

# CLEMONS, RUTHERFORD & ASSOCIATES, INC.

ARCHITECTS

PLANNERS

PLANNERS

INTERIOR DESIGNERS

.

CONSTRUCTION MANAGERS

2027 Thomasville Road Tallahassee, FL 32308 p: 850-385-6153 f: 850-386-8420 www.craarchitects.com

# PROJECT MANUAL



# MADSION COUNTY NORTH FLORIDA COLLEGE

# NFC SOLAR ARRAY INSTALLATION

MADISON, FLORIDA

CRA PROJECT NUMBER: 24032 -BID-NFC-06-2024

SOLAR INSTALLATION FOR NFC

October 8, 2024 (100% CONSTRUCTION DOCUMENTS)

SET NUMBER:

#### CLEMONS, RUTHERFORD & ASSOCIATES, INC.

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this project are instruments of CRA for use solely with respect to this project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.

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Not Applicable

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Not Applicable

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Not Applicable

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Not Applicable

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Not Applicable

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Not Applicable

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Not Applicable

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# SECTION 000000 - STATEMENT OF COMPLIANCE

N.F.C. SOLAR MAIN CAMPUS

CRA Architects
PN: NFC -05-2024

STATEMENT OF COMPLIANCE

"To the best of my knowledge, these drawings and the project manual are complete and comply with the Florida Building Code".

Sincerely,

Lonnie Draper

James Lewis

#### SECTION 000020 - INVITATION TO BID

NFC SOLAR ARRAY INSTALLATION

CLEMONS, RUTHERFORD & ASSOCIATES, INC. 2027 THOMASVILLE ROAD TALLAHASSEE, FLORIDA 32308 PHONE (850) 385-6153

As a prequalified contractor you are invited to bid on the NFC SOLAR ARRAY INSTALLATION project located in Madison, Florida.

A <u>Non-Mandatory Pre-Bid Conference</u> will be scheduled with the pre-qualified Contractors on **October 15, 2024, at 10:00 am** at the main campus of NFC, building 17, Physical Plant Office. All questions at the Pre-Bid Conference by Contractors shall be presented on the "Request for Clarification" form. If a prequalified bidder can not attend at the appointed time, then on October 16, 2024 a site visit may be scheduled with maintenance director of NFC. See Section 000100 - Instructions to Bidders for form information.

North Florida College (NFC) will receive sealed bids until **2:00 P.M. EST** on **October 31, 2024,** seal bids need to be turned into North Florida College, Attn: Tyler Coody, Executive Director of Employment Services, Bldg. 3, Rm. 19, 325 NW Turner Davis Drive, Madison, FL 32340.

The Architect Clemons, Rutherford & Associates, Inc. 2027 Thomasville Road, Tallahassee, Florida 32308 will provide Construction Documents for Bidding. Bids received after that time will not be accepted. A public meeting to open and evaluate responses received by the submission deadline will be held at 2:30 p.m., October 31, 2024, on the NFC Madison Campus in Bldg. 9, Rm. 20.

Documents can also be downloaded from the NFC website at <a href="https://www.nfc.edu/about-nfc/procurement-contracts/">https://www.nfc.edu/about-nfc/procurement-contracts/</a>.

A letter from a bonding company must accompany each bid, stating that the bidder is capable of obtaining all bonds required by the Construction Documents.

It is the intent of North Florida College (NFC) to review the apparent low bidder and issue Contract. Owner reserves the right to direct and utilize purchasing for sales tax savings of equipment with apparent low bidder. Bids shall include all taxes and if direct purchasing is utilized the sales tax will then be removed from Contract via Change Order procedures.

North Florida College (NFC) reserves the right to waive irregularities and to reject any and all Bids.

END OF SECTION 000020

DATE	TIME	EVENT	LOCATION	
10-08-24		Prequalified Bidders Invited to Bid		
10-08-24		Bid Documents Available for Download	NFC Web Page at  https://www.nfc.edu/about- nfc/procurement-contracts	
10-15-24	10:00 AM	Prebid Meeting with Site Visit to follow immediately after meeting	NFC Madison Campus, Building 17, Physical Plant Office	
10-16-24		*Alternate Date for Site Visit	*Only in the event Bidder cannot attend Prebid meeting & must be scheduled in advance with Physical Plant Office	
10-28-24	4:30 PM	Deadline to Submit Questions to Architect	jbacho@craarchitects.com	
10-29-24	4:30 PM	Deadline for Answers to Questions & Last Day for Issuance of Agenda, if any	NFC Web Page at <a href="https://www.nfc.edu/about-nfc/procurement-contracts">https://www.nfc.edu/about-nfc/procurement-contracts</a>	
10-31-24	2:00 PM	DEADLINE FOR BID SUBMISSION	North Florida College Bldg. 3, Room 19 325 NW Turner Davis Drive Madison, FL 32340	
10-31-24	2:30 PM	Public Meeting: Bid Opening	North Florida College Bldg. 9, Rm. 20 325 NW Turner Davis Drive Madison, FL 32340	
11-01-24		Notice of Intent to Award Bid	NFC web page <a href="https://www.nfc.edu/about-nfc/procurement-contracts">https://www.nfc.edu/about-nfc/procurement-contracts</a>	
11-19-24		Bid Award	DBOT Board of Trustees Meeting	
11-20-24		Notice of Bid Award	NFC web page <a href="https://www.nfc.edu/about-nfc/procurement-contracts">https://www.nfc.edu/about-nfc/procurement-contracts</a>	

#### **SECTION 000100 - INSTRUCTIONS TO BIDDERS**

#### PART 1 - GENERAL:

1.01 The Drawings and Project Manual cover the construction, and associated improvements at the <u>NFC</u> **SOLAR ARRAY INSTALLATION**.

#### PART 2 - PROCUREMENT OF BIDDING DOCUMENTS:

- 2.01 Documents can be downloaded from the NFC website at https://www.nfc.edu/about-nfc/procurement-contracts/.
- 2.03 Bidders shall use complete sets of Bidding Documents in preparing bids; neither the Owner or the Architect assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets.
- 2.03 Bidder shall be in compliance w/ Federal Procurement Terms and Conditions. See attachment "Exhibit 'A"

#### PART 3 - EXAMINATION OF BIDDING DOCUMENTS AND SITE:

- 3.01 Prior to submitting a Bid, each Bidder shall carefully examine the Bidding Documents and the construction site. Each bidder shall fully inform him/herself prior to bidding as to all existing conditions and limitations under which the work is to be performed and shall include in his/her bid a sum to cover the costs of all items necessary to perform the work as set forth in the Contract Documents.
- 3.02 <u>Site visits shall be coordinated by pre-qualified contractor with Director of Maintenance at North Florida College (NFC) on October 16, 2024.</u> All Contractors and related persons shall sign in at main office. **Note: Site visits are highly recommended.**
- 3.03 No allowance will be made to any Bidder because of lack of such examination or knowledge. The submission of a Bid will be construed as conclusive evidence that the Bidder has made such an examination.

# PART 4 - INTERPRETATIONS AND ADDENDA:

- 4.01 The Bidder shall carefully examine and compare the Bidding Documents, project site and local conditions with each other. No later than October 28, 2024, Pre qualified Bidders shall make a written request to the Architect for interpretation or correction of any errors, ambiguities or inconsistencies found during his examination, using the "Request for Clarification" form at the end of this section (Attachment 00100-1). No questions from any contractor other than pre qualified bidders will be entertained.
  - "Request for Clarification" forms shall also be used to present any questions and/or clarifications about the project at the Pre-Bid Conference. Questions not presented on Clarification Form may not be addressed. Verbal responses from the Architects office are not to be considered official.
- 4.02 Interpretations, corrections and changes to the Bidding Documents will be made by Addendum. Addendums will be delivered to each Bidder of record and posted on the NFC website at <a href="https://www.nfc.edu/about-nfc/procurement-contracts/">https://www.nfc.edu/about-nfc/procurement-contracts/</a>. The Architect and the Owner will not be responsible for interpretations, corrections or changes made in any other manner, and the Bidder shall not rely on them.
- 4.03 Any item, material, condition, service, etc. that may be referenced to in the drawings or specifications, and that is not clearly understood by the bidder as to the Architects intent, shall be clarified by the bidder prior to the Bid. Failure to clarify any ambiguity shall not relieve the bidder from supplying the intent of the Architect as part of the base contract.

#### PART 5 - SUBSTITUTIONS (prior to bidding):

5.01 Substitutions will be considered prior to receipt of Bids only if a written request for approval is submitted

#### **SECTION 000100 - INSTRUCTIONS TO BIDDERS (continued):**

to the Architect no later than seven (7) days prior to the date for receipt of Bids. Each request shall include

a complete description of the proposed substitution, along with drawings, performance and test data, and any other information required for a complete evaluation. The Architect's decision of approval or disapproval will be final.

If the Architect approves the proposed substitution, such approval will be set forth in addenda. Bidders shall not rely on approvals made in any other manner.

Vendor represents and warrants that all of the iron, steel, aluminum, cement, and other manufactured goods used in the project will be produced in the United States in accordance with the Buy American Act

Substitutions will be considered after the Contract award only if they are in compliance with the conditions set in Section 01631 - Substitutions.

#### PART 6 - FAMILIARITY WITH LAWS:

6.01 The Bidder shall be familiar with all Federal, State and local laws, ordinances, rules and regulations affecting the work. Ignorance of them on the part of Bidder shall in no way relieve the Bidder from responsibility.

#### PART 7 - FLORIDA PRODUCTS AND LABORS:

7.01 The Bidder's attention is called to Section 255.04 of the Florida Statutes which requires that on public building contracts, Florida products and labor shall be used wherever price and quality are the same as products and labor specified.

#### PART 8 - TIME OF COMPLETION:

8.01 The project will have completion dates and liquidated damages as stated in Sections 000300, 000800 and in the "Standard Form of Agreement Between Owner and Contractor".

# PART 9 - PREPARATION AND SUBMISSION OF BIDS:

- 9.01 All Bids shall be submitted on a lump sum basis; segregated Bids will not be accepted. Each Bidder shall copy the Bid Form in duplicate on to the Bidder's letterhead and indicate the Bid price, Alternate prices and other required information in the proper spaces. Any additions, alterations and erasures must be initialed by the signer of the Bid. Bids containing any conditions or irregularities of any kind may be rejected by the Owner.
- 9.02 Submit the **Bid Form, Bid Security, List of Subcontractors** in a sealed opaque envelope addressed to the Owner and identified with the project name and the Bidder's name and address. Please note on the exterior of the envelope "Bid Enclosed". It is the sole responsibility of the Bidder to see that the bid is received on time.

#### PART 10 - BID BOND:

- 10.1 Bids shall be accompanied by a bid security which shall be an acceptable and legal Bid Bond, Cashier's Check, Certified Check or Bank Money Order made payable to the North Florida College (NFC) in the amount of five percent (5%) of the proposed Contract Amount.
- Bid securities will be returned within forty (40) days after the date of receipt of Bids if the Bid is not accepted, or if the Contract Agreement is executed and guaranty bonds are accepted.

#### PART 11 - LISTING OF SUBCONTRACTORS:

11.01 In order that the Owner may be assured that only qualified and competent Subcontractors will be employed on this project, each Bidder shall submit with his/her proposal a list of the Subcontractors who will perform

#### **SECTION 000100 - INSTRUCTIONS TO BIDDERS (continued):**

the work for each division of the specifications, as indicated by the "List of Subcontractors" form contained in these specifications. The Bidder shall have determined to his/her own complete satisfaction that a listed subcontractor has been successfully engaged in this particular type of business for a reasonable length of time, has successfully completed installations comparable to that which is required by this agreement and is qualified both technically and financially to perform that pertinent phase of the work for which he is listed. Only one subcontractor shall be listed for each phase of work.

- 11.02 After public opening and reading of proposals, the listing of subcontractors submitted by the low bidder will be reviewed by the Owner, **privately** (Note: The List of Subcontractors is for the Owner's use only.)
- 11.03 It is also specified in a Division-1 Section that, in addition to the above, The Owner reserves the right to approve all subcontractors before work is started.

PART 12 - (Not Used)

#### PART 13 - DISQUALIFICATION OF BIDDERS:

More than one bid from an individual, firm, partnership, corporation or association under the same or different names will not be considered. Reasonable grounds for believing that the bidder is interested in more than one bid for the same work will cause rejection of all bids in which such Bidder is believed to be interested. Bids will be rejected if there is reason to believe that collusion exists between Bidders. Bids in which the price is obviously unbalanced may be rejected.

#### PART 14 - OPENING OF BIDS:

14.01 Bids will be opened publicly and read aloud at the time and date indicated in the Invitation to Bid. The person opening the Bids will determine when the specified time has arrived, and Bids received after this time will not be considered.

# PART 15 - WITHDRAWAL OF BIDS:

15.01 A submitted Bid may be withdrawn, prior to the date and time designated for receipt of Bids, by notifying the party receiving the Bids at the place designated for receipt of Bids. Notification shall be in writing over the signature of the Bidder.

## PART 16 - EVALUATION AND CONSIDERATION OF BIDS:

16.01 It is the intent of the Owner to award the Contract to the lowest responsible Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner is not required to select the lowest responsible Bid. The Owner shall have the right to waive informalities or irregularities in a Bid received and to accept the Bid, which in the Owner's judgement, is in the best interest of the Owner.

# PART 17 - REJECTION OF BIDS:

17.01 The Owner reserves the right to reject any or all Bids when such rejection is in the best interest of the Owner, to reject a Bid not accompanied by a Bid Security, or to reject a Bid which is in any way irregular or incomplete.

#### PART 18 - OWNER'S FINANCIAL CAPACITY:

18.01 The Owner has secured funds for this project and will proceed with project within budget.

#### PART 19 - SUBMITTAL:

19.01 The Bidder shall furnish to the Owner through the Architect in writing a designation of work to be done by his own forces, names of the manufacturers, products and suppliers of principal items or systems of

#### **SECTION 000100 - INSTRUCTIONS TO BIDDERS (continued):**

materials and equipment proposed for the work, names of persons or entities proposed for the principal portions of the work.

19.02 Persons and entities proposed for the work of which the Owner and the Architect have no objection shall not be changed except with the written consent of the Owner and the Architect.

#### PART 20 - PERFORMANCE BOND AND PAYMENT BOND:

20.01 The Bidder shall furnish a Performance Bond and a Payment Bond, each in the amount of 100% of the Contract Sum in accordance with the General Conditions and Supplementary Conditions.

## PART 21 - COST BREAKDOWN:

21.1 The successful bidder will be required to submit, at the start of the job, and prior to the first application for payment, a breakdown of construction costs (Schedule of Values), itemized, to be used for accounting purposes.

## PART 22 – DIRECT PURCHASES:

- 22.01 The Contractor shall include in his/her Bid the cost of all equipment, materials and labor. North Florida College (NFC), however, shall be allowed to purchase any number of items it chooses. The Contract, in such cases, shall be amended by change order.
- 22.02 Coordination of this process shall be worked out between the Owner and the Contractor who is awarded the Contract.

## PART 23 - OWNERS RIGHTS:

23.01 The Owner reserves the right to reject any or all Bids when such rejection is in the best interest of the Owner, to reject a Bid not accompanied by a Bid Security, to reject a Bid which is in any way irregular or incomplete, or to withdraw the request for Bids.

#### PART 24 - ADDITIONAL REQUIREMENTS:

24.01 Refer to Section 011000 - SUMMARY OF THE WORK for additional requirements.

END OF SECTION 000100



# CLEMONS RUTHERFORD

ARCHITECTS

PLANNERS ◆ CONSTRUCTION MANAGERS ◆ INTERIOR DESIGNERS

REQUE	ST FOR CLARIFICATION	No	Date:
Attn: Phone: Fax: E-mail:		REASON FOR REQUEST  Insufficient Information Conflict in Plans Alternate proposal Other  Response Required No Later	ACTION REQUESTED  Clarify Direction Approval Other
REFER	TO: Drawing No:	Note No:	Spec Section:
	ENDATION:		
Submitted	Ву:	Signature:	Date:
RESPONS	COMPANY NAME  E:	ADDRESS	PHONE NUMBER
	Signature:	Date:	

#### EXHIBIT A – FEDERAL PROCUREMENT TERMS AND CONDITIONS

# PURCHASE ORDER TERMS AND CONDITIONS FOR PURCHASES USING FEDERAL FUNDS

BY ACCEPTING A NORTH FLORIDA COLLEGE FEDERALLY FUNDED PURCHASE ORDER, THE VENDOR AGREES TO THE FOLLOWING FEDERAL CONDITIONS.

- 1. Prohibition on certain telecommunications and video surveillance services or equipment (2 CFR § 200.21) Vendor represents and warrants that no part of the equipment, services or systems provided to the College hereunder uses or consists of covered telecommunications equipment or services (as defined by 2 CFR § 200.216) as a substantial or essential component of any equipment, service or system provided, or as a critical technology as part of any system provided.
- 2. Equal Employment Opportunity This contractor and subcontractor shall abide by the requirements of 41 CFR § 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in the employment of individuals without regard to race, color, religion, sex, national origin, protected veteran status, or disability.
- 3. Requirements to Inventions Made Under a Contractor or Agreement If the purchase order includes the performance of experimental, developmental, or research work, Vendor shall provide for the rights of the Federal Government and the College in any resulting invention in accordance with 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.
- 4. Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) as amended If the Purchase Order amount exceeds \$150,000, Vendor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
- 5. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) If the Purchase Order amount is for \$100,000 or more, Vendor (and, if required, any sub-contractors) shall file the certifications required by this law and related regulations, certifying 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 any 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. Vendor (and, if required, any sub-contractors) shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award.
- 6. Debarment and Suspension (E.O.s 12549 and 12689) Vendor represents and warrants that neither it (nor any other person or entity affiliated with Vendor and for whom the standing under these laws is imputed to Vendor) is listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension." This list contains the names and parties debarred, suspended, or otherwise excluded by agencies and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. If the Purchase Order amount exceeds \$25,000, the Vendor shall provide the College with the required certification regarding its exclusion status and that of its principal employees.
- 7. Records Access (2 CFR § 200.331) (Contracts in excess of \$2,000). College, the Federal awarding agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Vendor which are directly pertinent to a Federal Award for the purpose of making audits, examinations, excerpts and transactions.
- 8. Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C. 276c) (Applies to Purchase Orders in excess of \$2,000 for construction or repair). Vendor shall comply with the Copeland "Anti-Kickback" Act

#### **EXHIBIT A – FEDERAL PROCUREMENT TERMS AND CONDITIONS (continued):**

- (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that Vendor is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work to give up any part of the compensation to which he is otherwise entitled.
- 9. Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7) (ARRA Section 1606) (Applies to Purchase Orders in excess of \$2,000 for construction or repair). Vendor covenants and agrees that all laborers and mechanics employed by Vendor and its sub-contractors on this project will be paid in compliance with the Davis-Bacon Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction"). Under this Act, Vendor is required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, Vendor is required to pay wages not less than once a week.
- 10. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708) (Applies to purchase orders in excess of \$100,000 for contracts that involve the employment of mechanics or laborers). Vendor shall comply with Sections 3702 and 3704 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3702 3704), as supplemented by Department of Labor regulations (29 CFR Part 5). Under Section 3702 of the Act, Vendor shall 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 1 ½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Section 3704 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surrounding or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to purchases of supplies or materials or articles ordinary available on the open market or contracts for transportation or transmission of intelligence.
- 11. Buy American Act (41 U.S.C. 8301 8305) (ARRA Section 1605 & 2 CFR § 300.322) (Applies to purchase orders for construction, alteration, or repair, including products goods used providing maintenance services). Vendor represents and warrants that all of the iron, steel, aluminum, cement, and other manufactured goods used in the project will be produced in the United States in accordance with the Buy American Act. Vendor shall provide College with reasonable back-up documentation evidencing compliance with the Buy American Act (i.e. records showing Buy American standards are met or a waiver was granted by the appropriate federal agency).

#### SECTION 000300 - BID FORM

(TO BE COPIED BY THE BIDDER ON HIS OWN LETTERHEAD AND SUBMITTED IN DUPLICATE IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS)

BID TO:	
BID FROM:	(Name of Firm)
	(Address)

PROJECT: NFC SOLAR ARRAY INSTALLATION

CRA Project Number: 24032

#### Gentlemen:

I have received the Bidding Documents, consisting of Drawings and Project Manual, entitled, "NFC SOLAR ARRAY INSTALLATION, Madison, Florida" dated October 8, 2024, as prepared by Clemons Rutherford & Associates, Inc., 2027 Thomasville Road, Tallahassee, Florida. I have also received Addenda numbers \_\_\_\_\_ and have included their provisions in my Bid. I have examined both the Bidding Documents and the site and submit the following Bid.

In submitting the Bid, I agree:

- 1. To hold my Bid in full force and effective for a period of thirty (30) calendar days after the date of the opening of this Bid.
- 2. To abide by the provisions of the Instructions to Bidders regarding disposition of the Bid Security.
- 3. To enter into and execute a Contract within four (4) calendar days after said Contract is delivered to me, if awarded said Contract on the basis of this Bid, and to furnish Performance Bonds and Labor and Material Payment Bonds in accordance with the General Conditions.
- 4. Project to be substantially complete within **240 consecutive calendar days** and to final completion within **40 consecutive calendar days** thereafter.
- 5. To pay as liquidated damages, the sum of \$350.00 for each consecutive calendar day after the date for substantial completion, as specified in the Contract.
- 6. To pay the sum of **one-fourth** (1/4) of the rate previously indicated for each consecutive calendar day beginning 14 days after substantial completion, and until final completion, as specified in the Contract.
- 7. To allow to be withheld three (3) times the installed market value of any item on punch list, as determined by the Architect, that has not been completed at the time of final completion.
- 8. To start construction on or about November 15, 2024; Notice to Proceed to be issued by Architect.
- 9. By signing this document, it constitutes an affidavit that you have not been publicly disbarred from public contracting.
- 10. By signing this document, Bidder acknowledges they will be in compliance with Federal Procurement Terms and Conditions (Exhibit A)

# **SECTION 000300 - BID FORM (continued):**

I will constru	uct this Project for the lump sum price as	listed below:		
			(\$	).
T G				
	struction Industries Licensing Board Cert	ification:		
(Name of Holder)		(Certificate No.)		
FIRM:				
	(Name of Firm)			
BY:				
	(Signature of Bidder)			
	(Name of Bidder)			
TITLE:				
	(Title of Bidder)			
DATE:				
ATTACHM	ENTS: Bid Security List of Subcontractors			

END OF SECTION 000300

# SECTION 000410 - BID SECURITY FORM

The "Bid Bond", The American Institute of Architects' (AIA) Form A310 - 2010, two (2) pages, is included herein and shall be used on this Project for the Bid Security Form.

END OF SECTION 000410

# **Bid Bond**

#### CONTRACTOR:

(Name, legal status and address)

#### SURETY:

(Name, legal status and principal place of business)

#### OWNER:

(Name, legal status and address)

#### **BOND AMOUNT: \$**

#### PROJECT:

(Name, location or address, and Project number, if any)
Draft

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### **ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

	(Contractor as Principal)	(Seal)
(Witness)	(Title)	
	(Surety)	(Seal)

# **SECTION 000500 - AGREEMENT FORMS**

The "Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment is a Stipulated Sum", The American Institute of Architect's (AIA) Document A101-2007, 2017 Edition, eight (8) pages, is included herein and shall be used, as modified, on this Project as the Agreement Form.

END OF SECTION 000500



# **Standard Form of Agreement Between Owner and Contractor** where the basis of payment is a Stipulated Sum

**AGREEMENT** made as of the day of in the year (In words, indicate day, month and year.)

#### **BETWEEN** the Owner:

(Name, legal status, address and other information)

and the Contractor:

(Name, legal status, address and other information)

for the following Project: (Name, location and detailed description)

#### DRAFT DOCUMENTS

The Architect:

(Name, legal status, address and other information)

The Owner and Contractor agree as follows.

#### **ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101®–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201®–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

**User Notes:** 

#### TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

#### **EXHIBIT A INSURANCE AND BONDS**

#### ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

#### ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

# ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

]	]	The date of this Agreement.
[	]	A date set forth in a notice to proceed issued by the Owner.
[	]	Established as follows: (Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

# § 3.3 Substantial Completion

**§ 3.3.1** Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

**User Notes:** 

[ ] Not later than	( ) calendar days from the date of commencement o	of the Work.
[ ] By the following	g date:	
	of the Contract Time as provided in the Contract Docubstantial Completion of the entire Work, the Contract of the following dates:	
Portion of Work	Substantial Completion Date	
§ 3.3.3 If the Contractor fails to any, shall be assessed as set for	achieve Substantial Completion as provided in this Seth in Section 4.5.	ection 3.3, liquidated damages, if
	Contractor the Contract Sum in current funds for the Call be (\$ ), subject to additions and deductions as j	
§ 4.2 Alternates § 4.2.1 Alternates, if any, include	ded in the Contract Sum:	
Item	Price	
execution of this Agreement. U	s noted below, the following alternates may be accept pon acceptance, the Owner shall issue a Modification d the conditions that must be met for the Owner to acc	n to this Agreement.
Item	Price	Conditions for Acceptance
§ 4.3 Allowances, if any, include (Identify each allowance.)	led in the Contract Sum:	
Item	Price	
§ 4.4 Unit prices, if any: (Identify the item and state the	unit price and quantity limitations, if any, to which th	ne unit price will be applicable.)
Item	Units and Limitations	Price per Unit (\$0.00)
§ 4.5 Liquidated damages, if an (Insert terms and conditions for		
§ 4.6 Other: (Insert provisions for bonus or	other incentives, if any, that might result in a change	to the Contract Sum.)

