

**SPECIFICATIONS**

**FOR**

**RANDOLPH COUNTY BACKUP 911 FACILITY  
REROOFING & HVAC REPLACEMENT**

**LOCATED AT**

**152 N FAYETTEVILLE STREET  
ASHEBORO, NC 27203**

**FOR**

**RANDOLPH COUNTY  
725 MCDOWELL ROAD  
ASHEBORO, NC 27205**

**ARCHITECT'S PROJECT NO. 1787**

**DATE: NOVEMBER 07, 2024**



719 E. Second Avenue  
Gastonia, NC 28054  
704-865-6311

**RANDOLPH COUNTY BACKUP 911 FACILITY**  
**REROOFING & HVAC REPLACEMENT**  
**FOR RANDOLPH COUNTY, NC**

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END OF TOC





All Contractors are hereby notified that they shall be properly licensed under the State Laws governing their respective trades. (General Statutes 87, State Of North Carolina.)

Each Bidder will be required to certify on the Bid Form that he is properly licensed and classified to perform the work that he is bidding. This certification also guarantees that if subcontractors are used, they will also be properly licensed and classified.

Bidders should have no contact with the owners or the owners' representatives except in submitting questions as provided herein. Any such contact will subject the bidder to immediate disqualification.

Bids must be on the standard forms provided by the Architects and must be marked to identify the construction or classification of the work as shown above.

Each bid shall be accompanied by a certified check drawn on some bank or trust company insured by the Federal Deposit Insurance Corporation or a bid bond in the amount of equal to **5%** of the total bid. The certified check or bid bond will be retained if the successful Bidder fails to execute the contract within ten (10) days after the award or fails to give satisfactory surety as required by the Contract Documents.

A Performance Bond and Labor and Material Payment Bond in the amount of **100%** of the Contract Sum will be required for this project. All Bonds must be executed in accordance with and conditioned as prescribed by the Laws of the State of North Carolina.

No Bidder may withdraw his Bid within **60 (Sixty)** days after the opening thereof.

Bidders shall be required to begin work upon receipt of Notice to Proceed as issued by the Owner, and complete work within **90 (Ninety)** Consecutive Calendar Days as stated on the Bid forms. Bidders shall notify the Owner/Architect of any long-lead items in excess of 90 days during the pre-construction conference to negotiate a timeline.

Liquidated Damages in the amount of \$500.00 per calendar day will be assessed for each day beyond the scheduled completion date the work remains incomplete. The liquidated damages will not apply for negotiated timeline of prior identified long-lead items.

Work Hour Restriction: Limit work to between 7:00 a.m. to 6:00 p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to include afterhours & weekend if approved by Owner and authorities having jurisdiction.

Bidding documents, drawings, and specifications may be examined at the following locations:

Office Of: Stewart-Cooper-Newell-Architects, P.A.  
719 East Second Avenue  
Gastonia, NC 28054  
Phone: 704/865-6311 FAX: 704/865-0046

For technical questions during the bidding phase, please contact:  
Ibha Shrestha at [ishrestha@scn-architects.com](mailto:ishrestha@scn-architects.com)

For questions concerning obtaining plans and specifications, please contact:  
Crystal Sutton at 800/671-0621 - Extension 100, or email [csutton@scn-architects.com](mailto:csutton@scn-architects.com)

**Important Note to All Bidders:**

**ALL BIDDERS ARE HEREBY NOTIFIED THAT THEY SHALL COMPLY WITH THE STATE OF NORTH CAROLINA MINORITY BUSINESS ENTERPRISE PROGRAM. MBE REQUIREMENTS ARE INCLUDED IN THE SPECIFICATIONS. THE LOWEST RESPONSIBLE BIDDER WILL BE REQUIRED TO PROVIDE DOCUMENTATION FOR THEIR MINORITY GOOD FAITH EFFORTS.**

**ALL CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED TO HAVE A UNIQUE ENTITY ID (UEI#) NUMBER BEFORE THE COUNTY CAN CONTRACT WITH THEM WHEN WORKING ON PROJECTS FUNDED BY THE FEDERAL GOVERNMENT. IF YOU DO NOT ALREADY HAVE A UEI NUMBER GO TO WWW.SAM.GOV TO APPLY FOR YOUR NUMBER.**

**ALL BIDDERS ARE REQUIRED TO SIGN AND SUBMIT THE FEDERAL CONTRACT PROVISIONS DOCUMENT. ALL SUBCONTRACTORS PERFORMING WORK ON THIS PROJECT WILL BE REQUIRED TO SIGN THESE PROVISIONS AS WELL.**

The County is requiring the use of a 2-envelope system for all bids. The first envelope should include the “Bid Guarantee” (copy of the bid bond), marked as such, and attached to the sealed envelope containing the bidder’s proposal. The second envelope should be sealed, and marked “Bid Proposal” with the following information on the outside of the envelope:

- Bidders Name and Address
- North Carolina Contractor’s License Number
- Name of Project

**PERMITS AND FEES**

Permits are the responsibility of the Contractor. The fees associated with Randolph County Permits and all other Randolph County Fees associated with this project are not reimbursable with the Owner’s Contingency; however, no mark-up will be accepted. The Contractor is responsible for all other necessary certificates of eligibility and other applicable certifications, as required. No fees or expenses for such items are reimbursable by the owner.

Randolph County, North Carolina  
Lisa Garner  
Purchasing Officer



# AIA<sup>®</sup> Document A701<sup>™</sup> – 2018

## Instructions to Bidders

for the following Project:

*(Name, location, and detailed description)*

Randolph County Backup 911 Facility Reroofing  
& HVAC Replacement  
152 N Fayetteville St, Asheboro, NC 27203

### THE OWNER:

*(Name, legal status, address, and other information)*

Randolph County  
725 McDowell Rd, Asheboro, NC 27205  
336-318-6304

### THE ARCHITECT:

*(Name, legal status, address, and other information)*

Stewart-Cooper-Newell Architects, P.A.  
719 East Second Avenue  
Gastonia, NC 28054  
704-865-6311

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### 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.

FEDERAL, STATE, AND LOCAL LAWS MAY IMPOSE REQUIREMENTS ON PUBLIC PROCUREMENT CONTRACTS. CONSULT LOCAL AUTHORITIES OR AN ATTORNEY TO VERIFY REQUIREMENTS APPLICABLE TO THIS PROCUREMENT BEFORE COMPLETING THIS FORM.

It is intended that AIA Document G612<sup>™</sup>-2017, Owner's Instructions to the Architect, Parts A and B will be completed prior to using this document.

## ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the Proposed Contract Documents. The Bidding Requirements consist of the advertisement or invitation to bid, Instructions to Bidders, supplementary instructions to bidders, the bid form, and any other bidding forms. The Proposed Contract Documents consist of the unexecuted form of Agreement between the Owner and Contractor and that Agreement's Exhibits, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda, and all other documents enumerated in Article 8 of these Instructions.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Proposed Contract Documents apply to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect, which, by additions, deletions, clarifications, or corrections, modify or interpret the Bidding Documents.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents, to which Work may be added or deleted by sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from, or that does not change, the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment, or labor for a portion of the Work.

## ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 By submitting a Bid, the Bidder represents that:

- .1 the Bidder has read and understands the Bidding Documents;
- .2 the Bidder understands how the Bidding Documents relate to other portions of the Project, if any, being bid concurrently or presently under construction;
- .3 the Bid complies with the Bidding Documents;
- .4 the Bidder has visited the site, become familiar with local conditions under which the Work is to be performed, and has correlated the Bidder's observations with the requirements of the Proposed Contract Documents;
- .5 the Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception; and
- .6 the Bidder has read and understands the provisions for liquidated damages, if any, set forth in the form of Agreement between the Owner and Contractor.

## ARTICLE 3 BIDDING DOCUMENTS

### § 3.1 Distribution

§ 3.1.1 Bidders shall obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid in the number and for the deposit sum, if any, stated therein.

*(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall obtain Bidding Documents.)*

Refer to the Invitation to Bid.

**§ 3.1.2** Any required deposit shall be refunded to Bidders who submit a bona fide Bid and return the paper Bidding Documents in good condition within ten days after receipt of Bids. The cost to replace missing or damaged paper documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the paper Bidding Documents, and the Bidder's deposit will be refunded.

**§ 3.1.3** Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the advertisement or invitation to bid, or in supplementary instructions to bidders.

**§ 3.1.4** Bidders shall use complete Bidding Documents in preparing Bids. Neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

**§ 3.1.5** The Bidding Documents will be available for the sole purpose of obtaining Bids on the Work. No license or grant of use is conferred by distribution of the Bidding Documents.

### **§ 3.2 Modification or Interpretation of Bidding Documents**

**§ 3.2.1** The Bidder shall carefully study the Bidding Documents, shall examine the site and local conditions, and shall notify the Architect of errors, inconsistencies, or ambiguities discovered and request clarification or interpretation pursuant to Section 3.2.2.

**§ 3.2.2** Requests for clarification or interpretation of the Bidding Documents shall be submitted by the Bidder in writing and shall be received by the Architect at least seven days prior to the date for receipt of Bids.  
*(Paragraph deleted)*

**§ 3.2.3** Modifications and interpretations of the Bidding Documents shall be made by Addendum. Modifications and interpretations of the Bidding Documents made in any other manner shall not be binding, and Bidders shall not rely upon them.

**§ 3.2.4** Whenever there are discrepancies between Drawings, or between the Drawings and Specifications, or conflicts within the Specifications, and such discrepancy is not called to the Architect's attention in time to permit clarification by Addendum, the Contractor shall base his bid upon providing the better quality or greater quantity of work or material called for, shall submit a written statement with his proposal noting such discrepancies, and shall so furnish and install such better quality or greater quantity unless otherwise ordered in writing.

### **§ 3.3 Substitutions**

**§ 3.3.1** The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.

#### **§ 3.3.2 Substitution Process**

**§ 3.3.2.1** Written requests for substitutions shall be received by the Architect at least ten days prior to the date for receipt of Bids. Requests shall be submitted in the same manner as that established for submitting clarifications and interpretations in Section 3.2.2.

**§ 3.3.2.2** Bidders shall submit substitution requests on a Substitution Request Form if one is provided in the Bidding Documents.

**§ 3.3.2.3** If a Substitution Request Form is not provided, requests shall include (1) the name of the material or equipment specified in the Bidding Documents; (2) the reason for the requested substitution; (3) a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, performance and test data, and relevant drawings; and (4) any other information necessary for an evaluation. The request shall include a statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts or the impact on any Project Certifications (such as LEED), that will result from incorporation of the proposed substitution.



§ 3.3.3 The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.4 If the Architect approves a proposed substitution prior to receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3.5 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

#### § 3.4 Addenda

§ 3.4.1 Addenda will be transmitted to Bidders known by the issuing office to have received complete Bidding Documents.

*(Paragraph deleted)*

§ 3.4.2 Addenda will be available where Bidding Documents are on file.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Prior to submitting a Bid, each Bidder shall ascertain that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

### ARTICLE 4 BIDDING PROCEDURES

#### § 4.1 Preparation of Bids

§ 4.1.1 Bids shall be submitted on the forms included with or identified in the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed. Paper bid forms shall be executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and numbers, unless noted otherwise on the bid form. In case of discrepancy, the amount entered in words shall govern.

§ 4.1.4 Edits to entries made on paper bid forms must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change" or as required by the bid form.

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall neither make additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name and legal status of the Bidder. As part of the documentation submitted with the Bid, the Bidder shall provide evidence of its legal authority to perform the Work in the jurisdiction where the Project is located. Each copy of the Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further name the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached, certifying the agent's authority to bind the Bidder.

§ 4.1.8 A Bidder shall incur all costs associated with the preparation of its Bid.

#### § 4.2 Bid Security

§ 4.2.1 Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders:

**§ 4.2.2** The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and shall, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. In the event the Owner fails to comply with Section 6.2, the amount of the bid security shall not be forfeited to the Owner.

**§ 4.2.3** If a surety bond is required as bid security, it shall be written on the Bid Bond provided in the Specifications Manual (AIA 310 Bid Bond is not acceptable). The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of an acceptable power of attorney. The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

**§ 4.2.4** The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until (a) the Contract has been executed and bonds, if required, have been furnished; (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected.

### **§ 4.3 Submission of Bids**

**§ 4.3.1** A Bidder shall submit its Bid as indicated by paper copy below:

Refer to the Invitation to Bid.

**§ 4.3.2** The bid will be submitted using a 2-envelope system. Paper copies of the Bid, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope, marked. The envelope, marked "Bid Proposal", shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address, and North Carolina Contractor's License Number. A separate envelope shall include the "Bid Guarantee" (copy of the bid bond), marked as such, and attached to the sealed envelope containing the bidder's proposal.

**§ 4.3.3** Bids shall be submitted by the date and time and at the place indicated in the invitation to bid. Bids submitted after the date and time for receipt of Bids, or at an incorrect place, will not be accepted.

**§ 4.3.4** The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

**§ 4.3.5** A Bid submitted by any method other than as provided in this Section 4.3 will not be accepted.

### **§ 4.4 Modification or Withdrawal of Bid**

**§ 4.4.1** Prior to the date and time designated for receipt of Bids, a Bidder may submit a new Bid to replace a Bid previously submitted, or withdraw its Bid entirely, by notice to the party designated to receive the Bids. Such notice shall be received and duly recorded by the receiving party on or before the date and time set for receipt of Bids. The receiving party shall verify that replaced or withdrawn Bids are removed from the other submitted Bids and not considered. Notice of submission of a replacement Bid or withdrawal of a Bid shall be worded so as not to reveal the amount of the original Bid.

**§ 4.4.2** Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids in the same format as that established in Section 4.3, provided they fully conform with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

**§ 4.4.3** After the date and time designated for receipt of Bids, a Bidder who discovers that it made a clerical error in its Bid shall notify the Architect of such error within 72 hours, or pursuant to a timeframe specified by the law of the jurisdiction where the Project is located, requesting withdrawal of its Bid. Upon providing evidence of such error to the reasonable satisfaction of the Architect, the Bid shall be withdrawn and not resubmitted. If a Bid is withdrawn pursuant to this Section 4.4.3, the bid security will not be forfeited.



## **ARTICLE 5 CONSIDERATION OF BIDS**

### **§ 5.1 Opening of Bids**

If stipulated in an advertisement or invitation to bid, or when otherwise required by law, Bids properly identified and received within the specified time limits will be publicly opened and read aloud. A summary of the Bids may be made available to Bidders.

### **§ 5.2 Rejection of Bids**

Unless otherwise prohibited by law, the Owner shall have the right to reject any or all Bids.

### **§ 5.3 Acceptance of Bid (Award)**

**§ 5.3.1** It is the intent of the Owner to award a Contract to the lowest responsive and responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. Unless otherwise prohibited by law, the Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's best interests.

**§ 5.3.2** Unless otherwise prohibited by law, the Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the lowest responsive and responsible Bidder on the basis of the sum of the Base Bid and Alternates accepted.

## **ARTICLE 6 POST-BID INFORMATION**

### **§ 6.1 Contractor's Qualification Statement**

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request and within the timeframe specified by the Architect, a properly executed AIA Document A305™, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted for this Bid.

### **§ 6.2 Owner's Financial Capability**

A Bidder to whom award of a Contract is under consideration may request in writing, fourteen days prior to the expiration of the time for withdrawal of Bids, that the Owner furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. The Owner shall then furnish such reasonable evidence to the Bidder no later than seven days prior to the expiration of the time for withdrawal of Bids. Unless such reasonable evidence is furnished within the allotted time, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

### **§ 6.3 Submittals**

**§ 6.3.1** After notification of selection for the award of the Contract, the Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, submit in writing to the Owner through the Architect:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the principal products and systems proposed for the Work and the manufacturers and suppliers of each; and
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

**§ 6.3.2** The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

**§ 6.3.3** Prior to the execution of the Contract, the Architect will notify the Bidder if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, withdraw the Bid or submit an acceptable substitute person or entity. The Bidder may also submit any required adjustment in the Base Bid or Alternate Bid to account for the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

**§ 6.3.4** Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

## **ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND**

### **§ 7.1 Bond Requirements**

**§ 7.1.1** If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

**§ 7.1.2** If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

**§ 7.1.3** The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

**§ 7.1.4** Unless otherwise indicated below, the Penal Sum of the Payment and Performance Bonds shall be the amount of the Contract Sum.

*(Paragraph deleted)*

### **§ 7.2 Time of Delivery and Form of Bonds**

**§ 7.2.1** The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to commence sooner in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

**§ 7.2.2** Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond.

**§ 7.2.3** The bonds shall be dated on or after the date of the Contract.

**§ 7.2.4** The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix to the bond a certified and current copy of the power of attorney.

## **ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR**

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101, Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment is a Stipulated Sum.

*(Table deleted)(Paragraphs deleted)(Paragraphs deleted)*

**CONSTRUCTION CONTRACT**

THIS AGREEMENT, made the \_\_\_\_\_ day of \_\_\_\_\_ in the year of 20\_\_  
by and between \_\_\_\_\_  
hereinafter called the "Contractor" and the County of Randolph hereinafter called the "County."

**WITNESSETH:**

That the Contractor and the County for the consideration herein named agree as follows:

1. Scope of Work: The Contractor shall furnish and deliver all of the materials, and perform all of the work in the manner and form as provided by the following enumerated plans, specifications and documents, which are attached hereto and made a part thereof as if fully contained herein: advertisement; Instructions to Bidders; General Conditions; Supplementary General Conditions, if any; specifications; accepted proposal; contract; performance bond; payment bond; power of attorney; workmen's compensation; public liability; property damage and builder's risk insurance certificates, and drawings, titled:

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

Consisting of the following sheets:

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

Dated: \_\_\_\_\_ and the following addenda:

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_ Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_ Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_ Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_ Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

2. That the Contractor shall commence work to be performed under this agreement on a date to be specified in a written order of the County and shall fully complete all work hereunder within \_\_\_\_ consecutive calendar days from said date. For each day in excess thereof, liquidated damages shall be assessed at four hundred dollars (\$250.00) per day. The Contractor, as one of the considerations for the awarding of this contract, shall furnish to the County a construction schedule setting forth planned progress of the project broken down by the various divisions or part of the work and by calendar days as outlined in Article 13 of the General Conditions of the Contract.

3. The County hereby agrees to pay to the Contractor for the faithful performance of this agreement, subject to additions and deductions as provided in the specifications or proposal, in lawful money of the United States as follows: \_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_).

## Summary of Contract Award:

4. In accordance with, and as specified in, Article 20 and Article 21 of the General Conditions of the Contract, the County shall review, and if approved, process the Contractor's pay request within a timely manner and in no event later than thirty (30) days upon receipt from the Architect. The County, after reviewing and approving said pay request, shall make payments to the Contractor on the basis of a duly certified and approved estimate of work performed during the preceding calendar month by the Contractor, less five percent (5%) of the amount of such estimate which is to be retained by the County until all work has been performed strictly in accordance with this agreement and until such work has been accepted by the County. The County may elect to waive retainage requirements after 50 percent of the work has been satisfactorily completed on schedule as referred to in Article 20 of the General Conditions.

5. Upon submission by the Contractor of evidence satisfactory to the County, as specified in Article 21 of the General Conditions, that all payrolls, material bills and other costs incurred by the Contractor in connection with the construction of the work have been paid in full, final payment on account of this agreement shall be made within thirty (30) days after the completion by the Contractor of all work covered by this agreement and the acceptance of such work by the County.

6. It is further mutually agreed between the parties hereto that if at any time after the execution of this agreement and the surety bonds hereto attached for its faithful performance, the County shall deem the surety or sureties upon such bonds to be unsatisfactory, or if, for any reason, such bonds cease to be adequate to cover the performance of the work, the Contractor shall, at its expense, within five (5) days after the receipt of notice from the County so to do, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the County. In such event no further payment to the Contractor shall be deemed to be due under this agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the County.

7. The Contractor attests that it and all of its subcontractors have fully complied with all requirements of Article 2 of Chapter 64 of the North Carolina General Statutes in regards to E-Verification as required by Section 2.(c) of Session Law 2013-418, codified as N.C. Gen. Stat. § 143-129(j).

8. Contractor certifies that it is not identified on any list created by the North Carolina State Treasurer pursuant to Article 6E of Chapter 147 of the North Carolina General Statutes (the Iran Divestment Act of 2015). This includes but is not limited to the Final Divestment List and the Iran Parent and Subsidiary Guidance List located at:

[https://files.nc.gov/nctreasurer/documents/files/DivestmentandDoNotContract/divestment\\_and\\_do\\_not\\_contract\\_iran\\_8-30-2020.pdf](https://files.nc.gov/nctreasurer/documents/files/DivestmentandDoNotContract/divestment_and_do_not_contract_iran_8-30-2020.pdf)

Contractor further certifies that it will not, during the term of this Agreement, subcontract with any entity identified on any such list.

9. Contractor certifies that it is not identified on any list created by the North Carolina State Treasurer pursuant to Article 6G of Chapter 147 of the North Carolina General Statutes (Divestment from Companies Boycotting Israel). This includes but is not limited to the Final Divestment and Do Not Contract List located at:

[https://files.nc.gov/nctreasurer/documents/files/DivestmentandDoNotContract/divestment\\_do\\_not\\_contract\\_israel\\_8-30-2020.pdf](https://files.nc.gov/nctreasurer/documents/files/DivestmentandDoNotContract/divestment_do_not_contract_israel_8-30-2020.pdf)

Contractor further certifies that it will not, during the term of this Agreement, subcontract with any entity identified on any such list.

IN WITNESS WHEREOF, the Parties hereto have executed this agreement on the day and date first above written in \_\_\_\_\_ counterparts, each of which shall without proof or accounting for other counterparts, be deemed an original contract.

**CONTRACTOR**

Witness:

\_\_\_\_\_  
Contractor: (Trade or Corporate Name)

\_\_\_\_\_  
(Proprietorship or Partnership)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Owner, Partner, or Corp. Pres. or Vice Pres. only)

Attest: (Corporation)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

(CORPORATE SEAL)

**RANDOLPH COUNTY**

\_\_\_\_\_  
Signature

Witness:

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

This instrument has been pre-audited in the manner required by the Local Government and Fiscal Control Act.

