3/8-inch. Scratch surface of each layer to promote bonding with next layer.
- D. Finish repair shall match adjacent concrete and cure as specified.
- E. Repair defective areas of more than 1-foot square and deeper than the reinforcing steel as above, except fill the area with pneumatically applied concrete.

3.04 REPAIR OF CRACKED CONCRETE (REFER TO STRUCTURAL STANDARDS DETAILS)

- A. Alternate methods of crack repair may be submitted by the Contractor for review by the Resident Project Representative.

3.05 CURING AND PROTECTION

- A. Cure concrete surfaces in accordance with the following schedule:

<u>Curing Method</u>	<u>Area Permitted</u>
1.	All surfaces
2.	All surfaces
3.	Slabs and floors
4.	All surfaces when maximum ambient temperature will not exceed 80 degrees Fahrenheit (°F) and humidity will not drop below 40 percent on the day of concrete placement and for the three days following.

Where wooden forms are used, wet them immediately before concreting and keep moist by sprinkling until removed. Keep all exposed surfaces of formed concrete moist until curing method is applied.

- B. Cure concrete for not less than 14 days after placing in accordance with one of the following appropriate methods:

1. Method 1 - Water Spray Method: Tightly close off concrete surfaces to be cured by bulkheads or other means or entirely surround by tight enclosures, and keep the concrete surfaces moist by sprinkling, spraying or other means.
2. Method 2 - Wet-Burlap-Mat Method: Thoroughly wet and cover concrete surfaces to be cured with wet burlap mats as soon as the forms have been stripped or as soon as the concrete has set sufficiently to avoid marring the surface. Keep entire concrete surface and burlap continuously and completely wet during the entire curing period.
3. Method 3 - Curing Blanket Method: Thoroughly wet concrete surfaces to be cured and cover with curing blankets as soon as the concrete has set sufficiently to avoid marring the surface. The curing blankets shall be weighted to maintain close contact with the concrete surface during entire curing period. Should the curing blankets become torn or otherwise ineffective, keep surfaces moist and replace damaged sections. The curing blankets shall consist of one (1) of the following two (2) types:
 - a. Sheets of heavy waterproof sisal-kraft paper laid with the edges butted together and with the joints between strips sealed with 2-inch wide strips of sealing tape or with the edges lapped not less than three inches and fastened together with waterproof cement to form continuous watertight joints; or
 - b. Sheets of clean polyethylene, having a minimum thickness of four mils, laid with edges butted together and with the joints between sheets sealed with 1-inch wide strips of acetate tape.

During the curing period, do not permit traffic of any nature or depositing of objects, temporary or otherwise, on the curing blankets.

4. Method 4 - Curing Compound Method: Spray the surface with two (2) coats of liquid curing compound. Apply in accordance with the manufacturer's instructions to cover the surface with a uniform film, which will seal thoroughly. Apply second coat at 90 degrees for the first coat.

Apply curing compound immediately after completion of the finish on unformed surfaces and within two (2) hours after removal of forms on formed surfaces. Repair formed surfaces within the said 2 hour period; provided, however, that any such repairs which cannot be made within the said 2 hour period shall be delayed until after Method 1, 2, or 3 has been applied. When repairs are to be made to an area on which curing compound has been applied, first sandblast the area to remove the curing compound, and then repair.

Wherever curing compound may have been applied to surfaces against which concrete subsequently is to be placed and to which it is to adhere, remove the curing compound entirely by sandblasting prior to the placing of new concrete.

Where the curing compound method is used, exercise care to avoid damage to the seal during the curing period. Should the seal be damaged or broken before the expiration of the curing period, repair the damaged portions immediately by the application of additional curing compound.

3.06 CONCRETE SURFACES TO BE COATED

Concrete surfaces on which paints or coatings are to be applied shall be of even color, gray or gray-white. The surface shall have no pits, pockets, holes or sharp changes of surface elevation. Scrubbing with a stiff bristle fiber brush shall produce no dusting or dislodging of cement or sand.

END OF SECTION

SECTION 03 60 00

GROUT

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work: The work included in this Section consists of grouting the various items listed hereinafter and indicated on the Drawings.

B. Related Work Described Elsewhere: Cast-in-Place Concrete, Section 03 30 00.

1.02 SUBMITTALS

Materials and Shop Drawings: Section 01 33 00: Submittals for submittal requirements. Manufacturer's literature shall be submitted for review on nonshrink grout data shall include grout properties, mixing, surface preparation and installation instructions.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING

Grouting materials shall be delivered and stored in unbroken containers with seals and labels intact as packaged by the manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Nonshrink, Nonmetallic Grout: Sauereisen F-100 Level Fill, Master Builders Masterflow 713, Burke Non-Ferrous, Non-Shrink Grout or equal pre-mixed type.

B. Nonshrink Metallic Grout: Master Builders Embeco 636 Grout pre-mixed type, or equal.

PART 3 - EXECUTION

3.01 PREPARATION

A. All bonding surfaces shall be clean and dust and oil free.

3.02 INSTALLATION

A. Nonshrink Grout:

1. Nonshrink, nonmetallic grout shall be used for grouting column base plates, anchor bolts, reinforcing bars, pipe sleeves, machinery supports and pump base plates.

2. Nonshrink grout shall be mixed and placed as recommended by the manufacturer.
3. Grout shall be mixed as close to the work area as possible and transported quickly to its final position in a manner, which will not permit segregation of materials.
4. Nonshrink grout shall be cured with water-saturated burlap for at least 3 days.
5. Machinery set on grout pads shall not be operated until the grout has cured for at least 36 hours.

END OF SECTION



DIVISION 31
EARTHWORK



**SECTION 31 11 00
CLEARING AND GRUBBING**

PART 1 - GENERAL

A. Description

1. This section includes removal and disposal of all trees, logs, stumps, shrubs, brush, vegetation, excessive organic material, debris, existing foundations, pavement, structures, fences and other items that would interfere with construction operations.

B. Protection

1. Adequate protection measures shall be provided to protect all workmen and passers-by. Streets and adjacent property shall be duly protected throughout the work.
2. Trees or plants that are indicated on the drawings to remain shall be adequately protected during construction.
3. Existing utility and drainage line shall be protected from damage and, if damaged, replaced or repaired by the Contractor at his expense. If active utility lines are encountered, the Contractor shall take whatever steps are necessary to ensure that the service is continued or immediately restored at no additional cost to the Owner.

C. Related Documents:

1. The General Provisions of the contract including the general conditions, supplementary conditions and general requirements apply to the work specified in this section.

D. Measurement and Payment

1. Work under this section will not be paid for as a separate item unless a specific unit price basis is included in the Bid Form.

PART 2 - PRODUCTS

- A. Topsoil material removed from the surface of the site under structure locations shall be stockpiled and reused at other locations on the site as directed by the Engineer.

B. Disposal of Materials

1. All clearing and grubbing material or refuse other than topsoil shall become the property of the Contractor and shall be promptly removed from the property.