#### ARTICLE 5 PAYMENTS

# § 5.1 Progress Payments

- § 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.
- § 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:
- § 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than ( ) days after the Architect receives the Application for Payment. (Federal, state or local laws may require payment within a certain period of time.)
- § 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.
- § 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- § 5.1.6 In accordance with AIA Document A201<sup>TM</sup>–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:
- § 5.1.6.1 The amount of each progress payment shall first include:
  - That portion of the Contract Sum properly allocable to completed Work;
  - That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably .2 stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
  - .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.
- § 5.1.6.2 The amount of each progress payment shall then be reduced by:
  - The aggregate of any amounts previously paid by the Owner;
  - .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201-2017;
  - .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
  - For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201-2017; and
  - .5 Retainage withheld pursuant to Section 5.1.7.

# § 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:

(Insert any other conditions for release of retainage upon Substantial Completion.)

- § 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.
- § 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

# § 5.2 Final Payment

- § 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when
  - .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
  - .2 a final Certificate for Payment has been issued by the Architect.
- § 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

# § 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located. (Insert rate of interest agreed upon, if any.)

%

**User Notes:** 

## ARTICLE 6 DISPUTE RESOLUTION

#### § 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker. (If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

(875524692)

	δ	6.2	Bindir	na Dis	pute l	Resol	lution
--	---	-----	--------	--------	--------	-------	--------

For any C	laim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201-2017, the
method of	binding dispute resolution shall be as follows:
(Check the	e appropriate box.)

[	]	Arbitration pursuant to Section 15.4 of AIA Document A201–2017
[	]	Litigation in a court of competent jurisdiction
[	]	Other (Specify)

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

#### ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of or method for determining the fee, if any payable to the Contractor following a termination of the Contracto

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

#### ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

#### **§ 8.2** The Owner's representative:

(Name, address, email address, and other information)

§ 8.3 The Contractor's representative:

(Name, address, email address, and other information)

**User Notes:** 

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

## § 8.5 Insurance and Bonds

- § 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101<sup>TM</sup>-2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.
- § 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101<sup>TM</sup>—2017 Exhibit A, and elsewhere in the Contract Documents.
- § 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203<sup>TM</sup>\_2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

#### ARTICLE 9 **ENUMERATION OF CONTRACT DOCUMENTS**

§ 9.1 This Agreement is comprised of the following documents:

- AIA Document A101<sup>TM</sup>–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101<sup>TM</sup>–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201<sup>TM</sup>–2017, General Conditions of the Contract for Construction
- AIA Document E203<sup>TM</sup>-2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

(Insert the date of the E203-2013 incorporated into this Agreement.)

.o	Drawings		
	Number	Title	Date
.6	Specifications		
	Section	Title	Date Pages
.7	Addenda, if any:		
	Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

> (Check all boxes that apply and include appropriate information identifying the exhibit where required.)

Init.

	[ ] AIA Document E204 <sup>TM</sup> _2017, Sustainable Projects Exhibit, dated as indicated below: (Insert the date of the E204-2017 incorporated into this Agreement.)				
	[ ]	The Sustainabili	ty Plan:		
	Title		Date	Pages	
	[ ] Supplementary and other		and other Conditions of the Contrac	t:	
	Docu	ument	Title	Date	Pages
	.9 Other documents, if any, listed below:  (List here any additional documents that are intended to form part of the Contract Documents. Document A201™—2017 provides that the advertisement or invitation to bid, Instructions to Bid sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proprequirements, and other information furnished by the Owner in anticipation of receiving bids of proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any standard documents should be listed here only if intended to be part of the Contract Documents.)			uctions to Bidders, idding or proposal eiving bids or ement. Any such	
This Agreen	nent entere	ed into as of the da	y and year first written above.		
OWNER (St	ignature)		CONTRACTOR	R (Signature)	
(Printed no	ame and ti	tle)	(Printed name	e and title)	

**User Notes:** 

# Additions and Deletions Report for

AIA® Document A101® – 2017

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 10:52:22 ET on 03/01/2021.

PAGE 1

DRAFT DOCUMENTS

# Certification of Document's Authenticity

AIA® Document D401™ - 2003

I, , hereby certify, to the best of my knowledge, information and belief, that simultaneously with its associated Additions and Deletions Report and this cunder Order No. 8154658269 from AIA Contract Documents software and document I made no changes to the original text of AIA® Document A101 <sup>TI</sup> Between Owner and Contractor where the basis of payment is a Stipulated software, other than those additions and deletions shown in the associated A	ertification at 10:52:22 ET on 03/01/2021 that in preparing the attached final of – 2017, Standard Form of Agreement Sum, as published by the AIA in its
(Signed)	
(Title)	
(Dated)	

# SECTION 000610 - PERFORMANCE BOND AND PAYMENT BOND

The "Performance Bond" and "Payment Bond", The American Institute of Architects' (AIA) Document A312, 2010 Edition, five (5) pages each, is included herein and shall be used on this Project as the Performance Bond and Payment Bond.

END OF SECTION 000610



# Performance Bond

CONTRACTOR:	SURETY:
(Name, legal status and address)	(Name, legal status and principal place of business)
OWNER: (Name, legal status and address)	
CONSTRUCTION CONTRACT	
Date:	
Amount: \$	
Description: (Name and location)	
(Frame and recurrency	
BOND	
Date:	
(Not earlier than Construction Con-	ntract Date)
A	
Amount: \$ Modifications to this Bond:	None See Section 16
CONTRACTOR AS PRINCIPAL	SURETY
Company: (Corporate Seal)	Company: (Corporate Seal)
Signature:	Signature:
Name and	Name and
Title: (Any additional signatures appear	Title: on the last page of this Performance Bond.)
(FOR INFORMATION ONLY — N	ame, address and telephone)
AGENT or BROKER:	OWNER'S REPRESENTATIVE: (Architect, Engineer or other party:)
	(Michiteci, Engineer or other party.)

#### **ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

- § 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
- § 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.
- § 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after
  - the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default:
  - .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety;
  - .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
- § 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
- § 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
- § 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
- § 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
- § 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
- § 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
  - After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
  - .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- § 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

2

- § 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for
  - the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
  - .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
  - .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- § 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.
- § 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.
- § 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
- § 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- § 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.
- § 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

## § 14 Definitions

- § 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
- § 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
- § 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
- § 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- § 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for addi- CONTRACTOR AS PRINCIPAL	tional signatures of add	ded parties, other than those SURETY	appearing on the cover page.
Company:	(Corporate Seal)	Company:	(Corporate Seal)
Signature: Name and Title: Address:		Signature: Name and Title:	
Address:		Address:	

**User Notes:** 

# Additions and Deletions Report for

AIA® Document A312™ – 2010

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 11:43:31 ET on 10/13/2020.

There are no differences.

# Certification of Document's Authenticity

AIA® Document D401™ - 2003

I, hereby certify, to the best of my knowledge, information and belief, the simultaneously with its associated Additions and Deletions Report and this cunder Order No. 3994842707 from AIA Contract Documents software and document I made no changes to the original text of AIA® Document A312 <sup>TM</sup> by the AIA in its software, other than those additions and deletions shown in the contract of the contra	ertification at 11:43:31 ET on 10/13/2020 that in preparing the attached final 1 – 2010, Performance Bond, as published
Report.	
(Ci	-
(Signed)	
	_
(Title)	
	_
(Dated)	



# **Payment Bond**

(Name, legal status and address)	(Name, legal status and principal place
	of business)
OWNER:	
(Name, legal status and address)	
CONSTRUCTION CONTRACT	
Date:	
Amount: \$	
Description: (Name and location)	
(Name and tocation)	
BOND	
Date:	
(Not earlier than Construction Contract	Date)
A	
Amount: \$ Modifications to this Bond:	None See Section 18
Modifications to this Bond.	see seedon 10
CONTRACTOR AS PRINCIPAL	SURETY
Company: (Corporate Seal)	Company: (Corporate Seal)
Cianatana	Cianatuma
Signature: Name and	Signature: Name and
Title:	Title:
(Any additional signatures appear on the	e last page of this Payment Bond.)
(FOR INFORMATION ONLY — Name,	address and telephone)
AGENT or BROKER:	OWNER'S REPRESENTATIVE:
	(Architect, Engineer or other party:)

#### **ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

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

- § 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.
- § 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
- § 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- § 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
- § 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- § 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### § 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim:
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.
- § 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.
- § 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

- § 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- § 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.
- § 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
- § 18 Modifications to this bond are as follows:

(Space is provided below for addi	itional signatures of add	*	appearing on the cover page.
CONTRACTOR AS PRINCIPAL		SURETY	
Company:	(Corporate Seal)	Company:	(Corporate Seal)
Signature:		Signature:	
Name and Title:		Name and Title:	
Address:		Address:	

# Additions and Deletions Report for

AIA<sup>®</sup> Document A312<sup>™</sup> – 2010

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

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There are no differences.

# Certification of Document's Authenticity

AIA® Document D401™ - 2003

I, , hereby certify, to the best of my knowledge, information and belief, that simultaneously with its associated Additions and Deletions Report and this counder Order No. 8856529880 from AIA Contract Documents software and the document I made no changes to the original text of AIA® Document A312 <sup>TM</sup> the AIA in its software, other than those additions and deletions shown in the Report.	ertification at 11:13:21 ET on 12/31/2018 hat in preparing the attached final – 2010, Payment Bond , as published by
(Signed)	
(Title)	
(Dated)	



# Contractor's Affidavit of Release of Liens

PROJ Draft	ECT: (Name and address)	ARCHITECT'S PRO	JECT NUMBE	<del>_</del>
Dian		CONTRACT FOR: (	General	ARCHITECT: ☐
		Construction		CONTRACTOR:
10 01	WNER: (Name and address) CONTRA	CONTRACT DATE	):	SURETY: □
				OTHER:
STAT	E OF: NTY OF:			
below and e assert	v, the Releases or Waivers of Li quipment, and all performers of	en attached hereto inclu Work, labor or services	de the Contra s who have or	vledge, information and belief, except as listed actor, all Subcontractors, all suppliers of materials may have liens or encumbrances or the right to any manner out of the performance of the Contra
EXCE	PTIONS:			
SUPF 1.	PORTING DOCUMENTS ATT Contractor's Release or Wai conditional upon receipt of	ver of Liens,	CONTRA	CTOR: (Name and address)
2.	Separate Releases or Waive	rs of Liens from	BY:	
	Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.	and equipment ired by the Owner,		(Signature of authorized representative)
				(Printed name and title)
			Subscribe	ed and sworn to before me on this date:
			Notary P	
			My Com	mission Expires:



# Conditional Waiver and Release on Final Payment

Waiver and Release Number: Payment Application Number:

#### **IDENTIFYING INFORMATION**

# Contractor: Customer: Property Owner: Work: Project: Property:

#### CONDITIONAL WAIVER AND RELEASE

This Conditional Waiver and Release on Final Payment is effective only on the Contractor's receipt of payment as described below. A person should not rely on this document unless satisfied that Contractor has received payment.

Except as listed in the Exceptions section below, Contractor conditionally waives and releases any (i) liens and encumbrances, (ii) right to assert a lien or encumbrance, (iii) common law or statutory payment bond right, (iv) stop payment notices, (v) claim for payment, and (vi) rights under any similar ordinance, rule, or statute related to claim or payment that Contractor has or may have with respect to the (1) Work, (2) Project or Property and improvements thereon, (3) labor, services, materials, fixtures, apparatus, equipment, or machinery furnished for the Project or Property, and (4) monies, funds, or other considerations due or to become due arising out of the Work.

Contractor represents that all debts owed to any third party relating to the goods or services covered by this Conditional Waiver and Release on Final Payment have been paid or will be timely paid.

This Conditional Waiver and Release on Final Payment is effective only on Contractor's receipt of payment in accordance with the following payment terms:

Describe method by which payment will be made to the Contractor:

Maker of payment:

Amount of payment:

Identify party to whom full or partial payment will be made, if other than Contractor:

# **EXCEPTIONS**

This Conditional Waiver and Release on Final Payment does not cover (i) disputed claims in the amount of \$ , and (ii) other exceptions described below, if any: Other exceptions:

	Supporting documents attached hereto, if
(Signature of Contractor's authorized representative)	any:
(Date)	
Subscribed and sworn to before me on this da	nte:
Notary Public:	
My Commission Expires:	

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THIS DOCUMENT HAS **IMPORTANT LEGAL** CONSEQUENCES, AND ITS USE IS GOVERNED BY STATE LAW. STATUTORY AND LEGAL REQUIREMENTS APPLICABLE TO THIS DOCUMENT AND ITS USE MAY CHANGE WITHOUT NOTICE. BEFORE EACH USE, USERS SHOULD CONSULT WITH AN ATTORNEY WITH RESPECT TO ITS COMPLETION OR USE.

# Additions and Deletions Report for

AIA<sup>®</sup> Document G903<sup>™</sup> – 2022

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There are no differences.

# **SECTION 000700 - GENERAL CONDITIONS**

The "General Conditions of the Contract for Construction", The American Institute of Architects' (AIA) Document A201-2017, forty-one (41) pages, is included herein.

END OF SECTION 000700

# General Conditions of the Contract for Construction

## for the following PROJECT:

(Name and location or address)

#### THE OWNER:

(Name, legal status and address)

#### THE ARCHITECT:

(Name, legal status and address)

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- 4 ARCHITECT
- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK
- 8 TIME
- 9 PAYMENTS AND COMPLETION
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- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

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For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions

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#### **ARTICLE 1 GENERAL PROVISIONS**

# § 1.1 Basic Definitions

#### § 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

# § 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

# § 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

#### § 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

# § 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

#### § 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

#### § 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

#### § 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

#### § 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

- § 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.
- § 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- § 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

#### § 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

#### § 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

## § 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

- § 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.
- § 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

#### § 1.6 Notice

- § 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.
- § 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

#### § 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203<sup>TM</sup>\_2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

# § 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203<sup>TM</sup>–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document

G202<sup>TM</sup>–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

#### ARTICLE 2 OWNER

#### § 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

# § 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

#### § 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

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- § 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.
- § 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.
- § 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.
- § 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

## § 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

### § 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

### ARTICLE 3 CONTRACTOR

# § 3.1 General

- § 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.
- § 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.
- § 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

#### § 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

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- § 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.
- § 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.
- § 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

### § 3.3 Supervision and Construction Procedures

- § 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.
- § 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.
- § 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

#### § 3.4 Labor and Materials

- § 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- § 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

#### § 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

#### § 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

## § 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

#### § 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

#### § 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

- § 3.8.2 Unless otherwise provided in the Contract Documents,
  - .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
  - .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
  - .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.
- § 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

#### § 3.9 Superintendent

- § 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.
- § 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.
- § 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

#### § 3.10 Contractor's Construction and Submittal Schedules

- § 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.
- § 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.
- § 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

### § 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and

delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

#### § 3.12 Shop Drawings, Product Data and Samples

- § 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.
- § 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- § 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.
- § 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.
- § 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.
- § 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- § 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.
- § 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.
- § 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.
- § 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.
- § 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely

upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

#### § 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

# § 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

#### § 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

# § 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

# § 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

#### § 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 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 benefit acts, or other employee benefit acts.

#### ARTICLE 4 ARCHITECT

# § 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

#### § 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

# § 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

- § 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.
- § 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.
- § 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- § 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.
- § 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.
- § 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.
- § 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.
- § 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.
- § 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.
- § 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

#### ARTICLE 5 SUBCONTRACTORS

# § 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

#### § 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

#### § 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

#### § 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

- § 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.
- § 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

#### ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

# § 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

- § 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.
- § 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- § 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.
- § 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

#### § 6.2 Mutual Responsibility

- § 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.
- § 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.
- **§ 6.2.3** The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.
- § 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

# § 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

#### ARTICLE 7 CHANGES IN THE WORK

#### § 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

# § 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

#### § 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed:
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.
- § 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.
- § 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.
- § 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.
- § 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.
- § 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.
- § 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

# § 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

### **ARTICLE 8 TIME**

# § 8.1 Definitions

- **§ 8.1.1** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.
- § 8.1.2 The date of commencement of the Work is the date established in the Agreement.
- § 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

#### § 8.2 Progress and Completion

- § 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- § 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.
- § 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

#### § 8.3 Delays and Extensions of Time

- § 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.
- § 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.
- § 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

#### ARTICLE 9 PAYMENTS AND COMPLETION

#### § 9.1 Contract Sum

- § 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.
- § 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

# § 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

#### § 9.3 Applications for Payment

- § 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.
- § 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

# § 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

### § 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;

- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- § 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.
- § 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.
- § 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

## § 9.6 Progress Payments

- § 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.
- § 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.
- § 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.
- § 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.
- § 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.
- § 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.
- § 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.
- § 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

## § 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

## § 9.8 Substantial Completion

- § 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
- § 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- § 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.
- § 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- § 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

## § 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

## § 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

#### § 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

## § 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- § 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.
- § 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.
- § 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.
- § 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.
- § 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.
- § 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

#### § 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

## § 10.3 Hazardous Materials and Substances

- § 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.
- § 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will

promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

- § 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.
- § 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.
- § 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.
- § 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

## § 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

#### ARTICLE 11 INSURANCE AND BONDS

## § 11.1 Contractor's Insurance and Bonds

- § 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.
- § 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.
- § 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.
- § 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or

expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

#### § 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

#### § 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

## § 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

## §11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

## ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

## § 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

## § 12.2 Correction of Work

#### § 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

## § 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during

that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

- § 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.
- § 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.
- § 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.
- § 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.
- § 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

## § 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

#### ARTICLE 13 MISCELLANEOUS PROVISIONS

## § 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

#### § 13.2 Successors and Assigns

- § 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.
- § 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

## § 13.3 Rights and Remedies

- § 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.
- § 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

## § 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

## § 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

## ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

## § 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- **.2** An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

## § 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

## § 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

## § 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall cease operations as directed by the Owner in the notice;

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- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work;
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

## **ARTICLE 15 CLAIMS AND DISPUTES**

§ 15.1 Claims

## § 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

#### § 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

## § 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

## § 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

#### § 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

## § 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

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§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

## § 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

## § 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

- § 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.
- § 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.
- § 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

## § 15.3 Mediation

- § 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.
- § 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.
- § 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.
- § 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

#### § 15.4 Arbitration

- § 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.
- § 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.
- § 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

## § 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

## Additions and Deletions Report for

AIA<sup>®</sup> Document A201<sup>™</sup> – 2017

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

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There are no differences.

# Certification of Document's Authenticity

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I, , hereby certify, to the best of my knowledge, information and belief, the simultaneously with its associated Additions and Deletions Report and this under Order No. 8017412562 from AIA Contract Documents software and document I made no changes to the original text of AIA® Document A201 <sup>TI</sup> Contract for Construction , as published by the AIA in its software, other the the associated Additions and Deletions Report.	certification at 13:53:58 on 07/19/2018 that in preparing the attached final — 2017, General Conditions of the
(Signed)	-
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(Title)	
	-
(Dated)	

## **SECTION 000800 - SUPPLEMENTARY CONDITIONS**

The following supplements modify the "General Conditions of the Contract for Construction", AIA Document A201, 2017. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

## PART 1 – GENERAL PROVISIONS

## 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following Subparagraph 1.2.4 to 1.2:

- 1.2.4 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:
  - A. The Agreement.
  - B. Addenda, with those of later date having precedence over those of earlier date.
  - C. The Supplementary Conditions.
  - D. The General Conditions of the Contract for Construction.
  - E. Drawings and Specifications.

In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality and greater quantity of Work shall be provided in accordance with the Architect's interpretation.

## PART 2 - OWNER

## 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete Subparagraph 2.2.5 and substitute the following:

2.2.5 The Contractor will be furnished free of charge 5 copies of Drawings and Project Manuals. Additional sets will be furnished at the cost of reproduction, postage and handling.

## PART 3 - CONTRACTOR

## 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

Add the following to the end of Subparagraph 3.2.2

Prior to commencing any excavation or grading, the Contractor shall satisfy himself as to the accuracy of all survey data as indicated in these Drawings and Specifications and/or as provided by Owner. Should the contractor discover any inaccuracies, errors, or omissions in the survey data, the Contractor shall immediately notify the Architect in order that proper adjustments can be anticipated and ordered. Commencement by the Contractor of any excavation or grading shall be held as an acceptance of the survey data by the Contractor, after which time the Contractor has no claim against the Owner resulting from alleged errors, omissions or inaccuracies of the said survey data.

Add the following Subparagraph 3.2.4 to 3.2:

3.2.4 Before beginning work at the site, the Contractor shall attend a preconstruction conference scheduled by the Architect and he shall bring the superintendent employed for this project. At this time, all parties concerned will discuss the project under Contract and prepare a program of procedures in keeping with requirements of the Contract Documents. The superintendent shall henceforth make every effort to expeditiously coordinate all phases of the work, including the required reporting procedure, to obtain the end result within the full purpose and intent of the Contract Documents for the project.

## 3.3 <u>SUPERVISION AND CONSTRUCTION PROCEDURES</u>

Add the following Subparagraphs 3.3.4, 3.3.5, and 3.3.6 to 3.3:

- 3.3.4 The Contractor shall furnish sufficient forces, construction plans and equipment, and shall work such hours, including night shifts and overtime operation, as may be necessary to insure the execution of the Work in accordance with the approved progress schedule. If the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve the progress by increasing the number of shifts, overtime operations, days of work and the amount of construction plans, all without additional cost to the Owner.
- 3.3.5 Failure of the contractor to comply with the requirements under this provision shall be grounds for determination by the Architect that the Contractor is not executing the Work with such diligence as will insure completion within the time specified and such failure may constitute a substantial violation of the conditions of the Agreement.
- 3.3.6 Upon such determination, the Owner may terminate the Contractor's right to proceed with the Work, or any separable part thereof, in accordance with Article 14 of the General Conditions, or may withhold further payments as indicated in Article 9.5.1 also of the General Conditions.

## 3.4 <u>LABOR AND MATERIALS</u>

Add the following Subparagraphs 3.4.4, 3.4.5, 3.4.6, 3.4.7 to 3.4:

- 3.4.4 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in Section 01631 Product Substitutions of the Specifications.
- 3.4.5 By making the request for substitutions based on Subparagraph 3.4.3 above, the Contractor:
  - .1 represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.
  - .2 represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified.
  - .3 certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and
  - .4 will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
- 3.4.6 The Contractor shall follow all specified and manufacturer's standards for Delivery, Storage and Handling of all products. All products that require storage in a climate controlled environment shall be so handled. In all cases the more stringent guidelines shall be followed.
- 3.4.7 The Contractor shall follow all specified and manufacturer's instructions and conditions for installation of all products and finishes.

## 3.9 SUPERINTENDENT

Delete Subparagraph 3.9.1 and substitute the following:

3.9.1 The Contractor shall employ and keep at the site of the work during its progress a competent and thoroughly experienced superintendent capable of handling all phases of the project. The Superintendent shall have any necessary assistants, foremen and timekeepers required by the scope of this project, and shall be acceptable to the Architect, and shall not be changed or transferred unless approved by the Architect, or ceases to be in the employ of the Contractor. If the Contractor must replace the Superintendent for any reason between "Notice-to-Proceed" and final Architect's certification of completion of the work, then the Contractor shall notify Architect that the existing Superintendent will be

leaving the job on a specific date and that all job work shall cease after said date until a satisfactory replacement Superintendent is found, acceptable to the Architect, and physically present on the site, properly authorized and briefed by Contractor.

Add the following Subparagraphs 3.9.2 and 3.9.3 to 3.9:

3.9.4 The Superintendent shall represent the Contractor in the Contractor's absence and all directions given to the Superintendent shall be as binding as if given to the Contractor. Major and important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed on written request in each case

## 3.10 CONTRACTORS CONSTRUCTION SCHEDULES

Add the following Subparagraph 3.10.4 to 3.10:

3.10.4 The contractor shall furnish, not later than 7 days after receipt of "Notice-to-Proceed", a bar-chart schedule showing the expected times of completion of the various stages of work on this project. The work headings therein shall correspond generally with the headings listed in the Contractor's Schedule of Values. During progress of the work the Contractor shall enter on the schedule the actual progress at the end of each month, and shall deliver two (2) copies to the Architect along with the Contractor's pay request. Contractor's pay request will not be processed until receipt and review of monthly updated bar-chart schedule.

## 3.11 DOCUMENTS AND SAMPLES AT THE SITE

Add the following Subparagraph 3.11.1 to 3.11:

3.11.1 A copy of Toxic Substance List submitted by both the Contractor and Subcontractors to the Owner must be kept at the site during the duration of construction.

## 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Add the following Subparagraphs 3.12.11, 3.12.12, and 3.12.13 to 3.12:

- 3.12.11 Shop Drawings and samples shall be dated and contain the following: name of project; project number; description or names of equipment, materials and items; and complete identification of locations at which materials or equipment are to be installed. If the shop drawings do not conform completely to the requirements of the Contract Documents, such nonconformance shall be specifically noted on the face of the drawings.
- 3.12.12 Submission of Shop Drawings and samples shall be accompanied by transmittal letter, containing project name, Contractor's name, number of drawings and samples, titles and other pertinent data.
- 3.12.13 Unless otherwise specified, the number of Shop Drawings and the number of samples which the Contractor shall submit and, if necessary, resubmit, is the number that the Contractor requires to be retained for the Contractor's use plus 2 which will be retained by the Architect/Engineer.

## 3.15 <u>CLEANING UP</u>

Add the following to the end of Subparagraph 3.15.1:

Keep interior of the building free of stored or unattended combustible materials.

## 3.18 INDEMNIFICATION

Delete Subparagraph 3.18.1 and substitute the following:

3.18.1 To the fullest extent permitted by law, the Contractor shall, for the sum of ten dollars (\$10.00) and other

good and valuable consideration paid by the Owner and the Architect/ Engineer individually, receipt hereby acknowledged by the Contractor, indemnify and hold harmless the Owner and the Architect/Engineer, their agents and employees from and against all claims, damages, losses and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property other than the Work itself, including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission by the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation or indemnity which would otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 3.18.

## PART 7 - CHANGES IN THE WORK

## 7.2 CHANGE ORDERS

Add the following Subparagraph 7.2.2 to 7.2:

7.2.2 The Contractor is responsible for all affected work that is a result of an approved Change Order. Any changes required as a result of a Change Order shall be reflected in the price of the Change Order. Any additional work that becomes necessary after the Change Order has been approved will be made at the Contractor's expense.