\_\_\_\_\_  
Randolph County Finance Officer

**FORM OF PERFORMANCE BOND**

Date of Contract: \_\_\_\_\_

Date of Execution: \_\_\_\_\_

Name of Principal  
(Contractor) \_\_\_\_\_

Name of Surety: \_\_\_\_\_

Name of Contracting  
Body: \_\_\_\_\_

Amount of Bond: \_\_\_\_\_

Project

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind, ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body, identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the contracting body, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in \_\_\_\_\_ counterparts.

**CONTRACTOR**

Witness:

\_\_\_\_\_  
Contractor: (Trade or Corporate Name)

\_\_\_\_\_  
(Proprietorship or Partnership)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Owner, Partner, or Corp. Pres. or Vice Pres. only)

Attest: (Corporation)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

(CORPORATE SEAL)

\_\_\_\_\_  
(Surety Company)

Witness:

By: \_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_  
(Attorney in Fact)

Countersigned:

\_\_\_\_\_

(Surety Corporate Seal)

\_\_\_\_\_  
(N.C. Licensed Resident Agent)

\_\_\_\_\_

\_\_\_\_\_  
Name and Address-Surety Agency

\_\_\_\_\_

\_\_\_\_\_  
Surety Company Name and N.C.  
Regional or Branch Office Address

**FORM OF PAYMENT BOND**

Date of Contract: \_\_\_\_\_  
Date of Execution: \_\_\_\_\_  
Name of Principal  
(Contractor) \_\_\_\_\_  
Name of Surety: \_\_\_\_\_  
Name of Contracting  
Body: \_\_\_\_\_  
Amount of Bond: \_\_\_\_\_  
Project \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall promptly make payment to all persons supplying labor/material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in \_\_\_\_\_ counterparts.



**CONTRACTOR**

Witness:

\_\_\_\_\_  
Contractor: (Trade or Corporate Name)

\_\_\_\_\_  
(Proprietorship or Partnership)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Owner, Partner, or Corp. Pres. or Vice Pres. only)

Attest: (Corporation)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

(CORPORATE SEAL)

\_\_\_\_\_  
(Surety Company)

Witness:

By: \_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_  
(Attorney in Fact)

Countersigned:

\_\_\_\_\_

(Surety Corporate Seal)

\_\_\_\_\_  
(N.C. Licensed Resident Agent)

\_\_\_\_\_

\_\_\_\_\_  
Name and Address-Surety Agency

\_\_\_\_\_

\_\_\_\_\_  
Surety Company Name and N.C.  
Regional or Branch Office Address

Sheet for Attaching Power of Attorney

Sheet for Attaching Insurance Certificates

## Federal Contract Provisions

This **ADDENDUM** (this “Addendum”) is entered into by and between \_\_\_\_\_ (“Contractor”), and Randolph County, a political subdivision of the State of North Carolina (“County”), and forms an integral part of the Contract (as defined in Section I hereof).

**NOW THEREFORE**, Contractor and County do mutually agree as follows:

### AGREEMENTS

#### **I. Definitions**

- A. Unless otherwise defined in this Addendum, capitalized terms used in this Addendum shall have the meanings ascribed thereto in this Section I.
1. “Administering Agency” shall have the meaning specified in 41 C.F.R. § 60-1.3.
  2. “Applicant” shall have the meaning specified in 41 C.F.R. § 60-1.3, which is provided here for ease of reference: (“An applicant for Federal assistance involving a construction contract, or other participant in a program involving a construction contract as determined by regulation of an administering agency. The term also includes such persons after they become recipients of such Federal assistance.”).
  3. “Construction Work” shall have the meaning specified in 41 C.F.R. § 60-1.3, which is provided here for ease of reference: (“[T]he construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction.”).
  4. “Contract” shall mean the legal instrument by which the County, as a Recipient or Subrecipient, shall purchase from Contractor property or services needed to carry out a project or program under a federal award, and of which this Addendum shall constitute an integral part.
  5. “Contractor” shall mean the entity named as “Contractor” in this Addendum that has received a Contract from the County.
  6. “Federally Assisted Construction Contract” shall have the meaning specified in 41 C.F.R. § 60-1.3, which is provided here for ease of reference: (“[A]ny agreement or modification thereof between any applicant and a person for construction work which is paid for in whole or in part with funds obtained from the Government or borrowed on the credit of the Government pursuant to any federal program involving a grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any federal program involving such grant, contract, loan, insurance, or guarantee, or any application or modification thereof approved by the government of the United States of America for a grant, contract, loan, insurance, or guarantee under which the applicant itself participates in the construction work.”).
  7. “Government” shall have the meaning specified in 41 C.F.R. § 60-1.3, which is provided here for ease of reference: (“[T]he government of the United States of America.”).

8. "Laborer" or "Mechanic" shall have the meaning specified in 29 C.F.R. § 5.2(m), which is provided here for ease of reference: ("The term *laborer* or *mechanic* includes at least those workers whose duties are manual or physical in nature (including those workers who use tools or who are performing the work of a trade), as distinguished from mental or managerial. The term *laborer* or *mechanic* includes apprentices, trainees, helpers, and, in the case of contracts subject to the Contract Work Hours and Safety Standards Act, watchmen or guards. The term does not apply to workers whose duties are primarily administrative, executive, or clerical, rather than manual. Persons employed in a bona fide executive, administrative, or professional capacity as defined in part 541 of [Title 40 of the United States Code] are not deemed to be laborers or mechanics. Working foremen who devote more than 20 percent of their time during a workweek to mechanic or laborer duties, and who do not meet the criteria of [Title 40 of the United States Code], are laborers and mechanics for the time so spent.").
9. "Recipient" shall mean an entity that receives a federal award directly from a federal awarding agency. The term does not include subrecipients or individuals that are beneficiaries of an award.
10. "Subcontract" shall mean any agreement entered into by a Subcontractor to furnish supplies or services for the performance of this Contract or a Subcontract. It includes, but is not limited to, purchase orders and changes and modifications to purchase orders.
11. "Subcontractor" shall mean an entity that receives a Subcontract.
12. "Subrecipient" shall mean an entity that receives a subaward from a pass-through entity to carry out part of a federal award; but it does not include an individual that is a beneficiary of such award. A subrecipient may also be a recipient of other federal awards directly from a federal awarding agency.
13. "Tier" shall have the meaning indicated in 2 C.F.R. Part 180 and illustrated in 2 C.F.R. Part 180, Appendix II.
14. "County" shall have the meaning indicated in the preamble to this Addendum.

## **II. Equal Employment Opportunity**

- A. If this contract is a Federally Assisted Construction Contract exceeding \$10,000, during the performance of this Contract, Contractor agrees as follows:
  1. Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to

- employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. Contractor will, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
  3. Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with Contractor's legal duty to furnish information.
  4. Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
  5. Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
  6. Contractor will furnish to the Administering Agency and the Secretary of Labor all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Administering Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
  7. In the event of Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended, in whole or in part, and Contractor may be declared ineligible for further Government contracts or Federally Assisted Construction Contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965. Such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
  8. Contractor will include the portion of the sentence immediately preceding paragraph A.1. of this Section II and the provisions of paragraphs A.1. through A.7. in every Subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or vendor. Contractor will take such action

with respect to any Subcontract or purchase order as the Administering Agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by the Administering Agency, Contractor may request the United States to enter into such litigation to protect the interests of the United States.

County further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work. Provided, that if County so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality, or subdivision of such government which does not participate in work on or under the Contract.

9. County agrees that it will assist and cooperate actively with the Administering Agency and the Secretary of Labor in obtaining the compliance of Contractor and any Subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor; that it will furnish the Administering Agency and the Secretary of Labor such information as they may require for the supervision of such compliance; and that it will otherwise assist the Administering Agency in the discharge of the agency's primary responsibility for securing compliance.
10. County further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and Federally Assisted Construction Contracts pursuant to the Executive Order and that it will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon Contractor and any Subcontractors by the Administering Agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, County agrees that if it fails or refuses to comply with these undertakings, the Administering Agency may take any or all of the following actions: Cancel, terminate, or suspend, in whole or in part, this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

- B. If this Contract is not a Federally Assisted Construction Contract exceeding \$10,000, the provisions of Section I.A. of this Addendum shall not apply.

### **III. Copeland "Anti-Kickback" Act**

- A. Contractor and any Subcontractors performing work under the Contract shall comply with 18 U.S.C. § 874. County shall report all suspected or reported violations to Treasury.

#### **IV. Contract Work Hours and Safety Standards Act**

- A. *Overtime Requirements.* No Contractor or Subcontractor contracting for any part of the Contract work which may require or involve the employment of Laborers or Mechanics shall require or permit any such Laborer or Mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such Laborer or Mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- B. *Violation; Liability for Unpaid Wages; Liquidated Damages.* In the event of any violation of the clause set forth in Section IV.A. (Overtime Requirements), above, Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual Laborer or Mechanic, including watchmen and guards, employed in violation of the clause set forth in Section IV.A. (Overtime Requirements), above, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in Section IV.A. (Overtime Requirements), above.
- C. *Withholding for Unpaid Wages and Liquidated Damages.* County shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold, or cause to be withheld, from any moneys payable on account of work performed by Contractor or Subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of Contractor or Subcontractor for unpaid wages and liquidated damages as provided in Section IV.B. (Violation; Liability for Unpaid Wages; Liquidated Damages) of this section.
- D. *Subcontracts.* Contractor or Subcontractor shall insert in any Subcontract the clauses set forth in Sections IV.A. through IV.D. and also a clause requiring Subcontractors to include these clauses in any lower-Tier Subcontracts. Contractor shall be responsible for compliance by any first-Tier Subcontractor or lower-Tier Subcontractor with the clauses set forth in Sections IV.A. through IV.D.
- E. *Payroll and Records.* Contractor or Subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the Contract for all Laborers and Mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, Social Security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Records to be maintained under this provision shall be made available by Contractor or Subcontractor for inspection, copying, or transcription by authorized representatives of the Department of the Treasury and the Department



of Labor, and Contractor or Subcontractor will permit such representatives to interview employees during working hours on the job.

- F. *Exceptions.* None of the requirements of Section IV of this Addendum shall apply if this Contract is a Contract (1) for transportation by land, air, or water; (2) for the transmission of intelligence; (3) for the purchase of supplies, materials, or articles ordinarily available in the open market; or (4) in an amount that is equal to or less than \$100,000.

## V. **Rights to Inventions Made Under a Contract or Agreement**

- A. The Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use for “Government purposes,” any subject data or copyright described below. “Government purposes” means use only for the direct purposes of the Government. Without the copyright owner’s consent, the Government may not extend its federal license to any other party.
1. Any subject data developed under the Contract, whether or not a copyright has been obtained, and
  2. Any rights of copyright purchased by Contractor using federal assistance funded in whole or in part by the Department of the Treasury.
- B. Unless Treasury determines otherwise, a Contractor performing experimental, developmental, or research work required as part of this Contract agrees to permit Treasury to make available to the public either (1) Treasury’s license in the copyright to any subject data developed in the course of the Contract or (2) a copy of the subject data first produced under the Contract for which a copyright has not been obtained. If the experimental, developmental, or research work which is the subject of this Contract is not completed for any reason whatsoever, all data developed under the Contract shall become subject data as defined herein and shall be delivered as the Government may direct.
- C. Unless prohibited by North Carolina law, upon request by the Government, Contractor agrees to indemnify, save, and hold harmless the Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by Contractor of proprietary rights, copyrights, or right of privacy arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under the Contract. Contractor shall be required to indemnify the Government for any such liability arising out of the wrongful act of any employee, official, or agent of the Contractor.
- D. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.
- E. Data developed by Contractor and financed entirely without using federal assistance provided by the Government that has been incorporated into work required by the underlying Contract is exempt from the requirements herein, provided that Contractor identifies those data in writing at the time of delivery of the Contract work. Contractor agrees to include these requirements in each

Subcontract for experimental, developmental, or research work financed in whole or in part with federal assistance.

- F. For the purposes of this Section V, “subject data” means “recorded information, whether or not copyrighted, . . . that is delivered or specified to be delivered as required by the Contract.” Examples of “subject data” include, but are not limited to, “computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information, but do not include financial reports, cost analyses or other similar information used for performance or administration of the Contract.

## **VI. Clean Air Act and Federal Water Pollution Control Act**

- A. *Clean Air Act*. Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 *et seq.* Contractor agrees to report each violation to County and understands and agrees that County will, in turn, report each violation as required to Treasury and the appropriate Environmental Protection Agency Regional Office. Contractor agrees to include these requirements in each Subcontract exceeding \$150,000 financed, in whole or in part, with federal assistance provided by Treasury.
- B. *Federal Water Pollution Control Act*. Contractor agrees to comply with all applicable standards, orders, and regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 *et seq.* Contractor agrees to report each violation to County and understands and agrees that County will, in turn, report each violation as required to assure notification to Treasury and the appropriate Environmental Protection Agency Regional Office. Contractor agrees to include these requirements in each Subcontract exceeding \$150,000 financed, in whole or in part, with federal assistance provided by Treasury.

## **VII. Debarment and Suspension**

- A. Due to its receipt of Fiscal Recovery Funds, County is a participant in a nonprocurement transaction (defined at 2 C.F.R. § 180.970) that is a covered transaction pursuant to 2 C.F.R. § 180.210 and 31 C.F.R. § 19.210. Therefore, this Contract is a lower-Tier covered transaction for purposes of 2 C.F.R. Part 180 and 31 C.F.R. Part 19 if (1) the amount of this Contract is greater than or equal to \$25,000 (2 C.F.R. § 180.220(b)(1); 31 C.F.R. § 19.220(b)(1)); (2) the Contract requires the consent of an official of the Department of the Treasury (2 C.F.R. § 180.220(b)(2); 31 C.F.R. § 19.220(b)(2)); or (3) this Contract is for federally required audit services (2 C.F.R. § 180.220(b)(3); 31 C.F.R. § 19.220(b)(3)).
- B. If this Contract is a covered transaction as set forth in Section VII.A., above, Contractor hereby certifies as of the date hereof that Contractor, Contractor’s principals (defined at 2 C.F.R. § 180.995), and the affiliates (defined at 2 C.F.R. § 180.905) of both Contractor and Contractor’s principals are not excluded (defined at 2 C.F.R. § 180.940) and are not disqualified (defined at 2 C.F.R. § 180.935). If any of the foregoing persons are excluded or disqualified and the Secretary of the Treasury has not granted an exception pursuant to 31 C.F.R. § 19.120(a), (1) this Contract

shall be void, (2) County shall not make any payments of federal financial assistance to Contractor, and (3) County shall have no obligations to Contractor under this Contract.

- C. Contractor must comply with 2 C.F.R. Part 180, Subpart C and 31 C.F.R. Part 19 and must include a requirement to comply with these regulations in any lower-Tier covered transaction into which it enters. This certification is a material representation of fact relied upon by County, and all liability arising from an erroneous representation shall be borne solely by Contractor.
- D. If it is later determined that Contractor did not comply with 2 C.F.R. Part 180, Subpart C and 31 C.F.R. Part 19, in addition to remedies available to County, the Government may pursue available remedies, including but not limited to suspension and/or debarment.

### **VIII. Byrd Anti-Lobbying Amendment**

- A. Contractor certifies to County, and Contractor shall cause each Tier below it to certify to the Tier directly above such Tier, that it has not used and will not use federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Contractor shall, and shall cause each Tier below it, to disclose any lobbying with non-federally appropriated funds that takes place in connection with obtaining any federal award. Such disclosures (to be set forth on Standard Form-LLL, contained in 31 C.F.R. Part 21, Appendix B) shall be forwarded from Tier to Tier up to the County, which will, in turn, forward the certification(s) to Treasury. Contractor shall cause the language of this Section VIII.A. to be included in all Subcontracts. This certification is a material representation of fact upon which County has relied when entering into this Contract, and all liability arising from an erroneous representation shall be borne solely by Contractor.
- B. Contractors that bid or apply for a contract exceeding \$100,000 (including this Contract, if applicable) also must file with County the certification in Attachment 1 to this Addendum, which is attached hereto and incorporated herein.
- C. Contractor also shall cause any Subcontractor with a Subcontract (at any Tier) exceeding \$100,000 to file with the Tier above it the certification in Attachment 1 to this Addendum, which is attached hereto and incorporated herein.

### **IX. Procurement of Recovered Materials**

- A. This Section shall apply if (1) this Contract involves the purchase of an item designated by the Environmental Protection Agency (“EPA”) in 40 C.F.R. Part 247 that exceeds \$10,000 or (2) the total value of such designated items acquired during County’s preceding fiscal year exceeded \$10,000.
- B. In the performance of the Contract, Contractor shall make maximum use of products containing recovered materials that are EPA-designated items, unless the product cannot (1) be acquired competitively within a timeframe providing for compliance with the Contract performance

schedule, (2) meet Contract performance requirements, or (3) be acquired at a reasonable price. Information about this requirement, along with the list of EPA-designated items, is available on EPA's website. Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

## **X. Prohibition on Contracting for Covered Telecommunications Equipment or Services**

A. *Definitions.* Unless otherwise defined in this Contract, capitalized terms used in this Section X shall have the meanings ascribed thereto in this Section X.A.

1. "Backhaul" means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).
2. "Covered Foreign Country" means the People's Republic of China.
3. "Covered Telecommunications Equipment or Services" means (a) telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities); (b) for the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities); (c) telecommunications or video surveillance services provided by such entities or using such equipment; or (d) telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a Covered Foreign Country.
4. "Critical Technology" means (1) defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations; (2) items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations and controlled (a) pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology, or (b) for reasons relating to regional stability or surreptitious listening; (3) specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities); (4) nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material); (5) select agents and toxins covered by part 331 of title 7, Code of Federal Regulations; part 121 of title 9 of such Code; or part 73 of title 42 of such Code; or (6) emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. § 4817).

5. “Interconnection Arrangements” means arrangements governing the physical connection of two or more networks to allow the use of another’s network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.
6. “Roaming” means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.
7. “Substantial or Essential Component” means any component necessary for the proper function or performance of a piece of equipment, system, or service.
8. “Telecommunications Equipment or Services” means telecommunications or video surveillance equipment or services, such as, but not limited to, mobile phones, land lines, internet, video surveillance, and cloud services.

B. Prohibitions.

1. Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after August 13, 2020, from obtaining or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.
2. Unless an exception in Section X.C. applies, Contractor and any Subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds (including, without limitation, Fiscal Recovery Funds) received from a federal government to:
  - a. Procure or obtain any equipment, system, or service that uses Covered Telecommunications Equipment or Services as a Substantial or Essential Component of any system or as Critical Technology of any system;
  - b. Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses Covered Telecommunications Equipment or Services as a Substantial or Essential Component of any system or as Critical Technology of any system;
  - c. Enter into, extend, or renew contracts with entities that use Covered Telecommunications Equipment or Services as a Substantial or Essential Component of any system or as Critical Technology as part of any system; or
  - d. Provide, as part of its performance of this Contract, any Subcontract; any other contractual instrument; or any equipment, system, or service that uses Covered Telecommunications Equipment or Services as a Substantial or Essential Component of any system or as Critical Technology as part of any system.

C. Exceptions.

1. This clause does not prohibit Contractor or Subcontractors from providing:

- a. A service that connects to the facilities of a third party, such as Backhaul, Roaming, or Interconnection Agreements, or
  - b. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.
2. By necessary implication and regulation, the prohibitions also do not apply to:
- a. Covered telecommunications equipment that:
    - i. Is not used as a Substantial or Essential Component of any system and
    - ii. Is not used as Critical Technology of any system.
  - b. Other telecommunications equipment or services that are not considered Covered Telecommunications Equipment or Services.

D. Reporting Requirement

- 1. In the event Contractor identifies, during contract performance, covered Telecommunications Equipment or Services used as a Substantial or Essential Component of any system or as Critical Technology as part of any system, or if Contractor is notified of such by a Subcontractor at any Tier or by any other source, Contractor shall report the information in paragraph D.2(d)(2) of this Section X to County, unless procedures for reporting the information are established elsewhere in this Contract.
- 2. Contractor shall report the following information to County pursuant to paragraph D.1 of this Section X:
  - a. Within one business day from the date of such identification or notification: contract number; order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.
  - b. Within ten business days of submitting the information in paragraph D.2.a. of this Section: any further available information about mitigation actions undertaken or recommended. In addition, Contractor shall describe (i) the efforts it undertook to prevent use or submission of Covered Telecommunications Equipment or Services and (ii) any additional efforts that will be incorporated to prevent future use or submission of Covered Telecommunications Equipment or Services.

- E. *Subcontractor*. Contractor shall cause to be inserted into all Subcontracts and other contractual instruments relating to the performance of this Contract the substance of this Section X, including this paragraph E.

## **XI. Domestic Preferences for Procurements**

- A. For purposes of this Section XI, the terms below are defined as follows:
  - 1. “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coating, occurred in the United States.
  - 2. “Manufactured Products” means items and construction materials composed, in whole or in part, of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.
- B. As applicable, and to the extent consistent with law, Contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products or materials Produced in the United States. This includes, but is not limited to, iron, aluminum, steel, cement, and other Manufactured Products. Contractor shall cause any Subcontractors to include the requirements of this Section XI in any Subcontracts.

## **XII. Solicitation of Minority and Women-Owned Business Enterprises**

- A. If Contractor intends to let any Subcontracts, Contractor shall (1) place qualified small and minority businesses and women’s business enterprises on its solicitation lists; (2) assure that small and minority businesses and women’s business enterprises are solicited whenever they are potential sources; (3) divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women’s business enterprises; (4) establish delivery schedules, where the requirement permits, which encourage participation by small and minority businesses and women’s business enterprises; (5) use the services and assistance, as appropriate, of the Small Business Administration, the Minority Business Development Agency of the Department of Commerce, and the North Carolina Office for Historically Underutilized Businesses.
- B. For the purposes of Section XII.A., an entity shall qualify (1) as a “minority business” or “women’s business enterprise” if it is currently certified as a North Carolina “historically underutilized business” under Chapter 143, Section 128.4(a) of the N.C. General Statutes (hereinafter G.S.), and (2) as a “small business” if it is independently owned and operated and is qualified under the Small Business Administration criteria and size standards at 13 C.F.R. Part 21.