2. No burning will be allowed on-site

PART 3 - EXECUTION

- A. Clear and grub within the limits shown on the drawings, as necessary to construct Project improvements. Clearing beyond that necessary to construct Project improvements is prohibited unless authorized by the Engineer.
- B. Remove and dispose of trees, snags, stumps, shrubs, brush, limbs, and other vegetative growth. Remove all evidence of their presence from the surface including sticks and branches greater than 1 inch in diameter or thickness. Remove and dispose of trash piles, rubbish and stockpiled organic material. Protect trees, shrubs, and vegetative growth which are not designated for removal.
- C. Grubbing:
 1. Remove all stumps, roots over one inch (1") in diameter, and matted roots to the following depths:
 - a. Footing, slabs on grade, bottom slabs of structures: eighteen (24").
 - b. Walks: twelve inches (12").
 - c. Roads and Parking Areas: eighteen (24").
 - d. Areas to be Grassed or Landscaped: three inches (3").
 - e. Fills: twelve inches (12").
 2. In the case of footings, slabs on grade, bottom slabs of structures, roads, and parking areas, or other construction on fills, the greater depth shall apply.
 3. Remove rip rap concrete fabric erosion control and temporary structures in pump discharge basin to facilitate new construction.
 4. Unless further cut is required, fill depressions made by grubbing and compact to density of surrounding soil.
 5. The debris shall be disposed of at an off-site location to be provided by the Contractor. Temporary earth spoil-banks shall not obstruct drainage or damage trees or vegetation. All debris and surplus materials shall be removed from the site prior to final inspection.

END OF SECTION

SECTION 31 20 00 EARTHWORK

PART 1 – GENERAL

- 1.01** A Geotechnical Report is **not available** for this site.
- 1.02** Description: Perform all earthwork, including excavation, filling, backfilling, compacting, and grading required to accomplish the work of this Contract in accordance with these specifications and Section 120 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition. Rough grading of the areas shall be included.
- 1.03** Protection: Adequate protection measures shall be provided to protect all workmen and passersby. Streets, utilities, and adjacent property shall be duly protected throughout the work. All remaining trees and plants shall be carefully protected from damage. Shoring, sheeting, and bracing shall be provided to prevent caving, erosion or gulying of sides of excavations. All requirements of the Florida Trench Safety Act shall be followed.
- A. Surface Drainage: Provide for surface drainage and/or retention during the period of construction in such a manner as to meet applicable regulatory requirements and as to avoid creating a nuisance to adjacent property. Keep all excavations free from water during the entire work regardless of source, cause, or nature of water. Water discharged from the site during all phases of construction shall comply with all regulations governing turbidity and water quality.
 - B. Existing Utilities: All active, existing utility and drainage lines or ditches shall be protected from damage and maintained in full operating condition and, if damaged, shall be repaired or replaced by the Contractor at his expense. If unknown active utility lines are encountered, the Contractor shall take whatever steps are necessary to ensure that the service is continued or immediately restored at no additional cost to the Owner.
- 1.04** Testing: Field tests and laboratory tests called for in this specification shall be performed by an independent testing laboratory approved by the Owner and shall be paid for by the Contractor. Cost for retesting shall be paid by the Contractor.

PART 2 - PRODUCTS:

- 2.01** Excavated material shall be sorted for topsoil, acceptable fill material and unsuitable material. Fill material shall be first moved from the excavation area on-site to the areas requiring fill, subject to the adequacy of the quality of the stockpile for the particular area to be filled. The Contractor shall provide all required fill material whether from onsite excavation or from import at the Contractor's expense. In each case, the Contractor is responsible for confirming the acceptability of the material, excavation from the stockpile or borrow pit, transport to the project area to be filled, and placement and compaction in accordance with these Specifications. Excavation and transportation of the borrow material shall be the responsibility of the Contractor. Imported fill shall be tested for radon at the pit prior to transport. A moisture-density relationship determination test

shall be performed on each type of fill material in accordance with ASTM D-1557. All aspects of this work are to be included in the Base Bid. The Bidder shall make his own determinations of the quantity and suitability of the materials. A geotechnical report (if provided) is included in the Bid Documents without warranty of its' accuracy or completeness.

- 2.02** Topsoil material shall be removed from the surface of the site and stockpiled for later use. All topsoil shall be protected, kept clean and free of weeds and refuse.

PART 3 - EXECUTION:

3.01 Preparation:

- A. Topsoil: After clearing and grubbing, topsoil material shall be stripped from the area to be filled, cut, or covered by slabs, walks, buildings, pavement and other graded areas. Topsoil shall be stored in piles separate from other excavated material. Location of such stockpiles shall be determined by the Contractor and approved by the Engineer. Topsoil shall be protected and maintained for later distribution.
- B. Subgrade: Cut or fill and machine grade the site area. All unstable or unsuitable soil shall be removed, disposed of off the site, and replaced with fill material, as necessary. All fill material shall be placed in loose layers approximately eight inches (8") thick and compacted to the required density.

3.02 Performance:

- A. Excavation:
 - 1. Structures: Excavate to the depths and dimensions indicated for footings, foundations, slabs on grade, sewer, drainage and water structures and other related structures. Remove roots larger than one-fourth inch (1/4") in diameter and all matted roots and organic material. In the event unsuitable or unstable soil is encountered at specified depth, it shall be removed and replaced with suitable material. If the excavation under any footing is for any reason carried below the depth indicated on the drawings, the excavation shall be filled and compacted in accordance with compaction requirements hereinafter. Cut sides and bottom of excavations clean; if stable, they may be used for placing the concrete without forms. Allow enough room for installation and inspection of forms where applicable.
- B. Filling and Backfilling:
 - 1. General: Place all fills and backfills in layers compatible with compaction requirements, unless otherwise specified.

2. Material: Clean, free-draining sand, free from organic material; subject to the approval of the Engineer.
3. Borrow: Excavated material that is suitable, (as determined by the testing firm) may be used for filling or backfilling. Procure additional material, where necessary, from borrow pit approved by the Owner.
4. Filling and Backfilling for Slabs and Structures: Remove forms, lumber, trash, mortar incrustations and other objectionable material and install fill and backfill in layers. Compact each layer as hereinafter specified and as called for in the geotechnical report for the project. Backfill as the work progresses. Do not place fill or backfill against concrete or masonry walls within seven (7) days after construction unless specific permission is obtained from the Engineer. Grade final layer to final elevation and dress smooth.
5. Backfilling Road Crossing Trenches: Trenches in Access Roadway Crossing shall be backfilled and compacted accordingly.
6. Backfilling for Structures, Catch Basins and Utility Trenches: After pipes and conduit have been checked, or tested if required, and have been approved, backfill the trenches with fine, loose earth, free from clods or stones, carefully deposited on both sides of the utility and thoroughly compacted to the density of the adjacent undisturbed soil until enough fill has been placed to provide a cover of at least one foot above the pipe. Place the remainder of the backfill in layers and compact as hereinafter described. After backfilling, dress off trenches to conform to adjacent contours. If trenches are improperly filled or if settlement occurs, they shall be refilled and redressed. Place backfill around structures such as structures, pull boxes, catch basins and the like in the manner specified hereinbefore for other structures. Maintain all backfill areas and refill and redress all areas that have settled.

C. Dewatering:

1. Remove all water from excavations before placing fill or concrete therein and maintain the excavations free of water until fill or concrete is placed and cured. Provide secure shoring or equivalent as necessary to separate water body from trench or excavations and to maintain dry, dewatered, conditions. Also remove water from trenches until pipe and conduit are placed and tested and backfill operations are complete. Provide dewatering equipment as necessary to conform to this requirement.

D. Disposal:

1. Trash, debris, and materials resulting from clearing, grubbing and other operations shall become the property of the Contractor and shall be disposed of by removal from the property. The disposal of excavated

muck and other materials unsuitable for compaction or reuse materials excavated in the removal of existing facilities, such as brick, asphalt block, concrete slab, lime rock, rip-rap, etc., shall be disposed of by the Contractor at approved sites within St. Johns County in accordance with all Federal, State and Local laws, ordinances, regulations, and rules. The Owner may allow the placement of excavated material in areas identified by the owner as salvage material.