## 7.3 CONSTRUCTION CHANGE DIRECTIVES

Delete first sentence of Subparagraph 7.3.7 and substitute the following:

7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Architect on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an allowance for overhead and profit in accordance with Clauses 7.3.10.1 through 7.3.10.6 below

Delete Subparagraph 7.3.7.5 and substitute the following:

7.3.7.5 Cost of supervision and field personnel may be allowed when a contract time extension is approved which is directly attributable to the change.

Add the following Subparagraph 7.3.7.6 to 7.3:

7.3.6.6 Overhead shall include small tools, incidentals, general office and field office expenses, estimating, data entry and all other expenses not included in 'cost'.

Add the following Subparagraph 7.3.11 to 7.3:

- 7.3.11 In Subparagraph 7.3.7, the allowance for the combined overhead and profit in the total cost to the Owner shall be based on the following schedule:
  - .1 For the Contractor, for Work performed by the Contractor's own forces, a maximum of fifteen percent (15%) of the cost.
  - .2 For the Contractor, for Work performed by the Contractor's Subcontractor, a maximum of seven and one-half percent (7-1/2%) of the amount due the Subcontractor.
  - .3 For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor's or Sub-subcontractor's own forces, a maximum of fifteen percent (15%) of the cost.

- .4 For each Subcontractor for work performed by the Subcontractor's Sub-subcontractors, a maximum of seven and one-half percent (7-1/2%) of the amount due the Sub-subcontractor.
- .5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.7.
- .6 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall be itemized also. In no case will a charge over \$100.00 be approved without such itemization.

## PART 8 - TIME

## 8.2 PROGRESS AND COMPLETION

Add the following Subparagraphs 8.2.4 and 8.2.5 to 8.2:

- 8.2.4 The work to be performed under the Contractor's Base Proposal as defined in the Contract Documents shall be substantially completed within <u>One Hundred & Twenty (120)</u> consecutive calendar days after receipt of Notice to Proceed. The work shall be finally completed within **fourteen (14)** calendar days after the date of substantial completion.
- 8.2.5 Failure to complete the Project within the time fixed in this Agreement will result in substantial injury to the Owner, and as damages arising from such failure cannot be calculated with any degree of certainty, according to the definition of "Substantial Completion" in Subparagraph 9.8.1 of the General Conditions, within the time fixed or within such further time, if any, as may be authorized in accordance with the Contract Documents, the Contractor shall pay to the Owner as Liquidated Damages for such delay, and not as a penalty, Two Hundred dollars (\$200.00) for each and every calendar day elapsing between the date fixed for Substantial Completion and the date such Substantial Completion shall have been fully accomplished. It is also hereby agreed that if after **fourteen** (14) Calendar Days after Substantial Completion this Project is not fully and finally completed in accordance with the requirements of the Contract Documents, the Contractor shall pay to the Owner as Liquidated Damages, and not as a penalty, for such delay, one-fourth (1/4) of the rate previously indicated. These Liquidated Damages shall be payable in addition to any expenses or costs payable by the Contractor to the Owner under the provisions of the Contract Documents and shall not exclude the recovery of damages of the Owner under the Contract Documents.

This provision of Liquidated Damages for delay shall in no manner affect the Owner's right to terminate the Contract. The Owner's exercise of the right to terminate shall not release the Contractor from his obligation to pay Liquidated Damages. It is further agreed that the Owner may deduct from the balance of the Contract Sum held by the Owner the Liquidated Damages stipulated herein or such portions as said balance will cover.

\*\* Date of substantial completion and amount of liquidated damages will be defined in Owner / Contractor Contract.

## 8.3 DELAYS AND EXTENSIONS OF TIME

Add the following Clause 8.3.1.1 to Subparagraph 8.3.1:

.1 Contract time is based on local average weather conditions, which includes the mean number of days of "Precipitation of 0.01 inches or more" as indicated in the Normal, Means, and Extremes section of the U.S. NOAA Local Climatological Data report for the project area. These days shall be referred to as "Mean Rainfall Days". Days when rainfall exceeds 0.10 inch, as measured and recorded by a rain recording gauge to be located and maintained by the Contractor within one (1) mile of the project site, shall be referred to as "Rain Days". Time extensions shall be granted upon written request, on a one for one basis, only when Rain Days in a month exceed Mean Rainfall

Days for that month <u>and</u> when rainfall in that month delays a Contractor work task that is on the Critical Path of the C.P.M. schedule or other type of Architect approved project schedule. Requests for extension of time due to rainfall shall be made in writing, with effects on the Critical Path schedule noted, to the Architect not more than fourteen (14) days after the end of the month during which the extra Rain Days occur.

Add the following to the end of Subparagraph 8.3.2:

Extension of time requests due to adverse weather shall be submitted within fourteen (14) days after adverse weather. The Contractor shall submit the referenced climatological summary data immediately upon its availability and shall show how the time extension request corresponds with the climatological data. Extension of contract time due to adverse weather shall be for 'time only' and will not be the basis of any monetary claim or request for 'extended general conditions'.

## PART 11 - INSURANCE AND BONDS

## 11.1 CONTRACTOR'S LIABILITY INSURANCE

Delete Subparagraph 11.1.1 and substitute the following:

- 11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the State of Florida such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. All insurance policies shall be issued and countersigned by representatives of such companies duly authorized for the State of Florida and shall be written on ISO standard forms or their equivalents. The Contractor shall provide the ISO Commercial General Liability policy for general liability coverage's. All liability policies shall provide that the Owner is a named additional insured as to the operations of the Contractor under the Agreement and shall provide the Severability of Insured's Provision. The Owner shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the responsibility solely of the Contractor and/or Subcontractor providing such insurance. This insurance shall protect the Contractor from the following claims:
  - .1 claims under workers' or workmen compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
  - .2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
  - .3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
  - .4 claims for damages insured by usual personal injury liability coverage including claims which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by another person;
  - .5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
  - .6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and
  - .7 claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.

Delete Subparagraph 11.1.2 and substitute the following:

- 11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of \$250,000 per person, \$500,000 per occurrence or a minimum of \$500,000 combined single limit. Coverage's, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment. The insurance required by Subparagraph 11.1.1 shall include contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18 and coverage for the "XCU" exposure.
  - .1 Worker's Compensation: The Contractor shall secure and maintain for the life of this Agreement, valid Worker's Compensation Insurance as required by Chapter 440, Florida Statutes. Copies of the insurance policy shall be filed with the Owner no later than 60 days after execution of the Owner-Contractor Agreement.
  - Automobile Liability: The Contractor shall secure and maintain, during the life of this Agreement, Automobile Liability insurance on all vehicles against bodily injury and property damage in at least the amounts of \$100,000 per person, \$300,000 per occurrence, and property damage in at least the amount of \$100,000; or combined single limit of \$300,000 for bodily injury and property damage.

Delete Subparagraph 11.1.3 and substitute the following:

11.1.3 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates and the insurance policies required by this Paragraph 11.1 shall contain a provision that coverage's afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverage's are required to remain in force after final payment an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2 The Contractor shall furnish one copy each of Certificates of Insurance for each copy of the Agreement which shall specifically set forth evidence of all insurance coverage required by the Contract Documents. The Certificate of Insurance shall be dated and show the name of the insured Contractor, the specific job by name and job number, the name of the insurer, the number of the policy, its effective date, and its termination date. The Contractor shall furnish a copy of the insurance policy to the Owner within 30 days following execution of the Agreement. If the Acord form certificate is used, the Supplemental Attachment form, AIA document G715, shall be completed, signed by Contractor's insurance representative and attached to the Acord certificate.

The Supplemental Attachment, The American Institute of Architects' (AIA) Document G715 is included at the end of this section.

## 11.3 PROPERTY INSURANCE

Delete Subparagraph 11.3.1 and substitute the following:

11.3.1 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the State of Florida, property insurance, written on a Builder's Risk completed value form, in the amount of the initial Contract Sum as well as subsequent modifications thereto for the entire Work at the site, on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Paragraph 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph 11.3 to be covered, whichever is earlier. This insurance shall include interests of the Owner, the Contractor and Subcontractors in the Work.

Delete Subparagraph 11.3.1.1, 11.3.1.2, and 11.3.1.3 and substitute the following:

11.3.1.1 Property insurance shall be on a Special Causes of Loss form or its equivalent, including reasonable compensation for the Architect/Engineer's services and expenses required as a result of such insured loss.

- 11.3.1.2 Any special insurance requirements will be addressed in the Supplementary Conditions.
- 11.3.1.3 If the property insurance provides deductibles, the Contractor shall pay costs not covered because of such deductibles.

Delete Subparagraph 11.3.2 and substitute the following

11.3.2 Boiler and Machinery Insurance: The Contractor shall purchase and maintain an appropriate installation floater which shall specifically cover such insured objects which are subject to the boiler and machinery hazards during installation and until final acceptance by the Owner.

Add the following Subparagraphs 11.3.2.1, 11.3.2.2, and 11.3.2.3:

- 11.3.2.1 Before an exposure to loss may occur, the Contractor shall file with the Owner a copy of each policy that includes insurance coverage's required by this Paragraph 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner.
- 11.3.2.2 A loss insured under property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the Insured's, as their interests may appear. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Subcontractors in similar manner.
- 11.3.2.3 The Owner as fiduciary shall, upon occurrence of an insured loss, deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or in accordance with an award as provided in Paragraph 4.5. If after such loss no other special agreement is made, replacement of damaged property shall be covered by appropriate Change Order.

Add Subparagraph 11.3.11 to 11.3:

11.3.11 Partial occupancy or use in accordance with Paragraph 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

#### 11.4 PERFORMANCE BOND AND PAYMENT BOND

Delete Subparagraph 11.4.1 and 11.4.2 and substitute the following:

- 11.4.1 The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising there under as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.
- 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

END OF SECTION 000800



## Supplemental Attachment for ACORD Certificate of Insurance 25

PROJECT: (name and address) . OWNER: (name and address)			CONTRACT INFORMATION: Contract For: Date:  ARCHITECT: (name and address)	CERTIFICATE INFORMATION: Producer: Insured: Date: CONTRACTOR: (name and address)				
A.	Genei	ral Liability			Yes	No	N/A	
		Does this policy include	coverage for:					
	a		of bodily injury, sickness, or disease, included and death of any person?	cluding occupational				
	k							
	C		of physical damage to or destruction of the fuse of such property?	tangible property,				
	C		pperty damage arising out of completed	=				
	6		demnity obligations included in the Co					
	2. I	Claims by one insure restrictions is based	an exclusion or restriction of coverage red against another insured, where the el solely on the fact that the claimant is a	exclusion or				
	t	Claims for property products-completed	coverage for the claim? damage to the Contractor's Work arisi operations hazard where the damaged	Work or the Work				
			mage arises was performed by a Subcon					
			njury other than to employees of the instractor's indemnity obligations included		H	H		
	·		out of injury to employees of the insure			ш		
	e	Claims for loss exclusionary langua	luded under a prior work endorsement onge?	or other similar				
	f	Claims or loss due t similar exclusionary	to physical damage under a prior injury y language?	endorsement or				
	ç		sidential, multi-family, or other habitat	ional projects?				
	ł		9					
	ĭ	exterior coatings or		tic stucco, or similar				
	j		arth subsistence or movement?	1.0			Ц	
	k	Claims related to ex	xplosion, collapse, and underground haz	zards?	Ш	Ш	Ш	
В.	Other	Insurance Coverage			Yes	No	N/A	
			ntractor has the following insurance cov	verages and, if so,				
		ndicate the coverage lin						
	a	Professional liabilit Coverage limits	~		Ш	Ш	Ш	
	k	~						
	•	Coverage limits			ш			
	C	~	ime liability risks associated with the op-	peration of a vessel				

<b>d</b> Insurance for the use or operation of manned or Coverage limits:	unmanned aircraft		
e Property insurance			
Coverage limits:  f Railroad protective liability insurance			
Coverage limits:  g Asbestos abatement liability insurance			
Coverage limits:  h Insurance for physical damage to property whil the construction site	e it is in storage and in transit to		
Coverage limits:  i Other:		П	П
	(Authorized Representative)		
	(Date of Issue)		

#### **SECTION 011000 - SUMMARY OF WORK**

#### PART 1 - GENERAL

1.01 <u>RELATED DOCUMENTS</u>: Drawings and other Division-1 Specification Sections, apply to this Section.

## 1.02 PROJECT DESCRIPTION

- A. The Project shall consist of the Construction of a 500 kW Solar Array including 1,260 photovoltaic panels and 14 3-phase inverters.
  - 1. <u>Project Location</u>: Madison, Florida
  - 2. Owner: North Florida College (NFC)
- B. <u>Contract Documents</u>, were prepared for the Project by Clemons Rutherford and Associates, 2027 Thomasville Road, Tallahassee, Florida.
- C. The work consists of the following general areas:
  - Solar installation and supported activities.
- D. <u>Applicable Codes:</u> All work shall be completed in accordance with the following codes where applicable:

8<sup>th</sup> (2023) Edition. Florida Building Code, Building (FBC,B) Florida Building Code, Existing Building (FBC,EB) 8<sup>th</sup> (2023) Edition. 8<sup>th</sup> (2023) Edition. Florida Building Code, Mechanical (FBC,M) Florida Building Code, Fuel Gas (FBC,FG) 8<sup>th</sup> (2023) Edition. Florida Building Code, Plumbing (FBC.P) 8<sup>th</sup> (2023) Edition. Florida Building Code, Accessibility 8<sup>th</sup> (2023) Edition. Florida Fire Prevention Code (FFPC) 8<sup>th</sup> (2023) Edition. NFPA 101 – Life Safety Code 2021 Edition. National Electric Code (NEC) 2017 Edition

- E. <u>Product Approval</u> Contractor shall be responsible for providing Florida Product Approval Numbers <u>OR</u> certify that products installed conform to the Florida Building Code 2023 Edition, for each product installed in the building envelope.
- F. <u>Contractor</u>: Contractor has been engaged for this project to serve as Contractor who in turn Subcontracts all or portions of the work. In Divisions 1 through 16, the terms "Construction Manager" and "Contractor" are synonymous.

## 1.03 <u>CONTRACTOR USE OF PREMISES</u>

- A. <u>General</u>: During the construction period, the contractor shall have limited use of the premises for construction activities in areas indicated or agreed upon by the Owner. Surrounding existing buildings shall remain operational, accessible, and be occupied throughout the duration of construction.
  - 1. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
  - 2. Keep surrounding driveways, sidewalks, and entrances serving the premises clear and available to the Owner and Visitors at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
  - 3. Designated wetland areas/easements shall remain undisturbed.
- B. <u>Construction Safeguards</u>: If this project involves working in close proximity to high voltage electric transmission and distribution lines and structures. It is the contractor's responsibility to erect temporary construction barricades and maintain minimum construction clearances under and around existing electrical lines and structures to maintain a safe work site.
   The contractor shall construct safeguards to protect personnel and visitors from the construction areas and

areas where materials are stored. Limits of the construction safeguards shall be determined by the Owner.

#### **SECTION 011000 - SUMMARY OF WORK (continued):**

1.05 <u>DRESS CODE AND CONDUCT</u>: All workmen on the construction site shall wear a shirt at all times. No workmen shall engage in any verbal expressions or physical gestures directed towards all visitors, employees of Owner, or any other person at this construction site which may be considered sexual harassment. Any person found engaging in any offensive conduct will be banned from this construction site.

## 1.06 <u>SITE SECURITY</u>

Level 2 background check shall be performed on all employees entering NFC campus at bidders expense and scheduling. Submit clearance letters for each worker entering the site to NFC administration.

PART 2 - PRODUCTS (Not applicable).

#### PART 3 - EXECUTION

3.01 <u>LAYOUT OF THE WORK</u>: Dimensions and elevations indicated on the drawings shall be verified by the Contractor prior to commencement of work. Discrepancies between drawings, specifications, and existing conditions shall be referred to the Architect for adjustment before affected work is performed. Failure to make such notification shall place responsibility upon the Contractor to carry out the work in a satisfactory and workmanlike manner at no additional cost to the Owner.

## 3.02 <u>RESTORATION</u>

- A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work.
- B. Existing work (site utilities, electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to Architect before it is disturbed. Materials and workmanship used in restoring work, shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.
- C. Upon completion of contract, deliver work complete and undamaged. Damage that may be caused by Contractor or his workmen to existing structures, grounds, and utilities or work done by others shall be repaired by him at no additional cost to the Owner and left in as good condition as existed prior to damaging.
- D. At his own expense, Contractor shall immediately restore to service and repair any damage he may cause to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems which are not scheduled for discontinuance or abandonment. Contractor shall employ appropriate parties for repair work.

#### 3.03 CLEANING UP

- A. At completion of the work, the Contractor shall remove from the building and site all tools, appliances, surplus materials, debris, temporary structures and facilities, scaffolding, and equipment; sweep clean the building thoroughly and remove all marks, stains, fingerprints, dust, dirt, paint drippings, and the like from all surfaces; clean tile work, windows, plumbing, and other fixtures and surfaces.
- B. All hardware and other unpainted metals shall be cleaned and polished, and all equipment and paint or decorated work shall be cleaned and touched up, if necessary. Surfaces that are waxed shall be polished. Remove all temporary labels, tags, and paper covering throughout the building.
- C. The exterior of the buildings, the grounds, approaches, equipment, pavement, sidewalks, etc., shall be cleaned similar to interior of buildings and left in good order at the time of final acceptance, with paint surfaces clean and unbroken, hardware clean and polished, all repair work accomplished and dirt areas scraped and cleared of weed growth.
- D. Cleaning, polishing, sealing, waxing, and all other finish operations indicated on the drawings, or

## **SECTION 011000 - SUMMARY OF WORK (continued):**

required in the specifications, shall mean that this is the required condition at the time of acceptance of all work under the contract.

END OF SECTION 011000

#### **SECTION 012500 – SUBSTITUTION PROCEDURES**

#### PART 1 - GENERAL

- 1.01 <u>SUBSTITUTIONS</u>: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor after award of the Contract are considered requests for "substitutions." The following **are not** considered substitutions:
  - A. Substitutions requested during the bidding period, and accepted prior to award of Contract.
  - B. Revisions to Contract Documents requested by the Owner or Architect.
  - C. Specified options of products and construction methods included in Contract Documents.
  - D. Compliance with governing regulations and orders issued by governing authorities.
- 1.02 <u>SUBMITTAL</u>: Requests for substitution will be considered if received within 30 days after commencement of the Work and if reviewed and approved by DB. Requests received may be considered or rejected at the discretion of the Architect after review. See mechanical and electrical "General Provisions" section for special substitution requirements.
  - A. Submit 3 copies of each request for substitution in the form and in accordance with procedures for Change Order proposals.
  - B. Identify the product, or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Document compliance with requirements for substitutions, and the following information, as appropriate:
    - 1. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
    - 2. Samples, where applicable or requested.
    - 3. A comparison of significant qualities of the proposed substitution with those specified.
    - 4. A list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors, that will be necessary to accommodate the proposed substitution.
    - 5. A statement indicating the substitution's effect on the Construction Schedule compared to the Schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
    - 6. Cost information, including a proposal of the net change, if any in the Contract Sum.
    - 7. Certification that the substitution is equal-to or better in every respect to that required by Contract Documents, and that it will perform adequately in application indicated. Include Contractor's waiver of rights to additional payment or time, that may be necessary because of the substitution's failure to perform adequately.
  - C. <u>Architect's Action</u>: Within one week of receipt of the request for substitution, the Architect will request additional information necessary for evaluation. Within 2 weeks of receipt of the request, or one week of receipt of additional information, whichever is later, the Architect will notify the Contractor of acceptance or rejection. If a decision on use of a substitute cannot be made within the time allocated, use the product specified. Acceptance will be in the form of a an addendum or ASI.
- 1.03 <u>SUBSTITUTIONS</u>: The Contractor's substitution request will be received and considered by the Architect when one or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.

## **SECTION 012500 – SUBSTITUTION PROCEDURES (continued):**

- A. The request is directly related to an "or approved equal" clause or similar language in the Contract Documents.
- B. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
- C. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
- D. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate contractors, and similar considerations.
- E. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
- F. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
- G. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warranty.
- 1.04 The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

END OF SECTION 012500

## **SECTION 012900 – PAYMENT PROCEDURES**

PART 1 – GENERAL- This section is for reference and may be adjusted based on Contract.

1.01 <u>SCHEDULE OF VALUES</u>: Coordinate preparation of the Schedule of Values with the Contractor's Construction Schedule. Correlate line items in the Schedule of Values for each phase with other schedules and forms, including:

Contractor's Construction Schedule. Application for Payment form. List of subcontractors. List of products. Schedule of submittals.

Submit the Schedule of Values to the Architect at the earliest date, but no later than 7 days before the date scheduled for submittal of the initial Application for Payment.

Format and Content: Use the Project Manual Table of Contents as a guide to establish the format.

<u>Identification</u>: Include the following identification:

Project name and location.

Name of the Architect.

Project number.

Contractor's name and address.

Date of submittal.

Format: Use AIA Document G703 Continuation Sheet.

Break down each Division that is listed in enough detail to facilitate evaluation of Application for Payments. Round amounts off to the nearest dollar; the total shall equal the Contract Sum.

Each item in the Applications for Payment and Continuation Sheet shall be complete including total cost and share of overhead and profit. Temporary facilities and items that are not direct cost of Work-in-place may be shown as separate line items or distributed as general overhead expense.

Update and resubmit the schedule when Change Orders change the Contract Sum.

- 1.02 <u>APPLICATIONS FOR PAYMENT</u>: Applications for Payment shall be submitted by the 25th of the month and will be paid by the 10th of the following month. Applications for Payment not received by the 25th of the month will be paid not later than 15 days after the date received. The period covered by each Application for Payment is one month. A retainage of 10% of the amount earned (reduced to 5% upon 50% completion) and stored will be withheld from each payment.
  - A. <u>Payment Application Times</u>: Payment dates are indicated in the Agreement. The period covered by each application is the period indicated.
  - B. <u>Payment Application Forms</u>: Use AIA Document G 702 and Continuation Sheets G 703, 1992 edition, as the form for the application.
  - C. <u>Application Preparation</u>: Complete every entry, including notarization and execution by person authorized to sign on behalf of the Contractor. Incomplete applications will be returned without action. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made. Include amounts of Change Orders issued prior to the last day of the period covered by the application.
  - D. <u>Transmittal</u>: Submit 4 executed copies of each application to the Architect within 24 hours; two copies shall be complete, including waivers of lien where required and similar attachments.
     Transmit each copy with a transmittal listing attachments, and recording information related to the application.

#### **SECTION 012900 – PAYMENT PROCEDURES (continued):**

E. <u>Waivers of Lien</u>: With final application, submit waivers of lien from every entity who has performed work, provided labor or supplied materials, constituting 2% or more of the overall contract amount. Waivers of Lien are to be provided by, but not limited to the following material suppliers and subcontractors. This list is for illustration only, not necessarily complete.

Site Work	Paving	Landscaping	Concrete	Masonry
Steel	Finish Carpentry	Roofing	Doors	Hardware
Windows	Painting	Ceilings	Signage	Gypsum Board
Flooring	Signage	Toilet/Bath	Accessories	Elevators
Mechanical	Plumbing	Electrical		

- F. <u>Waiver Forms</u>: Submit waivers of lien on AIA Document G706A, "Contractor's Affidavit of Release Of Liens".
- 1.03 <u>INITIAL APPLICATION FOR PAYMENT</u>: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include:

Fully executed Contract.

List of subcontractors.

List of suppliers and fabricators.

Schedule of Values.

Contractor's Construction Schedule (preliminary if not final).

Submittal Schedule (preliminary if not final).

List of Contractor's staff assignments.

Copies of building permits (if required).

Copies of licenses from governing authorities.

Certificates of insurance and insurance policies.

Performance and payment bonds.

- 1.04 <u>PARTIAL RETAINAGE RELEASE FORMS</u>: Use AIA Document G707A, "Consent of Surety To Reduction in Or Partial Release Of Retainage".
- 1.05 <u>APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION</u>: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions. Administrative actions and submittals that precede or coincide with this application include:

Occupancy permits.

Test/adjust/balance records (preliminary).

Operation and Maintenance instructions.

Meter readings.

Change-over information related to Owner's occupancy.

1.06 <u>FINAL PAYMENT APPLICATION</u>: Administrative actions and submittals which must precede or coincide with submittal of the final payment application include:

Completion of Project closeout requirements. Refer to Section 01700 - Project Closeout.

Warranties and maintenance agreements.

Completion of all items specified for completion after Substantial Completion.

Transmittal of required Project construction records to Architect.

Final cleaning.

AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims".

Change of door locks to Owner's access.

AIA Document G707, "Consent of Surety to Final Payment".