## **XIII. Access to Records**

- A. Contractor agrees to provide County, the Department of the Treasury, the Treasury Office of Inspector General, the Government Accountability Office, and the Comptroller General of the United States, or any authorized representatives of these entities, access to any records (electronic and otherwise) of Contractor which are directly pertinent to this Contract to conduct audits or any

other investigations. Contractor agrees to permit any of the foregoing parties to reproduce such records by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

- B. Contractor agrees to retain all records covered by this Section XIII through December 31, 2031, or such longer period as is necessary for the resolution of any litigation, claim, negotiation, audit, or other inquiry involving the Contract.

#### **XIV. Conflicts of Interest; Gifts and Favors**

- A. Contractor understands that (1) County will use Fiscal Recovery Funds to pay for the cost of this Contract and (2) the expenditure of Fiscal Recovery Funds is governed by the Conflict of Interest Policy of the County, the Regulatory Requirements (including, without limitation, 2 C.F.R. § 200.318(c)(1)), and North Carolina law (including, without limitation, G.S. 14-234(a)(1) and -234.3(a)).
- B. Contractor certifies to County that as of the date hereof, to the best of its knowledge after reasonable inquiry, no employee, officer, or agent of County involved in the selection, award, or administration of this Contract (each a “Covered Individual”); no member of a Covered Individual’s immediate family; no partner of a Covered Individual; and no organization (including Contractor) which employs or is about to employ a Covered Individual has a financial or other interest in, or has received a tangible personal benefit from, Contractor. Should Contractor obtain knowledge of any such interest or any tangible personal benefit described in the preceding sentence after the date hereof, Contractor shall promptly disclose the same to County in writing.
- C. Contractor certifies to County that it has not provided, nor offered to provide, any gratuities, favors, or anything of value to an officer, employee, or agent of County. Should Contractor obtain knowledge of the provision, or offer of any provision, of any gratuity, favor, or anything of value to an officer, employee, or agent described in the preceding sentence after the date hereof, Contractor shall promptly disclose the same to County in writing.

#### **XV. Assurances of Compliance with Title VI of the Civil Rights Act of 1964**

- A. Contractor and any Subcontractor, or the successor, transferee, or assignee of Contractor or any Subcontractor, shall comply with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. §§ 2000d *et seq.*), as implemented by the Department of the Treasury’s Title VI regulations, 31 C.F.R. Part 22, which are herein incorporated by reference and made a part of this Contract. Title VI also provides protection to persons with “Limited English Proficiency” in any program or activity receiving federal financial assistance, 42 U.S.C. §§ 2000d *et seq.*, as implemented by Treasury’s Title VI regulations, 31 C.F.R. Part 22, and herein incorporated by reference and made a part of this Contract.



**XVI. Other Non-Discrimination Statutes**

- A. Contractor acknowledges that County is bound by and agrees, to the extent applicable to Contractor, to abide by the provisions contained in the federal statutes enumerated below and any other federal statutes and regulations that may be applicable to the expenditure of Fiscal Recovery Funds:
1. The Fair Housing Act, Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 *et seq.*), which prohibits discrimination in housing on the basis of race, color, religion, national origin, sex, familial status, or disability;
  2. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of disability under any program or activity receiving federal financial assistance;
  3. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 *et seq.*), and Treasury’s implementing regulations at 31 C.F.R. Part 23, which prohibit discrimination on the basis of age in programs or activities receiving federal financial assistance; and
  4. Title II of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. §§ 12101 *et seq.*), which prohibits discrimination on the basis of disability in programs, activities, and services provided or made available by state and local governments or instrumentalities or agencies thereto.

**XVII. Miscellaneous**

- A. *Increasing Seat Belt Use in the United States.* Pursuant to Executive Order 13043, 62 Fed. Reg. 19,216 (Apr. 18, 1997), County encourages Contractor to adopt and enforce on-the-job seat belt policies and programs for its employees when operating company-owned, rented, or personally owned vehicles.
- B. *Reducing Text Messaging While Driving.* Pursuant to Executive Order 13513, 74 Fed. Reg. 51,225 (Oct. 6, 2009), County encourages Contractor to adopt and enforce policies that ban text messaging while driving.

**XVIII. Conflicts and Interpretation**

- A. To the extent that any portion of this Addendum conflicts with any term or condition of this Contract expressed outside of this Addendum, the terms of this Addendum shall govern.

*[Remainder of Page Intentionally Left Blank]*

**CONTRACTOR:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**COUNTY:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**ATTACHMENT 1**  
**TO**  
**FEDERAL CONTRACT PROVISIONS**  
**APPENDIX A, 31 C.F.R. PART 21 – CERTIFICATION REGARDING LOBBYING**

The undersigned certifies, to the best of the undersigned’s knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, or the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit [Standard Form-LLL, “Disclosure Form to Report Lobbying,”](#) in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
4. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31 of the U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, \_\_\_\_\_, certifies and affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chapter 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

\_\_\_\_\_  
Signature of Contractor’s Authorized Official

\_\_\_\_\_  
Name and Title of Contractor’s Authorized Official

\_\_\_\_\_  
Date

**IMPORTANT NOTE**

IF CONFLICT IN SPECIFICATIONS,  
SPECIFICATIONS BY COUNTY OF RANDOLPH  
SUPERSEDES ARCHITECT'S SPECIFICATIONS.

## GENERAL CONDITIONS

### ARTICLE 1. DEFINITIONS

- 1.1 Agreement—the Contract, the General Conditions, and any Supplementary Conditions.
- 1.2 Architect—the person or firm designated as the Architect in the Contract Documents, or their authorized representatives. The Architect(s), as referred to herein, shall mean architect, landscape architect, and/or engineer. They will be referred to hereinafter as if each were of the singular number, masculine gender.
- 1.3 Change Order—A written order to the Contractor signed by the Owner and the Architect authorizing an addition, deletion or revision in the Work and/or an adjustment in the Contract Price and/or the Contract Time issued after the execution of the Contract.
- 1.4 Completion Date—the dates identified as the completion dates in the Contract, Construction Schedule or elsewhere in the Contract Documents.
- 1.5 Construction Change Directive—a written order to the Contractor signed by the Owner and the Architect directing an addition, deletion, or revision in the Work after execution of the Contract, in circumstances when the parties have been unable to agree on an adjustment to the Contract Price or the Contract Time, but the Owner requests that the Contractor proceed with said Work subject to adjustment of the Contract Price and/or Contract Time under the procedures described herein.
- 1.6 Construction Schedule—that schedule described in Article 13 hereof and identified as the Construction Schedule.
- 1.7 Contract—the document executed by the Contractor and the Owner to formally memorialize their consent to the terms of the Agreement.
- 1.8 Contract Documents—all of the documents that make up the Agreement, plus the Drawings and Specifications that describe the scope of the Work plus any allowable Modifications to the Contract Documents.
- 1.9 Contract Price—the total monies payable to the Contractor under the Contract Documents.
- 1.10 Contract Time—the number of calendar days stated in, or computed from, the Contract Documents for the completion of the Work, or any portion thereof. See particularly Article 13 hereof and the Construction Schedule. Time of completion as specified therein is of the essence.
- 1.11 Contractor—that party identified as such in the Contract.
- 1.12 Days—unless otherwise indicated, the term “days” shall mean consecutive calendar days.

- 1.13 Drawings—The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, and generally including plans, elevations, sections, details, schedules and diagrams.
- 1.14 Field Order—a written order issued by the Architect which clarifies or interprets the Contract Documents or orders minor changes in the Work in accordance with the Contract Documents. See paragraph 14.3.
- 1.15 Final Completion—the point at which the Contractor has, as determined by the Architect, completed the Work, with the exception of guaranty and warranty obligations and becomes entitled, upon the recommendation of the Architect and determination by the Owner, to final payment.
- 1.16 Liquidated Damages—See paragraphs 13.16 and 13.17 of these General Conditions.
- 1.17 Modification—(A) a written amendment to the Contract Documents signed by the Owner and the Contractor and identified therein as such, (B) a Change Order, (C) a Construction Change Directive, or (C) a Field Order. A Modification may only be issued after execution of the Agreement.
- 1.18 Notice of Award—the written notice by the Owner to the Contractor that the Contractor is the successful Bidder and that upon compliance with the conditions precedent to be fulfilled by the Contractor within the time specified, the Owner will execute and deliver the Agreement to him.
- 1.19 Notice to Proceed—See paragraph 13.3 of these General Conditions.
- 1.20 Owner—the Owner is the person designated as such in the Agreement.
- 1.21 Owner’s Authorized Representative—a person or persons employed by the Owner and designated from time to time by written notice to the Contractor to administer the Contract Documents and to observe and monitor the Work on behalf of the Owner with authority and responsibility as herein specified.
- 1.22 Notice—the term “notice” or “written notice” as used herein shall mean and include all written notices, demands, instructions, and claims approvals and disapprovals furnished by the Owner or the Architect to obtain compliance with the requirements of the Contract Documents, as well as written notices, demands, instructions, and claims furnished by the Contractor as required by the Contract Documents. Where notice is required under the terms of the Contract Documents, written notice shall always be required, and oral or “constructive” notice shall be insufficient and ineffective as notice. Email or other electronic delivery shall be insufficient and ineffective as notice unless specifically allowed in the Supplementary Conditions or a Modification to the Agreement. Written notice shall be deemed to have been served on the date that it is delivered in person to the individual or to a member of the firm, to an officer of the corporation for whom it is intended, to an

authorized representative of such individual, firm or corporation, or on the date that it is mailed by registered or certified mail, return receipt requested, addressed to the last business address of such individual, firm or corporation known to the person giving the notice. In the case of delivery in person, such delivery shall not be effective unless and until a written and signed receipt showing the date and time of delivery is obtained.

- 1.23 Project—the total construction of which the Work performed under the Contract Documents may be the whole or a part.
- 1.24 Project Manager—that person designated by the Contractor in accordance with paragraph 7.2 who shall be in general charge of the Work and its performance.
- 1.25 Request for Information—a written communication from the Contractor to the Architect for any interpretation of, or information needed, required, or desired under the Contract Documents. The Owner reserves the right to determine the reasonable format and contents required for a Request for Information. In any Request for Information, the Contractor shall state a reasonable date by which a response is necessary in order to avoid delay in progress on the Work and shall make such request sufficiently in advance of such date as to avoid any such delay. The Architect shall respond in writing to the Request for Information by the date stated by the Contractor unless he cannot reasonably do so, in which case he shall, prior to that date, notify the Contractor of the date by which he can reasonably respond. The Contractor shall not be entitled to any additional time for the completion of the Work or any portion thereof by reason of the Architect's failure to respond if he has not submitted his Request for Information sufficiently in advance to allow the Architect a reasonable time within which to respond.
- 1.26 Request for Payment—the form, in the form of AIA Document G702 or other published document approved by the Owner, which is to be used by the Contractor in requesting progress payments and which is to include a Schedule of Values as required by the Contract Documents and an affidavit of the Contractor that progress payments theretofore received from the Owner on account of the Work have been applied by the Contractor to discharge in full all of the Contractor's obligations incurred in connection with the Work covered by all prior applications for payment.
- 1.27 Schedule of Values—any breakdown of the Contract Price which may be required by the Contract Documents, and designated as such.
- 1.28 Specifications—that portion of the Contract Documents consisting generally of the written requirements for materials, equipment, construction systems, standards, and workmanship for the Work and the performance of related services.
- 1.29 Subcontractor—a person, firm or corporation who has entered into a direct contract with the Contractor to perform any of the Work on the Project.
- 1.30 Submittal—shop drawings, product data, samples, and other documents required by the Contract Documents to be submitted by the Contractor to the Architect.

- 1.31 Submittal Register—see paragraph 13.2 of these General Conditions.
- 1.32 Substantial Completion—the point at which the Work on the Project, as determined by the Architect, is sufficiently complete in accordance with the Contract Documents that it can be beneficially occupied by the Owner and the Work can be utilized by the Owner for its intended use, and all necessary permits and permissions for beneficial occupancy and utilization have been obtained by the Contractor. All operations and maintenance manuals, Owner training, and as-built drawings must be submitted prior to Substantial Completion being achieved.
- 1.33 Sub-subcontractor—a person or entity that has a direct or indirect contract with a Subcontractor to perform any of the Work at the Project.
- 1.34 Work—the construction and services required by the Contract Documents, including all labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor’s obligations.
- 1.35 All references in the Contract Documents to the masculine shall be interpreted as including the feminine or neuter and all references in the Contract Documents to the singular or the plural shall be interpreted as including the other, as may be appropriate in the reasonable interpretation of the Contract Documents.

ARTICLE 2. CORRELATION, INTERPRETATION AND INTENT OF THE CONTRACT DOCUMENTS.

- 2.1 It is the intent of the Specifications and Drawings and other Contract Documents to describe a complete Project in accordance with the Contract Documents.
- 2.2 The Contract Documents are complementary, what is called for by one is as binding as if called for by all. If the Contractor finds a conflict, error or discrepancy in the Contract Documents, the Contractor shall notify the Architect in writing before proceeding with the Work affected thereby. In resolving such conflicts, errors and discrepancies, the Contract Documents shall be given preference in the following order: Construction Agreement, Modifications, Addenda, Supplemental Conditions, General Conditions, Specifications, and Drawings. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings. Any Work that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described in words, so applied, have a well-known technical trade meaning shall be deemed to refer to such meaning and to incorporate any recognized standards which are a part of such meaning.
- 2.3 Miscellaneous items, accessories, and work which are not specifically mentioned, but which are essential to produce a complete and properly operating installation, or useable



structure or plant providing the indicated function shall be furnished and installed without change in the Contract Price. Such miscellaneous items and accessories shall be of the same quality standards, including material, style, finish, strength, class, weight, and other applicable characteristics, as specified for the major component of which the miscellaneous item or accessory is an essential part, and shall be approved by the Architect before installation. This requirement is not intended to include major components not covered by or inferable from the Contract Documents.

- 2.4 The Work of all trades under the Contract Documents shall be coordinated by the Contractor in such a manner as to obtain the best workmanship possible for the entire Project and all components of the Work shall be installed or erected in accordance with the best practices of the particular trade.
- 2.5 The Contractor shall fully complete the Work and shall be responsible for all of the Work under the Contract Documents to which the Agreement applies. If the Contractor is prevented from doing so by any limitation of the Contract Documents, the Contractor shall immediately give notice thereof to the Architect and the Owner in writing before proceeding with the construction in the area where the problem or limitation exists.
- 2.6 Standard specifications or manufacturers' literature, when referenced, shall be of the latest revision or printing unless otherwise stated and is intended to establish the minimum requirements acceptable.
- 2.7 For those materials specified without the use of brand names, the Contractor shall submit within thirty (30) days after his receiving the Agreement for signatures, any product that meets the express requirements of the Specifications. Such Submittal shall include manufacturer's data, test reports, performance data and certifications, samples, erection details, and other applicable information as required to permit determination by the Architect whether such proposed products are suitable. The Architect shall be the sole judge as to the suitability of any proposed product. The burden of proof of quality rests with the Contractor.
- 2.8 The Contractor is required to examine and read the complete set of Contract Documents for information concerning the Work. No allowance will be made for the Contractor's failure to become familiar with the complete set of project documents.
- 2.9 Contractor's requests for clarification or information shall clearly define the cause(s) of Contractor's request and, as appropriate, shall include the Contractor's interpretation and Contractor's proposed solution.

### ARTICLE 3. FAMILIARITY WITH WORK, CONDITIONS AND LAWS

- 3.1 The Contractor has investigated prior to bidding and is satisfied with all conditions affecting the Work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electrical power, roads and uncertainties of weather, or similar physical conditions at the Project site, and the character of equipment and facilities needed prior to and during prosecution of the Work. The Contractor is satisfied as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from inspection of the Project site, including all exploratory work done by the Owner, as well as from information presented by the Contract Documents, or any other information made available to the Contractor prior to receipt of bids. Any failure by the Contractor to become acquainted with the available information shall not relieve the Contractor from the responsibility for estimating properly the difficulty or cost of successfully performing the Work.
- 3.2 The Contractor shall be entitled to rely upon all information furnished to the Contractor in writing by the Owner with respect to the Project site and to make all inferences from it that would reasonably be made by a contractor having knowledge and experience with similar work; however, the Contractor shall not be entitled to infer from Owner-supplied information any fact or condition which would not be inferred by a contractor having knowledge and experience with similar work, and if the Owner-supplied information is inadequate or insufficient in any respect, the Contractor shall be required to obtain independently such other information as a knowledgeable and experienced contractor would prudently obtain in order to evaluate any such condition.
- 3.3 The Contractor specifically acknowledges familiarity with all Federal, State, and local laws, ordinances, rules and regulations which may in any manner affect those engaged or employed in the Work, or the materials or equipment in or about the Work, or in any way affect the conduct of the Work and agrees that the Contractor and the Contractor's employees, subcontractors, and suppliers will, at all times, comply with same. If the Contractor shall discover any provisions in the Contract Documents which are contrary to or inconsistent with any such law, ordinance, rule or regulation, the Contractor shall immediately give notice thereof to the Architect and the Owner in writing, identifying any items of Work affected, and the Contractor shall not proceed until the Contractor has received written direction from the Architect with respect to these items. If the Contractor performs contrary to or inconsistently with any such law, ordinance, rule or regulation without giving such notice, the Contractor shall bear all costs which are a consequence of such performance.

#### ARTICLE 4. BONDS

- 4.1 A performance bond in the full amount of the Contract Price shall be required of the Contractor to guarantee the faithful performance of the work in compliance with the Contract Documents, in such form as may be required by law and approved by the Owner. The bond shall be dated the same date as the Agreement and must be accompanied by a

current copy of the power of attorney for the attorney-in-fact executing such bond on behalf of a surety company licensed to do business in the state of North Carolina.

- 4.2 A payment bond in the full amount of the Contract Price shall be required of the Contractor to guarantee the payment of all labor and material costs or claims in connection with compliance with the Contract. The payment bond shall be in such form as may be required by law and approved by the Owner. Said bond shall be dated and executed in the same manner as the performance bond referenced in paragraph 4.1 above.

## ARTICLE 5. INSURANCE AND INDEMNITY

- 5.1 **CONTRACTOR PROVIDED INSURANCE**—The Contractor shall, without limiting its obligations or liabilities, procure, pay for and maintain such insurance as is required by law and as is required by this Agreement to protect the Contractor and the Owner from claims or damages for bodily injury, including death, and from claims for property damage which may arise from the Contractor's or its representatives', consultants', Subcontractors', agents', or employees' operations under this Agreement. Such insurance shall be of the kinds and have the limits of liability and coverages not less than the minimum limits hereinafter specified or required by law, whichever is greater. The Owner makes no representation as to the adequacy or sufficiency of such coverages. The following requirements shall in no way be construed to limit or eliminate the liability of the Contractor, which arises from the performance of Work under the Agreement. The Contractor is strictly responsible for any losses, claims and costs of any kind which exceed the Contractor's limits of liability, or which may be outside the coverage scope of the policies.

The insurance specified shall be provided by an insurer approved by the Owner, authorized to do business in the State of North Carolina, and on terms approved by the Owner. Insurance companies utilized shall have a minimum rating of A- and Class VII as evaluated by the most current A.M. Best Rating Guide. If the insurer has a Best Rating less than A- and Class VII, the Contractor must receive specific written approval from the Owner prior to proceeding with any Work under the Agreement. All agents and brokers shall hold valid licenses from the State of North Carolina. Before commencing mobilization to the Project site and not less than 7 days after receipt of the Agreement by the Contractor for signatures, the Contractor shall furnish to the Owner a certificate or certificates of insurance in a form satisfactory to the Owner. Upon request of the Owner, the Contractor shall provide the Owner with certified copies of the insurance policies required by this Article, including without limitation declaration pages, conditions, exclusions and endorsements, and confirmation that each policy premium has been paid for the required term of this Agreement. Certificates shall be signed by a person authorized by that insurer to bind coverage on its behalf. All insurance policies shall provide, as evidenced by Certificates of Insurance, that the insurance shall not be canceled, reduced, restricted, or changed in any way without at least 30 days prior written notice to the Owner. With regard to expiration, cancellation, reduction, restriction, or any other change, certificates shall state: "Should any of the following described policies be canceled before expiration date or be

due to expire within 30 days, the insurer shall mail 30 days prior written notice to named certificate holder.” In the event of any such cancellation, non-renewal, reduction, restriction or change in any insurance, the Contractor is obligated to replace such insurance within 7 days without a gap in coverage and file accordingly such notice with the Owner and other interested parties. Failing immediate receipt of evidence of such replacements of insurance the Owner reserves the right to procure such insurance as the Owner considers desirable and the Contractor shall pay or reimburse the cost of the premium in respect thereof. It is expressly provided, however, that any action or inaction on the part of the Owner in this respect shall in no way change or reduce the Contractor’s responsibilities and liabilities under this Agreement. Self-funded, policy fronting, or other non-risk transfer insurance mechanisms are not acceptable without prior written approval of the Owner. Full disclosure of such a program must be made prior to commencing mobilization to the Project site. Failure to make a full disclosure constitutes a material breach of this Agreement, justifying termination for default.

The Contractor shall name the Owner, the Architect, the Architect’s consultants, and the Construction Manager as additional insureds under all its insurance contracts (except workers’ compensation) with respect to and including without limitation liability arising out of activities performed by and on behalf of the Contractor, products and completed operations of the Contractor, and automobiles owned, hired, leased, or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to additional insureds.

For any claims related to this Project, the Contractor’s insurance shall be primary and noncontributory with respect to the Owner’s insurance. Any insurance or self-insurance maintained by the Owner shall be excess and noncontributory with respect to the Contractor’s insurance.

All policies of insurance shall contain a clause waiving rights of subrogation against the Owner, unless the Owner approves otherwise in writing.

Limits of coverage are not to be amended by deductible clauses of any nature without the express written consent of the Owner. The Contractor shall be solely responsible for any deductible assumptions that may exist in any insurance policies required under this Agreement. In addition, the Contractor shall be responsible and shall not be reimbursed for any losses arising from any risk or exposure not insured as required herein, or not covered as a result of a normal policy exclusion or that falls within the self-insured retention, if Contractor is self-insured.