E. Finish Grading:

1. Prior to finish grading, the compacted subsoil shall be scarified to a depth of four inches (4") for bonding of the topsoil with the subsoil. Topsoil shall then be evenly spread, compacted, graded to the finished grades indicated within a tolerance of zero point one (0.1) feet. All grassed and landscaped areas shall be accurately finished to provide positive drainage. Grades shall slope a minimum of one-eighth inch (1/8") per foot away from all buildings, walls and structures, unless otherwise indicated on the drawings. Existing grades which are to remain, and which are disturbed by the Contractor's operations shall be graded to the original elevations. Unless otherwise specified, surplus material shall become the property of the Contractor and shall be removed from the project. Grade the roadway, shoulders, and ditches as indicated on the drawings. Any excess material resulting from the grading and earthwork operations shall become the property of the Contractor, unless otherwise specified, and he shall dispose of the materials off site at locations provided by him. Prior to requesting final inspection, check the lines and dress to proper grades.

F. Compaction and Tests:

1. Compaction for footings and structures bearing on undisturbed fine, sandy soils in trench areas may be accomplished with walk-behind sleds, rollers, or tampers with a total weight of at least 100 pounds, to ninety-eight percent (98%) of the Modified Proctor maximum dry density to a depth twelve inches (12") below the bearing level.
2. In building pads and where structures are built or pipe is laid on fill materials in lieu of undisturbed earth, the fill material shall be brought up to the bottom elevation of the structure or pipe in six-inch (6") (compacted thickness) maximum layers. Each layer shall be compacted to ninety-eight percent (98%) of the maximum density as determined by the Laboratory Modified Proctor Test (AASHTO T-180).
3. Backfill material up to a level of one foot over the top of pipe or bottom of structures shall be placed in layers not to exceed six inches compacted thickness and compacted to a minimum of ninety-eight percent (95%) of its maximum density at +/-2% of optimum moisture content as determined by the Laboratory Modified Proctor Test (AASHTO T-

180). Tests shall be conducted at a rate of one test per layer per 5,000 sq. ft. of building area, 50 sq. ft. of footing bearing area, 10,000 sq. ft. of pavement and 300 linear feet of trench.

4. In paved or unpaved roadways and traffic areas including road shoulders, backfill material above one foot over the top of pipe and above the bottom of structures, shall be placed in layers not to exceed twelve inches (12") compacted thickness, and compacted to ninety-eight percent (98%) of its maximum density at $\pm 2\%$ of optimum moisture content as determined by the Laboratory Modified Proctor Test (AASHTO T- 180). Tests shall be conducted at a rate of one test per 300 linear feet of compaction per foot of lift.
5. In areas outside of roadways and outside of structure areas, backfill materials above one foot over the top of pipe and above the bottom of structures shall be placed in layers not to exceed twelve inches (12") compacted thickness and compacted to ninety-five percent (95%) of its maximum density as determined by the Laboratory Modified Proctor Test (AASHTO T-180). A tolerance of -5% shall be allowed in the compactive effort. Tests shall be conducted at a rate of one test per layer per 20,000 sq. ft. of fill area and 1,000 linear feet of trench.
6. The method of compacting backfill material shall be at the Contractor's option, subject to the approval of the testing firm, provided the compaction requirements hereinbefore specified are obtained, except that consolidation by flooding will not be permitted under or adjacent to paved or unpaved traffic areas. If tests for in-place density consistently fail to meet the requirements, the Engineer may require the Contractor to change his method of compaction without claim for additional compensation.
7. Compaction control at all new construction shall be accomplished by in-place densities to determine the degree of compaction. Compaction control testing shall be performed by an independent testing laboratory, approved by the Owner, and paid for by the Contractor. Any compacted layer which fails to meet the above compaction requirements shall be removed, replaced, and retested at the Contractor's expense.

3.03 Maintenance: The Contractor shall be responsible for slides, washouts, settlements, subsidence, or any mishap to the work while under construction. He shall be responsible for the stability of all embankments constructed under this specification and shall replace any portion which may become displaced from any cause before completion and acceptance of the work.

END OF SECTION

SECTION 31 22 13 ROUGH GRADING

PART 1 – GENERAL

1.01 Description: The work required under this section shall include, but is not limited to the following:

- A. Remove topsoil and stockpile for later reuse.
- B. Grade and rough contour site.
- C. Backfilling.

1.02 Related Section:

- A. Section 31 20 00 - Earthwork

1.03 Job Conditions:

- A. Inspection of the site: It is the Contractor's responsibility to have carefully inspected the building site during the bidding period to determine the extent and nature of the site work and the conditions under which it shall be performed.
- B. Lines, Grades, etc.: Verify all grades, lines and dimensions shown on drawings and report any errors or inconsistencies to the Owner or Engineer/Architect before commencing work.
- C. Should any unusual conditions arise, contact the Engineer for instructions prior to continuation of clearing and grading operations.
- D. Layout shall be by General Contractor unless otherwise directed.

1.04 Quality Assurance:

- A. Work specified herein shall be subject to inspection and testing by an independent testing laboratory selected and compensated by the General Contractor. The testing laboratory selected shall be approved by the Engineer.
- B. Soil tests shall be made as follows:
 - 1 A moisture density relationship determination test shall be obtained for each type of fill material used in accordance with the ASTM D-1557 for granular or sandy soils.
 - 2 One density test shall be performed for each 5,000 square feet of building area subgrade and for every layer of fill. One test is required in the bottom of 25% of the isolated footings and at 100-foot intervals in the continuous footings when located in fill material.

PART 2 - EXECUTION:

2.01 Notification of Utility Companies:

- A. Notify all utility companies that may have lines or services on or around the site prior to starting any work. Have the utility identify and locate their underground lines.
- B. Active utilities shall be adequately protected from damage and removed or relocated only as indicated or specified. The work shall be adequately protected, supported, or relocated as directed by the Engineer. Take responsibility for the repair or replacement of any lines or services damaged during the course of this work.
- C. Remove, plug, or cap all abandoned lines, meters, boxes, obstructions, or piping in accordance with the requirements and approval of the agencies affected or as directed by the Engineer. Use licensed electricians or plumbers for this work.

2.02 Protection:

- A. Take responsibility for furnishing, placing, and maintaining all support, shoring and sheet piling which may be required for the protection of site personnel and adjacent existing improvements.
- B. Protect all benchmarks, monuments, and other reference points furnished by others and pay for replacement of any that are disturbed or destroyed during the course of this work.
- C. Do not damage any trees not indicated for removal. Protect trees near this work to prevent damage to the branches, bark, and soil around the root system.
- D. Protect all underground utilities in the area of this work.

2.03 Excavation:

- A. Make excavations to the dimension and elevation indicated on the drawings. Extra payment shall not be made for excavations carried below indicated grades. Where unauthorized excavations are made below indicated elevations under slabs, restore to proper elevation as specified for compacted back-fill under footings, pay for the cost of the extra concrete required for the extra wall or footing depth.
- B. Concrete may be cast against vertical excavated surfaces provided the material shall stand without caving. Take care to maintain the cross section as shown on the Drawings. Allow enough width when excavating for formed concrete to allow for construction and removal of forms. Allow enough width when excavating for below-grade walls to allow for application of waterproofing and drainage materials as specified and shown on the drawings.
- C. Deposit excess excavated material and material determined unsuitable for use as fill or topsoil on the site in locations as directed by the Contractor.