END OF SECTION 012900



# Application and Certificate for Payment

TO OWNER:	PROJECT:		APPLICATION NO: 00 PERIOD TO: CONTRACT FOR:		ribution to:
FROM	VIA		CONTRACT POR.		CHITECT:
CONTRACTOR:	ARCHITECT:		PROJECT NOS:	/ / CONTR	RACTOR:
					FIELD:
				C	OTHER :
CONTRACTOR'S APPLICATION FOR	RPAYMENT		The undersigned Contractor certifies th		
Application is made for payment, as shown below, in a Continuation Sheet, AIA Document G703, is attached.		ntract.	information and belief the Work cover completed in accordance with the Contra by the Contractor for Work for which pro-	act Documents, that all amounts have	been paid
1. ORIGINAL CONTRACT SUM		\$0.00	payments received from the Owner, and t		
2. NET CHANGE BY CHANGE ORDERS		\$0.00	CONTRACTOR:		
3. CONTRACT SUM TO DATE (Line $1 \pm 2$ )			Ву:	Date:	
4. TOTAL COMPLETED & STORED TO DATE (Column C	G on G703)	\$0.00	State of:		
<ul> <li>5. RETAINAGE:         <ul> <li>a. 0 % of Completed Work</li> <li>(Column D + E on G703)</li> </ul> </li> <li>b. 0 % of Stored Material</li> </ul>		\$0.00	County of: Subscribed and sworn to before me this day of		
(Column F on G703)		\$0.00	Notary Public:		
Total Retainage (Lines 5a + 5b or Total in Column	I of G703)		My Commission expires:		
6. TOTAL EARNED LESS RETAINAGE		\$0.00	ARCHITECT'S CERTIFICATE F	OR PAYMENT	
(Line 4 Less Line 5 Total)			In accordance with the Contract Docume	ents, based on on-site observations ar	id the data
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)		\$0.00	comprising this application, the Architect Architect's knowledge, information and l quality of the Work is in accordance with	belief the Work has progressed as ind h the Contract Documents, and the Co	licated, the
8. CURRENT PAYMENT DUE	Г	\$0.00	entitled to payment of the AMOUNT CE	RTIFIED.	
9. BALANCE TO FINISH, INCLUDING RETAINAGE	_	, ,	AMOUNT CERTIFIED		\$0.00
(Line 3 less Line 6)		\$0.00	(Attach explanation if amount certified differs Application and on the Continuation Sheet the	s from the amount applied. Initial all figure	es on this
CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS	ARCHITECT:		
Total changes approved in previous months by Owner		\$0.00	Ву:	Date:	
Total approved this Month	\$0.00	\$0.00	This Certificate is not negotiable. The AMO	OUNT CERTIFIED is payable only to the	Contractor
NET CHANGES by Change Order	\$0.00	\$0.00 \$0.00	named herein. Issuance, payment and accepta the Owner or Contractor under this Contract.	ance of payment are without prejudice to a	



## **Continuation Sheet**

User Notes:

AIA Document, G702<sup>TM</sup>–1992, Application and Certification for Payment, or G736<sup>TM</sup>–2009, Project Application and Project Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.

In tabulations below, amounts are in US dollars.

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

APPLICATION NO: 001

APPLICATION DATE:

PERIOD TO:

ARCHITECT'S PROJECT NO:

A	В	С	D	Е	F	G		Н	I
ITIEM	DESCRIPTION OF		WORK CO	MATERIALS		TOTAL		BALANCE TO	RETAINAGE
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD		COMPLETED AND STORED TO DATE (D + E + F)	% (G ÷C)	FINISH (C - G)	(IF VARIABLE RATE)
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00 0.00 0.00 0.00 0.00		0.00%	0.00	0.00			
		0.00 0.00 0.00 0.00		0.00%	0.00	0.00			
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
	GRAND TOTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00

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## **SECTION 013000**

## **SUBMITTALS**

## PART 1 - GENERAL

## 1.01 TYPES OF SUBMITTALS:

- A. Construction Schedules: The Contractor shall prepare and submit to the Owner and Engineer within two weeks of the "Notice to Proceed" a construction schedule showing the proposed dates for starting and completing each of the various branches of work. The schedule shall be in the form of a bar graph with a representation of the schedule of costs by months.
- B. Manufacturer's data shall include all standard published information describing products, systems, methods, and performance. Include manufacturer's name and address and associations with which manufacturer of his products comply.
- C. Shop drawings and schedules shall include items, products, materials, methods, anchorages, details, or any other information required to fabricate items of the work and complete the installation which is not specifically stated or described on manufacturer's data.
- D. Installation instructions shall include all information required from a manufacturer or fabricator to have his product installed. This may be included as a shop drawing if such are required.
- E. Warranties and Guarantees required by the Contract Documents shall begin on the official date of substantial completion of the project, or any portion thereof, into which the warranted or guaranteed item was installed, constructed, or otherwise made operational. All warranties and guarantees shall be in effect for a minimum of one year unless specified for a longer period. Include all specific items covered, company names and addresses, and names of persons authorized to warrant or guarantee item(s) if not a blanket coverage.
- F. Certifications and test reports of products, materials, and performance for compliance with specified requirements shall specifically address the work and shall contain the name, signature, and address of persons authorized to make such certifications.
- G. Evidence of compliance to instructions shall be copies of transmittal letters or letter of verification duly signed by authorized persons.

0808-06-1 013000-1 Submittals

- H. Operation and Maintenance Manuals shall include all literature required to properly operate and maintain any equipment installed in the work and shall include names and addresses of manufacturers and authorized service and/or parts representatives, dealers, and shall be delivered on or before date of beneficial occupancy.
- I. Samples required shall be as specified and shall include identifications of the specific item and specification section to which the sample applies.

## 1.02 COPIES OF SUBMITTALS:

- A. All submittals shall be made electronically via email.
- B. Operation and Maintenance Manuals may be submitted electronically for preliminary review. Upon approval of the Engineer, three (3) paper copies shall be submitted.
- C. If electronic submittal is not available or if specifically requested by Owner, the minimum number of copies of submittals shall be submitted as follows and does <u>not</u> include numbers of copies required by the Contractor for his distribution purposes.

1.	Manufacturers' Data:	4	
2.	Shop Drawings and Schedules:	4	
3.	Installation Instructions:	4	
4.	Warranties and Guarantees:	4	
5.	Certifications and Test Reports:	4	
6.	Evidences:	4	
7.	Operation and Maintenance Manuals:	3	
8.	Samples:	3	
9.	Progress Schedule:	4	Monthly

D. As soon as practical after the date of execution of the Owner/Contractor Agreement and within 30 days, the Contractor will make all required submittals.

## 1.03 REVIEW OF SUBMITTALS:

- A. All submittals required by the Contract Documents shall be sent to the Engineer.
- B. Copies of submittals to be returned for the Contractor's use will be processed and emailed/mailed to the Contractor within 14 days of receipt of each submittal by the Engineer.

0808-06-1 013000-2 Submittals

- C. Review of submittals is only for conformance with the design concept of the project or work and does not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents nor from responsibility for errors and omissions in the submittals.
- D. Submittals received without the Contractor's signed "Checked and Approved" stamp on each copy will be returned without action and noted as such or "RWA".
- E. Any submittals or portions thereof which are processed and returned to the Contractor will be marked "Approved", "Approved as Noted", "Revise and Resubmit", or "Not Approved".
- F. Submittals which refer to information or data not included in the submittal (excluding the Contract Documents) will not be checked.

## 1.04 DOCUMENTS:

- A. All documents, including letters, letters of transmittal, and requests generated by the Contractor, shall be on standard letter or legal size paper, be signed by authorized personnel, and include Contractor's name, the Owner's project number, Engineer's project number, and date.
- B. Letters of transmittal shall also clearly identify each part of the submittal with specification section number and indicate the number of copies of each part. Letter requesting substitutions shall contain the same information.
- C. All submittals for approval shall be individually numbered by the Contractor in sequence of order of submission. Resubmittal of revised submittals shall bear the same numbers and be clearly marked "Resubmittal No. \_\_\_\_\_\_.".

#### 1.05 COLORS:

- A. The Engineer, in noting and marking submittals, shall use the color green.
- B. The Contractor, in noting and marking submittals, shall use the color red.
- C. Marks or notations of any other color on submittals shall be disregarded.
- **1.06 ON-SITE RECORDS:** The Contractor shall have at least one set of complete, approved submittals and shop drawings on the job site at all times when such work is in progress.

## **END OF SECTION**

0808-06-1 013000-3 Submittals

### **SECTION 013100 - PROJECT COORDINATION**

#### PART 1 - GENERAL

1.01 <u>THIS SECTION</u> specifies requirements for project coordination including:

Coordination with other Contractors. General installation provisions. Administrative and supervisory personnel. Cleaning and protection.

1.02 <u>COORDINATION</u>: Coordinate activities included in various Sections to assure efficient and orderly installation of each component. Coordinate operations included under different Sections that are dependent on each other for proper installation and operation.

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.

Where space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service and repair.

Make provisions to accommodate items scheduled for later installation.

Prepare memoranda for distribution to each party involved outlining required coordination procedures. Include required notices, reports, and attendance at meetings.

Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.

1.03 <u>ADMINISTRATIVE PROCEDURES</u>: Coordinate scheduling and timing of administrative procedures with other activities to avoid conflicts and ensure orderly progress. Such activities include:

Preparation of schedules.

Delivery and processing of submittals.

Power and utility shutdowns. Progress meetings.

Installation and removal of temporary facilities. Project closeout activities.

1.04 <u>COORDINATION DRAWINGS</u>: Prepare Coordination Drawings where close coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space necessitates maximum utilization of space for efficient installation of different components.

Show relationship of components shown on separate Shop Drawings. Indicate required installation sequences.

1.05 <u>STAFF NAMES</u>: Within 15 days of Notice to Proceed, submit a list of Contractor's staff assignments, including Superintendent and personnel at the site; identify individuals, their duties and responsibilities, addresses and telephone numbers.

Post copies in the Project meeting room, the field office, and at each temporary telephone.

- 1.06 <u>INSPECTION OF CONDITIONS</u>: The Installer of each component shall inspect the substrate and all other conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected.
- 1.07 <u>MANUFACTURER'S INSTRUCTIONS</u>: Comply with manufacturer's installation instructions and recommendations, to the extent that they are more stringent than requirements in Contract Documents.
- 1.08 <u>INSPECT</u> material immediately upon delivery and again prior to installation. Reject damaged and defective items.
- 1.09 <u>PROVIDE ATTACHMENT</u> and connection devices and methods necessary for securing each construction element. Secure each construction element true to line and level. Allow for expansion and building

#### **SECTION 013100 - PROJECT COORDINATION (continued):**

movement.

- 1.10 <u>VISUAL EFFECTS</u>: Provide uniform joint widths in exposed Work. Arrange joints to obtain the best effect. Refer questionable choices to the Architect for decision.
- 1.11 <u>RECHECK MEASUREMENTS</u> and dimensions, including elevations, before starting installation.
- 1.12 <u>INSTALL EACH COMPONENT</u> during weather conditions and project status that will ensure the best results. Isolate each part from incompatible material as necessary to prevent deterioration.
- 1.13 <u>COORDINATE TEMPORARY ENCLOSURES</u> with inspections and tests, to minimize uncovering completed construction for that purpose.
- 1.14 <u>MOUNTING HEIGHTS</u>: Where mounting heights are not indicated, install components at standard heights for the application indicated or refer to the Architect.
- 1.15 <u>CLEANING AND PROTECTION</u>: During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

Clean and maintain completed construction as often as necessary through the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

<u>Limiting Exposures</u>: Supervise operations to ensure that no part of construction, completed or in progress, is subject to harmful or deleterious exposure. Such exposures include, but are not limited to the following:

Excessive static or dynamic loading.

Excessive internal or external pressures.

Excessive weathering.

Excessively high or low temperatures or humidity.

Air contamination or pollution.

Water or ice.

Chemicals or solvents.

Heavy traffic, soiling, staining and corrosion.

Rodent and insect infestation.

Unusual wear or other misuse.

Contact between incompatible materials.

Theft or vandalism.

### **SECTION 013200 - PROJECT MEETINGS**

#### PART 1 - GENERAL

1.01 <u>SUMMARY</u>: This Section specifies requirements for Project meetings including:

Pre-Construction Conference. Progress Meetings.

1.02 <u>PRE-CONSTRUCTION CONFERENCE</u>: Architect shall conduct a pre-construction conference after execution of the Agreement and prior to commencement of construction activities. Review responsibilities and personnel assignments.

<u>Attendees</u>: The Owner, Architect and their consultants, the Contractor and its superintendent, subcontractors, suppliers, manufacturers, and other concerned parties shall be represented by persons authorized to conclude matters relating to the Work.

Agenda: Discuss significant items that could affect progress, including the tentative construction schedule, critical sequencing, use of the premises, procedures for processing Change Orders and equipment deliveries.

Review progress of other activities and preparations for the activity under consideration at each conference, including time schedules, manufacturer's recommendations, weather limitations, substrate acceptability, compatibility problems and inspection and testing requirements.

Record significant discussions, agreements and disagreements of each conference, along with the approved schedule. Distribute the meeting record to everyone concerned, promptly, including the Owner and Architect.

Do not proceed if the conference cannot be successfully concluded. Initiate necessary actions to resolve impediments and reconvene the conference at the earliest feasible date.

1.03 <u>PROGRESS MEETINGS</u>: Conduct progress meetings at regular monthly intervals. Notify the Owner and Architect of scheduled dates. Coordinate meeting dates with preparation of the payment request.

<u>Attendees</u>: The Owner, Architect and Contractor will invite Subcontractor, Supplier or other entity, if necessary to discuss planning, coordination or performance of future activities and shall be represented by persons familiar with the Project and authorized to conclude matters relating to progress.

<u>Agenda</u>: Review minutes of the previous progress meeting. review significant items that could affect progress. Include topics appropriate to the current status of the Project including:

RFIs Change Orders
Scheduling Submittals

<u>Reporting</u>: Distribute copies of the minutes of the meeting to each party present and to parties who should have been present.

1.04 <u>CONTRACTOR'S CONSTRUCTION SCHEDULE</u>: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

# **SECTION 013700**

## **SCHEDULE OF VALUES**

# **PART 1 - GENERAL**

### 1.01 DESCRIPTION:

- A. Work Included: Provide a detailed breakdown of the agreed Contract Sum showing values allocated to each of the various parts of the work as specified herein and in other provisions of the Contract Documents.
- B. Related Work: Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and sections in Division 1 of these Specifications.

# 1.02 QUALITY ASSURANCE:

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

### 1.03 SUBMITTALS:

- A. Prior to first application for payment, submit a proposed schedule of values in the form of a Shop Drawing Submittal to the Engineer.
  - 1. Meet with the Engineer and determine data, if any, required to be submitted.
  - 2. Secure the Engineer's approval of the values prior to submitting first application for payment.

# **END OF SECTION**

0808-06-1 013700-1 Schedule of Values

# **SECTION 014000**

## **QUALITY CONTROL**

# **PART 1 - GENERAL**

1.01 DESCRIPTION OF REQUIREMENTS: Specified quality control requirements for the work are indicated throughout the Contract Documents and are not repeated herein. The requirements of this Section are primarily related to performance of the work beyond furnishing of manufactured products. The term "Quality Control" includes, but is not necessarily limited to, inspection, testing, and associated requirements. This Section does not specify or modify Engineer's duties relating to quality control and Contract enforcement.

## 1.02 RESPONSIBILITY FOR INSPECTIONS AND TESTS:

- A. Unless otherwise noted, all testing and inspections required by these Specifications shall be performed by a properly certified entity. All costs associated with the testing and inspections shall be the Contractor's responsibility. The Contractor shall also be responsible for all tests or inspections required by any entity having jurisdictional control over the work.
- B. Costs for those required services by independent testing laboratories are recognized to be included in the Contract Sum.
- C. It is recognized that required inspection and testing programs are intended to assist the Contractor, Owner, Engineer, and governing authorities in nominal determination of probable compliance with requirements for certain elements of work. The program is not intended to limit the Contractor's regular quality control program as needed for general assurance of compliances.
- D. No failure of test agencies, whether engaged by Owner or Contractor, to perform adequate inspections or tests or to properly analyze or report results shall relieve the Contractor of responsibility for fulfillment or requirements of Contract Documents.

## 1.03 QUALITY ASSURANCE:

A. General Workmanship Standards: Except as more definitively specified, the Contractor shall comply with recognized workmanship quality standards within the industry, as applicable, to each unit of work. It is a requirement that each category of tradesperson or installer performing the work is prequalified, to the extent of being familiar with applicable and recognized quality standards for that category of work and being capable of workmanship complying with those standards.

- B. The Contractor shall engage independent testing laboratories complying with "Recommended Requirements for Independent Laboratory Qualification" as published by American Council of Independent Laboratories and specializing in type(s) of inspections and tests required. Exception: where another qualification standard is indicated or use of prime product manufacturer's test facilities is acceptable.
- C. When requested by the Engineer, submit proof of qualification for agency(s) engaged, or to be engaged, to perform inspection and testing services. If, after review of the submitted information, the Engineer determines that the agency's qualifications are unsatisfactory, the Contractor shall engage an alternate agency at no additional cost to the Owner.
- 1.04 PRODUCT DELIVERY STORAGE HANDLING: Handle, store, and protect materials and products, including fabricated components, by methods and means which will prevent damage, deterioration, and losses including theft (and resulting delays), thereby ensuring highest quality results as the performance of the work progresses. Control delivery schedules so as to minimize unnecessary long-term storage at project site prior to installation. Contractor shall provide covered storage for all new equipment on the site which is not intended for outside installation. Electrical, hydraulic, and pneumatic connections on all equipment shall be protected from the elements.

#### 1.05 CODES AND STANDARDS:

- A. Work of this Project shall comply with all applicable Codes and Standards in effect at the time of the Bid Opening Date of this Project. Codes include, but are not necessarily limited to, the following:
  - 1. Florida Building Code
  - 2. Florida Fire Prevention Code
  - 3. Florida Administrative Code
  - 4. Department of Economic Opportunity, Florida Building Commission
  - 5. National Fire Protection Agency
  - 6. American Society of Civil Engineers/Structural Engineering Institute
  - 7. Underwriter's Laboratory Assembly Requirements
  - 8. Florida Department of Transportation Standard Specifications for Road and Bridge Construction
  - 9. American Concrete Institute
  - 10. American Institute of Steel Construction Manual
  - 11. OSHA CFR 29, Parts 1926 and 1910

# **PART 2 - PRODUCTS**

(Not Applicable)

# **PART 3 - EXECUTION**

### 3.01 PREPARATION FOR INSTALLATION:

- A. Pre-installation Conferences: Well in advance of installation of every major unit of work which requires coordination with other work, the Contractor shall meet at project site with installers and representatives of manufacturers and fabricators who are involved in or affected by the unit of work, and in its coordination or integration with other work which has preceded or will follow.
- B. The Contractor shall advise the Engineer of scheduled meeting dates. At each meeting, the Contractor shall review the progress of other work and preparations for the particular work under consideration, including requirements of Contract Documents, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, structural limitation, governing regulations, safety, inspection and testing requirements, required performance results, recording requirements, and protection. The Contractor shall record significant discussion of each conference and agreements and disagreements, along with final plan of action. The Contractor shall distribute a record of the meeting promptly to all concerned parties, including the Engineer.
- C. The Contractor shall not proceed with the work if associated pre-installation conference cannot be concluded successfully. The Contractor shall instigate actions to resolve impediments to performance of the work and meet at earliest date feasible.
- D. Installer's Inspection of Conditions: The Contractor shall require the fabricator and installer of each major unit of work to inspect substrate to receive the work, and conditions under which the work will be performed, and to report unsatisfactory conditions (in writing to the Contractor and the Engineer). Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the fabricator and installer.

# 3.02 INSTALLATION QUALITY CONTROL:

- A. Manufacturer's Instructions: Where installation includes manufactured products, comply with manufacturer's applicable instructions and recommendations for installation to whatever extent these are more explicit or more stringent than applicable requirements indicated in the Contract Documents.
- B. The Contractor shall inspect each item of materials or equipment immediately prior to installation and reject damaged and defective items.

- C. Provide attachment and connection devices and methods for securing work properly as it is installed, true to line and level, and within recognized industry tolerances, if not otherwise indicated. Allow for expansions and building movements. Provide uniform joint widths in exposed work, organized for best possible visual effect. Refer questionable visual effect choices to Engineer for final decision.
- D. The Contractor shall re-check measurements, dimensions, and elevations of the work as an integral step of starting each installation. The Contractor shall notify the Engineer of any discrepancies.
- E. Install work during conditions of temperature, humidity, exposure, forecasted weather, and status of project completion that will ensure best possible results for each unit of work, in coordination with entire work. Isolate each unit of work for noncompatible work as required to prevent deterioration.
- F. Coordinate enclosure (closing-in) of work with required inspections and tests so as to avoid necessity of uncovering work for that purpose.
- G. Mounting Heights: Except as otherwise indicated, mount individual units of work at industry-recognized standard mounting heights for applications indicated. Refer questionable mounting height choices to Engineer for final decision.
- H. Adjust, clean, lubricate, and restore marred finishes and protect newlyinstalled work to ensure that it will remain without damage or deterioration during the remainder of the construction period.

### **SECTION 014200 - DEFINITIONS AND STANDARDS**

#### PART 1 - GENERAL

- 1.01 <u>DEFINITIONS</u>: Basic Contract definitions are included in the General Conditions.
  - A. <u>Indicated</u> refers to graphic representations, notes or schedules on Drawings, or Paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference.
  - B. <u>Directed</u>: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Architect", "requested by the Architect", and similar phrases. No implied meaning shall be interpreted to extend the Architect's responsibility into the Contractor's supervision of construction.
  - C. <u>Approve</u>, used in conjunction with action on submittals, applications, and requests, is limited to the Architect's duties and responsibilities stated in General and Supplementary Conditions.
     Approval shall not release the Contractor from responsibility to fulfill Contract requirements.
  - D. <u>Regulation</u> includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, and rules, conventions and agreements within the construction industry that control performance of the Work, whether lawfully imposed by authorities having jurisdiction or not.
  - E. <u>Furnish</u> means "supply and deliver, ready for unloading, unpacking, assembly, installation, and similar operations."
  - F. <u>Install</u> describes operations at the site including "unloading, unpacking, assembly, erection, anchoring, applying, working to dimension, protecting, cleaning and similar operations."
  - G. <u>Provide</u> means "furnish and install, complete and ready for use."
  - H. <u>Installer</u>: "Installer" is the Contractor or an entity engaged by the Contractor, as an employee, subcontractor or sub- subcontractor for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform. The term "experienced," when used with "Installer" means having a minimum of 5 previous Projects similar in size to this Project, and familiar with the precautions required, and with requirements of the authority having jurisdiction.
  - I. <u>Project Site</u> is the space available for construction activities, either exclusively or with others performing other construction on the Project. The extent of the Project Site is shown on the Drawings, and may or may not be identical with the description of the land upon which the Project is to be built.
  - J. <u>Testing Laboratories</u>: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, at the Project Site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.
- 1.02 <u>SPECIFICATION FORMAT</u>: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's 33-Division format and MASTERFORMAT 2004 numbering system. Language used in the Specifications is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and where the context so indicates.
  - Imperative language is used generally. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text subjective language is used to describe responsibilities which must be fulfilled indirectly by the Contractor, or by others when so noted. The words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.
- 1.03 <u>ASSIGNMENT OF SPECIALISTS</u>: Certain construction activities shall be performed by specialists, recognized experts in the operations to be performed. Specialists must be engaged for those activities, and

#### **SECTION 014200 - DEFINITIONS AND STANDARDS (continued):**

- assignments are requirements over which the Contractor has no option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor.
- 1.04 <u>DRAWING SYMBOLS</u>: Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., eighth edition.
- 1.05 <u>MECHANICAL/ELECTRICAL DRAWINGS</u>: Graphic symbols for mechanical and electrical Drawings are defined in a graphic symbol legend on the Construction Documents and are aligned with symbols recommended by ASHRAE. Where appropriate, they are supplemented by symbols recommended by technical associations. Refer instances of uncertainty to the Architect for clarification before proceeding.
- 1.06 <u>APPLICABILITY OF STANDARDS</u>: Except where the Contract Documents include more stringent requirements, applicable industry standards have the same force and effect as if bound or copied into Contract Documents. Such standards are part of the Contract Documents by reference. Individual Sections indicate standards the Contractor must keep available at the Project Site.
- 1.07 <u>PUBLICATION DATES</u>: Where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of Contract Documents.

<u>Updated Standards</u>: Submit a Change Order proposal where an applicable standard has been revised and reissued after the date of the Contract Documents and before performance of Work. The Architect will decide whether to issue a Change Order to proceed with the updated standard.

1.08 <u>CONFLICTING REQUIREMENTS</u>: Where compliance with two or more standards that establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced. Refer uncertainties as to which quality level is more stringent to the Architect for a decision before proceeding.

<u>Minimum Quantities or Quality Levels</u>: The quantity or quality shown or specified is the minimum to be provided or performed. Indicated values are minimum or maximum values, as appropriate for the requirements. Refer instances of uncertainty to the Architect for decision before proceeding.

1.09 <u>COPIES OF STANDARDS</u>: Each entity engaged on the Project shall be familiar with standards applicable to that activity. Copies of applicable standards are not bound with the Contract Documents.

Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.

Although copies of standards needed for enforcement of requirements may be part of submittals, the Architect reserves the right to require submittal of additional copies for enforcement of requirements.

- 1.10 <u>ABBREVIATIONS AND NAMES</u>: Where acronyms or abbreviations are used in the Specifications or other Contract Documents they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.
- 1.11 <u>PERMITS, LICENSES, AND CERTIFICATES</u>: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

# **SECTION 015000**

## **CONSTRUCTION FACILITIES**

# PART 1 - GENERAL

**1.01 DESCRIPTION:** The following criteria shall govern the furnishing of, and paying for, temporary construction and service items. Such items shall be instituted at the beginning and maintained for the life of the work or until removal or termination is approved by the Engineer.

## 1.02 TEMPORARY FACILITIES:

- A. Drinking Water: The Contractor shall provide cool water with dispensing utilities.
- B. Construction Water: The Owner shall make available temporary water for construction through existing outlets at the project site, free of charge, provided the Contractor is not careless or wasteful with his water usage. The Contractor shall provide either meters or proper backflow devices in order to comply with regulations concerning backflow and cross connection.
- C. The Owner shall make available construction power through existing 120V power outlets at the project site. It shall be the Contractor's responsibility to provide additional temporary electrical power for construction should the Owner's existing outlets and distribution devices not be suitable for construction purposes.
- D. Toilet Facilities: The Contractor shall furnish a portable, job site toilet enclosure facility through a local company specializing and licensed in this business. The toilet enclosure shall be located on the project site at a point approved by the Owner. It shall be maintained weekly by the supplying company and removed from the project site upon completion of the project.