The Contractor’s insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer’s liability.

The claim provisions in the Contractor’s insurance policies must specifically state the insurance company or Contractor’s Third Party Administrator, if self-insured, has both the right and duty to adjust a claim and provide defense.

The policies shall not contain any provision or definition which would serve to exclude or eliminate from coverage third party claims, including exclusions of claims for bodily or other injury to shareholders, partners, officers, directors, or employees of the insured, the premises owner, real estate manager, or the insured's Subcontractor, or any family relative of such persons.

If the policies contain any warranty stating that coverage is null and void (or words to that effect) if the Contractor does not comply with the most stringent regulations governing the Work, it shall be modified so that coverage shall be afforded in all cases except for the Contractor's willful or intentional noncompliance with applicable government regulations.

Any failure by any person to comply with reporting or other provisions of the policy including breach of warranties, shall not affect coverage provided to the Owner and its representatives, officials and employees.

The insolvency or bankruptcy of the Insured or of the Insured's estate shall not relieve the insurance companies of their obligations under these policies. Any clauses to the contrary are unacceptable and must be stricken.

Failure to comply with these requirements shall be a material breach of this Agreement justifying termination for default.

#### 5.1.1 Workers' Compensation and Employers' Liability Insurance

The Contractor and the Subcontractors shall procure and maintain Workers' Compensation Insurance in the amount and type required by the State of North Carolina and federal law for all employees employed under the Agreement who may come within the protection of Workers' Compensation Laws and covering all operations under the Agreement whether performed by the Contractor or by his Subcontractors. In jurisdictions not providing complete Workers' Compensation protection, the Contractor and his Subcontractors shall maintain employers' liability insurance in an amount, form, company and agency satisfactory to the State of North Carolina and the Owner for the benefit of all employees not protected by Workers' Compensation Laws and covering all operations under the Agreement whether performed by the Contractor or by his Subcontractors.

The Contractor shall pay such assessments as will protect the Contractor and the Owner from claims under the Workers' Compensation Laws, workers' or workmen's compensation disability benefits, and other similar employee benefits acts. The current Experience Modification Factor shall be indicated on the Certificate of Insurance.

Coverage under this section shall be as required by federal and state Workers' Compensation and Occupational Disease Statutes, and shall have minimum limits as follows:

Coverage A:	Statutory, State of North Carolina
Employers' Liability: Each Accident	\$1,000,000

Disease-Policy Limit	\$1,000,000
Disease-Each Employee	\$1,000,000

Such insurance shall include Voluntary Compensation coverage, a Waiver of Subrogation in favor of the Owner as well as other endorsements that may be required by applicable jurisdictions, i.e. United States Longshoremen and Harbor Workers Act and maritime coverage (Jones Act).

### 5.1.2 Automobile Liability Insurance

The Contractor shall procure and maintain automobile insurance against liability for bodily injury and property damage as described below, that may arise with respect to the Work being performed under this Agreement, and as will provide protection from claims which may arise out of or result from the Contractor’s performance of the Work and the Contractor’s other obligations under the Agreement, whether such performance of the Work is by the Contractor, by any representative or Subcontractor, by anyone, both officially and personally, directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

This policy of insurance shall carry the following minimum limit of liability:

Combined Single Limit	\$1,000,000
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The policy of insurance shall contain or be endorsed to include the following:

- a) Owned, hired and non-owned automobile liability.
- b) If the policy contains a warranty stating that coverage is null and void (or words to that effect) if the transporter does not comply with the most stringent regulations governing the Work, it shall be modified so that coverage shall be afforded in all cases except for the transporter’s willful or intentional noncompliance with applicable government regulations.

Any failure by any party to comply with reporting or other provisions of this policy including breach of warranties, shall not affect coverage provided to the Owner and its representatives, officials and employees.

No subcontracting of waste hauling shall be permitted without prior, written approval of the Owner.

### 5.1.3 General Liability

This policy must be written on an Occurrence basis, with the following minimum Limits of Liability:

General Aggregate per project	\$2,000,000.00
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Products/Completed Operations Aggregate	\$2,000,000.00
Bodily Injury and Property Damage csl/each occurrence	\$1,000,000.00
Personal Injury and Advertising Injury	\$2,000,000.00

The policy of insurance shall contain or be endorsed to include the following:

- a) Blanket Contractual Liability covering Contractor’s indemnification obligations under this Agreement, in accordance with ISO policy form CG 00 01. Modifications to the standard provision will not be acceptable if they serve to reduce coverage.
- b) Premises/Operations Liability
- c) Explosion, collapse and underground fault
- d) Independent Contractors and Independent Subcontractors coverage
- e) Broad Form Property Damage
- f) Personal Injury
- g) Cross Liability/Severability of Interest Clause
- h) Employer’s Stop-Gap Liability endorsement, if applicable
- i) Amendment of the Pollution Exclusion Endorsement to allow coverage for bodily injury or property damage caused by heat, smoke, or fumes from a hostile fire
- j) Designated General Aggregate Limit Endorsement if required by the Supplemental General Conditions.

Coverage shall remain continuously in effect and without interruption for at least 6 years from the date of the Notice of Award and shall include coverage for exposures arising from operations that have been completed. The Contractor shall furnish the Owner and each other additional insured listed in the Agreement to whom the Certificates have been issued, evidence satisfactory to the Owner of continuation of such insurance at the date of Preliminary Acceptance and each year thereafter.

#### 5.1.4 Pollution Legal Liability (PLL)

Pollution Legal Liability coverage will be provided if required in any Supplementary General Conditions.

#### 5.1.5 Umbrella Liability

The Contractor shall maintain an occurrence basis (as distinguished from a “claims made” basis) Umbrella Liability policy (true follow form) over the underlying General Liability, Automobile Liability and Employer’s Liability with the following limits of liability:

Each Occurrence	\$3,000,000.00
Aggregate	\$3,000,000.00

On a fully insured basis such coverage will be subject to a deductible no greater than \$10,000.00 per occurrence where coverage is not provided by the underlying insurance, but is provided by the Umbrella Liability policy.

The Contractor may use any combination of primary and umbrella insurance policies to comply with the insurance requirements, provided the resulting insurance is equivalent to the insurance stated herein.

All Occupational Disease exclusions must be deleted. Any Pollution Exclusion must be amended to allow coverage for bodily injury or property damage caused by spill, upset, overturn, heat, smoke, or fumes from a hostile fire.

#### 5.1.6 Property Insurance

The Contractor shall purchase All Risk Property Insurance on a Completed Value Form in the names of the Owner, Contractor, Subcontractors, and Sub-subcontractors as their interests may appear with limits as follows:

- a) Full insurance value of the Work; or
- b) Amount equal to the Contract Price for the Work whichever is higher.

The Contractor is responsible for all physical damage to owned or rented machinery, tools, equipment, forms and other items owned, rented or used by the Contractor and/or Subcontractor(s) in the performance of the Work. The insurance coverage evidencing such shall include a waiver of subrogation in favor of the Owner.

#### 5.1.7 Valuable Papers and Records

The Contractor shall provide valuable papers and records insurance with coverage in an amount commensurate with project scope.

#### 5.1.8 Claims

The Contractor shall notify the Owner within 24 hours of any claims or alleged claims received by the Contractor covered by any of the policies of insurance required in this Agreement. The Contractor shall provide a written copy of the claim or alleged claim to the Owner within 3 days of the Contractor's receipt of the claim or alleged claim. If a claim is settled to the satisfaction of the claimant, the Contractor shall submit a copy of the claimant's release to the Owner.

If a claim or alleged claim is rejected by the Contractor and/or its insurance company, the Contractor shall immediately report this fact to the Owner.

Should 30 days elapse after the claim or alleged claim has been received by the Contractor, and the Contractor is not able to report a settlement or rejection of the claim, it shall report to the Owner the steps being taken with respect to the claim.

Without limiting the foregoing, the Contractor shall notify in writing the County Risk Manager of any paid or incurred claims which may impair annual aggregate or general liability.



#### 5.1.9 Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the Owner. At the option of the Owner, either: the insurer shall reduce to a maximum of \$250,000.00 or eliminate such deductibles or self-insured retentions with respect to the Owner, or the Contractor shall provide evidence of collateral provided to insurers or procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses within the deductible or self-insured retention amount. Any self-insured retention or deductible amount on the policy shall not reduce the amount of collectible limits or liability.

#### 5.1.10 Subcontractors

The Contractor shall include all Subcontractors as insureds under its policies, or shall furnish separate certificates, policies and endorsements for each Subcontractor the Contractor intends to use. If a Subcontractor does not take out insurance in its own name and the Contractor wishes to provide insurance protection for such Subcontractor and such Subcontractor's employees, the Contractor shall either (a) procure appropriate policies in the name of the Subcontractor, or (b) cause a rider or riders to be attached to the Contractor's policies which shall identify the Subcontractor thereby covered; provided, however, in the case of the latter option, such a rider need not be attached to the Contractor's workers' compensation policy if such policy by its terms is sufficiently broad to cover the employees of all Subcontractors performing Work under the Contract Documents. Except as otherwise approved by the Owner in writing, Limits of Liability and coverage scope must be at a minimum as stringent as required of the Contractor by the Contract Documents. All Work performed for the Contractor by any Subcontractor shall be pursuant to an appropriate agreement between the Contractor and the Subcontractor which shall contain provision that waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by insurance as provided herein.

- 5.2 Indemnification--The Contractor, to the fullest extent not expressly prohibited by law, shall defend, indemnify and save harmless the Owner, the Architect, the Construction Manager (if any), and their respective officials, officers, employees and agents from and against any and all liabilities (foreseeable or unforeseeable), penalties, fines, forfeitures, demands, claims, causes of actions, suits, judgments, and costs and expenses incidental thereto, (including, without limitation, amounts paid pursuant to investigations, defense or settlements, and reasonable attorneys' fees), which any or all of them may hereafter suffer, incur, be responsible for, or pay out as a result of but not limited to:
- a) Bodily injury (including sickness, disease or death) to any person including but not limited to, the Contractor's employees or its representatives while on the site of the Project; or
  - b) Actual or alleged damage (including loss of use) to any property (public or private, including the Project or any other property on the Project site); or

- c) Contamination of or adverse effects on the environment arising directly or indirectly out of or in connection with the performance of the Work, including but not limited to any hazardous or toxic waste, substance, or constituent of any substance subject to regulation under CERCLA, RCRA, TSCA, and other Federal and state authorities that is spilled, released, threatening to release, or disposed of or destroyed by the Contractor or its Subcontractors on or off the site of the Project or while in transport to or from the site; or
- d) Any violation or alleged violation of laws and regulations, arising out of or in any way connected with the Work,  
caused in whole or in part by the Contractor, any Subcontractor or supplier or any representatives of the Contractor. The Contractor shall not be required to indemnify the Owner against losses resulting from a breach of this Agreement by the Owner or its other agents and contractors, or resulting from negligence, misconduct or violation of laws on the part of the Owner or its other agents and contractors.

The Contractor further agrees to obtain, maintain and pay for such liability insurance coverages and endorsements as will insure the provisions of this paragraph. Furthermore, the Contractor agrees to be liable for and to indemnify and reimburse the Owner for all legal fees and disbursements paid or incurred to enforce the provisions of this paragraph. The indemnification obligations under this paragraph shall not be limited in any way by the amount or type of damages, compensation or benefits payable under workers' compensation acts, disability benefit acts, other employment benefit acts, or the amount of insurance carried or recovered.

The Owner acknowledges that hazardous or toxic waste, material, chemicals, compounds, or substances, or other environmental hazards, contamination or pollution (referred to hereinafter as "environmental hazards") may be present at the Project site that were not created, generated, or released at the Project site by the Contractor or its Subcontractors, agents or employees, acting alone or in concert with others. Unless the remediation, abatement or handling of such environmental hazards is part of the scope of the Work under this Agreement, then upon the discovery of such environmental hazards, the Contractor shall immediately, and in no event more than three (3) days later, give notice to the Owner of the environmental hazards before they are disturbed. The Owner and the Architect shall thereupon promptly investigate the environmental hazards, and make such changes in the Drawings and/or Specifications as they may find necessary to abate, remediate, isolate or handle the environmental hazards. Any increase or decrease in the Contract Price or the Contract Time resulting from such changes shall be adjusted in the manner provided for herein for adjustments as to extra and/or additional Work and changes. It is agreed that the Contractors shall have no liability under this Agreement for any environmental hazards existing prior to the date that Work commences under this Agreement unless the Contractor or its Subcontractors, agents or employees, acting alone or in concert with others, by their own negligence or misconduct, release, or expose the Owner or third parties to the environmental hazards.

The provisions of this paragraph shall survive the termination or cancellation or completion of this Agreement.

## ARTICLE 6. OTHER RECORD DOCUMENTS AND SUBMITTALS

- 6.1 The Architect shall furnish to the Contractor \_\_\_\_\_ number of copies of the Drawings and Specifications. Additional copies of the Drawings and Specifications may be obtained at the cost of reproduction and handling.
- 6.2 The Contractor shall submit to the Architect all Submittals required by the Contract Documents. The Contractor shall submit three (3) reproducible prints of all shop drawings plus the number of copies sufficient for his requirements. The Contractor shall submit samples in quantities required by the Contract Documents. The Contractor shall submit product data in five (5) copies, plus the number of copies sufficient for the Contractor's requirements. All shop drawings shall be reviewed by the Contractor and shall bear the Contractor's stamp of approval before being forwarded to the Architect. Submittals shall be submitted in such time as to not cause delay to the Work or any part thereof and in accordance with the Contract Construction Schedule and Submittal Register. The Architect shall review the Submittal with reasonable promptness, noting desired corrections, if any. The Architect shall retain two (2) copies of the Submittal and shall return the balance of the reviewed Submittal to the Contractor for action. The Contractor shall furnish any corrected reviewed Submittal to the Architect. The Architect shall retain two (2) copies of the corrected Submittal and will return the balance of the reviewed submittal to the Contractor.

No substitutions will be accepted after the bids have been received.

The Contractor acknowledges that the processing of shop drawings and other Submittals is directly impacted by the clarity, completeness, and accuracy of said documents and that it is the Contractor's responsibility to (a) review and coordinate each Submittal with other related or affected Work and (b) approve each Submittal before submitting same to the Architect for approval.

- 6.3 No substitutions and no deviations from any requirement of the Contract Documents shall be deemed allowed unless the Contractor has specifically informed the Architect in writing of such deviations at the time of submittal and the Architect and the Owner have given written and specific approval to the substitutions or deviations. In proposing a deviation or substitution, the Contractor warrants to the Owner, notwithstanding any review, allowance or approval by the Architect or the Owner, that the deviation or substitution is at least equal to or better in quality and for the purpose intended, and that the Contractor shall not by reason of any such review, allowance or approval be relieved from any obligation or responsibility contained in the Contract Documents.
- 6.4 Review of submittals by the Architect shall not be construed as relieving the Contractor from responsibility for compliance with terms or designs of the Contract Documents nor from responsibility for errors of any sort in the submittal.

- 6.5 The Contractor shall keep one record copy marked "As-Built" of all Specifications, Drawings, Addenda, Modifications, and Submittals at the Project in good order and annotated at least monthly to show all changes made during the construction process. Such monthly annotations and their approval by the Architect shall be a condition precedent to approval by the Architect of each monthly Request for Payment. Said record copy shall be stored at the Project and fully protected from damage by fire or other hazard. This record copy shall be available to the Architect and the Owner for inspection at all times, and shall be delivered to the Architect for the Owner's purposes prior to the Architect's certifying Substantial Completion of the Work.
- 6.6 At completion of the Project and before Final Payment, the Contractor shall assemble and deliver to the Owner one complete set of all as-built drawings and one complete set of all approved Submittals, product data, and samples which were reviewed by the Architect. These drawings and submittals shall be on paper, or in electronic or other media if required by the Supplementary Conditions. These drawings and submittals shall be categorized and packaged as directed by the Architect.

## ARTICLE 7 CONTRACTOR

- 7.1 The Contractor shall supervise and direct the Work efficiently and with the Contractor's best skill and attention. Except as may be set forth specifically in the Contract Documents, the Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs in connection with the Work. The Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents.
- 7.2 The Contractor shall appoint a competent Project Manager and shall keep on the Project at all times during the Work a competent Resident Superintendent and necessary assistants who shall not be replaced without prior written approval by the Owner except under extraordinary circumstances, in which event immediate written notice shall be given to the Owner. The Project Manager and the Resident Superintendent may be the same or different persons. At any time, the Owner, in its sole and absolute discretion, may require the Contractor to replace the Project Manager or Resident Superintendent with an experienced and competent person or persons upon seven (7) days written notice from the Owner to the Contractor. Such replacement shall be at the Contractor's expense and at no cost to the Owner.
- Both the Project Manager and the Resident Superintendent shall have authority to act on behalf of the Contractor, and instructions, directions or notices given to either of them shall be as binding as if given to the Contractor.
- 7.3 The Contractor shall provide sufficient competent and suitably qualified personnel, equipment, and supplies to lay out the Work and perform construction as required by the

Contract Documents. The Contractor will at all times maintain good discipline and order at the site, and will comply with all applicable OSHA standards.

Any person employed by the Contractor, by any Subcontractor, or by any Sub-subcontractor who, in the opinion of the Architect or the Owner, does not perform its Work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Owner or Architect, be removed forthwith by the Contractor, Subcontractor, or Sub-subcontractor employing such person without cost to the Owner, and shall not be employed again in any portion of the Work without the prior written approval of the Owner or Architect.

Should the Contractor fail to remove such person or persons or fail to furnish suitable and sufficient personnel for the proper prosecution of the Work within three (3) days after written order, the Owner may withhold further payment by written notice until compliance with such order.

7.4 If, in the opinion of the Architect or the Owner, any Subcontractor on the Project is incompetent or otherwise unsatisfactory, such Subcontractor shall be replaced by the Contractor with no increase in the Contract Price if and when directed by the Architect or Owner in writing.

7.5 The Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools appliances, fuel, light, heat, and all other facilities and incidentals necessary for the execution, maintenance, initial operation, and completion of the Work, other than those specifically excluded by the Contract Documents and to be furnished by the Owner or others. When use or storage of hazardous materials or equipment or methods of more than ordinary risk are necessary in accomplishing the Work, the Contractor shall give the Owner and Architect reasonable advance notice.

If any materials are to be furnished or installed by the Owner or others under the terms of the Contract Documents, said materials shall be made available to the Contractor at the location(s) specified in the Contract Documents. All costs of handling, transportation from the specified location to the Project, storage, and installing of Owner-furnished materials shall be included in the Contract Price. The Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies which may occur during the Contractor's handling, storage, or use of such Owner-furnished materials. The Owner shall deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good any such damage, loss, or deficiency.

All equipment which is proposed to be used in the Work shall be of sufficient size and in such mechanical condition as to meet the requirements of the Work and produce a satisfactory quality of work. Equipment used on any portion of the Work shall be such that no injury to previously completed Work, adjacent property, or existing facilities shall result from its use.

When the methods and equipment to be used by the Contractor accomplishing the Work are not prescribed in the Contract Documents, the Contractor shall be free to use any methods or equipment that will accomplish the Work in conformity with the requirements of the Contract Documents.

When the Contract Documents specify the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized in writing by the Architect. If the Contractor desires to use a method or type of equipment other than that specified in the Contract Documents, the Contractor may request authority from the Architect to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it shall be on the condition that the Contractor shall be fully responsible for producing Work in conformity with the requirements of the Contract Documents. If, after trial use of the substituted methods or equipment, the Architect determines that the Work produced does not meet the requirements of the Contract Documents, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining Work with the specified methods and equipment at no additional cost to the Owner. The Contractor shall remove any deficient Work and replace it with Work of specified quality, or take such other corrective action as the Architect may direct. No change in the Contract Price or in Contract Time shall be made as a result of authorizing a change in methods or equipment under this paragraph.

- 7.6 All materials and equipment shall be new, except as otherwise provided in the Contract Documents. When special makes or grades of material which are normally packaged by the supplier or manufacturer are specified or approved, such materials shall be delivered to the Project site in their original packages or containers with seals unbroken and labels intact.

Materials shall be so stored as to assure the preservation of their quantity, quality and fitness for the Work. Stored materials, even though approved before storage, may again be inspected by the Architect or the Owner prior to their use in the Work and shall be required to meet the requirements of the Contract Documents at the time they are incorporated into the Work. Stored materials shall be located so as to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the Architect and Owner. Materials to be stored at the Project or on the Owner's property shall not create an obstruction to the Owner's or other contractor's reasonable activities. Private property shall not be used for storage purposes without written approvals consistent with the provisions of paragraph 20.3 of these General Conditions. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the Owner a copy of the property owner's permission. All storage sites on private or the Owner's property shall be restored to their original condition by the Contractor at its entire expense, except as otherwise agreed to (in writing) by the owner or lessee of the property.

- 7.7 All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processor, except as otherwise provided in the Contract Documents.
- 7.8 The Contractor will be fully responsible for all acts and omissions of its Subcontractors and of persons directly or indirectly employed by them and of persons for whose acts any of them may be liable to the same extent that the Contractor is responsible for the acts and omissions of the Contractor's own employees. Nothing in the Contract Documents shall create any contractual relationship between any Subcontractor or supplier and the Owner or the Architect, or any obligation on the part of the Owner or the Architect to pay or see to the payment of any money due any such Subcontractor or material furnisher except as may otherwise be required by law. The Owner or the Architect may furnish to any Subcontractor or supplier, to the extent practicable, evidence of amounts paid to the Contractor on account of specific Work done.
- 7.9 The divisions and sections of the Specifications and the identifications of any Drawings shall not control the Contractor in dividing the Work among Subcontractors.
- 7.10 The Contractor agrees to bind specifically every Subcontractor to the terms and conditions of the Contract Documents for the benefit of the Owner and to furnish written evidence thereof to the Architect and the Owner within seven (7) days after written request by the Owner.
- 7.11 The Contractor shall attend job progress conferences and all other meetings or conferences as directed by the Architect. The Contractor shall be represented at these job progress conferences by a representative having the authority of the Project Manager and by such other representatives as the Architect may direct. Job progress conferences shall be open to Subcontractors, suppliers and any others who may contribute beneficially toward maintaining required job progress, and such personnel shall be encouraged by the Contractor to attend. It shall be the principal purpose of job progress conferences to effect coordination, cooperation and assistance in every practical way toward the end of maintaining progress of the Project on schedule and to complete the Work and the Project by the specified Completion Dates. The Contractor shall be prepared to assess progress of the Work as required in the Contract Documents and to recommend remedial measures for correction of progress as may be appropriate. The Architect shall preside as chairman and arrange for minutes to be taken and circulated.