2.04 Dewatering and Erosion Control:

- A. Maintain all excavated areas free from water throughout the progress of this Work. Dispose of all surface or sub-surface water encountered in a manner that shall not interfere with the workable condition of the site. Because of the need for densification of the very loose to loose fine sands, it may be necessary to install temporary ground water control in order to facilitate the compaction process and maintain the water table a minimum of three feet (3') below the proof-rolled surface.
- B. Perform all dewatering work in conformance with all governing regulations including protective measures such as silt screens, hay bales, settling ponds and similar devices as required by such regulation.

2.05 Backfill and Compaction:

- A. All fill material shall be approved by the Engineer/ Architect. Soils test shall be conducted prior to bringing the material to the site and shall meet the requirements listed below. Provide two (2) copies of all tests to the Engineer/Architect.
- B. Compact top twelve inches (12") of subgrade below building slabs and the top twelve inches (12") below footing bearing level to ninety-five percent (95%) maximum density.
- C. In the event that material shall be brought onto the site or if the excavated material differs from those previously tested, tests shall be made to establish its suitability for use and to develop moisture- density curves.
 - 1. Fill material shall be clean sand soil containing less than ten percent (10%) fines (material passing the No. 200 sieve) by weight, containing less than four percent (4%) organic matter and free of deleterious material. Place backfill material in successive layers of no more than twelve inches (12") in thickness and compact each layer until ninety-five percent (95%) of the maximum dry density is obtained. Recompact areas which fail to meet the compaction requirement until passing results are achieved.

2.06 Clean Up:

- A. Minimize the transmission of dirt or debris by equipment or personnel to any property, public or private, outside the project site. Immediately remove any such debris or dirt transmitted.

PART 3 - EXECUTION:

Not Used

END OF SECTION

SECTION 31 23 19 DEWATERING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Maintaining excavations, including pipe and utility trenches, in a dewatered state to facilitate construction.
- B. For the purpose of this section, the following definitions shall apply:
 - 1. Dewatering is defined as lowering of ground water to ensure stable, firm working conditions and reduction to safe levels of any hydrostatic uplift pressures in any confined foundation strata and/or aquifers which is necessary to ensure stability and integrity of foundation.
 - 2. Dewatering system is defined as machinery, equipment and appurtenances necessary for and related to accomplishment of dewatering, and collection and disposal of all surface water within the protected area.

1.02 RELATED SECTIONS

- A. Section 01 57 13 Temporary Erosion and Sedimentation Controls
- B. Section 31 20 00 – Earthwork
- C. Division 3 – Concrete.

1.03 REFERENCE TO STANDARDS

- A. Occupational Safety and Health Administration (OSHA): Contractor shall note the OSHA requirements for excavations, particularly requirements set forth in Federal Register. Compliance with this publication and any other OSHA excavation requirements is the Contractor's responsibility only.

1.04 SYSTEM DESCRIPTION

- A. Dewatering System

The dewatering/support system shall be of a type and capacity to accomplish all requirements specified herein.

- 1. The water level shall be maintained continuously so that construction operations can be performed without interruption due to wet conditions.
- 2. The dewatering system shall be designed, constructed, and operated at all times so as to prevent movement of adjacent structures, foundations, excavation slopes, and backfill materials.

3. The dewatering systems shall consist of wells, pumps, sumps, ditches, and necessary appurtenances capable of intercepting seepage before it exits on any interior surface or excavation face and of providing control of interior (excavation) surface water. The system shall be operated as required in paragraph 1 above to prevent damage to the work. Protection of all slopes will be required to prevent erosion under normal surface runoff and construction conditions.
4. The Contractor shall furnish diesel or gasoline fueled portable electric generators for standby power for all pumps in service at the site.
5. Discharges from the dewatering system must be directed through an appropriate pollution prevention/treatment measure such as a pump discharge filter bag, sediment trap, or sediment basin prior to being discharged from the site.

1.05 SUBMITTALS

- A. Submit under the provisions of Division 1, Section 01330 – Submittal Procedures.
- B. Shop Drawings: Drawings and complete design data showing proposed methods and equipment to be utilized in dewatering, retention of excavation slopes, and in maintaining the excavation in a dewatered condition shall be submitted to the Engineer for review within sixty (60) calendar days after receipt of Notice to Proceed or thirty (30) days minimum prior to installation. The data to be submitted shall include, but not necessarily be limited to, the following:
 1. Drawings indicating the location and size of all equipment.
 2. Capacities of pumps, prime movers, and standby equipment.
 3. Design calculations proving adequacy of system and selected equipment.
 4. Detailed description of dewatering procedure, maintenance, and plan for monitoring operation of the systems.
 5. Detailed description of the pollution prevention/treatment measure used to prevent the discharge of sediment laden water from the site as required by Section 01 57 13.
- C. The Engineer's review and comment on the as-submitted plan or revised plan shall not be interpreted as the Owner or the Engineer accepting responsibility for the performance of the dewatering system and shall not relieve the Contractor of full responsibility for the proposed design, installation, maintenance, operation, and actual performance of both the individual system components and the entire system.

1.06 QUALIFICATIONS

- A. The design of the dewatering system, supervision of the installation and supervision of the construction operations associated with deep excavation shall be made by qualified individual(s) in this type of work.
- B. Design for the dewatering system associated with the temporary excavation support system shall be performed by or under the direction of a Licensed Professional Engineer, registered in the State of Florida (Designer of Record). The design drawings and associated calculations for the dewatering system shall bear the seal of the Licensed Professional Engineer, registered in the State of Florida. There shall be no exceptions to this requirement.

1.07 QUALITY ASSURANCE

- A. Once installed and tested, the Contractor shall establish and maintain quality control for all dewatering operations to assure compliance with contract requirements.

1.08 MAINTENANCE SERVICE

- A. If, during the progress of work, installed dewatering system proves inadequate to meet the requirements specified, the Contractor shall, at his expense, furnish, install, and operate such additional dewatering facilities and/or make such changes, either in features of system or plan of operation, as may be necessary to perform required dewatering in a satisfactory manner. Such changes and additions shall be submitted in writing to Engineer prior to being made.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.01 EXAMINATION (RESERVED)

3.02 PREPARATION (RESERVED)

3.03 DEWATERING

- A. Design
 - 1. Design, furnish, install, operate, and maintain such facilities necessary to accomplish the following:

- a. Protect excavation walls and/or side slopes as well as existing and new construction adjacent to excavation areas.
 - b. Collect and dispose of all surface water in the protected area regardless of source.
 - c. Control and dispose of all surface water around the periphery of the excavation area to prevent such water from entering the excavation.
 2. The design, installation, construction sequence, and operation of different items of work shall be such that there shall be no loss of ground from the bottoms of excavations or around the areas of construction. The excavations shall remain dewatered as specified until backfilled to the original surface or proposed grade.
- B. Damage Restitution
1. The Contractor shall be responsible for and shall repair without cost to the Owner, any damages to work in place, other contractor's equipment, existing facilities, temporary berms, and excavation, including damage to the bottom of the excavation, including removal of material and pumping out of the excavated area, that may result from his negligence, inadequate or improper design and operation of the dewatering system, any mechanical or electrical failure of the dewatering system, or flooding for any other reason.
- C. Operation
1. The Contractor will be required to perform such dewatering and to maintain the work areas in a dry condition as long as is necessary for the work to be completed under this contract. Once an area is dewatered, it shall be maintained in a dewatered condition until all work in that area is completed and the excavation is backfilled to the original surface or proposed grade.
 2. Maintain piezometric water level a minimum of 24 inches below bottom of excavation.
- D. Control of Water
1. The Contractor shall control, by acceptable means, all water regardless of source. The site shall be graded such that all surface drainage shall be away from excavation areas. All access roads in the vicinity of the excavations shall be constructed so as to prevent surface drainage into the excavations. Discharge from well points or dewatering sumps shall be at approved locations so as not to damage existing facilities or new construction. The Contractor shall be fully responsible for the disposal of

the water in accordance with Section 02370 – Erosion Control and the project SWPPP and shall provide all necessary means to accomplish this at no additional cost to the Owner.