## E. Contractor's Field Office:

- 1. The Contractor may furnish, equip, and maintain on or near the job site a temporary field office. The location of the field office shall be determined by the contractor and as approved by the Engineer.
- 2. The field office may have the following components:
  - a. Weathertight with adequate ventilation.
  - b. Equipped with heating and cooling.
  - c. Working telephone.
  - d. Adequate light for reading drawings.

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- e. Chart table suitable for 24" x 36" drawings.
- f. Storage shelving or cabinets.
- g. Location of the field office shall be subject to the Owner's approval.
- h. All utility services shall be provided at the Contractor's expense.
- Satisfactory drinking water and toilet facilities near the field office shall be provided and shall be supplied, maintained in good working condition, and otherwise serviced by the Contractor, and shall be removed by him upon completion of work.
- A complete first aid kit supplied in accordance with applicable OSHA standards and suitable for a project of this size, shall be kept at the job site and fully maintained for the duration of this project.

# F. Engineer's Field Office:

- 1. The Contractor may furnish, equip, and maintain at the job site a separate temporary field office for the Engineer.
- 2. The office shall be weathertight, having a minimum area of 250 square feet, with adequate lighting, ventilation, heating, and air conditioning equipment.
- 3. Utilities including electrical power supply and internet, WiFi.
- 4. Furnishings shall include 3' x 5' desk with 3 drawers; 2-drawer legal size filing cabinet; 2 desk chairs; 3' x 6' drawing table; 1 drafting stools; wastepaper basket; plan rack; 2-shelf bookcase; coat rack and hooks.
- 5. The office and all furnishings shall remain property of the Contractor and shall be removed by the Contractor upon completion of the work.

## 1.03 SITE MAINTENANCE:

- A. General: The Contractor may provide security, as necessary or required, to protect work and property at all times. Campus security is on site 24/7 and any Contractor security must comply with Campus Security rules.
- B. The site is a functional college. Contractor will be required to maintain site in a manner that is consistent with a functional college.
- C. Rodents and Other Pests: The Contractor, through debris removal, etc., shall control the creation of rodent or pest problems. Should such develop, the Contractor shall secure services of exterminator to control.

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D. Debris Control: Keep premises clean and free from accumulation of debris and rubbish. Provide trash and debris receptacles and require use. Remove from site at least weekly.

- E. Cleaning: As work is completed by trades, areas of work shall be cleaned in preparation for next trade, inspection, or general safety of property and person.
- F. Project Safety: The Contractor shall comply with all applicable governmental and ensuring company requirements relative to construction and project safety. Either the superintendent or another company representative on the site during all working hours shall be trained in project safety and designated as Contractor's Safety Director in compliance with Owner's safety program, if applicable.

**END OF SECTION** 

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#### **SECTION 015001 - TEMPORARY FACILITIES**

#### PART 1 - GENERAL

- 1.01 <u>RELATED DOCUMENTS</u>: Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.
- 1.02 <u>SUMMARY</u>: This Section specifies temporary services and facilities, including utilities, construction and support facilities, security and protection. Provide facilities ready for use. Maintain, expand and modify as needed. Remove when no longer needed or replaced by permanent facilities.

Temporary facilities required include but are not limited to water service and distribution, temporary electric power and light, storage sheds, sanitary facilities and temporary enclosures, barricades, warning signs, lights and environmental protection.

- 1.03 <u>USE CHARGES</u>: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect and will not be accepted as a basis of claims for a Change Order.
- 1.04 <u>REGULATIONS</u>: Comply with all applicable local, state, and federal laws and regulations.
- 1.05 <u>STANDARDS</u>: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities@ and OSHA.
  - A. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared by AGC and ASC.
  - B. <u>Electrical Service</u>: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- 1.06 <u>INSPECTIONS</u>: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.
- 1.07 <u>CONDITIONS OF USE</u>: Keep facilities clean and neat. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload, or permit facilities to interfere with progress. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.
- 1.08 <u>MATERIALS AND EQUIPMENT</u>: Provide new materials and equipment; if acceptable to the Architect, undamaged previously used materials and equipment in serviceable condition may be used. Provide materials and equipment suitable for the use intended.
  - A. <u>Tarpaulins</u>: Waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
  - B. <u>Temporary / Construction Fencing</u>: 11-gage, galvanized 2-inch, chain link fabric fencing 6-feet high with galvanized steel pipe posts, 1-1/2" I.D. for line posts and 2-1/2" I.D. for corner posts.
- 1.09 <u>TEMPORARY UTILITY INSTALLATION</u>: Option 1: Temporary utilizes (water, sewer, power) can be extended from NFC at bidders expense if desired. Option 2: Engage the local utility company to install temporary service or connect to existing service. Arrange for a time when service can be interrupted to make connections. Provide adequate capacity at each stage of construction. Combined use of temporary and existing power and water is anticipated for this project.
  - A. <u>Water Service</u>: Install water service and distribution piping of sizes and pressures adequate for construction. Sterilize water piping prior to use.
  - B. <u>Electric Power Service</u>: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics. Include meters, transformers,

#### **SECTION 015001 - TEMPORARY FACILITIES (continued):**

overload protected disconnects, automatic ground-fault interrupters and main distribution switch gear. Install service underground, if possible.

- 1. <u>Power Distribution System</u>: Install wiring overhead, and rise vertically where least exposed to damage.
- 2. <u>Electrical Outlets</u>: Provide properly configured NEMA polarized outlets. Provide outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- 3. <u>Electrical Power Cords</u>: Provide grounded extension cords; use "hard-service" cords where exposed to traffic.
- C. <u>Lighting</u>: Provide temporary lighting with local switching to fulfill security requirements and provide illumination for construction operations and traffic conditions.
  - 1. <u>Lamps and Light Fixtures</u>: Provide general service incandescent lamps. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- D. <u>Telephones</u>: Provide temporary telephone service for personnel engaged in construction. Post a list of important telephone numbers.
- E. <u>Sewers and Drainage</u>: If sewers are available, provide temporary connections to remove effluent. If sewers are not available or cannot be used, provide drainage ditches, or similar facilities.

Filter out construction debris and other contaminants that might clog sewers or pollute waterways before discharge. Provide earthen embankments and similar barriers in and around excavations and subgrade construction to prevent flooding by runoff of storm water from heavy rains. Comply with all City and County requirements for storm water runoff.

- 1.10 <u>TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION</u>: Locate for easy access. Maintain facilities until Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, if acceptable to the Owner.
  - A. <u>Temporary Roads and Paved Areas</u>: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads where they do not interfere with construction activities.
    - Dust Control: If, in the opinion of the Owner or Architect it is necessary to control dust during construction period, the Contractor shall furnish and spread water or calcium chloride at points where dust is a nuisance or as directed by the Architect, at no additional cost to the Owner.
  - B. <u>Field Offices</u>: Provide field offices of size required to accommodate personnel, including telephone and fax line. In addition provide a 3' x 5' desk, table and stool for use by the Architect. Field office is to be provided with air conditioning. Keep clean and orderly for use for small progress meetings.
  - C. <u>Storage and Fabrication Sheds</u>: Install sheds, equipped to accommodate materials and/or existing equipment involved. Sheds may be open shelters.
  - D. <u>Sanitary facilities</u> include temporary toilets and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures. Install where facilities will best serve the Project. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
  - E. Toilets: Install self-contained single-occupant toilet units of the chemical, aerated recirculation, or

### **SECTION 015001 - TEMPORARY FACILITIES (continued):**

combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar non-absorbent material. Use of pit-type privies will not be permitted. Under no circumstances will construction personnel use existing toilet facilities.

- F. <u>Drinking Water Facilities</u>: Provide containerized tap-dispenser type drinking water units.
- G. <u>Dewatering Facilities and Drains</u>: For temporary drainage and dewatering operations not associated with construction, comply with requirements of applicable Division-2 Sections. Where feasible, utilize the same facilities. Maintain excavations and construction free of water.
- H. <u>Temporary Enclosures</u>: Provide temporary enclosure for protection of construction from exposure, foul weather, other construction operations and similar activities. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions.

Install tarpaulins securely, with incombustible framing. Close openings through floor or roof decks and horizontal surfaces with load-bearing construction.

- I. <u>Collection and Disposal of Waste</u>: Collect waste daily. Comply with NFPA 241 for removal of combustible waste. Enforce requirements strictly. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose in a lawful manner.
- J. <u>Project Identification and Temporary Signs</u>: Prepare project identification signs on grade B-B High Density Overlay Plywood; install where indicated by Architect. Support on framing of preservative treated wood or steel. Engage an experienced sign painter to apply graphics. Refer to project identification sign drawing at end of this section (Attachment 015000-1).
- 1.11 <u>SECURITY AND PROTECTION FACILITIES INSTALLATION</u>: Except for use of permanent fire protection as soon as available, do not change from use of temporary security and protection facilities to permanent facilities until Substantial Completion.
  - A. <u>Fire Protection</u>: Until fire protection is supplied by permanent facilities, install and maintain temporary fire protection of types needed to protect against predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations." Consideration should be given to existing fire hydrant locations.
  - B. <u>Fire Extinguishers</u>: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers. Locate fire extinguishers where effective for the intended purpose.

Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.

Store combustible materials in containers in fire-safe locations.

Provide supervision of welding operations, combustion type temporary heating units, and sources of fire ignition.

- C. <u>Barricades, Warning Signs and Lights</u>: Comply with standards and code requirements for erection of barricades. Paint appropriate warning signs to inform personnel and the public of the hazard being protected against. Where needed provide lighting, including flashing lights. Temporary, portable or metal barricades and structures shall be constructed over all open trench areas intersecting student walkways. Walkway structures over trenches shall be of sturdy construction with handrails and be handicap accessible.
- D. <u>Security Enclosure and Lockup</u>: Install temporary enclosure of partially completed areas of

#### **SECTION 015001 - TEMPORARY FACILITIES (continued):**

construction. Provide locking entrances to prevent unauthorized entrance, vandalism and theft. Where materials and equipment must be stored, provide a secure lockup.

- E. <u>Enclosure Fence</u>: When excavation begins, install an enclosure fence with lockable entrance gates where indicated, or if not indicated, enclose the entire site or the portion sufficient to accommodate operations. Provide open-mesh, chain-link fencing with posts set in a compacted mixture of gravel and earth.
- F. <u>Environmental Protection</u>: Operate temporary facilities and conduct construction by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted. Restrict use of noise making tools and equipment to hours that will minimize complaints.
- 1.12 <u>OPERATION</u>: Enforce strict discipline in use of temporary facilities. Limit availability to intended use to minimize abuse. Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and the elements.

Maintain operation of enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis to achieve indicated results and to avoid damage.

Prevent piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

1.13 <u>TERMINATION AND REMOVAL</u>: Remove each facility when the need has ended, or replaced by a permanent facility, or no later than Substantial Completion. Complete or restore construction delayed because of interference with the facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

Temporary facilities are property of the Contractor.

At Substantial Completion, renovate permanent facilities used during the construction period, including but not limited to:

Replace air filters and clean inside of ductwork and housings. Replace worn parts and parts subject to unusual operating conditions. Replace burned out lamps.

#### **SECTION 015500 - MATERIALS AND EQUIPMENT**

#### PART 1 - GENERAL

#### 1.01 DEFINITIONS

- A. <u>Definitions</u> used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
- B. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- C. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
- D. "<u>Materials</u>" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- E. "<u>Equipment</u>" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

#### 1.02 QUALITY ASSURANCE

- A. <u>Source Limitations</u>: To the fullest extent possible, provide products of the same kind from a single source.
- B. <u>Compatibility of Options</u>: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. <u>Nameplates</u>: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
- D. <u>Labels</u>: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
- E. <u>Equipment Nameplates</u>: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:

Name of product and manufacturer.
Model and serial number.
Capacity.
Speed.
Ratings.

### **SECTION 015500 - MATERIALS AND EQUIPMENT (continued):**

#### 1.03 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. <u>Deliver, store, and handle</u> products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
- B. <u>Coordinate delivery</u> with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses; and to prevent overcrowding of construction spaces.
- C. <u>Deliver products</u> to the site in undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- D. <u>Inspect products</u> upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- E. <u>Store products</u> at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
- F. All new installed materials shall be sealed from moisture penetration at the end of each day.

#### PART 2 - PRODUCTS

#### 2.01 PRODUCT SELECTION

- A. <u>General Product Requirements</u>: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation. Discontinued items will not be accepted.
  - 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
  - 2. <u>Standard Products</u>: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. <u>Product Selection Procedures</u>: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
  - 1. <u>Semiproprietary Specification Requirements</u>: Where Specifications name two or more products or manufacturers, provide one of the products indicated.
    - Where Specifications specify products or manufacturers by name, accompanied by the term "**or equal**" or "**or approved equal**", comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  - 2. <u>Descriptive Specification Requirements</u>: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
  - 3. <u>Performance Specification Requirements</u>: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.

Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.

#### **SECTION 015500 - MATERIALS AND EQUIPMENT (continued):**

- 4. <u>Compliance with Standards, Codes, and Regulations</u>: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
- 5. <u>Visual Matching</u>: Where Specifications require matching an established Sample (match existing), the Architect's decision will be final on whether a proposed product matches satisfactorily.

Where no product is available within the specified category, matches satisfactorily and complies with other specified requirements; comply with provisions of the Contract Documents concerning "substitutions" (Section 01631 - Product Substitutions) for selection of a matching product in another product category.

6. <u>Visual Selection</u>: "Where specified product requirements include the phrase"...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with specified requirements." The Architect will select the color, pattern, and texture from the product line selected. Any selections within the product line which are unavailable, no longer make or superseded by another should be so marked.

## PART 3 - EXECUTION

### 3.01 INSTALLATION OF PRODUCTS

- A. <u>Comply with manufacturer's</u> instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

# **SECTION 016650**

## **EQUIPMENT TESTING AND START-UP**

# **PART 1 - GENERAL**

### 1.01 SCOPE OF WORK:

- A. Provide a competent field services technician to supervise installation, adjustment, initial operation and testing, performance testing, final acceptance testing, and start-up of the equipment.
- B. Perform specified equipment field performance tests, final acceptance tests and start-up services.

#### 1.02 RELATED WORK:

- A. Operation and Maintenance Data is included in Section 01730.
- B. Performance and acceptance testing and start-up requirements are included in the Specifications.

## 1.03 SUBMITTALS:

- A. Submit for review detailed testing procedures for shop tests, field performance tests and final acceptance tests. Test procedures shall be submitted in advance of the proposed test dates and shall include at least the following information:
  - 1. Name of equipment to be tested.
  - 2. Testing schedule of proposed dates and times for testing.
  - 3. Summary of power and water, etc. needs and identification of who will provide them.
  - 4. Outline specific assignment of the responsibilities of Contractor and manufacturers' factory representatives or field service personnel.
- B. Submit copies of test reports upon completion of specified shop, performance, and acceptance tests. Test reports shall incorporate the information provided in the test procedures submittals, modified to reflect actual conduct of the tests and the following additional information.
  - Copy of all test data sheets and results.

- 2. Summary comparison of specified test and performance requirements vs. actual test results.
- Should actual test results fail to meet specified test and performance requirements, describe action to be taken prior to re-testing equipment.

# 1.04 QUALITY ASSURANCE:

- A. Field service technicians shall be competent and experienced in the proper installation, adjustment, operation, testing, and start-up of the equipment and systems being installed.
- B. Manufacturers' sales and marketing personnel will not be accepted as field service technicians unless they have equivalent training and experience.

# **PART 2 - PRODUCTS**

(Not Applicable)

# PART 3 - EXECUTION

# 3.01 PRELIMINARY REQUIREMENTS:

- A. After installation of the equipment has been completed and the equipment is presumably ready for operation, before it is operated by others, the manufacturer's field service technician shall inspect, operate, test and adjust the equipment. The inspection shall include at least the following points where applicable:
  - 1. Soundness (without cracks or otherwise damaged parts).
  - 2. Completeness in all details, as specified and required.
  - 3. Correctness of setting, alignment and relative arrangement of various parts.
  - 4. Adequacy and correctness of packing, sealing and lubricants.
- B. The operation, testing and adjustment shall be as required to prove that the equipment has been left in proper condition for satisfactory operation under the conditions specified.

## 3.02 WITNESS REQUIREMENTS:

- A. Shop tests or factory tests may be witnessed by Owner or Owner's Engineer.
- B. Field performance and acceptance tests shall be performed in the presence of Owner and/or the Owner's Engineer.

## 3.03 START-UP AND ACCEPTANCE:

# A. General Requirements:

- 1. Successfully execute the step-by-step procedure of start-up and performance demonstration specified hereinafter.
- 2. The start-up and performance demonstration shall be successfully executed prior to Substantial Completion and acceptance by Owner.
- 3. All performance tests and inspections shall be scheduled at least five working days in advance. All performance tests and inspections shall be conducted during the work week of Monday through Friday, unless otherwise specified.

# B. Preparation for Start-up:

- 1. All mechanical and electrical equipment shall be checked to ensure that it is in good working order and properly connected.
- All instruments and controls shall be calibrated through their full range. All other adjustments required for proper operation of all instrumentation and control equipment shall be made.
- 3. Perform all other tasks needed for preparing and conditioning the facilities for proper operation.
- 4. No testing or equipment operation shall take place until it has been verified that all safety equipment has been installed and is in good working order.
- 5. No testing or equipment operation shall take place until it has been verified that all lubricants, tools, maintenance equipment, and spare parts have been furnished as specified.

# C. Facilities Start-up:

1. Start-up period shall not begin until all equipment has been tested as specified and is ready for operation. Purchaser shall receive spare

- parts, safety equipment, tools and maintenance equipment, lubricants, approved operation and maintenance data and the specified operation and maintenance instruction prior to the start-up.
- 2. Demonstrate a 24-hour period of successful operation of the facility as a prerequisite for acceptance.
- In the event of failure to demonstrate satisfactory performance of the facility on the first or any subsequent attempt, all necessary alterations, adjustments, repairs, and replacements shall be made in cooperation with Owner's installing contractor. When the facility is again ready for operation, it shall be brought on-line, and a new test shall be started. This procedure shall be repeated as often as necessary until the facility has operated continuously to the satisfaction of Owner.
- 4. Owner will make available all operating personnel needed to operate equipment during the final test period; however, said personnel will perform their duties under vendor's direct supervision.

# **SECTION 017000**

# **PROJECT CLOSEOUT**

# **PART 1 - GENERAL**

## 1.01 DESCRIPTION:

A. Summary of Work: The Contractor shall provide all final paperwork and perform all punch list work necessary to complete the project.

## 1.02 SUBMITTALS:

- A. One (1) copy of Redline Construction Drawings, for Engineer's review and comment.
- B. One (1) copy of the As-built Drawings in 24" x 36" sheet format, signed and sealed by Florida Registered Land Surveyor or Professional Engineer and certified by the Contractor with Contractor's original signature.
- C. Three (3) copies of the following Items:
  - 1. Final Request for Payment
  - 2. Final Release of Lien (Prime and Subprime)
  - 3. Consent of Surety
  - 4. Warranties and Bonds
  - 5. Inspection Certificates (Electrical, Plumbing, Equipment, etc.)
  - 6. Regulatory Testing Requirements (Hydrostatic, Leakage, Disinfection, etc.)
- D. Three (3) Copies of Operation and Maintenance Manual Data.

# **PART 2 - PRODUCTS**

# 2.01 AS-BUILT DRAWINGS:

- A. General:
  - 1. The following definitions shall apply to this section:
    - a. Redline Drawing(s):
      - Applies to Work that is ongoing and documents the current installation progress of planned Work, or applies to field observations and/or findings that represent a deviation, discovery, or change from expected conditions.

- 2) These drawings do not require certification by a Professional Land Surveyor or Professional Engineer.
- 3) They represent and document the current materials and location of installed work.

# b. As-built(s):

- 1) Applies to Work involving new construction or replacement construction.
- They are a revised set of construction drawings that represent and document the final materials and location of installed Work. They reflect all changes made by addendum, change order, or work directives during the construction process and show the exact dimensions, geometry, and location of all elements of the Work completed by a Contractor under the contract.
- 3) They are submitted by the Contractor and certified by a Professional Land Surveyor in the employ of the Contractor or by a Professional Engineer in the employ of the Contractor upon completion of a project or of a phase of a project.

# c. Record Drawing(s):

- They are a revised set of drawings prepared by the Engineer that represent and document the final materials and location of installed Work based on the As-built and Redline Drawing Information provided by the Contractor. They show the exact dimensions, geometry, and location of all elements of the Work.
- 2) These drawings do not require certification by a Professional Land Surveyor or Professional Engineer.
- 2. As-built drawings are required for all roadways, stormwater treatment systems, civil site improvements, vertical construction, potable water, wastewater, and reclaimed water pipelines, pump stations, treatment plants and facilities. Upon completion of the Work and prior to final payment, the Contractor shall furnish to Engineer As-built Drawings which indicate final as-built data and in accordance with all addenda, change orders, verbal field changes, work directives, and all requirements with respect to the drawings specified herein. Engineer's field representative shall verify that as-built information is consistent with observable field conditions.
- 3. An electronic file of the original Project drawings will be furnished to Contractor for the purpose of recording and preparing As-built Drawings. As-built information shall be recorded daily and kept current during the progress of the work by the Contractor. The daily recordings may be verified by Engineer's field representative. All measurements are to be made by the certifying surveyor, professional

engineer, or their employee. The Contractor shall provide access to buried facilities to allow for accurate horizontal and vertical measurements to be acquired by his surveyor or Engineer as needed. Should discrepancies exist, the Contractor shall verify buried facilities.

- 4. The cover page of the As-built Drawings shall bear the printed name and the signed as-built certification of the general contractor and the signed and sealed as-built certification of the professional surveyor and mapper (PSM) or registered professional engineer (PE) who provided the horizontal and vertical dimensions and elevations on the As-built Drawings. The signatures shall certify that the As-built Drawings do, in fact, reflect the true as-built conditions as located under the direct supervision of the registered surveyor and/or professional engineer.
- 5. Upon completion of the work, Contractor shall deliver to the Engineer As-built Drawings in a .dwg (AutoCAD) format, including all xref files and in PDF format.
- 6. Engineer will review the submittal for correctness and completeness and will return either an approval stamp or list of required changes for resubmission. Resubmittal of the As-built Drawings, with completed revisions, shall be accompanied by the Engineer's marked-up set of revision requirements.
- B. Drawing Requirements: When making changes to the AutoCAD drawing for as-built purposes, originally designed utility lines that were installed differently in the field shall be deleted with the applicable notes and the correct location, notes, and coordinates should be drawn in and/or added in to accurately portray the as-built conditions. Simply changing the coordinates, notes, or just adding notes is not acceptable. Do not strike through notes or elevation call-outs; change them in the drawing to reflect as-built conditions. As-built drawings should use the same line format and conventions as the original construction drawings.

Legibly mark the drawings to record the following:

- 1. Each document shall be labeled "AS-BUILT" in approximately 1" high printed letters and shall be submitted on 24" X 36" sheets.
- 2. Each document shall contain a graphic scale accurately representing the scale of the drawings.
- 3. Each document shall contain a north arrow.
- As-builts shall utilize the State Plane Coordinate System using the Florida East Zone and the North American Datum of 1983 preferred for horizontal data; North American Vertical Datum (NAVD) 1988

Datum is preferred for elevation data. Benchmarks used must be shown and verified on the drawings.

- 5. Deflections that result in a change of more than one foot from the designed alignment shall be located and recorded regardless of the presence of a fitting.
- 6. The positional accuracy relative to the referenced published control points used shall not exceed 0.5' horizontally and 0.1' vertically. Elevations relative to the site facilities must be within 0.1' of each other.
- 7. Special detail drawings will be required where needed for clarity. Clarity is defined as pipe, fittings, valves, meter boxes, etc. clearly visible when printed to scale and when zoomed and viewed electronically.
- 2.02 INSPECTION CERTIFICATES, BONDS, WARRANTIES, AND GUARANTEES: Upon completion of project and prior to submission of certificate for final payment, the Contractor shall have the electrical, plumbing, and other work, as applicable, inspected by proper authorities as required by the Specifications and all applicable codes, laws, and ordinances. Before final payment will be made, the Contractor shall submit copies of all bonds and guarantees as required.
- **2.03 REGULATORY REQUIREMENTS:** Aside from the testing of equipment, the facility cannot be started up and placed into operation without regulatory clearance. Regulatory clearance is a prerequisite for Substantial Completion.
  - 1. Satisfactory hydrostatic test reports of all piping.
  - 2. Satisfactory bacteriological test reports (as applicable).
  - Chemical clearances (if applicable).
  - 4. As-built Drawings.

Upon regulatory clearance, startup of the facility and placement into satisfactory operation can be performed.

# **PART 3 - EXECUTION**

3.01 SUBMITTAL: The Project shall not be considered to be in substantial completion until Final As-built Drawings have been submitted and accepted by the Engineer. Prior to final payment, the Final As-built Drawings shall be revised by the Contractor to reflect any changes which have occurred since the substantial completion submittal.

# 3.02 FINAL INSPECTION:

- A. Final inspection will be held upon completion of the project. The Contractor shall notify the Owner, upon completion, to arrange an inspection tour of the completed project.
- B. The Contractor and the Owner's Representative shall be present for the inspection.
- 3.03 RELEASE OF LIEN STATEMENT: The Contractor shall submit with his request for final payment sworn statements from himself and each subcontractor, material, or labor suppliers who have filed a "Notice to Owner", that all work has been completed and that all bills for labor, materials, and subcontractors' work on the project have been paid in full.
- **3.04 CONSENT OF SURETY:** The Contractor shall submit, with his request for final payment, a consent of Contractor's Surety to final payment.

## 3.05 WARRANTIES AND BONDS:

- A. Warranties and bonds shall begin on the official date of Substantial Completion and shall be in effect for a minimum of one year from that date, unless a longer period is stated in the product technical specification.
- B. Warranties and bonds shall include, at a minimum, all labor, materials, and equipment necessary to restore the installed product to a fully functional and satisfactory condition for a period of one year past Substantial Completion.
- **3.06 CLEANING:** The Contractor shall remove all stains, spots, marks, and dirt from all finished surfaces caused by this work. All items shall be cleansed in accordance with the manufacturers' written instructions.