In the event that the prosecution of the Work is discontinued for any reason, the Contractor shall notify the Architect and the Owner at least forty-eight (48) hours in advance of resuming operations.

Should the terms of the Contract Documents require completion of one or more portions of the Work for the Beneficial Occupancy of the Owner prior to completion of the entire Work, the Contractor shall complete such portion(s) of the Work on or before the date

specified. Such completion shall include the obtaining of all government or other permits, permission, and/or approvals necessary to occupancy. The Contractor shall independently estimate the difficulties involved in arranging the Work to permit such Beneficial Occupancy and shall not claim any additional compensation or time extension by reason of any delay or increased cost due to completing such portion(s) of the Work. The Owner's possession and use of such portion(s) of the Work shall not be deemed an acceptance of any Work not completed in accordance with the Contract Documents. The Owner shall be responsible for the security, maintenance, utilities, and insurance of all portions of the Work completed and beneficially occupied by the Owner.

- 7.12 The Contractor shall pay all license fees and royalties, and assume all costs incident to the use of any invention, design process, or device which is the subject of patent rights or copyrights held by others, except for inventions, design processes, or devices specified by the Architect in the Contract Documents. The Contractor shall indemnify and hold harmless the Owner, the Architect, and anyone directly employed by any of them, from and against all claims, damages, losses and expenses, including attorney's fees and costs of defense, arising out of any infringement or alleged infringement of such rights during or after completion of the Work, and shall defend all such claims in connection with any actual or alleged infringement of such rights.
- 7.13 The Contractor shall secure and pay for all permits, including without limitation construction permits and licenses, and will pay all governmental charges and inspection fees necessary for the prosecution of the Work.
- 7.14 The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the Work and shall protect and indemnify the Owner, the Architect, and their respective officials, officers, agents, employees or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or by the Contractor's employees, Subcontractors, Sub-subcontractors, or their employees.
- 7.15 The Contractor shall be responsible for the entire site of the Project and for its reasonable and necessary protection and security as required by laws or ordinances governing such conditions, or by custom or sound construction practices, and shall share such responsibilities for protection of property at the site as may be directed by the Contract Documents and the Owner or Architect. The Contractor shall be responsible for any damage to the Owner's property, or that of others, by the Contractor or the Contractor's employees, Subcontractors, Sub-subcontractors, or their employees or agents, and shall make good such damages. The Contractor shall be responsible for and pay for any such claims made against the Owner.
- 7.16 The Contractor shall protect all landscaping designated to remain in the vicinity of the operations and barricade all walks, roads, and areas as necessary to keep the public away from the construction.



- 7.17 The Contractor shall provide cover and/or protect all portions of the Work and provide all materials necessary to protect the Work whether performed by the Contractor or any of the Subcontractors or Sub-subcontractors. Any Work damaged through the lack of proper protection, or from any other cause, shall be repaired or replaced without extra cost to the Owner or extension to the Contract Time.

The Contractor shall maintain the Work during construction and until the Work is accepted. This maintenance shall constitute continuous and effective effort prosecuted day by day, with adequate equipment and forces so that the Work is maintained in satisfactory condition at all times. All costs of maintenance shall be included in the Contract Price and the Contractor will not be paid an additional amount for such effort. Should the Owner or Architect observe that the Contractor at any time has failed to maintain the Work as provided herein, the Architect may immediately notify the Contractor of such non-compliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. Should the Contractor fail to properly respond to the Architect's notification, the Owner may, at the Contractor's expense, take such action as it may deem appropriate to remedy the defective maintenance, including suspension of the Contractor's Work or any part thereof. Any such expense incurred by the Owner shall be deducted from monies due or to become due the Contractor.

Parking lots, streets, and walks connecting to the Project area shall at all times be protected by the Contractor from deposits of mud, sand, stone, litter, or debris in any form.

Pedestrian traffic areas around the construction limits must be maintained in a clean and safe condition at all times with required barricades. When excavation or other operations outside the Project limits is required, the Contractor shall, immediately following that work, return the area to its original condition.

All catch basins and storm drain lines in the vicinity of the Project site shall be protected at all times from entry of dirt, rubble and other debris. The residue from the cleaning of trucks, wheelbarrows, concrete buggies, etc. must be prevented from entering the drainage system, and if cleaning is done, the residue must be contained and removed from the Project site with other refuse.

- 7.18 No burning of refuse or debris shall be allowed inside or around the Project during the course of construction without prior written authority from authorities having jurisdiction and the Owner.
- 7.19 The Contractor shall provide for and maintain necessary safety measures and safety programs for the protection of its employees and other persons at the Project site, and shall comply at all times with the requirements of the most current edition of the CAGC Safety and Health Manual [or the AGC Accident Prevention Manual in Construction], or the equivalent requirements of the Contractor's safety program, and shall fully comply with

all Federal, State, and local laws, rules, regulations, and building code requirements so as to prevent accidents or injuries to persons on or about the Project site. The Contractor shall clearly mark or post signs warning of existing hazards, and shall barricade excavations, elevator shafts, stairways, floor and wall openings and similar hazards. The Contractor shall protect against damage or injury resulting from falling materials, and shall maintain all protective devices and signs throughout the progress of the Work.

All trenches, excavations, or other hazards in the vicinity of the Work shall be well barricaded, and properly lighted at night. When Work requires closing of an area normally used by the Owner or the public, the Contractor shall furnish, erect, and maintain temporary barricades, and properly light the area. The Contractor shall comply with any directions and public authorities in this respect.

- 7.20 The Contractor shall adhere to the rules, regulations, and interpretations of the North Carolina Department of Labor's Occupational Safety and Health Standards for the Construction Industry (29 CFR Part 1926 as adopted in 13 NCAC 07F.0201, including 29 CFR Part 1910 General Industry Safety and Health Standards applicable to construction) and N.C. Gen. Stat. §95-126 through 155 (Occupational Safety and Health) as well as all revisions and amendments to such standards or statutes as may occur throughout the performance of the Work.
- 7.21 Any land-disturbing activity performed by the Contractor in connection with the Project shall comply with all erosion control measures set forth in the Contract Documents and any additional measures which may be required in order to ensure that the Project is in full compliance with the Sedimentation Pollution Control Act of 1973, as implemented by Title 15 North Carolina Administrative Code, Chapter 4, Sedimentation Control, Subchapters 4A, 4B and 4C, as amended (15 NCAC 4A, 4B, and 4C), and as may be revised or amended in the future. Upon receipt of notice that a land-disturbing activity is in violation of said Act, the Contractor shall be responsible for ensuring that all steps or actions necessary to bring the Project in compliance with said Act are promptly taken. The Contractor shall be responsible for all penalties assessed pursuant to N.C. Gen. Stat. 113A-64 with respect to its Work, and shall indemnify and hold harmless the Owner from all costs and expenses, including attorney's fees and costs of defense, arising out of or related to the enforcement of the Act against any party or person described in this Article.
- 7.22 The Contractor shall designate a responsible officer or employee as safety inspector, whose duties shall include accident prevention on the Project as well as implementation of the Contractor's safety measures and safety programs on the Project. The name of the safety inspector shall be made known to the Architect and the Owner at the pre-construction conference.
- 7.23 In emergencies affecting the safety of persons, the Work, or property at the Project site or adjacent thereto, the Contractor is obligated to act in the Contractor's discretion to prevent threatened damage, injury, or loss. As soon as practicable, the Contractor shall notify the Architect and the Owner of such emergency. The Contractor shall give the Architect and

the Owner prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused by such emergency. If the Contractor believes that additional work done in an emergency entitles the Contractor to an increase in the Contract Price or an extension of the Contract Time, the Contractor may make a claim therefore as provided in Articles 14 and/or 15 of these General Conditions.

- 7.24 The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by the Work. At least weekly and at the completion of the Work, the Contractor shall remove all waste materials and rubbish attributable to the Contractor's Work from and about the Project. At the completion of the Work, the Contractor shall remove all tools, construction equipment, machinery, and surplus materials. The Contractor shall leave the Work in condition for occupancy by the Owner such that no cleaning or other operations are required. Material cleared from the Project and deposited on adjacent property shall not be considered as having been disposed of satisfactorily. If the Contractor fails to keep the Project clean and free of waste materials or rubbish, fails to satisfactorily clean-up weekly or at the completion of the Work, the Owner may do so and the costs thereof may be deducted from any amounts due or to become due the Contractor.
- 7.25 Utilities, temporary facilities, and signs shall be provided as described in the Contract Documents. Absent a contrary direction in any Supplementary Conditions, the Contractor shall pay all bills for its consumption of water, electricity, or other public utility service to the Project site.
- 7.26 The Contractor shall indemnify and hold the Owner, the Architect, the Architect's consultants, and their respective officers, agents, and employees harmless against all costs, damages, and expenses, including attorney's fees and costs of defense, arising out of claims by any separate contractor or by any Subcontractor, Sub-subcontractor, or supplier engaged by or employed by the Contractor or employed by any of the Subcontractors claiming through him, including without limitation damages, losses, and expenses arising out of or relating to any inconvenience, delay, interference, or other action or non-action of the Contractor or the Contractor's Subcontractors on the Project.

The Contractor acknowledges that should the Contractor or any of the Contractor's Subcontractors be damaged by any breach of contract by any other separate contractor on the Project, the Contractor may invoke applicable dispute resolution procedures with said other contractor or bring a direct civil action against said other contractor. The Contractor hereby expressly agrees that neither the Owner nor its officers, agents, or employees shall have any liability of any kind or nature whatsoever to the Contractor, its Subcontractors, Sub-subcontractors, or suppliers arising out of or relating to any breach, inconvenience, delay, interference, or other action or non-action by any other separate contractor. The Contractor covenants not to sue the Owner for any loss or damage caused by an breach, inconvenience, delay, interference or other action or non-action by any other separate contractor, notwithstanding whatever rights at law the Contractor

might have to bring a civil action against the Owner for any breach, inconvenience, delay, interference, or other action or non-action by any other separate contractor. The Contractor agrees to look exclusively to the other contractor for relief or remedy.

Nothing contained herein or appearing anywhere in the Contract Documents shall obligate or require the Owner to exercise any right or privilege, or to take any action or to refrain from taking any action under any contract it may have with any other contractor or party to the Project for the benefit of the Contractor or any Subcontractor, sub-subcontractor or supplier claiming through the Contractor.

- 7.27 Prior to completion of the Work and Final Payment of the Contract Price, excepting only those portions of the Work deemed accepted in accordance with the Contract Documents, the Contractor shall have charge and care of the Work, and shall take every precaution against injury or damage to any party due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work. The Contractor shall, as required by the Owner, replace, rebuild, repair, restore, and make good all injury or damage to any portion of the Work occasioned by any of the above causes before Final Completion and shall bear the expenses thereof.
- 7.28 In the event that the Work, or any portion thereof, is suspended at any time pursuant to an order of the Owner, the Contractor shall obey all instructions of the Owner regarding storage of materials, drainage, protection of the Work, and erection of temporary structures during the suspension period.
- 7.29 The Contractor shall be responsible for the coordination of itself and any Subcontractors or Sub-subcontractors, both as to space and time. The Contractor shall coordinate the Contractor's Construction Schedule and all construction activities. The Contractor shall also coordinate close-out of the Project, including but not limited to all testing, inspection, certifications, and approvals required by public agencies.

The Contractor shall notify the Architect and the Owner promptly of any event or condition which could affect the conduct or progress of the Work and shall cooperate fully with all other separate contractors on the Project site.

- 7.30 The Owner hereby delegates to the Contractor all of its duties to coordinate and to expedite the Work not expressly reserved to the Owner by other provisions of the Contract Documents.
- 7.31 All Work performed pursuant to the Contract Documents shall conform in all respects to the North Carolina State Building Code and all other state, local, and national codes in effect at the time of and applicable to this Work.

- 7.32 Any mechanical or electrical work such as sleeves, inserts, chases, etc. located in the Work of the Contractor for general work shall be built in by the Contractor. Any Subcontractors used for this work shall operate under the supervision of the Contractor
- 7.33 The Contractor shall be responsible for permanently fixed service facilities and systems in use during progress of the Work and shall strictly adhere to the following procedures:
- a) Prior to acceptance of the Work by the Owner, the Contractor shall remove and replace any part of the permanent building systems damaged through use during construction.
  - b) Temporary filters shall be installed in each of the heating and air conditioning units, return air grilles, and other locations to prevent intrusion of dust, dirt, and debris during construction. Temporary filters shall be removed and replaced with new filters immediately prior to Substantial Completion.
  - c) Extra effort shall be maintained to keep the building clean and under no circumstances shall air systems be operated if finishing operations are creating dust in excess of what would be considered normal if the building were occupied.
  - d) When the permanent lighting system is used during construction, lamps shall be replaced and shall be new on the date of Substantial Completion.

## ARTICLE 8 OWNER

- 8.1 The Owner shall issue communications and notices to the Contractor through the Architect to the extent contemplated by the Contract Documents.
- 8.2 In case of termination of the employment of the Architect, the Owner shall appoint as Architect a qualified person who shall have and assume all rights and duties held by the original Architect.
- 8.3 The Owner shall have the right to take possession of and use any portion of the Work notwithstanding the fact that the time for completion of such portion of the Work may not have expired, but such taking possession and use shall not be deemed an acceptance of any Work not completed in accordance with the Contract Documents.
- 8.4 A waiver on the part of the Owner of any breach of any part of the Agreement by the Contractor shall not be held to be a waiver of any other or subsequent breach.
- 8.5 The Owner shall pay all permanent acreage fees, governmental impact fees, and meter deposits for permanent utilities.

ARTICLE 9                    CONSTRUCTION MANAGER

9.1     The Owner may employ one or more Construction Managers for the purpose of assisting the Owner, the Architect, and the Contractor in developing and administering budgets and cost controls, in evaluating constructability and value engineering proposals, in establishing and maintaining a critical path method (CPM) schedule, in coordinating and/or expediting the Work with other projects being constructed by the Owner or others adjacent or near the Work, or for such other purposes as the Owner may deem appropriate. From time to time, the Owner may identify such Construction Manager(s) to the Contractor in writing identifying any tasks assigned to such Construction Manager(s).

ARTICLE 10                  ARCHITECT

10.1    The Architect is charged with responsibility for preparation and interpretation of the Contract Documents. The Architect's decisions relating to aesthetic matters shall be final.

10.2    All Work completed under the Contract Documents shall be subject to review by the Architect. No Work is to be covered without the Architect's review or prior authorization. Any Work so covered without the Architect's review or prior authorization shall be uncovered at the Contractor's expense. The Contractor shall notify the Architect in writing at least twenty-four (24) hours in advance of covering any Work.

10.3    The Architect shall not be responsible for the construction means, methods, techniques, sequences, procedures, or the safety precautions and programs incident thereto, and shall not be responsible for the Contractor's failure to perform the Work in accordance with the Contract Documents, but shall be entitled to enforce any requirements in the Contract Documents specifying particular means, methods, techniques, sequences, or procedures.

10.4    The Architect shall be an Owner's agent during the construction period. The duties, responsibilities and authority of the Architect as the Owner's representative during construction are as set forth in the Contract Documents.

ARTICLE 11                  TESTING AND SURVEYING

11.1    Laboratory and field tests to determine compliance of construction with the Contract Documents shall be made by the Owner or testing consultants employed by the Owner except those required elsewhere in the Contract Documents to be paid for by the Contractor. The costs and expenses of providing samples for and assistance in any testing shall be borne by the Contractor and are included in the Contract Price. Any Work in which untested materials are used without approval or written permission of the Architect shall be removed and replaced at the Contractor's expense. Work found to be unacceptable or unauthorized will not be paid for and, if directed by the Architect, shall be removed and

replaced at the Contractor's expense. Unless otherwise designated, tests in accordance with the cited standard methods of ASTM or other generally recognized or specifically authorized methods which are current on the date of advertisement for bids shall be made at the expense of the Owner; provided, however, in the event that after such testing any Work is found to be defective or does not meet the requirements of the Contract Documents, the costs of retesting such Work and the costs of inspection services shall be paid by the Contractor. Samples shall be taken by a testing laboratory employed by the Owner. All materials being used are subject to inspection, tests, or rejection at any time prior to or during incorporation into the Work. Copies of all Owner test reports will be furnished to the Contractor at its written request. Copies of Contractor test reports shall be furnished to the Architect upon written request.

- 11.2 The Owner shall have the right to deduct the costs of additional testing as described in paragraph 11.1 from any money due or to become due the Contractor; or if no money is due the Contractor, the Owner shall have the right to recover these costs from the Contractor, from its sureties, or from both.
- 11.3 All layouts and surveying shall be accomplished by properly qualified personnel duly licensed in the State of North Carolina.

## ARTICLE 12           SEPARATE CONTRACTS

- 12.1 It is expressly understood that the Owner may deploy its own employees or engage other separate contractors to perform Work as a part of the Project whose work will be performed simultaneously and sequentially with the performance of the Work by the Contractor. It shall be necessary for the Contractor to coordinate construction activities with such other contractors, particularly with respect to access to work areas, storage of materials, and use of elevators and other common facilities. The Contractor shall diligently and in good faith cooperate with the Owner, the Architect, and all other contractors with respect to such matters and shall regularly and faithfully attend any and all meetings called by the Owner or Architect with respect to such matters. Any disputes between the Contractor and any other separate contractor with respect to such matters shall be resolved in accordance with the claim and dispute resolution procedures in the Agreement.

## ARTICLE 13           CONTRACT TIME

- 13.1 Within fourteen (14) days after initial receipt of the Agreement by the Contractor for signatures, the Contractor shall prepare and submit to the Architect and the Owner for review and approval a preliminary Contractor's Construction Schedule for the Work pursuant to the requirements stated in the Contract Documents.
- 13.2 Within fourteen (14) days after initial receipt of the Agreement by the Contractor for signatures, the Contractor shall submit to the Architect a Submittal Register listing all Submittals the Contractor is required to make or proposes to make under the Contract

Documents, the dates on which the Contractor proposes to make such Submittals and the dates by which the Contractor reasonably requires a response from the Architect with respect to each Submittal. The dates submitted shall be incorporated into the Contractor's Construction Schedule as Completion Dates when they have been approved or modified by the Owner. The Architect shall not be required to review any Submittal from the Contractor until a Submittal Register acceptable to and approved by the Owner has been submitted by the Contractor.

- 13.3 Not later than thirty (30) days following execution and delivery of the Agreement by the Owner to the Contractor, the Owner shall deliver to the Contractor a Notice to Proceed. The Notice to Proceed shall state a commencement date on which it is expected that the Contractor will begin the Work to be performed under the Agreement. The Contract Time shall be measured from said specified commencement date. The commencement date stated in the Notice to Proceed shall not be earlier than three (3) days after the Notice to Proceed is served on the Contractor.

If, other than by mutual agreement, said specified commencement date is more than thirty (30) days after the date of execution and delivery of the Agreement from the Owner to the Contractor and the Contractor believes said delay justifies an increase in Contract Price and/or an extension of Contract Time, the Contractor may make a claim therefore as provided in Article 14 and/or Article 15 of these General Conditions.

No Work shall be done prior to the date specified in the Notice to Proceed.

The Contractor shall submit a final Contractor's Construction Schedule for approval by the Architect and Owner no later than fourteen (14) days after issuance of the Notice to Proceed. No payments shall be due the Contractor until this schedule is approved by the Architect and Owner.

- 13.4 The Contract Construction Schedule is a Contract Document. The Contractor represents that the Contract Construction Schedule has been reviewed in detail, that the Contractor participated in its preparation, that all of the activities which impact, limit, or otherwise affect the time of completion of the Work are shown in the Contract Construction Schedule and that all of the activities of others which impact, limit, or otherwise affect the start, duration, or completion of the Contractor's activities are also shown. The Contractor further represents that the Contractor can and will complete each activity within the time shown for that activity. Time is of the essence with respect to each such activity and Completion Date.
- 13.5 If the Contractor submits a construction schedule, progress report, or any other document that indicates or otherwise expresses an intention to achieve completion of the Work prior to any Completion Date required by the Contract Documents or prior to expiration of the Contract Time, no liability of the Owner to the Contractor for any failure of the Contractor to so complete the Work shall be created or implied.



- 13.6 If the Contractor, for reasons beyond the Contractor's control, is delayed in beginning any activity, the Contractor shall, nevertheless, have the same number of days as is shown in the Contract Construction Schedule for the activity, and the affected activity and any succeeding activity that is dependent upon that activity shall be adjusted accordingly; provided that at any time the Owner, by means of a Change Order, may require the Contractor to work overtime, to increase labor forces or to take any necessary or appropriate action to decrease the time required for any activity, and the Contractor shall be entitled to an adjustment in the Contract Price computed in accordance with Article 15 of these General Conditions.
- 13.7 At any time, the Owner may order the Contractor, on seven (7) days written notice, to begin any activity earlier than the starting date shown on the Contract Construction Schedule.
- 13.8 Should the Contractor fail to start any activity on the start date shown in the Contract Construction Schedule or as it may have been adjusted in accordance with paragraphs 13.6 or 13.7 above, or become delayed, the Contractor shall, without being entitled to any increase in the Contract Price or other compensation, work overtime, increase labor forces or take such other action as may be necessary or appropriate to complete the activity by the Completion Date shown on the Contract Construction Schedule, or as such Completion Date may have been adjusted.
- 13.9 The Architect and the Owner shall monitor progress of the Work at all times and the Contractor shall cooperate with such monitoring and provide any and all information with respect to the progress of the Work and scheduling as the Architect or the Owner may reasonably require.
- 13.10 On a monthly basis, the Contractor shall revise the Contract Construction Schedule, showing any adjustments made in accordance with paragraphs 13.6 or 13.7, above, by any Change Order, the progress of the Work, and any days gained or days lost with respect to any activity, and shall furnish copies thereof to the Architect and the Owner.
- 13.11 Should any monthly revision of any Contract Construction Schedule show that the Contractor is behind on any activity, the late completion of which could delay Substantial Completion of the Work, the Owner shall be entitled to withhold from the next Progress Payment due the Contractor an amount not exceeding the amount the Owner would be entitled to in Liquidated Damages, should Substantial Completion be delayed the same number of days that the Contractor is currently behind schedule. If, subsequently, the Contractor's progress, as shown by any succeeding monthly revision to the Contract Construction Schedule, is such that the anticipated delay no longer exists, the Owner shall pay with the Progress Payment next due to the Contractor such amounts as have been withheld in accordance with this paragraph.