E. Maintenance and Service

1. The Contractor shall be responsible for the maintenance, service, and repairs of the entire dewatering system and appurtenances during the life of the Contract, including replacement of any and all wells and wellpoints found performing unsatisfactorily.
2. System maintenance shall also include periodic operation of standby equipment previously described in this Specification, and any other work required by the Contractor to maintain the excavations in a dewatered state. Dewatering by whatever means shall be a continuous operation and interruptions due to outages, below freezing temperatures, or any other reason shall not be permitted.

F. Discontinuing Operation of Dewatering Systems

1. The Contractor shall maintain the dewatering system in each area in operation until work in the area being dewatered has been completed.

END OF SECTION



DIVISION 32

EXTERIOR IMPROVEMENTS



SECTION 32 13 13 CONCRETE PAVING

PART 1 – GENERAL

1.01 Work Included:

- A. The work required under this section shall include, but not be limited to the following:
 - 1. Slabs on grade.
 - 2. Concrete equipment pads.
 - 3. Reinforcement for above.
 - 4. Surface finish.
 - 5. Curing and sealing.

1.02 Related Sections:

- A. Section 31 22 13: Rough Grading.

1.03 References:

ACI 301	Specifications for Structural Concrete for Buildings.
ANSI/ASTM A185	Welded Steel Wire Fabric for Concrete.
ANSI/ASTM A497	Welded Deformed Steel Wire Fabric for Concrete Reinforcement.
ANSI/ASTM D1751	Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction.
ANSI/ASTM D1751	Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
ASTM A615	Deformed and Plain Billet-Steel for Concrete Reinforcement.
ASTM C33	Concrete Aggregates.
ASTM C94	Ready-Mixed Concrete. ASTM C150 – Portland Cement.
ASTM C260	Air-Entraining Admixtures for Concrete.
ASTM C309	Liquid Membrane-Forming Compounds for Curing Concrete. ASTM C494 – Chemical Admixtures for Concrete.

1.04 Quality Assurance:

- A. Perform work in accordance with ACI 301.
- B. Obtain materials from same source throughout.

1.05 Testing:

- A. The Owner shall provide and pay for, under separate contract, the services of a qualified, independent testing laboratory to ensure that all materials and procedures furnished under this Contract are in compliance with all of the provisions of the Specifications.
- B. The Contractor shall be required to cooperate with the representatives of the testing laboratory in every way and at no time prevent or hinder the performance of their work.
- C. Three (3) concrete test cylinders will be taken for every one hundred (100) or less cubic yards on each class of concrete placed each day.
- D. One (1) additional test cylinder will be taken during cold weather and be cured on site under same conditions as concrete it represents.
- E. One (1) slump test will be taken for each set of test cylinders taken.

1.06 Submittals:

- A. Submit product data under provisions of Section 1300.
- B. Include data on joint filler, admixtures and curing compounds.
- C. Submit a jointing plan, including location of contraction joints, construction joints, expansion joints and elevations fifteen (15) days prior to beginning concrete paving.
- D. Submit, at least fifteen (15) days prior to start of concrete paving, certified laboratory test reports sufficient to verify compliance of proposed mix design (proportions) with the specifications for type and strength of concrete.

PART 2 - MATERIALS:

2.01 Concrete Materials:

- A.
 - 1. Cement: ASTM C150 type.
 - 2. Fine Coarse Aggregates: ASTM X33.
 - 3. Water: Clean and not detrimental to concrete.
 - 4. Air Entrainment Admixture: Darex.
 - 5. Curing and Sealing: Kure-N-Seal 30 as manufactured by Sonneborn Building Products.

2.02 Form Materials:

- A. Wood or steel form material, profiled to suit conditions. Joint Filler: ANSI/ASTM D1751.

2.03 Reinforcement:

- A. Reinforcing Steel: ASTM A615; 60 ksi yield grade; deformed billed steel bars, uncoated finish.
- B. Welded Steel Wire Fabric: Plain type, ANSI/ASTM A185; in flat sheets; coiled rolls; uncoated finish. Fabric size shall be 6 x 6 W1.4 unless noted otherwise.
- C. Tie Wire: Annealed steel, minimum, 16-gauge size.
- D. 2.3.4 Dowels: ASTM A615; 40 ksi yield grade, plain steel, uncoated finish.

2.04 Accessories:

- A. C171 Sheet materials for curing concrete.

2.05 Admixtures:

- A. Air Entrainment: ASTM C260.

2.06 Concrete Mix:

- A. Mix concrete in accordance with ASTM C94.
- B. Provide concrete with the following characteristics:
 - 1. Compressive strength at twenty-eight (28) days: 4,000 psi, unless as otherwise noted on drawings.
- C. Use accelerating admixtures in cold weather only when approved by Architect/Engineer. Use of admixtures will not relax cold weather placement requirements.
- D. Use set-retarding admixtures during hot weather only when approved by Architect/Engineer.
- E. Add air entraining agent to concrete mix for concrete work subject to freeze/thaw cycling, and slabs on grade.

PART 3 - EXECUTION:

3.01 Inspection:

- A. Verify compacted subgrade and base is ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. Beginning of installation means acceptance of existing conditions.

3.02 Preparation:

- A. Moisten base to minimize absorption of water from fresh concrete.

- B. Notify Architect/Engineer minimum twenty-four (24) hours prior to commencement of concreting operations.

3.03 Forming:

- A. Place and secure forms to correct location, dimension, and profile.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint fillers in vertical position, in straight lines. Secure to formwork during concrete placement.

3.04 Reinforcement Installation:

- A. Place reinforcement as shown on drawings for slabs-on-grade.
- B. Interrupt reinforcement as control, contraction, or expansion joints, as shown.
- C. Place reinforcement to achieve slab and curb alignment, as detailed.
- D. Provide dowelled joints at interruptions of concrete with one end of dowel set in capped sleeve to allow longitudinal movement, if and as shown.
- E. Horizontal reinforcing bars shall be supported over earth or forms on protected metal (galvanized, plastic, stainless steel) spacers, chairs, bolsters, and ties, in accordance with CRSI "Manual of Standard Practice for Detailing Reinforced Concrete Structures."
- F. The minimum concrete cover, unless noted otherwise on the drawings, shall be as follows:
 - 1. Three inches (3") when concrete is placed directly against earth.
 - 2. Two inches (2") when concrete is exposed to weather or earth.
 - 3. Three-quarter inch (3/4") for general construction.
- G. Field lapped splices shall conform to Class "C" splices, as defined in ACI 318-83 unless noted otherwise on the drawings.
- H. Lap bars shall be provided at corners and abrupt changes in directions of walls and footings.
- I. Reinforcing in strip footings shall be continuous through all column footings (or splices to column footing reinforcing) and around all corners, intersections, and steps.
- J. Welded wire fabric field splices shall be not less than two spacings (2) of cross wires or six inches (6"), whichever is greater.
- K. Slabs to receive welded wire fabric shall have two thirds (2/3) their total concrete depth placed, the fabric positioned properly, and then the final one third (1/3) of the concrete depth placed.