## **SECTION 017300**

### **OPERATION AND MAINTENANCE MANUALS**

# PART 1 - GENERAL

- **1.01 SCOPE OF WORK:** This Section includes procedural requirements for compiling and submitting operation and maintenance data required.
- **1.02 RELATED WORK:** Section 01665, Equipment Testing and Start-up.

### 1.03 SERVICES OF MANUFACTURER'S REPRESENTATIVE:

- A. Equipment furnished shall include the cost of a competent representative of the manufacturers of all equipment to supervise the installation, adjustment and testing of the equipment and to instruct Owner's operating personnel on operation and maintenance. This supervision may be divided into two or more time periods as required by the installation program.
- B. Refer to individual equipment specifications for additional requirements for furnishing the services of manufacturer's representatives.

#### 1.04 OPERATION AND MAINTENANCE MANUALS:

- A. Three (3) complete sets of approved operation and maintenance manuals covering all equipment furnished shall be delivered directly to the Owner and one complete set delivered to the Engineer.
  - 1. The manual for each piece of equipment shall be a separate document with the following specific requirements:
    - a. Contents:
      - 1) Table of Contents.
      - 2) Brief description of each system and components.
      - Starting and stopping procedures.
      - 4) Special operating instructions.
      - 5) Routine maintenance procedures.
      - 6) Troubleshooting Guide.
      - 7) Manufacturer's printed operating and maintenance instructions, parts list, illustrations, and diagrams.
      - 8) One copy of each wiring diagram.
      - 9) One copy of each approved shop drawing and each Contractor's coordination and layout drawing.
      - 10) List of spare parts, manufacturer's price, and recommended quantity.
      - 11) Name, address, and telephone numbers of local service representatives.

- b. Material:
  - 1) Loose leaf, punched paper.
  - 2) Page size, 8-1/2-inch by 11-inch.
  - Diagrams, illustrations, and attached foldouts as required, or original quality, reproduced by dry copy method.
  - 4) Covers: Oil, moisture and wear resistant 9 by 12 size.

# 1.05 CONTENTS, EACH VOLUME:

- A. Table of Contents: Provide title of project, names, addresses, and telephone numbers of Purchaser, Contractor, and subcontractors with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses, and telephone numbers of subcontractors and suppliers; including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products, component parts, and data applicable to installation. Delete inapplicable information pertaining to the models and options not actually furnished.
- D. Drawings: Supplemental product data to illustrate relations of component parts of equipment and systems to show control and flow diagrams.
- E. Type Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified.

## 1.06 MANUAL FOR EQUIPMENT AND SYSTEMS:

- A. For each item of equipment and each system, provide the following:
  - 1. Overview of system and description of unit or system and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, complete nomenclature, and commercial number of replaceable parts.
  - 2. Control Panel, including electrical service characteristics, controls, communications, and color coded wiring diagrams as installed.
  - 3. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences; regulation, control, stopping, shut-down, and emergency instructions; and summer, winter, and any special operating instructions.

- 4. Maintenance Requirements:
  - a. Routine procedures and guide for troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
  - b. Servicing and lubrication schedule and list of lubricants required.
  - c. Manufacturer's printed operation and maintenance instructions.
  - d. Sequence of operation by controls manufacturer.
  - e. Original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- 5. Control diagrams by controls manufacturer as installed.
- 6. List of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

# **PART 2 - PRODUCTS**

(Not Applicable)

# **PART 3 - EXECUTION**

(Not Applicable)

## **SECTION 017400**

# **WARRANTIES**

# **PART 1 - GENERAL**

## 1.01 RELATED REQUIREMENTS:

- A. General provisions of Contract, including General and Supplementary Conditions.
- B. Warranties and Certificates for Specific Products: Refer to respective Specification Sections.
- C. Section 01700, Project Closeout.
- **1.02 SECTION INCLUDES:** Administrative and procedural requirements for warranties, and certifications required by the Contract Documents, including manufacturers' standard warranties on products, and special warranties.

#### 1.03 WARRANTY REQUIREMENTS:

- A. Contractor shall warrant all work covered under this Agreement to be free from defects for a period of two years after the date of Substantial Completion.
- B. When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work or abandon in place if acceptable to Owner in a manner that is acceptable to Owner.
- C. When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- D. Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefitted from use of the Work through a portion of its anticipated useful service life.
- E. Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights, and remedies otherwise available under the law, nor shall warranty periods be interpreted as

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- limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- F. The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- G. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work until evidence is presented that entities required to countersign such commitments are willing to do so.

### 1.04 SUBMITTALS:

- A. Submit written warranties to the Owner before requesting inspection for Substantial Completion. If the Owner's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.
- B. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within 15 days of completion of that designated portion of the Work.
- C. When a special warranty is required to be executed by the Contractor or the Contractor and a subcontractor, supplier, or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner for approval prior to final execution.
- D. Provide written certifications of compliance and other commitments and agreements for continuing services in a form which includes all pertinent information including:
  - Quantities and dates of shipments.
  - Attestment that materials incorporated into the Work comply with specified requirements. Certification shall not be construed as relieving the Contractor from furnishing satisfactory materials, if the material is later found to not meet specified requirements.
  - 3. Signature of officer of company.
  - 4. Laboratory test reports submitted with certificates of compliance shall show dates of testing, specification requirements under which testing was performed, and results of tests.

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E. Refer to individual Sections of Divisions 2 through 16 for specific content requirements and particular requirements for submittal of special warranties.

### F. Form of Submittal:

- 1. Compile three copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer.
- 2. Organize the warranty documents in an orderly sequence based on the Table of Contents of the Project Manual.
- 3. Bind warranties and bonds in heavy-duty, commercial quality, durable three-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents and sized to receive 8-1/2 in. by 11 in. paper.
- 4. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of the installer.
- 5. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the Project Title or Name, and the name of the Contractor.

## **PART 2 - PRODUCTS**

(Not Applicable)

## **PART 3 - EXECUTION**

(Not Applicable)

**END OF SECTION** 

0808-06-1 017400-3 Warranties

### LANDSCAPE AND TREE PROTECTION

## **PART 1 - GENERAL**

- 1.01 DESCRIPTION OF WORK: Contractor shall make every reasonable effort to protect all landscaping and trees in the area of his operations. No landscaping is anticipated unless grass is disturbed and is to be returned to a state similar to preconstruction. Trees and landscaping damaged or destroyed as a result of Contractor's operations shall be replaced with plants of identical species and of similar size up to 4 four-inch diameter, unless directed otherwise by Engineer. Contractor shall make every possible effort to save any tree of four-inch diameter or larger, including minor adjustment to the pipe routing. It is not anticipated that any tree trimming will be necessary.
- **1.02 QUALITY ASSURANCE:** Engage a qualified tree surgeon to perform the following work:
  - A. Remove branches from landscaping and trees which are to remain if required for new construction.
  - B. Recommend procedures to compensate for loss of roots and perform initial pruning of branches and stimulation of root growth where removed to accommodate new construction.
  - C. Perform repair work for damages incurred by new construction.
- **1.03 JOB CONDITIONS:** Provide temporary fencing, barricades, or guards to protect from damage to trees and other plants that are to remain.

# PART 2 - PRODUCTS

## 2.01 MATERIALS:

- A. Tree Pruning Compound: Waterproof, antiseptic, elastic, and free of kerosene, coal tar, creosote, and other substances harmful to plants. Pruned or damaged trees shall be treated with the following:
  - 1. Pine Trees (all species): A mixture of twelve percent (12%) Benzene Hexachloride (BHC) emulsifiable concentrate shall be mixed at the rate of one (1) pint of BHC per gallon of #2 fuel oil. Spray damaged area liberally. Spray the rest of the tree from ground level to a height

- of six feet (6'). Spraying of damaged trees shall be completed within five (5) days after injury occurs.
- 2. Hardwood (all species except pine): An application of asphalt-type tree pruning paint will be applied to the damaged area. The paint shall be applied in sufficient quantity so as to form an airtight seal. Spraying or painting of damaged trees shall be performed within 24 hours after the injury occurs. In the case of damage to "specimen" hardwoods, the inspecting Engineer may require the Contractor to retain a skilled and licensed tree surgeon to properly treat the damage. No compensation shall be made to the Contractor for treating damaged trees.
- B. Root Protection Compound: Where the roots of trees four inches or more in diameter are cut due to Contractor's operations, exposed roots shall receive an application of Subdue 2E Fungicide as manufactured by Novartis. Application of fungicide shall be in strict accordance with manufacturer's recommendations.

## **PART 3 - EXECUTION**

#### 3.01 GENERAL:

- A. Protection of Landscaping: Contractor may, in lieu of replacing disturbed/damaged landscaping and trees, store landscaping and trees removed by his operations in suitable containers for replanting. Containers shall be adequately sized to contain the plant's root mass. Suitable topsoil shall be packed into container in sufficient quantity to cover the plant's root system. Contractor shall water containerized plants as necessary to keep them healthy. A record of each containerized plant's original location prior to removal shall be kept by the Contractor so that each plant may be replanted in its proper location. Any replaced or replanted landscaping which, in the opinion of the Engineer, appear unhealthy shall be replaced with similar size and species of plant by the Contractor at no cost to the Owner for a period of up to 90 days after the date of contract completion.
- B. Repair and Replacement of Trees: Repair trees damaged by construction operations in a manner acceptable to the Engineer. Make repairs promptly after damage occurs to prevent progressive deterioration of damaged trees. Remove and replace dead and damaged trees which are determined by the tree surgeon to be incapable of restoration to normal growth pattern. If trees over six inches in caliper measurement (taken 12 inches above grade) are required to be replaced, provide new trees of six inches caliper size, and of the same species. Any replaced or replanted trees which, in the opinion of the Engineer, appear unhealthy shall be replaced with similar size and

- species of tree by the Contractor at no cost to the Owner for a period of 365 days after the date of contract completion.
- C. Clean-up and Disposal: Remove excess excavation, displaced trees, and trimmings, and dispose of off the Owner's property in a manner approved by local agencies.

# **END OF SECTION**

#### **UNDERGROUND FACILITIES**

## PART 1 - GENERAL

1.01 DESCRIPTION: Work under this Section consists of furnishing all tools, equipment, and labor as described herein. It is not anticipated that direct current or alternating current conductors need connect buildings and thus underground moderate voltage work is unlikely. Communication conduit and conductors may be buried as an alternative to cell modem communication or use of existing communications network.

#### 1.02 SUBMITTALS:

- A. Submit sketches of all conflicts and proposed resolution of conflicts.
- Record Drawings shall depict all Underground Facilities encountered in the work.

# **PART 2 - PRODUCTS**

(Not Applicable)

### PART 3 - EXECUTION

#### 3.01 INSTALLATION:

- A. Location of Underground Facilities:
  - Underground Facilities are underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any other encasements containing such facilities, including those which convey electricity, gases, compressed air, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
  - 2. Prior to excavation, the Contractor shall conduct an investigation into the location of all Underground Facilities. The objective of this investigation is to determine the locations of Underground Facilities in advance of actual construction in order to resolve ahead of time conflicts with the proposed work. Underground Facilities that are shown or indicated are based on limited information. The locations shown or indicated are only approximate and it is probable that there are Underground Facilities that are not shown or indicated.

0808-06-1 025900-2 Underground Facilities

- 3. The Contractor shall, by means of standard geophysical prospecting techniques, designate (to indicate by marking) the presence and approximate depths of Underground Facilities along the routes of proposed construction. All Underground Facilities within five (5) feet of the proposed work shall be designated.
- 4. The Contractor shall locate Underground Facilities to obtain accurate horizontal and vertical positions and may utilize any methods or procedures he deems appropriate for locating, but not damaging, the Underground Facilities. These methods may include, but not be limited to, careful hand excavation, pot-holing, and the use of ground penetrating radar (GPR). All Underground Facilities shall be located, both those shown or indicated and those that are not shown or indicated. The Contractor shall have full responsibility for the safety and protection of all Underground Facilities and repairing any damage thereto resulting from the work.
- 5. If an Underground Facility is uncovered or revealed which constitutes an unforeseen obstruction, the Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any work in connection therewith, give notice to the Engineer. The Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is needed in the Contract to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

**END OF SECTION** 

0808-06-1 051400-1 Structural Aluminum

### STRUCTURAL ALUMINUM

# **PART 1 - GENERAL**

### 1.01 DESCRIPTION:

A. Work Included: Provide all materials, equipment and labor necessary to construct the structural aluminum elements shown on the Drawings and as specified herein.

### 1.02 RELATED WORK SPECIFIED ELSEWHERE:

A. Painting and Coating: Section 09910.

#### 1.03 REFERENCES:

- A. Except as shown or specified otherwise, the Work of this Section shall meet the requirements of the following:
  - 1. Design and Fabrication: "Aluminum Design Manual", Latest Edition, by the Aluminum Association, Incorporated (AAI Specification).
  - 2. Welding: "Aluminum Structural Welding Code, AWS D1.2", Latest Edition, by the American Welding Society (AWS Code).
  - 3. Florida Building Code, 7<sup>th</sup> edition.
  - 4. Occupational Safety and Health Administration (OSHA) Regulations Part 1920.33 and 1910.24
  - Florida Fire Prevention Code, latest edition.

### 1.04 DESIGN REQUIREMENTS FOR CONNECTIONS:

- A. All connections shall be designed for 50% of uniform allowable load.
- B. All bolted connections of primary framing shall use a minimum of two (2) bolts per connection.

### 1.05 SUBMITTALS:

A. Shop Drawings: Submit shop drawings for structural aluminum. Machine duplicated copies of Contract Drawings will not be accepted. Shop drawings

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shall be standard 24 by 36 inch size sheets. The fabricator's name and address shall be indicated in the title block on each drawing.

- 1. Include anchor bolt and base plate plans, erection drawings, and detail drawings for all members.
- 2. Indicate shop and field welds by standard AWS welding symbols in accordance with AWS A2.4.
- 3. When shop drawings are marked "Approved as Noted", promptly resubmit copies of corrected shop drawings and any requested information as a record copy.

### B. Product Data:

1. Shop Paint: Manufacturer's name and printed product literature, including storage and application instructions.

# C. Samples:

1. Anodized Finish: 6 inches long; use aluminum of same alloy and configuration to be used for the Work.

# D. Quality Control Submittals:

- Certificates: Submit evidence of aluminum material compliance with this Specification. Evidence shall consist of certification of source of material, copies of the manufacturer's certification of inspection and test results.
- 2. Fabricator's and Erector's Qualifications Data: Name and experience of fabricator and erector.
- 3. Welding Procedure Specifications: Submit procedure specifications for each joint to be welded.
- 4. Current welding certificates of all workers providing welding services on this project.

### 1.06 QUALITY ASSURANCE:

- A. Fabricator's and Erector's Qualifications: The fabricator and erector shall be experienced in structural aluminum work and shall be able to reference three (3) successful projects of equal or greater size and complexity.
- B. Welding: All welding procedures, welders, welding operators and tackers shall be qualified in accordance with the AWS Code.

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- C. Alloy Identification: Mill mark aluminum material with alloy and heat treatment designation.
- D. Galvanizing: Stamp galvanized items with galvanizer's name, weight of coating, and applicable ASTM number.

## 1.07 DELIVERY, STORAGE, AND HANDLING:

- A. Coordinate delivery of anchor bolts and other anchorage devices to be built into other construction to avoid delay.
- B. Deliver prefinished items with protective covering, and store and handle such items in a manner that will not cause damage to the finish.
- C. Upon delivery to the site, promptly cover and protect aluminum items.
- D. Store shop paint in accordance with paint manufacturer's printed instructions.
- E. Aluminum shall be stored off grade and kept free of dirt and debris.

### 1.08 ENVIRONMENTAL REQUIREMENTS FOR SHOP PAINTING:

- A. Comply with the following conditions for the application of paint unless otherwise stated in the paint manufacturer's printed directions.
  - 1. Minimum ambient, aluminum surface, and paint temperatures: 50 degrees F.
  - 2. Maximum aluminum surface temperature: 100 degrees F.
  - 3. Maximum relative humidity: 85 percent.
  - 4. Surface of aluminum: Dry.

## **PART 2 - PRODUCTS**

#### 2.01 MATERIALS:

- A. Structural Aluminum: 6061-T6 alloy, conforming to the following specifications:
  - 1. Sheet and Plate: ASTM B 209.
  - 2. Rolled Bars and Rods: ASTM B 211.
  - Extruded Bars, Rods, Shapes, and Tubes: ASTM B 221.

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- 4. Rolled or Extruded Structural Shapes: ASTM B 308.
- 5. Extruded Structural Pipe and Tube: ASTM B 429.

## B. Stainless Steel Fasteners:

- 1. Bolts: 316 alloy, ASTM F 593.
- 2. Nuts: 316 alloy, ASTM F 594.
- 3. Plain Washers: 316 alloy, FS FF-W-92, round, general assembly grade, Class B.
- 4. Lock Washers: 316 alloy, FS FF-W-84, helical spring type, Class C, Style 2.

### C. Stainless Steel Anchors:

- 1. Externally Threaded Wedge Anchors: 303 alloy, FS FF-S-325, Group II, Type 4, Class 1.
- D. Weld Filler Metal: ER5356 filler metal complying with AWS Specification A5.10.
- E. Shielding Gas: Argon or Helium.
- F. Bituminous Mastic: Cold applied asphalt mastic.

## 2.02 FABRICATION:

- A. Progress shop fabrication from "Approved" or "Approved as Noted" detail drawings only.
  - 1. When detail drawings are "Approved as Noted", progress fabrication in strict accordance with notes thereon.
- B. Finish column ends at base plates and at load carrying cap plates to a true plane square to the column.
- C. Pipe and Tube Columns: Shop weld a closure plate to top of columns to form a watertight closure.
- D. Make provisions for connections of other Work, including all cutting and punching of structural members where required by the Drawings, or for which information is furnished prior to approval of the shop drawings.

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- E. Galvanizing: Unless otherwise specified or noted, items indicated to be galvanized shall receive a zinc coating by the hot-dip process, after fabrication, complying with the following:
  - 1. ASTM A 123 for plain and fabricated material.
  - 2. ASTM A 153 for iron and steel hardware.
- F. Cleaning Aluminum: Thoroughly clean structural aluminum. Remove oil, grease, and similar contaminants in accordance with SSPC SP-1 "Solvent Cleaning".
  - 1. Etch aluminum surfaces if so, recommended by the manufacturer of the shop paint (general).
- G. Anodized Finish: Comply with the Standards for Anodized Architectural Aluminum by the Aluminum Association. Do not anodize aluminum surfaces within 3 inches of any surface to be field welded.
  - Clear Anodized Finish: AA-M10-622-A31.

# **PART 3 - EXECUTION**

### 3.01 EXAMINATION:

A. Verification of Conditions: Examine surfaces to receive aluminum framing for defects that will adversely affect the execution and quality of the Work. Do not proceed until unsatisfactory conditions are corrected.

#### 3.02 PREPARATION:

A. Isolate aluminum surfaces to be permanently fastened in contact with ferrous metal surfaces, concrete, or masonry by coating the aluminum surfaces with a 150 mil wet film coat of bituminous mastic, prior to installation.

## 3.03 ERECTION:

- A. Whenever piles of material, erection equipment or other loads are carried during erection, make proper provision to compensate for stresses resulting from such loads. Install temporary bracing as necessary to take care of all loads to which the structure may be subjected, including equipment and the operation of same. Such bracing shall be left in place as long as may be required for safety.
- B. Erect structural aluminum framing plumb, level, and in true alignment.

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- C. As erection progresses, temporarily brace the Work to take care of dead load, wind, and erection stresses.
- D. Do not perform permanent bolting or welding until as much of the structure as will be stiffened thereby has been properly aligned and plumbed.
- E. Do not use gas or air carbon-arc cutting to cut or enlarge bolt holes.
- F. Do not make corrections or alterations to fabricated aluminum without prior written approval by the Engineer.
  - 1. Do not cut or abrade finishes which cannot be completely restored in the field. Return such items to the shop for required alterations and complete refinishing.
- G. Tolerances: Individual pieces will be considered plumb, level, and aligned if the error does not exceed 1:500.

## 3.04 CLEANING:

A. Remove protective coverings and clean exposed surfaces.

### **END OF SECTION**

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### LIGHTNING PROTECTION

## **PART 1 - GENERAL**

- **1.01 RELATED DOCUMENTS:** The Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- **1.02 SUMMARY:** This Section includes lightning protection for the structures described on the Drawings.

## 1.03 DEFINITIONS:

- A. LPI: Lightning Protection Institute
- B. NRTL: National recognized testing laboratory.

### 1.04 SUBMITTALS:

- A. Product Data: For air terminals, mounting accessories, lightning protection and grounding conductors.
- B. Shop Drawings: Detail lightning protection system, including air-terminal locations, conductor routing and connections, and bonding and grounding provisions. Include indications for use of raceway, data on how concealment requirements will be met, and calculations required by NFPA 780 for bonding of grounded and isolated metal bodies. Provide layout drawings at the same scale as contract drawings. Include terminal, electrode and conductor sizes and connection and termination details.
- C. Qualification data for firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include data on listing or certification by an NRTL or LPI.
- D. Field inspection reports indicating compliance with specified requirements. Certificate of compliance from authority having jurisdiction, and LPI indicating approval of lightning protection system.
- E. Provide UL Master Label for the system.
- F. Project Record Documents: Record actual locations of air terminals, grounding electrodes, bonding connections and routing of the system conductors in project record documents.

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#### 1.05 QUALITY ASSURANCE:

- A. Installer Qualifications: Engage an experienced installer who is an NRTL or who is certified by LPI as a Master Installer/Designer.
- B. Listing and Labeling: As defined in NFPA 780, "Definitions" Article.

## 1.06 COORDINATION:

- A. Coordinate installation of lightning protection with installation of other building systems and components, including electrical wiring, supporting structures and building materials, metal bodies requiring bonding to lightning protection components, and building finishes.
- B. Coordinate installation of air terminals attached to roof systems with roofing manufacturer and Installer.

## **PART 2 - PRODUCTS**

### 2.01 LIGHTNING PROTECTION SYSTEM COMPONENTS:

- A. Comply with UL 96 and NFPA 780.
- B. Solar rails shall be bonded to the MSP ground with appropriate size continuous copper.
- C. Air Terminals are not anticipated and if used: NFPA 780, copper unless otherwise indicated.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into Work include but are not limited to the following:
    - a. ERICO International Corporation
    - b. Heary Bros. Lightning Protection Co., Inc.
    - c. Robbins Lightning, Inc.
    - d. Thompson Lightning Protection, Inc.
    - e. Independent Lightning Protection
    - f. Lightning Eliminators and Consultants, Inc.
- D. Ground Rodsif used: Copper-clad steel, 3/4 inch x 20 feet.
- E. Conductors: Copper
- F. Stand offs to prevent lightning and grounding conductors from making contact with metal roof.

G. Connection and Splices: Copper

## **PART 3 - EXECUTION**

## 3.01 INSTALLATION:

- A. Install lightning protection components and systems according to NFPA 780.
- B. Install conductors with direct paths from air terminals to ground connections. Avoid sharp bends and narrow loops.
- C. Conceal the following conductors:
  - 1. Down conductors.
  - 2. Interior conductors.
  - 3. Notify Engineer at least 48 hours in advance of inspection before concealing lightning protection components.
- D. Cable Connections: Use approved exothermic-welded connections for all conductor splices and connections between conductors and other components, except those above single-ply membrane roofing.
- E. Bond exterior metal bodies on building to lightning protection system.
- F. Provide ground loop and ground rods required by NFPA 780.
  - 1. Bond ground terminals to counterpoise conductor.
  - 2. Bond grounded metal bodies on building within 12 feet of ground to counterpoise conductor.
  - 3. Bond grounded metal bodies on building within 12 feet of roof to counterpoise conductor.

## 3.02 CORROSION PROTECTION:

- A. Do not combine materials that can form an electrolytic couple that will accelerate corrosion in the presence of moisture unless moisture is permanently excluded from junction of such materials.
- B. Use conductors with protective coatings where conditions would cause deterioration or corrosion of conductors.

### 3.03 FIELD QUALITY CONTROL:

A. UL Inspection: Provide inspections as required to obtain a UL Master Label for system.

### **END OF SECTION**

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### SOLAR ENERGY ELECTRICAL POWER GENERATION EQUIPMENT

## **PART 1 - GENERAL**

#### 1.01 WORK INCLUDED:

- A. Furnish all labor, materials, equipment and incidentals necessary to build North Florida College a new 400 kW photovoltaic (PV) solar energy system spread over 4 roof tops. All Electrical work shall be in accordance with Division 16 and shall meet or exceed standards for a municipal 480-volt, 3-phase, grid-connected, solar array. The PV solar array shall contain all of the components required and described and as required to provide a complete and operating grid- connected system. Three of four buildings power is from a single transformer, a single meter and a main distriution panel.
- B. The Contractor shall interconnect the Photovoltaic (PV) power systems to the electric utility connection such that the PV system is paralleled with the utility. The PV system shall utilize static (solid-state) inverters for conversion of direct current (dc) to alternating current (ac).
- C. The design presented on the drawings represent a desired configuration but it shall be the contractor's responsibility to provide a delegated designer to design a system that utilizes current production components that are readily available without notable supply chain delay. The completed design shall meet all applicable codes and utility power company requirements.
- D. Alternate array configurations may include PV modules with between 66 and 144 cells, string length with DC voltages up to 90% of a 1,000-1500 volt rating; a reduction of the number of inverters to no less than 4 total; rearrangement of the PV module string but to reduce winter shading and for the array to stay within the shown roof footprint with fire setbacks while still maintaining maintenance access.