13.12 The Owner shall have the right to perform Work, hire and employ labor and craftsmen, rent equipment, subcontract with other parties, or do anything that the Owner deems necessary or appropriate to remedy or cure any delay by the Contractor in the progress of the Work. Such action by the Owner shall not, in any way, affect, void or limit any warranty, guaranty or other responsibility of the Contractor under the Contract Documents. Such action may be taken by the Owner only after three (3) days written notice to the Contractor. All costs incurred by the Owner in taking any such action shall be charged to the Contractor and deducted from any amounts remaining due under the Agreement.

13.13 The Contractor may be entitled to an extension of the Contract Time (but no increase in the Contract Price) for delays arising from unforeseen causes beyond the control and without the fault or negligence of the Owner, the Architect, the Contractor or the Contractor's Subcontractors as follows:

- a) Labor disputes and strikes that directly impact the critical path activities of the Contract Construction Schedule;
- b) Acts of God, tornado, fire, hurricane, blizzard, earthquake, typhoon, or flood that damage completed Work or stored materials.
- c) Acts of the public enemy; acts of the State, Federal, or local government in their sovereign capacities.
- d) Abnormal inclement weather as defined in Article 13.14.

13.14 On any day that the Contractor considers that the Project is delayed by adverse weather conditions, the Contractor shall identify in writing to the Architect the adverse weather conditions affecting each activity, the specific nature of the activity affected, the number of hours lost, and the number of and identity (by responsibility or trade) of workers affected and shall obtain from the Architect written recognition of the delay. The time for performance of this Contract includes an allowance for a number of calendar days which may not be suitable for construction Work by reason of adverse weather. The Contract Time will be extended only if the number of calendar days of adverse weather recognized by the Architect exceeds the number of inclement weather days set forth below, and the Contractor demonstrates how this adverse weather impacts activities on the critical path of the Contract Construction Schedule. The Contract Time may also be extended for weather reasons if excessive rain necessitates the need for a delay to allow for drying; the determination of the need for and the number of drying days will be made by the Project's geotechnical/soils testing company.

<u>Month</u>	<u>Number of Days</u>
January	10
February	9
March	10

April	9
May	10
June	10
July	11
August	10
September	7
October	7
November	8
December	9

13.15 If the Contractor believes that the progress of the Work has been adversely affected by adverse weather recognized by the Architect during a particular month, the Contractor shall submit a written request for extension of time to the Architect. Such a request for time extension of the Contract Time shall be submitted by the tenth (10th) day of the month following that month in which the adverse weather is encountered. The request shall include, but is not limited to, the following information:

- a) Detailed description of weather's effect on scheduled activities and its net effect on the critical path of the Project, and
- b) Weather records from the official weather station nearest the Project site and records of actual observation as contained in daily reports, correspondence, or other documentation.

13.16 The Contractor specifically recognizes that a delay by the Contractor in achieving any Completion Date can have the effect of delaying the Substantial Completion of the Project. Such delay in achieving Substantial Completion of the Project will necessarily cause damages, losses, and expenses to the Owner, including, but not limited to and by way of illustration only, liquidated damages payable to the Owner, damages payable to other contractors, increased and extended Project overhead, increased fees, increased costs of construction, increased and extended operation costs of other facilities, and inefficiency and loss of productivity. Such damages, losses, and expenses may be recovered from the Contractor and, if the Contractor is bonded, its surety.

13.17 The sum for liquidated damages payable to the Owner is the amount stipulated in the Contract and reasonably estimated in advance to cover the losses to be incurred by the Owner by reason of failure of the Contractor(s) to complete the Project within the time specified in the Contract, such time being in the essence of this Agreement and a material consideration thereof.

#### ARTICLE 14            CHANGES IN THE WORK

14.1     Without invalidating the Contract Documents, the Owner may, at any time, or from time to time order additions, deletions, or revisions in the Work. Said additions, deletions, or

revisions shall be authorized only by written Change Orders, Construction Change Directives or Field Orders. Upon receipt of a Change Order, Construction Change Directive or Field Order, the Contractor shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any change causes an increase or decrease in the Contract Price and/or an extension or shortening of the Contract Time, adjustments shall be made as provided in Article 14 and/or Article 15 of these General Conditions.

In order to expedite the Work and avoid or minimize delay in the Work that might affect the Contract Price or Contract Time, the Architect may issue a Change Order in the form of a Construction Change Directive which when signed by the Owner and Architect, directs the Contractor to proceed promptly with the Work involved. Any claim for an adjustment in Contract Price or Time, if not defined in the Construction Change Directive, shall be promptly made in writing according to the procedures defined in Article 15.2.

- 14.2 If possible, Work shall not begin on any change or alteration to the Work until a written Change Order is executed settling any change in the Contract Price or Contract Time. In the event the Contractor and the Architect and Owner cannot agree that an adjustment to the Contract Price or the Contract Time is warranted, or cannot agree on the appropriate adjustment to the Contract Price or the Contract Time, in order to expedite the Work and avoid or minimize delay in the Work that might affect the Contract Price or Contract Time, the Contractor shall, if so directed by the Architect in writing, nevertheless proceed with the Work, and any adjustment to the Contract Price or Contract Time shall be negotiated by the parties at a later date, utilizing the dispute resolution procedures under this Agreement if necessary. Any claim for an adjustment in Contract Price or Contract Time, if not defined in the Construction Change Directive, shall be promptly made in writing in accordance with the procedures defined in Article 15.2 of these General Conditions.
- 14.3 The Architect may authorize minor changes or alterations in the Work not involving change in the Contract Price or in the Contract Time and not inconsistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order. Such alterations shall not invalidate the Contract Documents nor release the surety. If the Contractor believes that any minor change or alteration authorized by the Architect entitles the Contractor to an increase in the Contract Price and/or an extension of Contract Time, the Contractor may make a claim therefore as provided in Article 14 and/or Article 15 of these General Conditions.
- 14.4 Except in an emergency endangering life or property, no change shall be made by the Contractor except upon prior written Change Order, Construction Change Directive or Field Order authorizing such change.
- 14.5 Increases in the Contract Price and/or extensions of the Contract Time for additional Work performed by the Contractor shall only be in accordance with a written Change Order or Construction Change Directive signed by the Owner and the Architect. The

Contractor shall not be entitled to additional time or to additional compensation for any Work performed or material supplied which is claimed to have been authorized or settled by an "oral" change, or by a "constructive" or "implied" change, or by a course of conduct, or by any action or non-action by the Owner or Architect, or any other persons, or by any means whatsoever other than by a written Change Order or Construction Change Directive for such Work or material signed by the Owner and Architect.

- 14.6 Changes in the Work resulting from emergency shall not invalidate the Contract Documents nor release the surety.
- 14.7 Neither the Owner nor the Architect shall be responsible for verbal instructions which have not been confirmed in writing, and in no case shall such instructions be interpreted as permitting a departure from the Contract Documents unless such instruction is confirmed in writing and supported by a proper Change Order, Construction Change Directive or Field Order, whether or not the cost is affected.
- 14.8 The Owner, in its sole discretion, may require that the Contractor notify the Contractor's sureties of any changes affecting the general scope of the Work or change in the Contract Price, and that the amount of applicable bonds shall be adjusted accordingly. If this requirement is exercised, the Contractor shall furnish proof of such adjustment to the Owner.

If this requirement is exercised, the Change Orders and Construction Change Directives shall require written consent of the Contractor's surety. At the time of signing a Change Order, the Contractor shall be required to certify as follows:

"I certify that all sureties have been notified that my contract has been altered by the amount of this Change Order or Construction Change Directive and that a copy of the approved Change Order or Construction Change Directive will be mailed to all sureties upon its receipt by me."

If this requirement is exercised, no payment to the Contractor on account of any Change Order or Construction Change Directive shall become due or payable until written evidence of the surety's consent to the Change Order or Construction Change Directive has been furnished to the Owner and Architect, and the furnishing of such written consent is a condition precedent to such payment.

- 14.9 The Contractor shall support all requests for Change Orders with a detailed cost breakdown showing cost of materials, labor, equipment, transportation, other items, Contractor's overhead and profit, and total cost, in accordance with methods defined in this Article, and, if the request seeks an extension of the Contract Time, with a time-related diagram which demonstrates specifically why an increase in construction time is needed.

- 14.10 When a request for a Change Order involves a Subcontractor, the Contractor shall provide quotation from same on Subcontractor's letterhead. The Subcontractor's quote shall list materials, equipment, and labor separately, and show overhead and profit in the manner provided in paragraph 14.9.

## ARTICLE 15 CHANGE OF THE CONTRACT PRICE

- 15.1 The Contract Price constitutes the total compensation payable to the Contractor for performing all Work under the Contract Documents. All duties, responsibilities, and obligations assigned to or undertaken by the Contractor shall be at its expense without change in the Contract Price. The Contract Price may only be changed by a Change Order.
- 15.2 Any claim for an adjustment in the Contract Price shall be in writing. Written notice of any event, action, or non-action which may become the basis of a claim shall be delivered to the Owner and the Architect within three (3) days of the occurrence, or the beginning of the occurrence, of any such event, action or non-action giving rise to the claim. Such written notice is a condition precedent to the making of a claim, and such notice shall describe the basis of the potential claim with reasonable detail and clarity.

A claim shall be made in writing and shall be delivered to the Owner and Architect no later than fourteen (14) days after such notice. The claim shall describe in detail the basis for the claim, with specific reference to any provisions of the Contract Documents, by paragraph, drawing number, or other specific identification, and shall state the amount claimed and how it is calculated. If the Contractor, at the time the claim is made, is unable to state the amount claimed with accuracy, the Contractor shall so state and provide the estimated amount and the basis on which the amount is to be calculated. At the earliest date practicable, but in no event more than thirty (30) days after Contractor's notice of claim, the Contractor shall supplement the claim with an accurate statement of the amount claimed and how it has been calculated. The Contractor shall provide, in writing, in support of the claim all such explanations, arguments, data, receipts, expert opinions, or other documents or information as the Contractor deems appropriate to be considered in support of the claim. A claim may properly be rejected by the Owner or Architect by reason of the Contractor's failure to submit adequate or accurate documentation or information, except that within seven (7) days after being given notice that the claim has been rejected on this basis, the Contractor may submit additional documentation or information. No claim for a change of the Contract Price shall be considered or granted (except solely at the discretion of the Owner) unless a claim is so made, nor shall the Contractor be entitled to any increase in the Contract Price unless the Contractor has given notice and made such a written claim within the times required. The Owner shall decide, after obtaining the advice of the Architect, whether an increase in Contract Price is warranted, and the amount of such increase shall be determined as provided in paragraphs 15.3 through 15.4, below. Any change in the Contract Price resulting from any such claim shall be incorporated in a Change Order.

The Owner shall advise the Contractor of its decision with respect to the claim within fourteen (14) days of its receipt, or of the receipt of additional documentation or information if the absence of such has previously been the basis of rejection of the claim; provided, however, that if, in its sole discretion, the Owner deems that review or consideration of any part of the claim or any matter related thereto by its governing Board is necessary or appropriate, it shall so advise the Contractor and shall provide its decision to the Contractor within seven (7) days after such Board consideration, review or action. Any claim on which the Owner has not provided its decision to the Contractor within the applicable time period shall be deemed denied.

If the Contractor is not satisfied with the decision of the Owner, the Contractor may within seven (7) days of receipt of the Owner's decision initiate the mediation process as described in Appendix A to these General Conditions.

15.3 In determining the amount of a Contract Price adjustment, the parties shall apply the following methods, as appropriate:

- (a) Change in Work: The Owner and the Contractor shall negotiate in good faith and attempt to agree upon the value of any change (extra or decrease) in Work prior to the issuance of a Change Order covering said Work. Such Change Order shall set forth the corresponding adjustment to the Contract Price. In the event the Owner and the Contractor are unable to agree, the Owner shall grant an equitable adjustment in the Contract Price.
- (b) Emergency Work: In the event of emergency endangering life or property, the Contractor may be directed by the Architect to proceed on a time and material basis, whereupon the Contractor shall so proceed and keep accurately, in such form as may be required by the Architect, a correct account of costs together with all proper invoices, payrolls, and supporting data therefore.

15.4 Where the Contract Price is to be adjusted, the following limitations shall apply in determining the amount of adjustment:

- (a) In the case of extra or emergency work, the Contract Price shall not be increased by more than the reasonable, actual, and documented net cost of the extra or emergency work plus ten percent (10%) of such net cost on Work performed by the Contractor and five percent (5%) thereof on any subcontracted Work for overhead and profit combined.
- (b) In the case of a decrease in Work, the Contract Price shall not be decreased by less than the net cost of the deleted Work plus five percent (5%) of such direct net cost for profit and overhead.

The term 'net cost' as used herein shall include, as applicable, and shall be limited to, all direct labor, direct material, direct equipment, labor burden, sales taxes, shipping and handling charges, permits and fees, and insurance and bond premium adjustments, if any, attributable to the change. All other items of cost shall be considered as overhead and covered by the percentages allowed in sections (a) and (b) of this paragraph.

The Contractor shall provide worksheets or tabulations describing the method by which the direct net cost was calculated, and shall provide all data needed to support the calculation of the direct net cost, all in a form acceptable to the Owner.

- 15.5 Where the Contract Price is to be adjusted by negotiation, the Owner may authorize and designate the Architect to negotiate with the Contractor on behalf of the Owner; provided, however, any agreement reached between the Contractor and Architect shall be subject to approval by the Owner.

## ARTICLE 16 UNFORESEEN CONDITIONS

- 16.1 Should the Contractor encounter unforeseen conditions at the Project site materially differing from those shown on the Drawings or indicated in the Specifications or differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement, the Contractor shall immediately, and in no event more than three (3) days later, give notice to the Owner and the Architect of such conditions before they are disturbed. The Owner and the Architect shall thereupon promptly investigate the conditions and if they find that they materially differ from those shown on the Drawings or indicated in the Specifications, they shall at once make such changes in the Drawings and/or Specifications as they may find necessary. Any increase or decrease in the Contract Price resulting from such changes shall be adjusted in the manner provided herein for adjustments as to extra and/or additional Work and changes. Neither the Owner nor the Architect shall be liable or responsible for additional work, costs, or changes to the Work that could have been reasonably determined from any reports, surveys, and analyses made available for the Contractor's review or that could have been discovered by the Contractor through the performance of its obligations pursuant to the Contract Documents.

## ARTICLE 17 CORRECTION OF WORK BEFORE FINAL PAYMENT

- 17.1 The Owner has the authority to stop or suspend Work, and the Architect has the authority to order Work removed or to order corrections of defective Work or Work not in compliance with the Contract Documents where such action may be necessary to ensure successful completion of the Work.



Any work, materials, fabricated items, or other parts of the Work which have been found by the Owner or the Architect to be defective or not in accordance with the Contract Documents shall be condemned and shall be removed from the Project by the Contractor, and immediately replaced by new Work in accordance with the Contract Documents at no additional cost to the Owner. Work or property of the Owner or others damaged or destroyed by virtue of such condemned Work shall be made good at the expense of the Contractor.

Correction of condemned Work described above shall be commenced by the Contractor within twenty-four (24) hours after notice from the Architect or Owner and shall be pursued to completion. Should the Contractor fail to proceed reasonably with the above-mentioned corrections, the Owner may, three (3) days after the notice specified in the preceding sentence, proceed with correction, paying the cost, including costs of uncovering such condemned Work, of such corrections from amounts due or to become due to the Contractor.

Condemned Work removed shall be the property of the Contractor and shall be removed from the Project by the Contractor within ten (10) days after notice to remove it, and if not then removed, thereafter may be disposed of by the Owner without compensation to the Contractor and the cost of such disposal shall be deducted from amounts due or to become due to the Contractor.

Should the cost of correction of the Work and, if applicable, disposal of the condemned Work by the Owner exceed the amount due or to become due the Contractor, the Contractor and the Contractor's sureties shall be liable for and shall pay to the Owner the amount of such excess.

ARTICLE 18                   CORRECTION OF WORK AFTER SUBSTANTIAL COMPLETION;  
WARRANTIES AND GUARANTIES

18.1                   Neither the final certificate, Final Payment, occupation of the premises by the Owner, any provision of the Contract Documents, or any other act or instrument of the Owner or the Architect shall relieve the Contractor from responsibility for negligence, defective material or workmanship, or failure to comply fully with the Contract Documents.

18.2                   The Contractor shall, at the Contractor's sole cost and expense, make all necessary repairs, replacements, and corrections of any nature or description, interior or exterior, structural or non-structural, that shall become necessary by reason of defective workmanship or materials which appear within a period of one (1) year from the date of Substantial Completion and acceptance of the Project by the Owner; provided, however that notwithstanding the preceding, if any longer guarantee period is specified for any particular materials or workmanship under the Contract Documents, or under any subcontract, or in connection with any

manufactured unit which is installed in the Project, or under the laws of the State of North Carolina, the longer guarantee period shall govern.

18.3 If, within any guarantee period, repairs or changes are required in connection with the Work, which are rendered necessary as the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract Documents, the Contractor shall, promptly upon receipt of notice from the Architect and without expense to the Owner:

- a) Completely repair or replace the Work so that it conforms to the Contract Documents;
- b) Correct all defects therein;
- c) Make good all damage which, in the opinion of the Architect, is the result of the use of materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the Contract Documents; and
- d) Make good any Work or material, or any equipment or contents disturbed in fulfilling any such guarantee.

If, in fulfilling the requirements of the Contract Documents or of any guarantee embraced therein or required thereby, the Contractor disturbs any work, facility, premises, or construction belonging to the Owner, the Contractor shall restore such disturbed work, facility, premises or construction to a condition satisfactory to the Owner, and shall guarantee such restored work to the same extent as if it were Work under the Contract Documents.

If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Owner may have the defects corrected, and the Contractor and the Contractor's sureties shall be liable for all expenses incurred. "Promptly" is defined as within twenty-four (24) hours for systems necessary to normal operation of the building and within seventy-two (72) hours for all other items. All special guarantees applicable to definite parts of the Work that may be shown in or required by Contract Documents shall be subject to the terms of this paragraph during the first year of the life of such special guarantee. Manufacturer's standard guarantees or warranties which do not comply with the time limit specified herein shall be extended by the Contractor automatically without further action on the part of the Owner or Architect.

18.4 In the eleventh calendar month after Substantial Completion of the entire Project, and at the request of the Owner, the Contractor, the Owner and the Architect shall make an inspection of the Work for the purpose of identifying defective

workmanship and/or materials. If the Contractor, having been requested to do so by the Owner, fails to participate in such inspection, the Contractor shall be conclusively bound by any decision or ruling by the Architect as to any defective workmanship or material and as to the Contractor's responsibility for its repair or replacement.

## ARTICLE 19            OWNER'S RIGHT TO DO WORK

- 19.1            If, during the progress of the Work or during any period of guarantee, the Contractor fails to prosecute the Work properly or to perform any provision of the Contract Documents, the Owner, after three (3) days written notice to the Contractor from the Architect, or from the Owner after Final Payment, may perform or have performed that portion of the Work and may deduct the cost thereof from any amount due or to become due the Contractor. Notwithstanding any action by the Owner under this paragraph, all warranties and bonds given or to be given by the Contractor shall remain in effect or shall be given by the Contractor.
- 19.2            Should the cost of such action by the Owner exceed the amount due or to become due the Contractor, the Contractor and the Contractor's sureties shall be liable for and shall pay to the Owner the amount of such excess.

## ARTICLE 20            PARTIAL PAYMENTS

- 20.1            Within thirty (30) days after initial receipt of the Agreement by the Contractor for signatures the Contractor shall submit to the Architect a Schedule of Values. The Schedule of Values shall indicate the value of the Work, including applicable overhead and profit, for each Division and section of the Project Specifications. The Architect and Owner shall be provided with the Contractor's estimate papers, subcontractor agreements, supplier quotes, or other documents substantiating these values if so requested in writing by the Architect or Owner. The Contractor shall provide the requested documentation within seven (7) days after receipt of the Architect or Owner's written request. The Schedule of Values shall be subject to approval by the Owner, and if the Owner and the Contractor cannot agree upon the Schedule of Values, the Architect shall prepare it, and the Schedule of Values as prepared by the Architect shall be binding on the Owner and the Contractor. No Request for Payment shall be certified by the Architect until the Schedule of Values has been issued and approved.
- 20.2            Not later than the fifth (5th) day of each calendar month the Contractor shall submit to the Architect a Request for Payment for Work done during the previous calendar month. The Request for Payment shall be in form of AIA Document G702 (latest

edition), or other published document approved by the Architect, and shall show substantially the value of Work done (including the value of material delivered to the Project or stored by the Contractor at another site, subject to the conditions hereinafter set forth) during the previous calendar month, and shall sum up the financial status of the Work with the following information:

- a) Total Contract Price, including any adjustment thereto made pursuant to the Contract Documents.
- b) Value of Work completed and materials properly stored to date.
- c) Less amount retained.
- d) Less previous payments.
- e) Current amount due.
- f) Contract Price balance remaining.

The Contractor, upon request of the Architect, shall substantiate the Request for Payment with invoices, vouchers, payrolls, or other evidence.