- L. 3.4.12 Placement of reinforcing steel shall be approved by the Engineer prior to placement of concrete.

3.05 Formed Joints:

- A. Place expansion control contraction joints at intervals, to correct elevation and profile, as shown. Align curb, gutter, and sidewalk joints.
- B. Place joint filler between paving components and building or other appurtenances. Recess top of filler one half-inch (1/2").
- C. Maintain optimum moisture content for compacting base material during placement operations.
- D. Compact layers of base course material to not less than ninety-five percent (95%) of maximum dry density, modified proctor, ASTM D2049.

3.06 Placement of Base Course:

- A. Place base course on prepared sub-grade in compacted layers to establish required thickness and elevations.
- B. Maintain optimum moisture content for compacting base material during placement operations.

3.07 Placing Concrete:

- A. Place concrete in accordance with ACI 301.
 - 1. Hot Weather Placement: ACI 301.
 - 2. Cold Weather Placement: ACI 301.
- B. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- C. Place concrete to thickness indicated on the drawings. Concrete thickness shall be six inches (6"), unless noted otherwise.
- D. Place concrete continuously between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.
- E. Slabs to receive welded wire fabric shall have two thirds (2/3) their total concrete depth placed, the fabric positioned properly, and then the final one third (1/3) of the concrete depth placed.
- F. **Use mechanical vibrators for placement of all concrete, provide a standby vibrator on the job while placing.**
- G. Place concrete to pattern indicated. Sawcut contraction joints three sixteenth-inch (3/16") wide at an optimum time after finishing. Cut one-third inch (1/3") into depth of slab.

3.08 Finishing:

- A. Area Paving: Heavy broom finish parallel to line of traffic, Wood float, or as shown.
- B. Sidewalk Paving: Medium broom finish perpendicular to traffic, radius, and trowel joint edges.
- C. Curbs and Gutters: Light broom.
- D. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

3.09 Placing Joints:

- A. Place joints straight and vertical.
- B. Longitudinal and transverse joint spacing shall be at regular intervals. Individual spacings may vary slightly to next catch basin and manhole castings.
- C. The maximum allowable joint spacings are:
 - 1. Twelve-foot (12') for slabs six-inch (6") and less in thickness.
 - 2. Fifteen-foot (15') for slabs over six inches (6") in thickness.
- D. Joints shall be continuous across the slab and must extend completely through integral curbs.
- E. Full depth expansion joints one-fourth inch (1/4") to one half-inch (1/2") shall be installed to isolate all fixed objects (manholes, casting, existing paving, etc.).
- F. Isolate from adjacent pavement all manhole covers and catch basin rims with a concrete collar and an expansion joint.
- G. Jointing shall be in accordance with jointing plan approved by the Architect.
- H. Constructing Urethane Expansion Joints:
 - 1. Concrete shall be placed with the pre-molded joint filler in place, and with a closed cell backer rod to allow for the proper sealant depth.
 - 2. After the concrete has set, the joints shall be thoroughly cleaned and wire brushed to remove debris and/or curing compound, and primer shall be applied to surfaces which will receive sealant. Sealant shall be applied to clean, dry surfaces. Adjacent surfaces shall be protected with non-staining masking tape. The work shall be performed by a qualified professional caulker.
 - 3. Primer and sealant shall be applied in accordance with the manufacturer's written recommendations, using handguns or pressure equipment on properly prepared surfaces. Temperature of sealant and concrete shall be as recommended by the sealant manufacturer. Sealant shall be forced into the joint in front of the tip of the caulking gun, not pulled after it, and shall be

forced against the sides to prevent entrapped air or pulling of sealant off the sides.

4. Sealant shall be finished slightly recessed from the adjacent surface, adjusted in accordance with the outside air temperature. The colder the day, the greater the recess needed. Masking tape shall be removed immediately after tooling of the sealant and before the sealant face starts to skin over. Excess sealant shall be removed from adjacent surfaces.
5. Sealant shall be protected from pedestrian and vehicular traffic by barricades or flagging until traffic will not tract it.

3.10 Field Quality Control:

- A. Field inspection and testing shall be performed by testing laboratory engaged by the Owner.
- B. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.11 Protection:

- A. Immediately after placement, protect concrete from premature drying, excessive hot or cold res, and mechanical injury.

PART 3 - EXECUTION:

Not Used

END OF SECTION

32 15 40
DECOMPOSED GRANITE PATHWAY

PART 1 - GENERAL

2.01 SCOPE OF WORK

- A. Work included in this section.
 - 1. Decomposed granite or crushed 3/8" minus aggregate paving with Stabilizer binder additive.

2.02 SYSTEM DESCRIPTION

- A. Decomposed granite or crushed 3/8" minus aggregate paving with Stabilizer binder additive.

2.03 SUBMITTALS

- A. Products; 5 (five) lb. sample of each color and sieve analysis for grading of decomposed granite or crushed 3/8" minus aggregate.

2.04 TESTS

- A. Perform gradation of decomposed granite material or 3/8" minus crushed aggregate in accordance with ASTM C 136— Method for Sieve Analysis for Fine and Course.

2.05 ENVIRONMENTAL CONDITIONS

- A. Do not install decomposed granite or crushed 3/8" minus aggregate paving during rainy conditions.

2.06 EXCESS MATERIALS

- A. Provide owner's authorized rep. with the following excess materials for use in future decomposed granite or 3/8" crushed aggregate paving repair:
 - 1. 40—50 lb. bags of the aggregate paving.
 - 2. 1—40 lb. bag of the Stabilizer additive

PART 2 - PRODUCTS

3.01 DECOMPOSED GRANITE OR 3/8" CRUSHED AGGREGATE SCREENINGS

- A. Crushed Stone Sieve Analysis Percentage of Weight Passing a Square Mesh Sieve AASHTO T11-82 and T27-82.

3/8" MINUS AGGREGATE GRADATION	
Sieve Size	% Passing
3/8 inch	25-35
No. 4	95-100
No. 8	75-80
No. 16	55-65
No. 30	40-50
No. 50	25-35
No. 100	20-25
No. 200	5-15

Note: Gradation based upon AASHTO T11-82 and T27-82

- B. Decomposed granite or 3/8" crushed aggregate screenings are to be the following color (color must be uniform):
1. Desert Gold
 2. Submit sample for approval by Owner.
- C. Products from Minick Materials, Kafka Granite, LLC, Living Earth, Silver Creek Materials, or equivalent approved by Engineer.

3.02 STABILIZER BINDER

- A. Patented, non-toxic, organic binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8" minus aggregate together to produce a firm surface.
- B. Product from stabilizer solutions, Inc., Living Earth, TechniSoil, or equivalent approved by Engineer.

PART 3 - EXECUTION

4.01 BLENDING STABILIZER

- A. Blend 12-16 lbs. of Stabilizer per ton of decomposed granite or crushed 3/8" minus aggregate screenings. It is critical that Stabilizer be thoroughly and uniformly mixed throughout decomposed granite or crushed 3/8" minus aggregate screenings.