## 1.02 RELATED DOCUMENTS:

## A. Weathering:

- 1. ASTM E1038-Standard Test Method for Determining Resistance of Photovoltaic Modules to Hail by Impact with Propelled Ice Balls
- 2. ASTM E1171- Standard Test Method for Photovoltaic Modules in Cyclic Temperature and Humidity Environments
- 3. ASTM E1596- Standard Test Methods for Solar Radiation Weathering of Photovoltaic Modules

- 4. ASTM E1597- Standard Test Method for Saltwater Pressure Immersion and Temperature Testing of Photovoltaic Modules for Marine Environments
- 5. ASTM E1802-Standard Test Methods for Wet Insulation Integrity Testing of Photovoltaic Modules
- 6. ASTM E2047- Standard Test Method for Wet Insulation Integrity Testing of Photovoltaic Arrays
- 7. ASTM E1830- Standard Test Methods for Determining Mechanical Integrity of Photovoltaic Modules
- 8. ASTM E781- Standard Practice for Evaluating Absorptive Solar Receiver Materials When Exposed to Conditions Simulating Stagnation in Solar Collectors With Cover Plates
- ASTM E782- Standard Practice for Exposure of Cover Materials for Solar Collectors to Natural Weathering Under Conditions Simulating Operational Mode
- 10. ASTM E823- Standard Practice for Nonoperational Exposure and Inspection of a Solar Collector
- 11. ASTM E881- Standard Practice for Exposure of Solar Collector Cover Materials to Natural Weathering Under Conditions Simulating Stagnation Mode

## B. Calibration:

- ASTM E1039- Standard Test Method for Calibration of Silicon Non-Concentrator Photo-voltaic Primary Reference Cells Under Global Irradiation
- ASTM E1362- Standard Test Method for Calibration of Non-Concentrator Photovoltaic Secondary Reference Cells

# C. Energy Performance:

- 1. ASTM E948- Standard Test Method for Electrical Performance of Photovoltaic Cells Using Reference Cells Under Simulated Sunlight
- 2. ASTM E1021- Standard Test Methods for Measuring Spectral Response of Photovoltaic Cells
- 3. ASTM E903- Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres
- 4. ASTM E1040- Standard Specification for Physical Characteristics of Nonconcentrator Terrestrial Photovoltaic Reference Cells
- 5. ASTM E1462- Standard Test Methods for Insulation Integrity and Ground Path Continuity of Photovoltaic Modules

### D. Miscellaneous:

UL 1703 - Flat-Plate Photovoltaic Modules and Panels

2. IEEE 929 - Utility Interface of Photovoltaic (PV) Systems

### 1.03 QUALITY ASSURANCE - ACCEPTABLE CONTRACTORS:

- A. For a Contractor's proposal to be considered, the Contractor will be required to demonstrate compliance with the experience criteria identified in Section 00200, Instruction to Bidders. Contractor must meet all experience requirements including 480 volt, 3-phase system experience. Proposals from residential-type or small commercial- type contractors will not be considered.
- B. The contractor should utilize a NABCEP certified installer and shall have Operation & Maintenance licenses. Likewise, the installer shall be fully licensed with Electrical & General Contractor licenses for solar specific scope.
- **1.04 SUBMITTALS:** Submittals shall be in accordance with Section 01300, SUBMITTALS and shall include:
  - A. Shop Drawings and Equipment Specifications:
    - Solar modules
    - 2. Solar module mounting system components
    - Inverters
    - 4. Wiring materials and devices
    - 5. Site-specific geotechnical report
    - 6. Engineers design calculations for mounting rack system
    - 7. Engineers design of alternate array configuration utilizing current production comp sheets.
  - B. Submit calculations indicating the energy produced by the system relative to the total energy demand for the system. Energy production shall be shown as a total for each month of the calendar as well as a total for an average year. All calculations shall be signed and sealed by a Florida licensed professional engineer with documented PV system experience.
  - C. Upon completion of the demolition work at the project site, the Contractor's work includes geotechnical investigations as called for in Section 02210 Soil Borings. Following this field work, the Contractor shall submit a geotechnical engineering report which contains recommendations for installation of the solar mounting rack system. Additionally, or separately, the Contractor shall submit engineering design calculations for the mounting rack system. Both of these tasks shall be performed by a Professional Engineer licensed in the State of Florida.
  - D. Construction Details: The Contractor shall prepare and submit the solar

array shop drawings prior to the ordering of the Solar Panel Power Assembly to the Engineer for review and approval. All details shall be sealed and signed by a Professional Engineer who has a valid license in the State of Florida with documented PV system experience. The shop drawings shall include but not be limited to:

- 1. Details of the complete installation of the system and all the components to be supplied, including a plan that shows the physical location of all devices on the site.
- 2. Details of all connections between the solar array components and all other associated components. All connection details shall have wiring and conduit shown as well as routing shown on plans and details.
- 3. Instruction sheets and wiring diagrams for the equipment to be installed.
- 4. The manufacturer specifications, catalog cuts, and parts lists.
- 5. The manufacturer installation and operation guides.
- 6. The Contractor's equipment installation shall include pre-setting of the equipment, solar panel direction optimization and configuration of hardware components which shall allow automatic operation. The solar array shall be installed in the field location as shown on the Drawings. The power output of the solar array shall be connected to the main electric utility connection and shall have a non-fused disconnect switch to isolate the solar energy electrical power generation equipment from the grid.
- 7. Complete installation details for all equipment showing all components, mounting hardware, and devices.
- 8. The Contractor shall prepare a Progress Energy Net Metering Agreement modification ready for the Owner's signature and submittal.

### E. Documentation:

1. The Contractor shall prepare an "Operating Manual" for the new system and it shall be submitted to the Engineer for review at least twenty (20) days prior to the scheduled start-up of the array. The Contractor shall verify the manufacturer's equipment manual as part of the test and integration process. The manuals shall, as a minimum, include the following:

- a. Operating Instructions including energy production calculations.
- b. Manufacturer's cut sheets on the PV modules.
- c. Manufacturer's cut sheets on the inverters.
- d. Manufacturer's cut sheets on the mounting rack.
- e. Complete and accurate schematic diagrams.
- f. Complete list of replaceable parts including names of vendors for parts not identified by universal part numbers.
- g. Annual Maintenance Requirements checklist.
- h. Complete maintenance and troubleshooting procedures.
- I. Copy of manufacturer's warranties.

## 1.05 DELIVERY, STORAGE, AND HANDLING:

- A. Deliver system components to their final locations in protective wrappings, containers, and other protection that will exclude dirt and moisture and prevent damage from construction operations. Remove protection only after equipment is safe from such hazards.
- B. Store the system components as recommended by manufacturer.

#### 1.06 WARRANTY:

- A. In addition to the Contractor's standard one (1) year warranty, the equipment manufacturers shall provide the following warranties:
  - 1. Solar Modules: Manufacturer's 10-year warranty on materials and workmanship and a 25-year linear performance warranty.
  - 2. Solar Inverters: Manufacturer's standard 5-year warranty plus prepaid 5-year extended warranty for a total of 10 years of factory coverage.
  - 3. The Solar Contractor shall send a representative out to the jobsite one year after final completion to re-test the solar energy electrical power generator equipment at no extra cost to the Owner. As proof of this work, the Contractor shall complete the Annual Maintenance Requirements Checklist that was included in the operating manual and provide the Owner with a written list of maintenance requirements and/or suggestions.

# PART 2 - PRODUCTS

### 2.01 BASIC REQUIREMENTS:

- A. 480V, 3-Phase, 4-Wire System
- B. The Solar Energy Electrical Power Generation Equipment shall be non-islanding.
- C. Comprised of 1,260 PV panels having an STC rating of 425 watts each.

#### 2.02 SOLAR PANELS:

- A. The Solar Panels shall utilize superior monocrystalline, N-Type cells and shall be designed and manufactured by a Tier 1 manufacturer in an ISO 9001 factory. Utilizing all-back contact solar cells, the Solar Panels shall deliver a total panel conversion efficiency of greater than 20%. The Solar Panels shall have a reduced voltage temperature coefficient and a low-light performance attributes that shall provide optimal energy delivery per peak power watt. Solar Panels (modules) shall have the following minimum physical and electrical characteristics:
  - 1. 66-172 solar cells per module
  - 2. Module size similar to: 79.7" x 40.3" x 1.57"
  - 3. Peak Power: (+/-5%) (Pmax) of at least 425W (STC)
  - 4. Rated Voltage minimum: (Vmpp) 40.V
  - 5. Rated Current (Impp) minimum: 10 A
  - 6. Open Circuit Voltage (Voc) max: 60.V
  - 7. Short Circuit Current (Isc) max: 20.A
  - 8. Maximum System Voltage (UL): 1500V
  - 9. Warrantied Output after 25 years: 90%
  - 10. Front Face Load Rating: 100 psf
  - 11. Rear Face Load Rating: 80 psf
- B. Panel shall have anodized aluminum frames, tempered glass with AR coating. Acceptable Manufacturer: Canadian Solar or Mission Solar or approved equal Tier one manufacturers.
- C. Spare Units: Ten (10) spare module shall be furnished to the Owner. These units shall be placed into storage so that identical spare units will be available in case a panel is damaged in the future.

### 2.03 INVERTER:

- A. The Inverter shall automatically convert DC electrical power from the solar array into utility grade AC power. The inverter shall be sized for the system as drawn. The entire completed system shall be compatible with the utility power. Each inverter shall have the minimum following characteristics:
  - 1. Minimum capacity: 40 kW
  - 2. Power Inverter minimum efficiency at peak: 98.5%

- 3. DC operating range: 240-1500 volts
- 4. Maximum DC operating current: 125A
- 5. AC output voltage: 480 volts, 3-phase
- 6. AC output current: 100 amps
- 7. Enclosure: NEMA 4X
- 8. Ambient Temperature Range: -22 to 140°F
- 9. Anti-islanding design
- 10. Web-based monitoring

## B. Grounding

- Systems shall be installed with proper grounding and inverter configuration procedures in order to perform optimally to their specifications. The grounding shall be such that panels only see negative voltage as referenced to ground.
- C. Acceptable manufacturers: Chint Power Systems, SMA-America Growwatt, or approved equal.
- 2.04 MODULE SUPPORT RACK: The entire solar array shall be arranged in module strings as called for on the Drawings or similar. Each module shall be supported on a aluminum support system manufactured by PLP Preformed Line Products, Power Peak GS System or approved equal. Each module shall be connected to the frame using extruded aluminum end module clamps and 316 stainless steel fasteners. The entire rack system shall be load rated to meet criteria shown on the drawings and to meet the Florida Building Code.
- **2.05 ELECTRICAL WIRING DEVICES:** The solar modules shall be electrically interconnected using cables having a rating of 1,800 volts DC with an insulation rating of 90°C. Wiring cables, mating connectors, and devices shall be Tyco Solarlok or approved equal.

## PART 3 - EXECUTION

### 3.01 INSTALLATION:

- A. The Contractor shall coordinate the location and mounting of all equipment and devices with the Owner and Engineer prior to installation. The Contractor shall obtain written approval of all shop drawings and installation details prior to the start of construction.
- B. The Contractor shall be responsible for providing all mounting hardware for all devices and shall submit details of the complete installation of the system and all the components to be supplied, including a plan that shows the physical location of all devices on the site. The Contractor shall provide a drawing of all mounting devices for review.

- C. The Contractor shall provide all wiring and conduit as required by the Solar Energy Electrical Power Generation Equipment manufacturer for a complete and operational system. The Contractor shall provide a fully operational assembly with all cabling and terminations matched to support the selected components.
- D. The Contractor shall provide a service entrance rated, disconnect for disconnecting the Solar Energy Electrical Power Generation Equipment from the utility source. The Contractor shall size the disconnect switch for the full load capability of the Solar Energy Electrical Power Generation Equipment and as required by the National Electrical Code.
- E. The Contractor shall install the Solar Energy Electrical Power Generation Equipment per the National Electrical Code (NEC) Article 690. The Solar Energy Electrical Power Generation Equipment Solar Photovoltaic Systems shall be UL listed for utility interface inverters. The Contractor shall provide wiring, conduit, overcurrent protection, etc. as required by the National Electrical Code.
- F. The panel bird spikes shall be attached using Sikaflex-1a glue or equal.

**END OF SECTION** 

### **SOLAR ARRAY SCADA SYSTEM**

## **PART 1 - GENERAL**

- **1.01** Supervisory Control and Data Acquisition system (SCADA) requirements include design, engineering, labor, material, products, guarantee, training and services for, and incidental to, the complete installation of a new and fully functional SCADA system for the Project.
- 1.02 Contractor shall be responsible for installing communication lines within the Project. Contractor shall be responsible for all SCADA equipment, software and programming inside Project and for all SCADA-related communications equipment to communicate with all Contractor-provided equipment.
- **1.03** The SCADA system shall include all instrumentation, hardware and capability to support the required data acquisition and equipment control requirements of the Project along with any requirements by utility.

## **PART 2 - PRODUCTS**

## 2.01 BASIC REQUIREMENTS

- A. Devices shall be UL listed and labeled by a Nationally Recognized Testing Laboratory (NRTL).
- B. Enclosures shall be NEMA 1 for indoor locations, NEMA 4X for outdoor locations.
- C. Fuse holders shall be finger safe.
- D. Equipment shall be rated for continuous operation at 50°C ambient temperature unless located in an environmentally-controlled building.
- E. Equipment shall be provided with 8-hr battery backup UPS.

## 2.02 OPERATOR REQUIREMENTS

- A. The SCADA system shall comply with all requirements set forth herein by the Developer including:
  - 1. Monitoring, reporting, and control requirements
  - 2. Contractor shall configure and test SCADA equipment to verify that all aspects of required control and technical Developer specifications

are satisfied.

3. Contractor shall submit a test plan to Developer at least 60 days prior to Commissioning. SCADA test plan shall include detailed test procedures for confirming SCADA system is in compliance with Developer requirements.

## 2.03 COMMUNICATION SYSTEM

- A. The communication system shall consist of the following:
  - 1. A network which shall extend to each inverter.
  - Cellular modem with at least Two (2) years plan at each location or Shielded CAT 5 cables from point to point shall have a minimum of 100% spare cables. Contractor may use fiber optic cables but shall still provide 100% spare fibers. May use existing conduit or existing fiber is available by NFC.
- B. At nodes in the network, managed switches shall be used.
  - 1. Switches shall be approved by Developer.
  - 2. Switches shall have a minimum of one spare port.
- C. The communication protocol between the primary SCADA system location and inverters shall be cellular modem or Ethernet TCP/IP with MODBUS TCP.

#### 2.04 COMPONENT LEVEL COMMUNICATION

- A. If fiber is utilized, communication between fiber nodes and equipment at each node (such as inverters and data loggers) shall be copper Ethernet.
  - Transmission speed shall be 100BASE-T.
  - 2. Ports shall be standard Ethernet RJ-45.
  - 3. Cabling shall be a minimum of CAT 6 with a jacket rating of CMR or CMP.
- B. Communication between components such as data loggers, sub meters, inverters, and sensor I/O components shall comply with the component manufacturer's installation instructions.
  - 1. The cable shield shall be grounded on one end of the cable only.
  - 2. Termination resistors shall be used at each end of any daisy chain

connections in accordance with device manufacturer instructions.

C. Inverters that have a proprietary communication protocol shall be ordered with conversion devices to connect them to the network.

### 2.05 SENSOR LEVEL COMMUNICATION

- A. Cabling shall be specified by the component manufacturer or provided with the sensors.
- B. Sensor cabling that is not completely contained within enclosures and conduit shall be outdoor and UV rated.
- C. Sensor cabling shall not exceed the manufacturer's recommended maximum length.

## 2.06 METERING

- A. AC Metering shall be provided by Contractor and located in the switchgear at the POI.
- B. The SCADA system shall communicate with meters.

### 2.07 SCADA CONTROL EQUIPMENT

- A. System data shall be recorded with the following detail:
  - 1. The main ac meter data shall be recorded at 15 minute intervals.
  - 2. Inverter data and fault codes shall be recorded at 15 minute intervals.
- B. The SCADA system shall have provisions for full remote access via internet software.
- C. A firewall shall be installed between the Project network and the incoming connection if required by NFC.
- Single pair instrument cable shall be rated 600V minimum, with XLP or PVC insulation.
- E. Multiple pair instrument cable shall be rated 600V minimum, with XLP or PVC insulation.
- F. Single or multiple twisted shielded pair cable shall include a drain wire and an overall PVC jacket.

G. Data communications cable shall be stranded copper AWG 18-22, twisted pair, shielded and sized as equivalent.

#### 2.08 SCADA SYSTEM SOFTWARE FUNCTIONALITY

A. The SCADA system and user interface, or Human Machine Interface (HMI), shall be based on commercially-available software. Software selection shall be submitted by Contractor for Developer approval.

#### B. External Interfaces

1. An external interface shall be available to authorized users to view the SCADA system screens through an Internet browser.

## **PART 3 - EXECUTION**

#### 3.01 INSTALLATION:

- A. The Contractor shall coordinate the location and mounting of all equipment and devices with the Owner and Engineer prior to installation. The Contractor shall obtain written approval of all shop drawings and installation details prior to the start of construction.
- B. The Contractor shall be responsible for providing all mounting hardware for all devices and shall submit details of the complete installation of the system and all the components to be supplied, including a plan that shows the physical location of all devices on the site. The Contractor shall provide a drawing of all mounting devices for review.
- C. The Contractor shall provide all wiring and conduit as required by the SCADA system equipment manufacturer for a complete and operational system. The Contractor shall provide a fully operational assembly with all cabling and terminations matched to support the selected components.
- D. The Contractor shall provide software for the Colleges' existing computer equipment and shall provide on-site training to the Colleges' staff in the presence of the Engineer.

# **END OF SECTION**

#### GENERAL ELECTRICAL REQUIREMENTS

## **PART 1 - GENERAL**

- **1.01 SECTION INCLUDES:** General information on electrical installation not covered elsewhere. This section applies to all other electrical sections.
- 1.02 DEFINITIONS: For the purposes of this contract, the term "Provide" shall mean to furnish and install services, material, and equipment complete and ready for intended use.
- 1.03 ELECTRICAL SUBCONTRACTOR QUALIFICATIONS: The electrical Subcontractor shall have at least 5 years of experience with projects of similar size and scope. Submit three example projects that verify this experience. Provide contact name and phone number for customer for each project.

### 1.04 PROJECT DESCRIPTION:

- A. This project includes all necessary labor and materials, including, but shall not be limited to the following:
  - 1. Temporary electric service and electrical distribution for construction purposes.
  - 2. Permanent building service entrance equipment, feeder distribution and all solar array system wiring.
  - 3. All underground electrical work.
  - 4. Motor control centers, panelboards and feeder and branch circuits to electrical devices, lighting fixtures, and other electrically operated equipment.
  - 5. Electrical equipment including disconnects, devices, switches, and light fixtures.
  - 6. Empty conduits and outlets for SCADA, telephone and internet system.
  - 7. Coordination with other subcontractors.

#### 1.05 INTERPRETATION:

- A. Specifications and Drawings shall be considered as supplementary to each other, requiring materials and labor indicated, specified, or implied by either Specifications or Drawings. Contradictions shall be presented to the Engineer for resolution.
- B. Interpretation of Specifications or Drawings, where deemed necessary, shall be made only by the Engineer.

## 1.06 CODES, STANDARDS, ORDINANCES, AND PERMITS:

- A. The National Electrical Code (NEC), The Florida Building Code, National Electric Safety Code and OSHA shall establish the minimum requirements for installation, but in addition, all work shall also comply with Local, County or Municipal Code requirements. If there is a conflict between the NEC and local, state, county, or municipal codes, conform to the more stringent of the two. Similarly, if the local Authority Having Jurisdiction has not adopted the latest revision of the NEC and is still using an earlier version, conform to the more stringent of the two.
- B. Be familiar with local Code requirements and local Utility Company Standards for electrical service requirements, and make installation in accordance with such requirements.
- C. In case of conflict between the Contract Documents and a governing code or ordinance, such conflict shall be immediately brought to the attention of the Engineer for resolution.
- D. Apply for, obtain, and pay for all required permits and inspection certificates. Final payment is contingent upon delivery of such permits and certificates to the Engineer.
- **1.07 SITE INSPECTION:** Visit the site and thoroughly inspect conditions affecting the Work before submitting Bid.

#### 1.08 CUTTING AND PATCHING:

- A. Place all sleeves, inserts, conduit hangers, etc. as construction progresses to avoid any unnecessary cutting of structural members. Cooperate with other Subcontractors in location of electrical equipment that may conflict with location of other equipment.
- B. Obtain authorization from the Engineer for any necessary cutting of building structure to facilitate installation of this work and do not proceed until authorization has been received. Limit necessary cutting and patching to the minimum size required for installation of conduit or apparatus.

### 1.09 SUBMITTALS:

- A. Submit Shop Drawings, catalog sheets, wiring diagrams, or other descriptive data with sufficient information to establish design, quality and performance. Data shall describe apparatus, equipment, panels, fixtures, and other items requiring descriptive literature. Provide submittals as a single package including all required electrical items. Partial packages will not be reviewed. Submittals items shall be in accordance with the individual specification sections and include, but shall not be limited to, the following:
  - 1. Service Equipment
  - 2. Panelboards
  - 3. Starters
  - 4. Disconnects and Fuses
  - Switches
  - 6. Wiring Devices
  - 7. Wiring and Conduit
  - 8. Surge Protective Devices
  - 9. Transformers
  - 10. Light Fixtures
  - 11. Light Poles
  - 12. Evidence of Contractor Qualifications and Experience (see para. 1.03)

### 1.10 MAINTENANCE DATA:

- A. Collect and retain maintenance and service data supplied with equipment furnished and installed under this Contract until job completion, at which time deliver to the Engineer. Comply with Section 01730.
- B. Keep one set of prints current of any changes or variations by marking prints in a legible manner. Maintain As-Built drawings on a daily basis.

#### 1.11 TEMPORARY ELECTRIC SERVICE:

- A. Provide complete temporary system of power and lighting wiring for use during construction and for testing of equipment.
- B. When proposed work will interrupt an existing backup power system the contractor shall provide an appropriately sized temporary backup power system capable of providing interim coverage. The contractor shall provide a written plan of action to ensure back-up power is available at all times during construction of the project. All costs associated with the temporary back-up power system shall be the contractor's responsibility including, but not limited to: generator, fuel supply, automatic transfer switch, junction boxes, conduit, conductors, grounding, etc.
- C. Comply with OSHA and NEC including personnel ground-fault protection requirements.

### 1.12 ELECTRIC SERVICE:

- A. Primary electrical service and service transformer(s) will be provided by local utility. The configuration and equipment locations indicated are tentative. Contact Utility in advance and verify availability and configuration of electrical service as indicated.
- B. Provide all labor, materials and equipment not provided by the Utility in accordance with Utilities' installation policies and procedures. Should a significant installation conflict occur, notify the Engineer immediately for resolution before starting any work. The Contractor shall include any and all fees associated with establishing electrical power service in their bid.
- **1.13 INTERNET/TELEPHONE SERVICE:** Provide all labor, materials and equipment not provided by the internet service provider/telephone company in accordance with the ISP/telephone company's installation policies and procedures.

## 1.14 COORDINATION - GENERAL:

- A. Drawings are generally diagrammatic. Review all project Drawings and coordinate all work with different trades prior to installing any work so that interferences between electrical work and ducts, piping, equipment, and structural work will be avoided. Do not install conduits, boxes and fittings in spaces required for equipment or piping.
- B. Furnish all necessary offsets in raceways, fittings, etc., required to properly install work so as to take up minimum space. Install all equipment to provide code required "working space".
- C. In case interference develops, the Contractor will decide which trade work must be relocated regardless of which was installed first. Damage from interference or rework caused by inadequate coordination with other trades shall be rectified without additional cost.
- D. Within 30 days following award of Contract, report to the Engineer in writing all real or potential errors, ambiguities and/or conflicts on electrical work or between trades.

### 1.15 COORDINATION - ELECTRICAL/MECHANICAL:

A. Unless specifically required otherwise, make all power wiring connections to all water heaters, pumps, machinery, appliances, water coolers and other electrically-operated equipment as indicated on the Drawings or as required. Furnish and install disconnect switches, starters and protective devices as indicated on the Drawings, except for items furnished with integral disconnect switches and/or starters. Coordinate the exact location of receptacles, flexible conduit, and

- disconnects for mechanical and plumbing equipment with the mechanical or plumbing contractor.
- B. Review approved Shop Drawings and verify final electrical characteristics and wiring before rough-in of power feeds to any equipment. When electrical data on approved Shop Drawings differs from contemplated design, make necessary adjustments to wiring, disconnect, and branch-circuit protection for equipment actually installed.

# **PART 2 - PRODUCTS**

## 2.01 MATERIALS:

- A. All materials used in this project shall be new, unless otherwise noted, and listed by the Underwriters' Laboratories, Inc. as conforming to its standards where such standards have been established. These materials shall bear the UL label.
- B. Before purchasing any equipment, the Contractor shall reconfirm the availability of the project's voltage, phase, and service configuration with the Drawings.
- C. Where materials, equipment, apparatus or other products are specified by manufacturer, brand name, type or catalog number, such designation is to establish standards of desired design or quality and shall be basis of Bid.

# **PART 3 - EXECUTION**

**3.01 CLEANUP:** After electrical installation, remove all rubbish, trash and debris from the site and dispose of in an approved manner.

# **END OF SECTION**

### **GROUNDING AND BONDING**

## PART 1 - GENERAL

### 1.01 SECTION INCLUDES:

- A. Grounding electrodes and conductors, equipment grounding conductors, and bonding to complete grounding system consisting of:
  - 1. Metal underground water pipe, if available.
  - 2. Effectively bonded and grounded metal frame of the building.
  - 3. Concrete-encased electrode.
  - 4. Rod electrodes.
- **1.02 REFERENCES:** NFPA 70 National Electrical Code, NFPA (edition adopted by Authority Having Jurisdiction).
- **1.03 PERFORMANCE REQUIREMENTS:** Grounding System Resistance: 5 ohms.