20.3 When payment is requested or made on account of stored materials, such materials must be stored on the Owner's property at such places and in such a manner as may be designated by the Architect. However, in the sole discretion of the Owner, with permission in writing from the Architect and Owner and under such circumstances as may be required by the Owner, such materials may be stored in a bonded warehouse. The location and conditions for storage of such materials away from the Owner's property in a bonded warehouse shall be within the sole discretion Of the Owner. Requests for Payment on account of stored materials shall be accompanied by paid invoices, bills of sale, warehouse receipts, or other documentary evidence establishing Owner's title to such materials, evidence that the stored materials are insured against loss and damage, and such other documentation as required by the Architect. Responsibility for the quantity, quality, and condition of such stored materials, whether stored on the Owner's property or away from the Owner's property, shall remain with the Contractor regardless of ownership or title. No payment shall be made on account of materials stored in a bonded warehouse unless the Contractor has acquired written permission from the Architect and the Owner for such storage of materials and has complied with all conditions set forth in such permission regarding such storage of materials in a bonded warehouse.

20.4 Any Request for Payment received by the Architect on or before the fifth (5th) day of the calendar month shall be certified for payment or returned for re-submission

to the Contractor on or before the fifteenth (15th) day of the calendar month. The Architect's certification shall be for the amount which was requested or that which the Architect has decided was justly due, and shall state in writing to the Contractor and Owner the reasons for withholding payment of any or all of the amount requested.

20.5 The Architect may refuse to certify all or part of any payment requested for any of the following reasons:

- a) Defective Work not corrected.
- b) Suits, actions, or claims of any character filed against the Contractor, or due to the operations of the Contractor, or information or notice that a suit, action, or claim will be filed or has been made.
- c) Information or notice that a Subcontractor or a supplier has not received payment from the Contractor.
- d) The balance unpaid of the Contract Price is insufficient to complete the Work in the judgment of the Architect or Owner.
- e) Damage to the Owner or another contractor.
- f) Inability of the Contractor to meet a Completion Date, including an anticipated failure to meet a Completion Date entitling the Owner to withhold anticipated damages in accordance with paragraphs 13.11 and 13.12 of these General Conditions.
- g) Failure to furnish Submittal as required by the Contract Documents on a timely basis in accordance with the Submittal Register.
- h) Such other reason as to the Architect may appear prudent, proper, or equitable.

When grounds for withholding certification have been corrected or removed, the Architect shall so certify to the Owner and the Owner shall make any payment due with respect to such certification as a part of its next payment after such certification.

20.6 No certificate of payment issued or progress payment made shall constitute an acceptance of the Work or any part thereof.

20.7 The amount certified by the Architect for payment shall be ninety-five percent (95%) of the value of Work completed and materials stored since the Architect's

last certification as shown on the Request for Payment, less any amounts not certified in accordance with paragraphs 20.4 and 20.5, and this amount shall be paid by the Owner on or before the last business day of the month, but payment shall not be past due if paid within fifteen (15) days after certification by the Architect.

- 20.8 After certification by the Architect (by means of certification for payment of Requests for Payment or otherwise) that the Work is fifty percent (50%) complete, and the Contractor has provided to the Owner the written consent of its sureties to the cessation of further percentage retention, the amount certified for payment with respect to subsequent Requests for Payment may in the discretion of the Owner be one hundred percent (100%) of the value of the Work completed and materials stored since the Architect's last certification as shown on the Request for Payment, less any amounts not certified in accordance with paragraph 20.4; provided, however, that the aggregate of periodic payments shall not exceed ninety-five percent (95%) of the Contract Price.

## ARTICLE 21 FINAL PAYMENT

- 21.1 Final Payment shall not be due to the Contractor until Final Completion.
- 21.2 Upon Substantial Completion, the Architect shall prepare and submit to the Contractor deficiency lists identifying all portions of the Work which are shown at that time to be incomplete or defective. Within thirty (30) days of receipt of any deficiency list, the Contractor shall complete and correct all items on that list along with all other Work required to achieve Final Completion of the Work. At any time prior to completion of the period of warranty, the Architect may submit to the Contractor supplemental deficiency lists, in which case the Contractor shall complete or correct any and all new items identified on the supplemental deficiency lists within the time period stipulated in paragraph 18.3 of these General Conditions.
- 21.3 The making and acceptance of Final Payment shall constitute a waiver of all claims by the Owner except:
- a) Claims arising from unsettled liens or claims against the Contractor.
  - b) Defective Work or materials appearing after Final Payment.
  - c) Failure of the Contractor to perform the Work in accordance with the Contract Documents.
  - d) As conditioned in the Performance Bond.

- e) Claims made prior to Final Payment which remain unsettled.
- f) Amounts due arising under Articles 18 and 28 of these General Conditions.
- g) Claims for recovery of overpayment based upon incorrect measurement, estimate, or certificate.

21.4 The making and acceptance of Final Payment shall constitute a waiver of all claims by the Contractor except those claims previously made in writing pursuant to paragraph 15.2 of these General Conditions and not finally resolved.

21.5 The Architect shall not authorize Final Payment until all of the Work under the Contract Documents has been certified by the Architect as completed, proper, and suitable for occupancy and use, and has been approved by all federal, state and local agencies having jurisdiction.

21.6 The final Request for Payment shall be identified on its face as such and shall be presented by the Contractor to the Architect within thirty (30) days of completion of the Work. Final payment of the retained amount due the Contractor shall be made by the Owner within thirty (30) days after the later of (i) full and Final Completion of all Work required of the Contractor by the Contract Documents, and certification of such Work in accordance with paragraph 21.5; (ii) submission of the affidavits and other documentation required by Article 22; (iii) submission by the Contractor of a Request for Payment identified on its face as final and including the Architect's certification.

## ARTICLE 22 CONTRACTOR, SUBCONTRACTOR AND SUPPLIER AFFIDAVIT

22.1 The Final Payment due the Contractor on account of the Contract Documents shall not become due until the Contractor has furnished to the Owner: (A) an affidavit by the Contractor signed, sworn, and notarized to the effect that all payments for materials, services, or for any other reason in connection with the Work or performance of the Contract Documents have been satisfied and that no claims or liens exist against the Contractor in connection with the same; (B) affidavits from each Subcontractor and supplier signed, sworn, and notarized to the effect that (i) each such Subcontractor or supplier has been paid in full by the Contractor for all Work performed and/or materials supplied by it in connection with the Project, and (ii) that all payments for materials, services, and for any other reason in connection with the subcontract or supply contract have been satisfied and that no claims or liens exist against the Subcontractor or supplier in connection therewith; and (C) the written consent of the Contractor's sureties to Final Payment. In the event that the Contractor cannot obtain an affidavit, as required above, from any Subcontractor or supplier, the Contractor shall state in the Contractor's affidavit

that no claims or liens exist against such Subcontractor or supplier to the best of the Contractor's knowledge, and that if any appear afterwards, the Contractor shall indemnify and save the Owner harmless for all costs and expenses, including attorney's fees, on account thereof.

#### ARTICLE 23            ASSIGNMENTS AND SUBCONTRACTS

23.1            The Contractor shall not assign any portion of this Agreement nor subcontract the Work in its entirety without the prior written consent of the Owner. Except as may be required under terms of the bonds required by the Contract Documents, no funds or sums of money due or to become due to the Contractor under the Contract Documents may be assigned.

#### ARTICLE 24            MEASUREMENTS

24.1            Before ordering material or doing Work which is dependent for proper size or installation upon coordination with building conditions, the Contractor shall verify all dimensions and shall be responsible for the correctness of same. No consideration will be given for any claim based on differences between the actual dimensions and those indicated in the Contract Documents. Any discrepancies between the Contract Documents and the existing conditions shall be referred to the Architect for adjustment before any Work affected thereby is begun.

#### ARTICLE 25            CONTRACTOR AND SUBCONTRACTOR AGREEMENTS

25.1            Within thirty (30) days after initial receipt of the Construction Agreement by the Contractor for signatures, the Contractor shall submit to the Architect and the Owner for acceptance a current list of the names of Subcontractors and such other persons and organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for any and all portions of the Work. The Contractor shall provide this list at this time even if the Contractor was required to submit a list of proposed Subcontractors with the Contractor's bid. The Architect shall promptly reply to the Contractor in writing stating whether or not the Owner or Architect, after due investigation, has objection to any such proposed person or entity or if it needs additional information to evaluate the persons or entities on the list. Failure of the Architect to reply within ten (10) days after the Contractor has furnished all required information shall constitute notice of no objection.

The Contractor shall not contract with any such proposed person or entity to which the Architect or Owner has made reasonable objection. If the Architect or Owner has reasonable objection to any such proposed person or entity, the Contractor shall



submit a substitute to whom the Architect or Owner has no reasonable objection. The Contractor shall make no substitution for any Subcontractor, person, or entity previously allowed without first notifying the Architect in writing and no substitution may be made if the Architect or Owner makes a reasonable objection to such substitution.

25.2 The Contractor agrees that the terms of the Contract Documents, including all portions thereof, shall apply to all Subcontractors as if they were the Contractor, and that the Subcontractors shall, by means of their subcontracts, be bound by all the terms of the Contract Documents.

25.3 Payments to Subcontractors by the Contractor shall be made in accordance with the provisions of N.C. Gen. Stat. §143-134.1.

## ARTICLE 26 USE OF PREMISES

26.1 The Contractor shall confine apparatus, the storage of materials, the operations of workers, and the disposal of material to limits indicated by law, ordinances, permits, and directions of the Architect, if any.

26.2 The Contractor shall not load or permit any part of the Work to be loaded with a weight that will endanger its safety, intended performance, or configuration.

26.3 The Contractor shall enforce all of the Architect's instructions, including, but not limited to, those regarding signs, advertisements, fires, and smoking.

## ARTICLE 27 CUTTING, PATCHING AND FITTING

27.1 The Contractor shall do all cutting, fitting, and patching of the Work that may be required to make its several parts come together properly and fit it to receive or to be received by Work shown in or which can be reasonably implied from the Contract Documents.

## ARTICLE 28 DISPUTE RESOLUTION

28.1 The laws of the State of North Carolina shall apply to the interpretation and enforcement of this Agreement. Any and all suits or actions to enforce, interpret, or seek damages with respect to any provision of, or the performance or nonperformance of, this Agreement shall be brought in the General Court of Justice of North Carolina sitting in Randolph County, North Carolina, and it is agreed by the parties that no other court shall have jurisdiction or venue with respect to such suits or actions. Appendix A shall be a part of the Contract Documents. Prior to

initiating an action under this Article, any party to this Agreement shall initiate the mediation process as provided in Appendix A to these General Conditions.

- 28.2 Any person or firm that expressly or impliedly agrees to perform labor or services or to provide material, supplies, equipment, work, performance or payment bonds, insurance or indemnification for the construction of the Project or the Work shall be deemed a party to this Agreement solely for the purpose of this Article 28. The Contractor, by means of its subcontracts, shall specifically require its Subcontractors to be bound by this Article.

## ARTICLE 29 TAXES

- 29.1 The Contractor has included in the Contract Price, and shall pay, all taxes assessed by any authority on the Work or on the labor and materials used therein. The Contractor shall maintain all tax records during the life of the Project and furnish the Owner with a complete listing of all taxes paid by taxing authority, invoice number, date, amount, etc. in a form acceptable to the Owner. The Contractor is required to maintain a file showing taxes paid on the Project for three (3) years after Final Payment or turn said documents over to the Owner for its files.

- 29.2 The following is a list of requirements to be followed by the Contractor in maintaining proper records and reporting the North Carolina Sales and Use Tax and Local Sales and Use Tax. The Contractor shall comply fully with the requirements outlined below, in order that the Owner may recover the amount of the tax permitted under the law.

- a) It shall be the Contractor's responsibility to furnish the Owner documentary evidence showing the materials used and sales and use tax paid by the Contractor and by each of its Subcontractors. Such evidence shall be transmitted to the Owner with each pay request regardless of whether taxes were paid in that period covered by the pay request.
- b) The documentary evidence shall consist of a certified statement by the Contractor and by each of the Contractor's Subcontractors individually, showing total purchases of materials from each separate vendor and total sales and use taxes paid to each vendor. Certified statements must show the invoice number, or numbers, covered, and inclusive dates of such invoices.
- c) Materials used from Contractor's or Subcontractor's warehouse stock shall be shown in a certified statement at warehouse stock prices.
- d) The Contractor shall not be required to certify the Subcontractor's statements.

ARTICLE 30 OPERATION OF OWNER'S FACILITIES

30.1 The Contractor agrees that all Work done under the Contract Documents shall be carried on in such a manner so as to ensure the regular and continuous operation of the adjoining or adjacent facilities. The Contractor further agrees that the sequence of operations under the Contract Documents shall be scheduled and carried out so as to ensure said regular and continuous operation. The Contractor shall not close any areas of construction until so authorized by the Architect. The Contractor shall control operations to assure the least inconvenience to the public. Under all circumstances, safety shall be the most important consideration.

ARTICLE 31 THIRD-PARTY BENEFICIARY CLAUSE

31.1 It is specifically agreed between the parties executing the Agreement that, with the specific exception set forth paragraph 7.26 of these General Conditions, and that exception only, the Contract Documents and the provisions therein are not intended to make the public, or any member thereof, a third-party beneficiary of the Agreement, or to authorize anyone not a party to the Contract Documents to maintain a suit for personal injuries or property damage pursuant to the terms of provisions of the Contract Documents.

ARTICLE 32 MEASUREMENT OF QUANTITIES

32.1 All Work completed under the Contract Documents shall be measured by the Contractor using United States customary units of measurement. The method of measurement and computations to be used in determination of quantities of material furnished and of Work performed under the Contract Documents shall be those methods set forth in the Contract Documents or, if not specifically set forth therein, the method generally recognized as conforming to good engineering practice.

ARTICLE 33 TERMINATION BY THE OWNER FOR CAUSE

33.1 If the Contractor fails to begin or complete the Work under the Contract Documents within the time specified, or fails to perform the Work with sufficient labor and equipment or with sufficient materials to insure the prompt completion of said Work, or shall perform the Work unsuitably or shall discontinue the prosecution of the Work for three (3) consecutive days, or if the Contractor shall become insolvent, be declared bankrupt, commit any act of bankruptcy or insolvency, allow any final judgment to stand against the Contractor or its affiliated companies unsatisfied for a period of forty-eight (48) hours, make an assignment for the benefit of creditors, or for any other cause whatsoever shall not carry on the Work in an acceptable manner, the Owner may give notice in writing to the Contractor and the

Contractor's sureties of such delay, neglect, or default, specifying the same, and if the Contractor within a period of three (3) days after such notice shall not proceed in good faith and with reasonable speed to correct such delay, neglect, or default in accordance with such notice, the Owner shall have full power and authority, to the extent permitted by law, without violating the Contract Documents, to take the prosecution of the Work out of the hands of the Contractor, to appropriate or use any or all materials and equipment at the Project as may be suitable and acceptable, and may enter into an agreement for the completion of the Work or pursue such other methods as in the Owner's sole discretion and opinion shall be necessary or appropriate for the completion of the Work in an acceptable manner. All costs and charges incurred by the Owner in proceeding in accordance with the preceding sentence, including attorney's fees, and all costs incurred by the Owner in completing the Work shall be deducted from any amount due or which becomes due the Contractor. If such costs and expenses incurred by the Owner shall be less than the sum which would have been payable under Contract Documents if it had been completed by the Contractor, then the Contractor shall be entitled to receive the difference, but if such costs and expenses shall exceed the sum which would have been payable under the Contract Documents, the Contractor and the Contractor's surety or sureties shall be liable to the Owner for and shall pay to the Owner the amount of such excess.

33.2 If the Owner terminates the Agreement pursuant to this Article 33 and later it is determined that the Contractor had not substantially failed to perform in accordance with the terms of this Article, then the termination will be considered a termination for convenience under Article 34.

ARTICLE 34           TERMINATION OR SUSPENSION BY THE OWNER FOR  
CONVENIENCE

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

34.2 If the Contractor is subsequently ordered by the Owner to resume the Work, any cost or expenses to which the Contractor may be entitled by reason of the suspension, delay, or interruption shall be recovered by means of a Change Order in accordance with Articles 13 and 14 of these General Conditions and the Contractor's Construction Schedule shall be adjusted in accordance with Article 13 of these General Conditions.

34.3 The Owner shall terminate the Work or portion thereof by written notice when the Contractor is prevented from proceeding with the Work as a direct result of an

executive order of the President with respect to the prosecution of war or in the interest of national defense.

34.4

In the event of termination by the Owner under this Article, the Contractor shall be entitled to receive the reasonable and documented direct costs incurred prior to termination, including the cost of materials purchased for the Work which purchases cannot be canceled or which material cannot reasonably be used by the Contractor on other work, and the cost of closing down the Project in a safe and efficient manner, plus ten percent (10%) thereof for overhead and profit, subject to the following conditions:

- a) When the Contract is terminated before completion of all items of Work, payment shall be made for the actual number of units or items of Work completed at the applicable contract prices, or as mutually agreed for items of Work partially complete. If a mutual agreement cannot be reached, the Owner shall have the authority to make such equitable adjustment as it deems warranted and the Final Payment shall be made accordingly.
- b) Reimbursement for organization of any Work and moving equipment to and from the job shall be considered when not otherwise provided for in the Contract Documents where the volume of completed Work is too small to compensate the Contractor for those expenses under unit prices. If a mutual agreement cannot be reached, the Owner will have the authority to make such equitable adjustment as it deems warranted and the Final Payment will be made accordingly.
- c) Materials obtained by the Contractor for the Work that have been inspected and accepted by the Architect and that are not incorporated in the Work shall, at the request of the Contractor, be purchased from the Contractor at the Contractor's actual cost as shown by receipted bills and actual costs records at such points of delivery as may be determined by the Owner.
- d) No payment shall be made by the Owner to the Contractor except as herein above provided. No claim for loss of anticipated profits shall be considered or allowed.
- e) Termination of the Contract shall not relieve the Contractor of its responsibilities for any completed portion of the Work nor shall it relieve its sureties of their obligation for and concerning any just claims arising out of the Work performed.

In the event of termination or suspension by the Owner for convenience, the Contractor shall not be entitled to any other compensation, including compensation

for lost profit, lost opportunity, or any other direct or consequential cost, loss, or damage.

ARTICLE 35            MINORITY BUSINESS ENTERPRISE PROGRAM

35.1            The Contractor shall at all times comply with the latest edition of the Randolph County Minority Business Outreach Plan. All documentation substantiating compliance with the requirements of this program shall be delivered to the Owner and Architect as stipulated in the Contract Documents.

ARTICLE 36            GENERAL

36.1            If any provision of the Agreement shall be declared invalid or unenforceable, the remainder of the Agreement shall continue in full force and effect.

36.2            The titles to Articles herein are for convenience only, are not substantive parts of the General Conditions, and are not to be considered in interpreting the Contract Documents.

END OF GENERAL CONDITIONS OF THE  
CONTRACT FOR CONSTRUCTION

**APPENDIX A**  
**TO GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**  
**DISPUTE RESOLUTION PROCEDURES FOR RANDOLPH COUNTY BUILDING**  
**CONSTRUCTION RENOVATION AND REPAIR PROJECTS**

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## **RULE 1. INITIATING MEDIATED SETTLEMENT CONFERENCES**

- A. Purpose of Mandatory Settlement Conferences.** Pursuant to G.S. §143-128(f1) and 143-135.26(11), these Rules are promulgated to implement a mediated settlement program designed to focus the parties' attention on settlement rather than on claim preparation and to provide an opportunity for orderly settlement negotiations to take place. Nothing herein is intended to limit or prevent the parties from engaging in settlement procedures voluntarily at any time prior to or during commencement of the dispute resolution process.
- B. Initiating the Dispute Resolution Process**
- 1) Any party to a County public construction contract (referred to herein generally as the "Contract") governed by Article 8. Ch. 143 of the General Statutes and identified in G.S. § 143-128(f1) and who is a party to a dispute arising out of the Contract and the construction process in which the amount in controversy is at least \$15,000 may submit a written request to the County for mediation of the dispute.
  - 2) Prior to submission of a written request for mediation to the County, the parties should give notice of any and all claims in accordance with their respective contracts, obtain decisions on the claims as required or allowed by their respective contracts, and attempt to resolve the dispute according to the terms and conditions in their respective contracts. The Mediator may adjourn any mediated settlement conference if the Mediator believes, in his or her sole discretion, that the parties have not satisfied all of the terms and conditions of their respective contracts and that doing so will enhance the prospects for a negotiated settlement.
- C. Condition Precedent to Litigation.** Before any party to a Contract may commence a civil action against the County seeking remedies for breach or non-performance of the Contract by the County, said party must first initiate the dispute resolution process under these rules and attend the mediated settlement conference.

## **RULE 2. SELECTION OF MEDIATOR**

- A. Mediator Listing.** A list of Mediators acceptable to the County may be provided upon notice that a party is requesting mediation. The party requesting mediation shall select a Mediator from the designated list. If the County fails to provide a list of acceptable mediators, the list of Mediators shall be deemed to be the list of mediators certified by the North Carolina Dispute Resolution Commission to conduct mediated settlement conferences in the North Carolina Superior Courts.
- B. Selection of a Mediator.** The party requesting mediation shall select a Mediator from the County's list of Mediators and shall file, with the County, a Notice of Selection of Mediator within 21 days of the request for mediation. Such notice shall state the name, address, and phone number of the Mediator selected. If the Mediator selected is not available or declines to participate for any reason, the requesting party shall select another person from the County's list of Mediators. If



the party requesting mediation does not select and designate a mediator within 21 days of the request for mediation, the County shall have the right in its absolute discretion to appoint a mediator from its list of Mediators.

- C. **Disqualification of Mediator.** Any party may request replacement of the Mediator for good cause. Nothing in this provision shall preclude Mediators from disqualifying themselves.

### **RULE 3. THE MEDIATED SETTLEMENT CONFERENCE**

- A. **Where Conference is to be Held.** Unless all parties and the Mediator otherwise agree, the mediated settlement conference shall be held in Randolph County. The Mediator shall be responsible for reserving a place, making arrangements for the conference, and giving timely notice of the time and location of the conference to all attorneys, unrepresented parties and other persons or entities required to attend.
- B. **When Conference is to be Held.** The mediation shall be completed within 90 days after selection of the Mediator.
- C. **Request to Accelerate or Extend Deadline for Completion.** Any party or the Mediator may request the County to accelerate or extend the deadline for completion of the conference. Such request shall state the reasons the extension is sought and shall be served by the moving party upon the other parties and the Mediator. Objections to the request must be promptly communicated to the County and to the Mediator.