4.02 PLACEMENT OF DECOMPOSED GRANITE SCREENINGS OR CRUSHED 3/8" MINUS AGGREGATE SCREENINGS

- A. Upon thorough moisture penetration, compact aggregate screenings to 95% relative compaction by compaction equipment such as double drum roller (2-4 ton) or single drum roller (1000 lbs.) vibratory plate tamp. Do not begin compaction for 6 hours after placement and up to 48 hours.
- B. Take care in compacting decomposed granite or crushed 3/8" minus aggregate screenings when adjacent to existing trees, new planting and irrigation systems.

END SECTION

**SECTION 32 16 13
CONCRETE CURBS AND GUTTERS**

PART 1 - GENERAL

1.01 Description

- A. This section includes materials, testing and construction of curbs, valley gutters, curb and gutter, and Miami curb.

1.02 Related Work Specified Elsewhere

- A. Concrete - Division 3

1.03 Standards

- A. Determine the density of soil in place by the sand cone method, ASTM D1556; by nuclear methods, ASTM D2922 or D3017; by the rubber balloon method, ASTM D2167; or by the dry sleeve method, ASTM D2937.
- B. Determine laboratory moisture-density relations of soils by ASTM D1557 (modified Proctor).
- C. Delete if cohesionless soils are not allowed on your project.
- D. Determine the relative density of cohesionless soils by ASTM D2049.
- E. Sample backfill material by ASTM D75.
- F. "Relative density" is the ratio, expressed as a percentage, of the in place dry density to the laboratory maximum dry density as determined by ASTM D1557 (modified Proctor).
- G. Be sure to address the cost of retesting in the Supplementary Conditions and in Section 012000, Measurement and Payment.
- H. Testing: An independent testing laboratory will make density tests for determination of specific compaction and concrete cylinder tests.

PART 2 - PRODUCTS

2.01 Concrete

- A. Make all concrete curbs with Class B concrete, minimum 28-day compressive strength of 3,000 psi, in accordance with the applicable sections of these specifications.

- B. Concrete shall comply with the requirements of these specifications.

2.02 Reinforcement, Joint Materials, and Forms

- A. Comply with applicable sections of these specifications.

PART 3 - EXECUTION

3.01 Foundation

- A. Excavate or backfill to the required depth. Compact the foundation material upon which the curb is to be set to at least 98 percent relative density to a depth of 12 inches, with an even surface, true to line, grade and cross section, and soaking wet at the time that the concrete is placed.

3.02 Forms

- A. Place forms straight, free from warp or bends, and set to the line and grades shown on the drawings.

3.03 Placing Concrete

- A. Place concrete in the forms. Tamp and spade until mortar entirely covers its surface. Float the top of the concrete smooth and round the edges to the radius shown in the plans.

3.04 Joints

- A. Except for machine-placed items, at the option of the Contractor, contraction joints may be formed by the use of dummy joints (either formed or sawed) or by the use of sheet metal templates. If sheet metal templates are used, make them 1/4 inch thick and other dimensions same as cross section of form. Hold templates firmly during the placing of the concrete and leave in place until the concrete has set sufficiently to hold its shape, but remove while the forms are still in place.
- B. For machine-placed items, unless otherwise approved, saw contraction joints approximately 3/16 inch wide and 1-1/2 inches deep in curb and gutter as soon as the concrete has hardened to the degree that excessive raveling will not occur and before uncontrolled shrinkage cracking begins. Space contraction joints at intervals of 10 feet, except where lesser interval is required for closure, but make no section less than 4 feet in length.
- C. Construct expansion joints at all inlets, at all radius points, in other locations indicated in the plans at intervals of 500 feet between other expansion joints or ends of a run. The joints shall be 1/2 inch in width.

- D. Saw joints before the formation of uncontrolled cracking (i.e., cracking that occurs at locations other than construction, control or contraction joints) and as soon as the concrete has hardened sufficiently to permit cutting without chipping, spalling or tearing. Saw joints both during the day and night as required.

3.05 Finishing

- A. Finish all exposed surfaces while the concrete is still green. In general, only a brush finish will be required. For any surface areas, however, which are too rough or have other surface defects which make additional finishing necessary, rub the curb to a smooth surface with a soft brick or wood block, with water used liberally.

3.06 Curing

- A. Continuously cure the concrete for a period of at least 72 hours. Commence curing after finishing has been completed and as soon as the concrete has hardened sufficiently to permit application of the curing material without marring the surface. Replace immediately any curing material removed or damaged during the 72-hour period. Curing will be done by the membrane curing compound method.
- B. To cure by the membrane curing compound method, apply clear membrane curing compound or white pigmented curing compound by a hand sprayer in a single coat continuous film and uniform coverage of at least one gallon to each 200 square feet. Thoroughly agitate the curing compound in the drum prior to application and during application as necessary to prevent settlement of pigment. Re-coat immediately any cracks, chips or other defects appearing in the coating.

3.07 Backfilling and Compacting

- A. After the concrete has set sufficiently, fill the spaces in back of the curb to the required elevation with suitable material and compact to 90 percent relative density.

3.08 Machine Laid Curb

- A. Concrete curbs may be installed by machines without forming, provided that the finished product is straight, free from warp or bends, and does not deviate from the design line and grade or cross section.

3.09 Driveways

- A. When construction is through areas previously "built up", construct drop curbs for driveway aprons at all existing driveways and as shown on the plans. When construction is in "new" areas, construct drop curbs as shown in the plans.

3.10 Testing

- E. Sample and cure the concrete in accordance with ASTM C31, except take not less than three 6-inch by 12-inch cylinders for each 75 cubic yards poured or each day's pour less than 75 cubic yards. A slump test may be taken in conformity with ASTM C143, and the cylinders shall be tested in accordance with ASTM C39.
- F. The finished curbs, valley gutters, and curb and gutters, and Miami curbs shall be within .02 feet of the lines and grades shown on the plans. The finished concrete shall be smooth to within 1/4 inch in ten feet, without cracks (other than contraction joints) and without puddled or trapped water deeper than 1/4 inch.
- G. Remove and replace all work that does not meet above requirements.

END OF SECTION

SECTION 32 92 23 SODDING

PART 1 - GENERAL:

1.01 Description: The work specified in this section consists of the establishing of a stand of grass within the areas called for and maintaining such areas until completion and final acceptance of the project. The methods specified herein are grassing by sodding.

1.02 Job Conditions:

A. Sodding: In areas which previously had a dense, well-matted stand of grass, adjacent to all new pavement and all areas disturbed by construction, sodding will be required.

PART 2 - PRODUCTS:

2.01 Fertilizer: The fertilizer shall be designated 12-8-8 which has a chemical analysis as follows:

Total nitrogen:	not
less than 12% Available phosphoric	
acid:	not less than 8% Water-
soluble potash:	not less
than 8%	

All fertilizer shall comply with state and local laws and regulations and shall be fully labeled at the time of delivery to the job site.

2.02 Sodding Material: Sod will be returned to existing type before construction or of either centipede or Bahia grass, at the acceptance of the Owner's option. It shall be well matted with roots.

A. The sod shall be taken up in commercial-size rectangles, preferable 12 x 24 inches or larger. The sod shall be sufficiently thick to secure a dense stand of live grass. The sod shall be live, fresh, and uninjured, at the time of planting. It shall have a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. It shall be free of weeds and other grasses. It shall be planted as soon as possible after being dug and shall be shaded and kept moist from the time it is dug until it is planted. The source of the sod may be inspected and approved by the Engineer prior to being cut for use in the work. After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.