## 1.04 QUALITY ASSURANCE:

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience with service facilities within 100 miles of Project.
- C. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

## 2.01 ELECTRODES:

A. Rod Electrodes: Copper.

1. Diameter: 3/4 inch (19 mm).

2. Length: 10 feet (3000 mm).

B. Concrete Encased Electrode: Per NEC 250.52(A)(3), provide concrete encased electrode. The electrode shall be encased in at least 2 inches of concrete, located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth. The electrode shall consist of at least 20' of conductive steel reinforcing bars or rods of not less than ½" diameter or 20' of bare copper conductor not smaller than no. 4.

### 2.02 CONNECTORS AND ACCESSORIES:

- A. Equipment Grounding Conductor: THWN Stranded copper with green coding.
- B. Grounding Electrode Conductor: Size to meet NFPA 70 requirements.

## **PART 3 - EXECUTION**

**3.01 EXAMINATION:** Verify existing conditions prior to beginning work.

### 3.02 INSTALLATION:

- A. Install ground electrodes at locations indicated. Install additional rod electrodes as required to achieve specified resistance to ground.
- B. Provide grounding electrode conductor and connect to metal water pipe (if available), ground rods, reinforcing steel in foundation footing, structural steel, and any other items required by NEC Article 250 and local codes. Bond steel together.
- C. Provide bonding to meet requirements described in Quality Assurance.
- D. Bond equipment such as metallic housing and feeder metallic conduits to grounding conductor. Use grounding bushings, on service conduit and at other points where grounding continuity is broken.
- E. Provide a bonding jumper for any equipment, motor, fixture or device to which current carrying conductors are connected that is not bonded directly to the grounded system. Connect bonding jumper to approved lugs and grounding conduit bushings or clamps.
- F. Equipment Grounding Conductor: As indicated on Drawings, provide separate, insulated grounding conductor within each feeder and branch circuit raceway (sized per NEC Section 250 if not indicated). Terminate each end on suitable lug, bus, or bushing. Metal raceways shall not be used as the sole method of grounding.

0808-06-1 160600-2 Grounding and Bonding

# 3.03 FIELD QUALITY CONTROL:

- A. Test grounding system to ensure continuity and that resistance to ground is not excessive (above 5 ohms). Test each ground rod for resistance to ground before making connections to rod; tie grounding system together and test for resistance to ground. Make resistance measurements in dry weather, not earlier than 48 hours after rainfall.
- B. Provide ground test results.

**END OF SECTION** 

### **ELECTRICAL IDENTIFICATION**

# **PART 1 - GENERAL**

- **1.01 SECTION INCLUDES:** Nameplates and labels.
- **1.02 REFERENCES:** NFPA 70 National Electrical Code, National Fire Protection Association (edition adopted by Authority Having Jurisdiction).

### 1.03 QUALITY ASSURANCE:

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. As suitable for purpose specified and shown.

# **PART 2 - PRODUCTS**

### 2.01 NAMEPLATES AND LABELS:

- A. Nameplates: Engraved three-layer laminated plastic, black letters on white background.
- B. Locations:
  - 1. Each electrical distribution and control equipment enclosure.
- C. Letter Size:
  - 1. Use 1/8 inch (3 mm) letters for identifying individual equipment and loads.
  - 2. Use 1/4 inch (6 mm) letters for identifying grouped equipment and loads.
- D. Labels (for Power Outlets): Embossed adhesive tape, with 1/8 inch (3 mm) black letters on clear background. Use only for identification of appliances and equipment with their own branch circuits. Label outlet with name of load, panel and circuit number.

0808-06-1 160750-1 Electrical Identification

# **PART 3 - EXECUTION**

**3.01 PREPARATION:** Degrease and clean surfaces to receive nameplates and labels.

# 3.02 INSTALLATION:

- A. Install nameplates and labels parallel to equipment lines.
- B. Secure nameplates to equipment front.
- C. Secure nameplates to inside surface of door on panelboards that are recessed in finished locations.

### **END OF SECTION**

0808-06-1 160750-1 Electrical Identification

### **WIRE AND CABLE**

## **PART 1 - GENERAL**

# 1.01 SECTION INCLUDES:

- A. Wire and cable for 600 volts and less.
- B. Wiring connectors and connections.

#### 1.02 REFERENCES:

- A. NECA (INST) NECA Standard of Installation; National Electrical Contractors Association.
- B. NFPA 70 National Electrical Code, National Fire Protection Association (edition adopted by Authority Having Jurisdiction).

### 1.03 QUALITY ASSURANCE:

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience and with service facilities within 100 miles (160 km) of Project.
- C. Products: Furnish products listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

### PART 2 - PRODUCTS

### 2.01 WIRING REQUIREMENTS:

- A. Use only wire with Type THWN/THHN (dual rated) insulation in raceway. Wire shall be color coded per the NEC and as follows:
  - 1. 480/277V, 3 Phase, 4 Wire System: Brown, Orange, Yellow with White Neutral and Green Ground.
  - 2. 120/240V, 120/208V 1 Phase, 3 Wire System: Red and Black with White Neutral and Green Ground.
  - 3. 120/240V, 120/208V, 3 Phase, 4 Wire System: Black, Red, Blue with White Neutral and Green Ground.

- B. Use solid conductor for feeders and branch circuits #10 AWG and smaller. Use stranded conductors for feeders and branch circuits #8 AWG and larger.
- C. Use stranded conductors for control circuits.
- D. Use conductor not smaller than 12 AWG for power and lighting circuits.
- E. Use conductor not smaller than 14 AWG for control circuits.
- F. Provide 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 75 feet (25 m) or as indicated.
- G. Conductor sizes are based on copper. Wire shall be copper unless indicated otherwise.
- H. All single-phase circuits from 120/240V and 120/208V 3-phase panelboards shall have separate neutral conductors originating in the panelboard.

#### 2.02 WIRE:

- A. Description: Single conductor insulated wire.
- B. Conductor: Copper.
- C. Insulation Voltage Rating: 600 volts.
- D. Insulation: Thermoplastic material rated 90° C.
- **2.03 INSTRUMENTATION CABLE:** Tinned copper, stranded, polyethylene insulated conductors; twisted pair, 100% aluminum/polyester shield with a No. 20 AWG tinned copper drain wire. Single pair cables shall be No. 18 AWG. Jacket insulation shall be rated not less than 300 volts and 60° C. Belden 9463, or equal.

## **PART 3 - EXECUTION**

**3.01 PREPARATION:** Completely and thoroughly swab raceway before installing wire.

#### 3.02 INSTALLATION:

- A. Route wire and cable as required to meet project conditions.
- B. Wire and cable routing indicated is intended to be diagrammatic.
- C. Where wire and cable destination is indicated and routing is not shown, determine exact routing and lengths required.

0808-06-1 161230-2 Wire and Cable

- D. Include wire and cable of lengths required to install connected devices within 10 ft (3000 mm) of location shown.
- E. No wiring shall be installed until the required raceway system, including junction, outlet and device boxes is completed. Install wiring before painting begins and protect against being painted.
- F. Branch circuit sizes are noted on the Drawings and must be continuous without reduction in size throughout their length except where connecting to fixtures or devices.
- G. Branch circuit wire sizes shall be increased as required where long runs will cause excessive voltage drop per NEC.
- H. Install wire and cable in accordance with the NECA "Standard of Installation."
- I. Use wiring methods indicated.
- J. Pull all conductors into raceway at same time.
- K. Use suitable wire pulling lubricant.
- L. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- M. Clean conductor surfaces before installing lugs and connectors.
- N. Make splices, taps, and terminations to carry full capacity of conductors with no perceptible temperature rise.
- O. Use split bolt connectors for copper conductor splices and taps, #4 AWG and larger. Tape uninsulated conductors and connector with electrical tape to 150 percent of insulation rating of conductor.
- P. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.

#### 3.03 FIELD QUALITY CONTROL:

- A. Perform field inspection and testing in accordance with Section 01400.
- B. Test wiring rated 600 volts and less to verify that no short circuits or accidental grounds exist. Perform insulation resistance tests on wiring No. 4 AWG and larger diameter using an instrument which applies voltage of approximately 500 volts to provide direct reading of resistance. Minimum resistance shall be 250,000 ohms.

#### **END OF SECTION**

0808-06-1 161230-3 Wire and Cable

### CONDUIT

### **PART 1 - GENERAL**

#### 1.01 SECTION INCLUDES:

A. Conduit, fittings and conduit bodies.

#### 1.02 REFERENCES:

- A. ANSI C80.1 American National Standard Specification for Rigid Steel Conduit -- Zinc Coated; 1995.
- B. ANSI C80.3 American National Standard Specification for Electrical Metallic Tubing -- Zinc Coated; 1995.
- C. ANSI C80.5 American National Standard Specification for Rigid Aluminum Conduit; 1995.
- D. NECA (INST) NECA Standard of Installation; National Electrical Contractors Association; 1993.
- E. NEMA FB 1 Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies; National Electrical Manufacturers Association; 1993.
- F. NEMA RN 1 Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit; National Electrical Manufacturers Association; 1989.
- G. NEMA TC 2 Electrical Plastic Conduit (EPC-40 and EPC-80); National Electrical Manufacturers Association; 1990.
- H. NEMA TC 3 PVC Fittings for Use with Rigid PVC Conduit and Tubing; National Electrical Manufacturers Association; 1990.
- I. NFPA 70 National Electrical Code, National Fire Protection Association (edition adopted by Authority Having Jurisdiction).

0808-06-1 161310-1 Conduit

### 1.03 QUALITY ASSURANCE:

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

# 1.04 DELIVERY, STORAGE, AND HANDLING:

- A. Accept conduit on site. Inspect for damage.
- B. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.
- C. Protect PVC conduit from sunlight.

### PART 2 - PRODUCTS

### 2.01 CONDUIT REQUIREMENTS:

- A. Conduit Size: Comply with NFPA 70.
  - 1. Minimum Size: 3/4 inch unless otherwise specified. This minimum size does not apply to flexible conduit.

### 2.02 METAL CONDUIT:

- A. Rigid Steel Conduit: ANSI C80.1.
- B. Rigid Aluminium Conduit: ANSI C80.5.
- C. Fittings and Conduit Bodies: NEMA FB 1; material to match conduit.

## 2.03 PVC COATED METAL CONDUIT:

- A. Description: NEMA RN 1; rigid steel conduit with external PVC coating, 20 mil (0.05 mm) thick.
- B. Fittings and Conduit Bodies: NEMA FB 1; steel fittings with external PVC coating to match conduit.

### 2.04 FLEXIBLE METAL CONDUIT:

A. Description: Interlocked steel construction.

B. Fittings: NEMA FB 1.

### 2.05 LIQUIDTIGHT FLEXIBLE METAL CONDUIT:

- A. Description: Interlocked steel construction with PVC jacket.
- B. Fittings: NEMA FB 1.

### 2.06 NONMETALLIC CONDUIT:

- A. Description: NEMA TC 2; Schedule 40 PVC where underground,
- B. Fittings and Conduit Bodies: NEMA TC 3.

### **PART 3 - EXECUTION**

**3.01 EXAMINATION:** Verify routing and termination locations of conduit prior to roughin.

### 3.02 INSTALLATION:

- A. Install conduit in accordance with NECA Standard of Installation.
- B. All wiring shall be in conduit. Routing of conduit shown on Drawings is intended to be diagrammatic and where changes are necessary as a result of structural conditions, apparatus, or other causes, routing shall be changed to meet conditions. Conduit risers and offsets are not indicated on Drawings, but are intended to be installed as required. Conduit shall be selected according to location and code requirements.
- C. Liquid-tight flexible conduit shall be used for final connections to motors, appliances and vibrating equipment and shall be a maximum of 24-inches in length (regular flexible metal conduit may be used for final connection to interior light fixtures).
- D. Flexible Metal Conduit or MC Cable or shall only be used for final connection to equipment with a maximum length of six feet. Nonmetallic flex conduit or tubing shall not be used.
- E. Underground conduit or conduit in concrete shall be PVC Schedule 40 (Type-EPC) unless indicated otherwise. Conduit under slab-on-grade shall be buried at least 12" below the vapor barrier. Conduit embedded in concrete slabs, walls, or beams shall not have an outside dimension more than one-third the overall thickness of the concrete in which they are imbedded. Conduit shall not be run lengthwise in footings. PVC conduit

- shall not be used aboveground unless specifically noted otherwise in the Drawings. Conduit containing signal wires for instruments shall be PVC coated aluminum.
- F. All exposed conduit shall be aluminum. All conduits, couplings, and fittings shall have a factory-applied gray or black PVC coating of not less than 20 mils thickness. Conduit supports, channels and mounting apparatus shall be stainless steel.
- G. Per NEC paragraph 300-5 (d), provide warning tape or ribbon 12" above a service lateral conduit that is not encased in concrete.
- H. All metallic conduit terminating in outlet, junction or pull boxes and cabinets must terminate with bushing and double locknuts except exposed cast boxes, where they may be omitted. Conduit sizes 1-1/4" and above shall have insulating fiber bushings with double locknuts. Grounding type bushings must be used at points where grounding continuity is broken and at service entrance equipment.
- I. Arrange supports to prevent misalignment during wiring installation.
- J. Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports.
- K. Do not attach conduit to ceiling support wires.
- L. Arrange conduit to maintain headroom and present neat appearance.
- M. Route exposed conduit parallel and perpendicular to walls. Do not run conduit exposed in occupied areas unless noted otherwise.
- N. Route conduit installed above accessible ceilings parallel and perpendicular to walls.
- O. Route conduit in and under slab from point-to-point.
- P. Do not cross conduits in slab.
- Q. Maintain adequate clearance between conduit and piping.
- R. Maintain 12 inch (300 mm) clearance between conduit and surfaces with temperatures exceeding 104 degrees F (40 degrees C).
- S. Cut conduit square using saw or pipecutter; de-burr cut ends.
- T. Bring conduit to shoulder of fittings; fasten securely.

- U. For conduit installed in floors that are in place before conduit is installed, properly seal around conduit, including any required fire chalk.
- V. Install no more than equivalent of four 90 degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use hydraulic one shot bender to fabricate bends in metal conduit larger than 2 inch (50 mm) size.
- W. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
- X. Provide suitable fittings to accommodate expansion and deflection where conduit crosses seismic and expansion joints complete with copper bonding jumper.
- Y. Provide suitable pull string in each empty conduit except sleeves and nipples.
- Use suitable caps to protect installed conduit against entrance of dirt and moisture.
- AA. Ground and bond conduit under provisions of Section 16060.

### **END OF SECTION**

### WIRING DEVICES

### **PART 1 - GENERAL**

#### 1.01 SECTION INCLUDES:

- A. Wall switches
- B. Wall dimmers
- C. Receptacles

### 1.02 REFERENCES:

- A. NECA (INST) NECA Standard of Installation; National Electrical Contractors Association.
- B. NEMA WD 1 General Requirements for Wiring Devices; National Electrical Manufacturers Association.
- C. NEMA WD 6 Wiring Device -- Dimensional Requirements; National Electrical Manufacturers Association.
- D. NFPA 70 National Electrical Code, National Fire Protection Association (edition adopted by Authority Having Jurisdiction)

### 1.03 SUBMITTALS:

- A. See Section 01300: Submittals, for submittal procedures
- B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.

### 1.04 QUALITY ASSURANCE:

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

0808-06-1 161400-1 Wiring Devices

C. Products: Provide products listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

# PART 2 - PRODUCTS

**2.01 MANUFACTURERS:** All devices shall be specification grade and shall be the product of one manufacturer throughout the project except as otherwise noted.

### 2.02 WALL SWITCHES:

- A. Wall Switches: NEMA WD 1, Heavy Duty, AC only general-use snap switch, quiet type with side wire terminals. Switches shall be single or multi-pole as indicated on the Drawings. Provide Leviton Decora Switches, or equal, if indicated on drawings.
  - 1. Body and Handle: plastic with toggle handle unless otherwise indicated. Color shall be as determined by Owner.
  - 2. Ratings:
    - a. Voltage: 120 277 volts, AC.
    - b. Current: 20 amperes.

### 2.03 RECEPTACLES:

- A. Receptacles: NEMA WD 1, Heavy duty.
  - Duplex receptacles shall be straight blade, grounding type, with side wiring terminals. Conductors shall be connected to all receptacles using screws (not spring connectors).
  - 2. Device Body: plastic unless otherwise indicated. Color as determined by owner.
  - 3. Configuration: NEMA WD 6, type as specified and indicated.
- B. Convenience Receptacles: Type 5 20.
- C. Duplex Convenience Receptacles
- D. GFCI Receptacles: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements. Also, provide GFCI

- receptacles where indicated. GFCI type receptacles shall have "test" and "reset" buttons.
- E. Weatherproof receptacles shall be in a cast metal box with gasketed, weatherproof, cast-metal cover plate and gasketed cap over each receptacle opening. Provide caps with a spring-hinged flap. Weatherproof receptacles shall be UL listed for use in "wet locations with plug in use" and shall be GFCI rated.
- F. Floor-mounted receptacles shall have a brass plate and cover, unless noted otherwise.
- G. Special purpose outlets shall be as indicated on the Drawings and have matching cover plates.

#### 2.04 WALL PLATES:

- A. Decorative Cover Plates: smooth plastic unless otherwise indicated. Color as determined by owner.
- B. Weatherproof Cover Plates: Gasketed cast metal with hinged.

# **PART 3 - EXECUTION**

#### 3.01 EXAMINATION:

- A. Verify that outlet boxes are installed at proper height.
- B. Verify that wall openings are neatly cut and will be completely covered by wall plates.
- C. Verify that floor boxes are adjusted properly.
- D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.

# 3.02 PREPARATION:

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean debris from outlet boxes.

### 3.03 INSTALLATION:

- A. Install in accordance with NECA "Standard of Installation."
- B. Install devices plumb and level.
- C. Install switches with OFF position down.
- D. Do not share neutral conductor on load side of dimmers.
- E. Install receptacles with grounding pole on bottom.
- F. Connect wiring device grounding terminal to outlet box with bonding jumper.
- G. Do not cut cover plate.
- H. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
- I. Connect wiring devices by wrapping conductor around screw terminal.

### 3.04 INTERFACE WITH OTHER PRODUCTS:

- A. Install wall switch 48 inches (1.2 m) above finished floor, unless otherwise indicated.
- B. Install convenience receptacle 18 inches (450 mm) above finished floor, unless otherwise indicated.
- C. Install convenience receptacle with bottom 6 inches (150 mm) above counter.
- D. Install dimmer 48 inches (1.2 m) above finished floor, unless otherwise indicated.

### 3.05 FIELD QUALITY CONTROL:

- A. Perform field inspection, testing, and adjusting in accordance with Section 01400.
- B. Inspect each wiring device for defects.
- C. Operate each wall switch with circuit energized and verify proper operation.

- D. Verify that each receptacle device is energized.
- E. Test each receptacle device for proper polarity.
- F. Test each GFCI receptacle device for proper operation.
- **3.06 ADJUSTING:** Adjust devices and wall plates to be flush and level.
- **3.07 CLEANING:** Clean exposed surfaces to remove splatters and restore finish.

# **END OF SECTION**

### **EQUIPMENT WIRING**

### **PART 1 - GENERAL**

**1.01 SECTION INCLUDES:** Electrical connections to equipment.

#### 1.02 REFERENCES:

- A. NEMA WD 1 General Requirements for Wiring Devices; National Electrical Manufacturers Association.
- B. NEMA WD 6 Wiring Devices Dimensional Requirements; National Electrical Manufacturers Association.
- C. NFPA 70 National Electrical Code, National Fire Protection Association (edition adopted by Authority Having Jurisdiction).

### 1.03 QUALITY ASSURANCE:

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

### 1.04 COORDINATION:

- A. Obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other sections.
- B. Determine connection locations and requirements.
- C. Sequence rough-in of electrical connections to coordinate with installation of equipment.
- D. Sequence electrical connections to coordinate with start-up of equipment.

0808-06-1 161550-1 Equipment Wiring

## **PART 2 - PRODUCTS**

### 2.01 MATERIALS:

- A. Disconnect Switches: As follows and in individual equipment sections:
  - Safety switches shall be quick-make, quick-break, heavy duty type in sheet steel enclosure, except as required for rain tight installations, with door cover interlock. Provide unfused safety switches where indicated on the Drawings or as required by Code. Fused switches shall utilize Class R fuse holders and fuses, unless indicated otherwise.
- B. Wiring Devices: As specified in Section 16140.
- C. Flexible Conduit: As specified in Section 16131.
- D. Wire and Cable: As specified in Section 16123.
- E. Boxes: As specified in Section 16138.

# **PART 3 - EXECUTION**

**3.01 EXAMINATION:** Verify that equipment is ready for electrical connection, wiring, and energization.

### 3.02 ELECTRICAL CONNECTIONS:

- A. Make electrical connections in accordance with equipment manufacturer's instructions.
- B. Make all final power feed connections to starters and/or motorized equipment as indicated or required. Refer to Electrical Sections of other Contractors' Specifications for further information.
- C. Verify all equipment for service and characteristics provided prior to roughin and connection. Provide a grounding conductor for all equipment connected with flexible conduit and bond to conduit system and metallic frame of equipment.
- D. Be responsible for securing and installing proper insulated conductors required for equipment of higher temperature range beyond that of specified branch circuit type.

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- E. Make conduit connections to equipment using flexible metal conduit. Use liquid tight flexible metal conduit with watertight connectors in damp or wet locations and for all motors and vibrating equipment.
- F. Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered.
- G. Provide receptacle outlet to accommodate connection with attachment plug.
- H. Provide cord and cap where field-supplied attachment plug is required.
- I. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
- J. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.
- K. Install terminal block jumpers to complete equipment wiring requirements.
- L. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

#### **END OF SECTION**

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### **PANELBOARDS**

### PART 1 - GENERAL

### 1.01 SECTION INCLUDES:

- A. Power distribution panelboards
- B. Lighting and appliance panelboards

### 1.02 REFERENCES:

- A. NECA (INST) NECA Standard of Installation; National Electrical Contractors Association.
- B. NEMA AB 1 Molded Case Circuit Breakers and Molded Case Switches; National Electrical Manufacturers Association.
- C. NEMA PB 1 Panelboards: National Electrical Manufacturers Association.
- D. NEMA PB 1.1 General Instructions for Proper Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less; National Electrical Manufacturers Association.
- E. NETA STD ATS Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.
- F. NFPA 70 National Electrical Code, National Fire Protection Association (edition adopted by Authority Having Jurisdiction).

#### 1.03 SUBMITTALS:

A. Shop Drawings: Indicate outline and support point dimensions, voltage, main bus capacity, integrated short circuit ampere rating, circuit breaker and fusible switch arrangement and sizes.

### 1.04 QUALITY ASSURANCE:

A. Conform to requirements of NFPA 70.

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- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

## PART 2 - PRODUCTS

### 2.01 POWER DISTRIBUTION PANELBOARDS:

- A. Description: NEMA PB 1, circuit breaker type.
- B. Panelboard Bus: Copper, ratings as indicated. Provide copper ground bus in each panelboard.
- C. Minimum integrated short circuit rating: As indicated.
- D. Molded Case Circuit Breakers: NEMA AB 1, circuit breakers with integral thermal and instantaneous magnetic trip in each pole. Provide circuit breakers UL listed as Type HACR for air conditioning equipment branch circuits.
- E. Enclosure: NEMA PB 1, enclosure type as indicated on Drawings.
- F. Cabinet Front: Surface type, fastened with concealed trim clamps, hinged door with flush lock, metal directory frame, finished in manufacturer's standard gray enamel.
- G. Provide blank covers as necessary to cover unused spaces in panelboard. Blank covers shall be manufactured by the manufacturer of the panelboard and intended for this purpose.

#### 2.02 LIGHTING AND APPLIANCE PANELBOARDS:

- A. Description: NEMA PB1, circuit breaker type, lighting and appliance branch circuit panelboard.
- B. Panelboard Bus: Copper, ratings as indicated. Provide copper ground bus in each panelboard; provide insulated ground bus where scheduled.
- C. Minimum Integrated Short Circuit Rating: As indicated.

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- D. Molded Case Circuit Breakers: NEMA AB 1, bolt-on type thermal magnetic trip circuit breakers, with common trip handle for all poles. Plug-in circuit breakers are not acceptable.
  - 1. Type HACR for air conditioning equipment circuits.
  - 2. Ground fault interrupter circuit breakers where scheduled.
  - 3. Do not use tandem circuit breakers.
- E. Enclosure: NEMA PB 1, as indicated on Drawings.
- F. Cabinet Box: 6 inches (153 mm) deep, 20 inches (508 mm) wide for 240 volt and less panelboards, 20 inches (508 mm) wide for 480 volt panelboards.
- G. Cabinet Front: Flush or Surface Mount as indicated on Drawings. Cabinet front with concealed trim clamps, concealed hinge, metal directory frame, and flush lock all keyed alike. Finish in manufacturer's standard gray enamel.
- H. Provide blank covers as necessary to cover unused spaces in panelboard. Blank covers shall be manufactured by the manufacturer of the panelboard and intended for this purpose.

### **PART 3 - EXECUTION**

### 3.01 INSTALLATION:

- A. Install panelboards in accordance with NEMA PB 1.1 and the NECA Standard of Installation.
- B. Install panelboards plumb. Install recessed panelboards flush with wall finishes.
- C. Height: 6 feet (1800 mm) to top of panelboard; install panelboards taller than 6 feet (1800 mm) with bottom no more than 4 inches (100 mm) above floor.
- D. Provide filler plates for unused spaces in panelboards.
- E. Provide typed circuit directory for each branch circuit panelboard. Revise directory to reflect circuiting changes required to balance phase loads.

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- F. Provide engraved plastic nameplates under the provisions of Section 16075.
- G. Ground and bond panelboard enclosure according to NEC.

# 3.02 FIELD QUALITY CONTROL:

- A. Inspect each circuit breaker visually.
- B. Perform several mechanical on-off operations for each circuit breaker.

# **END OF SECTION**

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