B. Approved devices, such as sod cutters, shall be used for cutting the sod and due care shall be exercised to retain the native root soil intact.

2.03 Water: The water shall be free of excess and harmful chemicals, acids and alkalies or any substance which might be harmful to plant growth or obnoxious to traffic. Salt water shall not

be used. The Contractor shall make all arrangements for obtaining and transporting water to the job site. Contractor shall monitor water quality over time as it continues to be used.

PART 3 - EXECUTION:

3.01 Preparation of Ground: Final grading and cleaning shall be completed prior to preparation of ground for grassing. The areas to be grassed shall be scarified or loosened to a depth of at least six inches (6"). All areas shall be smooth and free of medium to large clods, rocks, roots, and other materials which may interfere with the work or future mowing and maintenance operations. No subsequent operations shall be commenced until the Engineer has approved the condition of prepared areas.

3.02 Application:

A. Fertilizer: Commercial fertilizer shall be spread uniformly over the area to be grassed by machine at the rate of twenty (20) pounds per one thousand (1000) square feet. Immediately after the fertilizer is spread, it shall be raked in and thoroughly mixed with the soil to a depth of approximately two inches (2"). Re-fertilize approximately sixty (60) calendar days after initial application if project has not been accepted prior to this time.

B. Placement of Sod: Sodding shall be incorporated into the project at the earliest practical time in the life of the Contract. No sod which has been cut for more than seventy-two (72) hours shall be used unless specifically authorized by the Engineer after his careful inspection thereof. Any sod which is not planted within twenty-four (24) hours after cutting shall be stacked in an approved manner and maintained properly moistened.

1. Sodding shall not be performed when weather and soil conditions are, in the Engineer's opinion, unsuitable for proper results.
2. The sod shall be placed on the prepared surface, with edges in close contact, and shall be firmly and smoothly embedded by light tamping with appropriate tools or rolled with approved rollers.
3. Where sodding is used in drainage ditches, the setting of the pieces shall be staggered, such as to avoid a continuous seam along the line of flow. Along the edges of such staggered areas the offsets of individual strips shall not exceed six inches (6"). To prevent erosion caused by vertical edges at the outer limits, the outer pieces of sod shall be tamped so as to produce a featheredge effect.
4. On areas where the sod may slide, due to height and slope, the Engineer may direct that the sod be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals. Any pieces of sod which, after placing, show an appearance of extreme dryness, shall be removed from the work.

- C. Watering of Grassed Areas: The grassed areas shall be watered for the duration of the Contract so as to provide optimum growth conditions for the establishment of the grass. In no case, however, shall the period of maintaining such moisture be less than two (2) weeks after the planting. The water used may be obtained from any approved spring, pond, lake, stream, or municipal water system.

- 3.03** Maintenance of Grassed Areas: The Contractor shall, at his expense, maintain the planted areas in a satisfactory condition until final acceptance of the Project. Such maintenance shall include the filling, leveling, and repairing of any washed or eroded areas, as may be necessary. The Engineer, at any time, may require replanting of any areas in which the establishment of the grass stand does not appear to be developing satisfactorily. If a planted area must be replanted due to the Contractor's negligence, carelessness, or failure to provide routine maintenance of such area, such replacement shall be at the Contractor's expense. If replanting is necessary due to factors determined to be beyond the control of the Contractor, payment for replacement will be made by the Owner.

END OF SECTION 02811



DIVISION 33

UTILITIES



SECTION 33 01 12.11**LEAKAGE TESTING OF HYDRAULIC STRUCTURES****PART 1 - GENERAL**

1.01 DESCRIPTION

Scope of Work: This section describes the method of testing concrete hydraulic structures for leakage.

PART 2 - PRODUCTS

2.01 GENERAL

Provide water, piping, and equipment to test concrete structures for leakage.

PART 3 - EXECUTION

3.01 INSTALLATION

Hydrostatically test reinforced concrete structures, which are intended to contain water or prevent penetration by water to determine that they are watertight and free of detectable leaks.

3.02 INSPECTION AND TESTING

- A. Prior to testing, clean exposed surfaces by thorough hosing and remove the loosened matter and wash water from the structures.
- B. Conduct testing before back-fill is placed against walls and after all concrete has attained the specified compressive strength.
- C. Fill hydraulic structures to be subjected to leakage tests with water to the normal liquid level line. Filling shall not exceed eighteen inches (18") of water depth per day. Repair any running leaks, which appear during filling before continuing. After the structure has been kept full for forty-eight (48) hours, it will be assumed, for the purposes of the test, that the absorption of moisture by the concrete in the structure is complete. Then, close all valves and gates to the structure and measure the change in water surface each day for a five (5) day period.
- D. During the test period, examine all exposed portions of the structure, and mark all visible leaks or damp spots. Such leaks or damp spots shall be repaired later. If the drop in water surface in a twenty-four (24) hour period exceeds one-tenth (1/10) of one percent (1%) of the normal volume of liquid contained in the structure, the leakage shall be considered excessive.

- E. If the leakage is excessive, drain the structure, repair leaks and damp spots, and refill the structure and again test for leakage. Continue this process until the drop in water surface in a twenty-four (24) hour period, with the structure full, is less than one-tenth (1/10) of one percent (1%) of the volume of liquid held in the structure.
- F. Repairs and additional tests shall be made by the Contractor at no additional cost to the Owner.
- G. Apply specified coatings only after acceptance of leakage testing by the Engineer.

3.03 REPAIR METHODS

Methods for repairing concrete not passing the leakage test shall be described herein.

1. Remove honeycombed and other defective concrete down to sound concrete. Edges shall be perpendicular to surface. Sandblast surfaces to receive repair.
2. Coat sandblasted surface with epoxy bonding compound.
3. Place mortar in layers having a compacted thickness of three-eighths inch (3/8"). Scratch surface of each layer to promote bonding with next layer. Mortar used for repair of concrete shall be made of the same materials as used for the concrete, except that the coarse aggregate shall be omitted, and the mortar shall consist of not more than one (1) part cement to two and one half (2.5) parts sand by damp loose volume. The quantity of mixing water shall be no more than necessary for handling and placing.
4. Finish repair shall match adjacent concrete, and cure as specified.
5. Repair defective areas of more than one (1) foot square and deeper than the reinforcing steel as above, except fill the area with pneumatically applied concrete.

END OF SECTION

SECTION 33 10 00

WATER UTILITIES

PART 1 – GENERAL:

- 1.1 All potable water distribution utility construction shall be performed in accordance with the St. Johns County Utility Department Manual of Water, Wastewater, and Reuse Design Standards & Specifications, Latest Edition. All potable water distribution utility construction shall be subject to inspection and approval by the City of St. Augustine Beach, St. Johns County Utility Department as well as the Project Engineer.

[2021 Utility Standards Manual \(sjcfl.us\)](http://sjcfl.us)

END OF SECTION

SECTION 33 30 00

SANITARY SEWERAGE

OCEAN HAMMOCK PARK PHASE 2 IMPROVEMENTS

PART 1 – GENERAL:

- 1.1 All sewage system utility construction shall be performed in accordance with the St. Johns County Utility Department Manual of Water, Wastewater, and Reuse Design Standards & Specifications, Latest Edition. All sewage system utility construction shall be subject to inspection and approval by the City of St. Augustine Beach, St. Johns County Utility Department as well as the Project Engineer.

[2021 Utility Standards Manual \(sjcfl.us\)](http://sjcfl.us)

END OF SECTION