The County, with the concurrence of the designated Mediator, may grant the request by adjusting the time for completion of the conference.

- D. **Recesses.** The Mediator may recess the mediation conference at any time and may set times for reconvening. If the Mediator determines the time and place where the conference is to reconvene before the conference is recessed, no further notice is required to persons present at the conference.
- E. **Project Delay.** The mediated settlement conference that results from a construction contract dispute shall not be cause for the delay of the construction project.

### **RULE 4. DUTIES OF PARTIES AND OTHER PARTICIPANTS IN FORMAL DISPUTE RESOLUTION PROCESS**

- A. **Attendance.**
  1. All parties to the dispute must designate an official representative to attend the mediation. .
  2. “Attendance” means physical attendance, not by telephone or other electronic means. Any attendee representing a party must have authority from that party

to bind it to any agreement reached as a result of the mediation.

3. Attorneys representing parties may attend the mediation, but are not required to do so.
4. Sureties and insurance company representatives are required to physically attend the mediation unless the Mediator and all of the other parties to the mediation excuse their attendance or consent to their attendance by telephone or other electronic means.
5. The parties who attend a duly scheduled mediation conference shall have the right to recover their share of the Mediator's compensation from any party or parties who fail to attend the conference without good cause.

**B. Finalizing Agreement.** If an agreement is reached in the conference, the terms of the agreement shall be confirmed in writing and signed by all parties.

**C. Mediation Fees** charged by the Mediator shall be paid in accordance with G.S. § 143-128(f1).

**D. Failure to compensate Mediator.** Any party's failure to compensate the Mediators in accordance with G.S. § 143-128(f1) shall subject that party to a withholding of said amount of money from the party's monthly payment by the County.

Should the County fail to compensate the Mediator, it shall hereby be subject to a civil cause of action from the Mediator for the 1/3 portion of the Mediator's total fee as required by G.S. § 143-128(f1).

## **RULE 5. AUTHORITY AND DUTIES OF MEDIATORS**

### **A. Authority of Mediator.**

1. **Control of Conference.** The Mediator shall at all times be in control of the conference and the procedures to be followed.
2. **Private Consultation.** The Mediator may communicate privately with any participant or counsel prior to and during the conference. The fact that private communications have occurred with a participant shall be disclosed to all other participants at the beginning of the conference.
3. **Scheduling the Conference.** The Mediator shall make a good faith effort to schedule the conference at a time that is convenient with the participants, attorneys and Mediator. In the absence of agreement, the Mediator shall select the date for the conference.
4. **Determining good cause for a party's failure to appear at a scheduled mediation conference.**

**B. Duties of Mediator.**

1. The Mediator shall define and describe the following at the beginning of the conference:
  - a. The process of mediation.
  - b. The difference between mediation and other forms of conflict resolution.
  - c. The costs of the mediated settlement conference.
  - d. That the mediated settlement conference is not a trial, the Mediator is not a judge, and the parties retain their legal rights if they do not reach settlement; however, the Mediator will advise all parties that failure to appear at mediation without good cause may result in imposition of sanctions and may be asserted as a bar to lawsuits by claimants who have failed to exhaust this administrative remedy.
  - e. The circumstances under which the Mediator may meet and communicate privately with any of the parties or with any other person.
  - f. Whether and under what conditions communications with the Mediator will be held in confidence during the conference.
  - g. The inadmissibility of conduct and statements as provided by G.S. §7A-38.1(1).
  - h. The duties and responsibilities of the Mediator and the participants.
  - i. That any agreement reached will be reached by mutual consent.
2. Disclosure: The Mediator has a duty to be impartial and to advise all participants of any possible bias, prejudice or partiality.
3. Declaring Impasse: The Mediator may determine at any time during the mediation conference that an impasse exists and that the conference should end.
4. Reporting Results of Conference. The Mediator shall submit a written report to the County and the other parties within 10 days of the conference stating whether or not the parties reached an agreement. The Mediator's report shall indicate the absence of any party from the mediated settlement conference without permission or good cause.
5. Scheduling and Holding the Conference. It is the duty of the Mediator to schedule the conference and conduct it prior to the deadline of completion set by the rules. The Mediator shall strictly observe deadlines for completion of the conference unless said time limit is changed by agreement of the parties.

**RULE 6. COMPENSATION OF THE MEDIATOR**

- A. The parties shall compensate the Mediator for mediation services at the rate proposed by the Mediator and agreed to by the parties at the time the Mediator is selected.

**RULE 7. RULE MAKING**

- A. These Rules may be amended by the County at any time. Amendments will not affect mediations where claims and/or requests for mediation have been filed at the time the amendment takes effect

**RULE 8. DEFINITIONS**

- A. “County” shall mean the County of Randolph, North Carolina
- B. “Architect” or “Project Designer” is that person or firm stipulated as project designer in the Contract Documents for the project.
- C. “Claim” is a demand or assertion by a party seeking adjustment or interpretation of Contract terms, payment of money, extension of 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 parties to a Contract involved in the County’s building construction renovation and repair projects arising out of or relating to the Contract or the construction process. Claims must be initiated by a written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.
- D. “Good Cause” generally includes any circumstance beyond the control of a party, which prevents that party from meeting obligations. When good cause is asserted as an excuse for a party’s failure to appear at a mediation conference or to otherwise comply with the requirements of these Rules, the Mediator, in his or her sole discretion, will determine whether good cause exists to excuse the party’s failure to appear or otherwise comply with these rules.

**RULE 9. TIME LIMITS**

- A. Any time limit provided for by these Rules may be waived or extended at the sole discretion of the County, if no Mediator has been selected, and at the discretion of the County with concurrence of the Mediator if a Mediator has been selected.

**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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**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.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503<sup>™</sup>, *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™–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™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document

G202™–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.



§ 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.



**§ 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

- .1 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 Contract.



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;

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- .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;
- .6 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

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- .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 Subcontractor, 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 Subcontractor, 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

- .1 cease operations as directed by the Owner in the notice;

- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .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.



§ 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
- .2 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.

**SUPPLEMENTS TO A.I.A. DOCUMENT A-201-2017**  
**GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**

GENERAL:

The following supplements modify, change, delete from or add to the "General Conditions Of The Contract For Construction," AIA Document A201-2017. Where any Article of the General Conditions is modified or any paragraph, subparagraph, or clause thereof is modified or deleted by these supplements, the unaltered portions of the General Conditions shall remain in effect.

**ARTICLE 4 - ARCHITECT**

4.2            ADMINISTRATION OF THE CONTRACT: Supplement as follows:

4.2.9.1        The Architect shall provide one final inspection after the Contractor notifies the Architect that the project is complete.

4.2.9.2        The Architect shall, upon final inspection, prepare a written list of items to be completed and promptly provide the list to the Contractor.

4.2.9.3        The Contractor shall be required to complete the project and the items on the list in **30** days and provide all required closeout documents within **30** days of the final inspection.

4.2.9.4        The Architect shall provide one (1) re-inspection to verify that the Contractor has completed the project and the final inspection list. The Owner and the Contractor shall be promptly notified of any deficiencies noted during this inspection. The Contractor shall immediately make the necessary corrections.

4.2.9.5        Any additional re-inspections necessitated due to the deficiencies being noted under 4.2.9.4 above and any additional time required by the Architect, due to closeout documents being incomplete or Contractor not submitting the documents within **60** days of the final inspection, will be billed to the Owner by the Architect as per the Owner/Architect agreement.

4.2.9.6        The Owner shall have the right to deduct the charges of the Architect incurred under Section 4.2.9.5 from the Contractor's last application for payment.

**ARTICLE 15 – CLAIMS AND DISPUTES**

15.1.6        CLAIMS FOR ADDITIONAL TIME: Supplement as follows:

15.1.6.3        Add the following Subparagraph 15.1.6.3 to Subparagraph 15.1.6:  
Time Extensions will not be granted for rain, wind, snow or other natural phenomena of **normal intensity** for the locality where work is performed. For purpose of determining extent of delay attributable to unusable weather phenomena, a determination shall be made by comparing the weather for the contract period involved with the average of the preceding five (5) year climatic range during the same time interval based on the National Oceanic and Atmospheric Administration National Weather Service statistics for the

locality where work is performed and on daily weather logs kept on the job site by the Contractor reflecting the effect of the weather on progress of the work and initialed by the Architect's representative. Time extensions for weather delays do not entitle the Contractor to "extended overhead" recovery.

- 15.1.6.4 Add the following Subparagraph 15.1.6.4 to Subparagraph 15.1.6  
If the Contractor is delayed at any time in the progress of his work by any act or negligence of the Owner or the Architect, or by any employee of either; by any separate Contractor employed by the Owner; by changes ordered in the work; by labor disputes at the project site; by abnormal weather conditions not reasonably anticipated for the locality where the work is performed; by unavoidable casualties; by any causes beyond the Contractor's control; or by any other causes which the Architect and Owner determine may justify the delay, then the contract time may be extended by change order for the time which the Architect and Owner may determine is reasonable.
- 15.1.6.5 Add the following Subparagraph 15.1.6.5 to Subparagraph 15.1.6  
No claim shall be allowed on account of failure of the Architect to furnish drawings or instructions until twenty-one (21) days after demand for such drawings and/or instructions.
- 15.1.6.6 Add the following Subparagraph 15.1.6.6 to Subparagraph 15.1.6  
Claims for additional time and additional cost will not be allowed if the actual construction time does not exceed the actual completion time as stated in the original Owner-Contractor Agreement.

**BID FORM**  
**SINGLE PRIME CONTRACT**

**ALL WORK SHALL BE UNDER THE GENERAL CONTRACT**  
**(WHICH WILL INCLUDE GENERAL, PLUMBING, MECHANICAL, & ELECTRICAL**  
**IN ONE PRIME CONTRACT)**

NAME OF BIDDER \_\_\_\_\_

\_\_\_\_\_

BIDDER'S ADDRESS \_\_\_\_\_

\_\_\_\_\_

BIDDER'S PHONE NO. \_\_\_\_\_ FAX NO. \_\_\_\_\_

BIDDER'S LICENSE NO. \_\_\_\_\_

CONTACT \_\_\_\_\_

TYPE OF WORK \_\_\_\_\_

RANDOLPH COUNTY  
725 MCDOWELL ROAD, ASHEBORO, NC 27205  
336-318-6304

ATTN: Lisa Garner, Purchasing Officer

The undersigned having carefully examined the Bidding Documents, Drawings, Specifications, and all subsequent addenda as prepared by the Architects, Stewart-Cooper-Newell Architects, P.A., visited the site and being familiar with all conditions and requirements of the work, hereby agrees to furnish all labor and materials, equipment, services, etc., including all Allowances to complete the construction of:

**RANDOLPH COUNTY BACKUP 911 FACILITY REROOFING & HVAC REPLACEMENT**  
**152 N FAYETTEVILLE ST, ASHEBORO, NC 27203**  
**ARCHITCT PROJECT # 1787**

All to be in accordance with these documents for the following amounts.

(IMPORTANT NOTES!)

- A) The apparent low bidder will be determined following the Owner's evaluation of all bids and final selection of alternates to be included in the project scope and contract.
- B) The Owner reserves the right to accept or reject any or all of the Bids and to waive informalities and minor irregularities in Bids received.
- C) The Owner reserves the right to accept or reject any portion of the Low Bid (which includes the Base Bid, Contingency Allowance, Specific Item Allowances and Alternates) or to make and/or negotiate changes to any portion of the work in order to meet the Budget Requirements of the Owners.
- D) The Bid shall contain Federal, State and Local taxes in accordance with the supplementary Conditions. Sales Tax breakdown reports shall be submitted to the Architect by the Contractor with each month's application for payment.

BIDDERS NAME: \_\_\_\_\_

**GENERAL CONSTRUCTION**

(Includes Plumbing, Mechanical & Electrical)

Base Bid \$ \_\_\_\_\_ Dollars

ALLOWANCES: (FOR A COMPLETE DESCRIPTION OF ALLOWANCES, SEE SECTION 012100).

Contingency Allowance: \$ \_\_\_\_\_ Dollars

**TOTAL BASE BID** \$ \_\_\_\_\_ Dollars

**(Includes Base Bid and All Allowances)**

ALTERNATES: (FOR A COMPLETE DESCRIPTION OF ALTERNATES, SEE SECTION 012300).

The undersigned further agrees to perform all work in the Alternates for the sums stated herein resulting in Additions or Deletions to the Base Bid. Additions or Deletions shall include any modifications of work or additional work that may reasonably be included as part of the Alternates.

ALTERNATES:

**A-1:** 60-mil TPO Membrane \$ \_\_\_\_\_

**TOTAL GENERAL CONSTRUCTION BID** \$ \_\_\_\_\_ Dollars

(Includes Plumbing, Mechanical, Electrical, Contingency, Allowances, and Alternates)

NOTE: The following information is for the Owner's use in guaranteeing that quality prime subcontractors (general, plumbing, mechanical & electrical) are used in connection with the project and is not intended as a solicitation for separate bids for subcontract work.

It is the intent of the OWNER to hire a single General Contractor who will in turn contract with and manage all sub-contractors. If the General Contractor listed as the bidder intends to hire and have another General Contractor perform any significant portion of the Work, partner, team, or otherwise work with or hire another General Contractor, that General Contractor shall be listed below. Failure to list additional General Contractor(s) may result in rejection of bid and forfeiture of bid deposit or bid bond.

**PLUMBING CONTRACTOR:**

Company Name \_\_\_\_\_  
Company Address \_\_\_\_\_  
City, State Zip \_\_\_\_\_  
Phone No. \_\_\_\_\_  
Fax No. \_\_\_\_\_  
Contractor's Name \_\_\_\_\_  
Contractor's License No. \_\_\_\_\_  
UEI# \_\_\_\_\_

PRICE: \$ \_\_\_\_\_

**MECHANICAL CONTRACTOR:**

Company Name \_\_\_\_\_  
Company Address \_\_\_\_\_  
City, State Zip \_\_\_\_\_  
Phone No. \_\_\_\_\_  
Fax No. \_\_\_\_\_  
Contractor's Name \_\_\_\_\_  
Contractor's License No. \_\_\_\_\_  
UEI# \_\_\_\_\_

PRICE: \$ \_\_\_\_\_

**ELECTRICAL CONTRACTOR:**

Company Name \_\_\_\_\_  
Company Address \_\_\_\_\_  
City, State Zip \_\_\_\_\_  
Phone No. \_\_\_\_\_  
Fax No. \_\_\_\_\_  
Contractor's Name \_\_\_\_\_  
Contractor's License No. \_\_\_\_\_  
UEI# \_\_\_\_\_

PRICE: \$ \_\_\_\_\_



**BID GUARANTEE:**

The undersigned further agrees to sign a contract for this work in the above amount, if offered, by December 15, 2024, after receipt of Bids, and to furnish surety as specified, and upon failure to do so, agrees to forfeit to the Owner, certified check \$\_\_\_\_\_, or U.S. Money Order \$\_\_\_\_\_, or Bid Bond \$\_\_\_\_\_.

**PROPER LICENSES:**

The undersigned certifies that he is properly licensed and classified to perform the work that he is bidding. This certification also guarantees that if subcontractors are used, they will also be properly licensed and classified.

**TIME OF COMPLETION:**

The undersigned further agrees to begin work promptly upon the issuance of the "Notice To Proceed" with an adequate force, carry the work forward as rapidly as possible and complete it within **90** consecutive calendar days.

**ADDENDA RECEIVED AS FOLLOWS:**

No. \_\_\_\_\_ Date \_\_\_\_\_      No. \_\_\_\_\_ Date \_\_\_\_\_  
No. \_\_\_\_\_ Date \_\_\_\_\_      No. \_\_\_\_\_ Date \_\_\_\_\_  
No. \_\_\_\_\_ Date \_\_\_\_\_      No. \_\_\_\_\_ Date \_\_\_\_\_

NAME OF BIDDER \_\_\_\_\_

BY \_\_\_\_\_  
(Signature)

TITLE \_\_\_\_\_

DATE BID EXECUTED \_\_\_\_\_

**NOTE:**

1. If Bidder is a corporation, write state of incorporation under the signature and if a partnership, give full names of all partners.
2. The Bid may be rejected if not accompanied by a guarantee in the specified amount. Any certified check may be held uncollectible at the risk of the Bidder submitting them.

**SPECIAL REQUIREMENT FOR THE SUCCESSFUL BIDDER FOR THE RANDOLPH COUNTY BACKUP 911 FACILITY RE-ROOFING PROJECT**

- A. All Bidders are hereby notified that the successful Bidder shall be required to complete the following work as part of the Contract:
  1. Remove and dispose of existing roof and components.
  2. Remove and install mechanical equipment system and components on the roof and inside the building.
- B. The successful Bidder shall provide the complete and full warranty as required in the specifications.
- C. The successful Bidder shall meet all MWBE requirements and provide documentation for Good Faith Efforts if unable to meet the requirements.

## LIQUIDATED DAMAGES

The Contractor is hereby notified that the Contract will contain a Liquidated Damages Clause.

### Performance and Delivery Time:

The Contractor, shall begin work on or before the “commence work” date specified in the **NOTICE TO PROCEED** issued by the Owner, and as set forth in the plans, specifications, and proposal. All work shall be completed in all events on or before the date set forth in the **NOTICE TO PROCEED**.

#### A. Time is of the Essence.

It is agreed that time is of the essence; and as a result, unless prevented by strikes, accidents, or other causes beyond the Contractor’s control, the Contractor shall deliver the materials and perform the services, as provided herein within the limits specified above. Failure of the Contractor to perform in the time specified above shall be deemed sufficient reason for default or the contract or forfeiture of the performance bond, or both.

#### B. Liquidated Damages.

Since actual damages for any delay in the completion of the work which the contractor is required to perform under this contract are or will be difficult to determine, the contractor and his sureties shall be liable for and shall pay to the Owner the sum of **\$500.00** as fixed and agreed as liquidated damages, and not as penalty, **for each calendar day of delay** from the date stipulated for completion, or as modified in accordance with the terms of this agreement until such work is satisfactorily completed and accepted. Said liquidated damages may be deducted from any payments owed to the contractor by the Owner or collected from the sureties whichever is deemed expedient by the Owner.

**MINORITY BUSINESS PARTICIPATION REQUIREMENTS:**

**Provide on the bid** – Under GS 143-128.2© the undersigned bidder shall identify **on its** bid the minority businesses that it will use on the project and the total dollar value of the bid that will be performed by the minority businesses and list the good faith efforts (Affidavit A) made to solicit participation.

Note: A contractor that performs all of the work with its own workforce may submit an Affidavit (B) to that effect in lieu of the affidavit (A) required above.

**After the bid opening** - The Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low bidder, the bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

An Affidavit ( C ) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the **10% goal** established. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort;

**Or**

Affidavit ( D ) of its good faith effort to meet the goal. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contact.

**Or**

Provide Affidavit (B), which includes sufficient information for the Owner to determine that the bidder does not customarily subcontract work on this type project.

<p><b>Note: Bidders must submit <u>with their bid</u> the Identification of Minority Business Participation list <u>and</u> Affidavit B as applicable. Failure to file a required affidavit or documentation with the bid or after being notified apparent low bidder may be grounds for rejection of the bid.</b></p>
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# **RANDOLPH COUNTY**

## **Minority Business**

# **OUTREACH PLAN**



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## INTRODUCTION

In accordance with G.S. 143-128.2 (effective January 1, 2002) this Outreach Plan establishes goals for minority business participation in single-prime bidding, separate-prime bidding, dual bidding, Construction Manager-at-Risk, and alternative contracting methods on Randolph County building construction projects in the amount of \$300,000 or more (or if using state funds, \$100,000 or more). The Outreach Plan shall also be applicable to the selection process of architectural, engineering, surveying, and Construction Manager-at-Risk services.

Randolph County's current goal for minority business participation for public building construction is ten percent (10%). The overall goal will be reviewed annually, or as soon as relevant data is available.

The intent of this Outreach Plan is that Randolph County, as awarding authority for construction projects, and the contractors and subcontractors performing the construction contracts awarded, shall cooperate and in good faith do all things, legal, proper and reasonable to achieve the established goal of ten percent (10%) for participation by minority businesses in each construction project as mandated by GS 143-128.2. Nothing in this Outreach Plan shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority business contractors or minority business subcontractors who do not submit the lowest responsive responsible bid or bids.

A copy of this Outreach Plan will be issued with each bid package for Randolph County building construction projects.

## DEFINITIONS

1. Minority – a person who is a citizen or lawful permanent resident of the United States and who is:
  - a. Black, that is, a person having origins in any of the black racial groups in Africa;
  - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
  - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, or the Pacific Islands;
  - d. American Indian, that is, a person having origins in any of the original peoples of North America; or
  - e. Female
  
2. Minority Business – means either of the following:
  - a. A business that meets both of the following conditions:
    1. In which at least fifty-one percent (51%) is owned by one or more minority persons or socially and economically disadvantaged individuals, or in the case of a corporation, in which at least fifty-one percent (51%) of

the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and

2. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.
  - b. An Employee Stock Ownership Plan company in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals.
3. Socially and economically disadvantaged individual – means the same as defined in 15 U.S.C. 637. “Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities”. “Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged”.
4. Public Entity – means State and all public subdivisions and local government units.
5. Owner – Randolph County.
6. Designer – Any person, firm, partnership, or corporation, association, or joint venture which has contracted with Randolph County to perform architectural or engineering work.
7. Bidder – Any person, firm, partnership, corporation, association, or joint venture bidding on a public contract or subcontract.
8. Contract – A mutually binding legal relationship, or any modification thereof, obligating the seller to furnish equipment, materials or services, including construction, and obligating the buyer to pay for them.
9. Contractor – Any person, firm, partnership, corporation, association, or joint venture which has contracted with Randolph County to perform construction work or repair.
10. Subcontractor – Any person, firm, partnership, corporation, association, or joint venture under contract with the prime contractor or Construction Manager-at-Risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in the subcontract.

## OUTREACH PLAN

1. Work with minority-focused business groups in attempt to recruit minority business participation in Randolph County contracts/bids.
2. Emphasize the importance of soliciting certified minority businesses for subcontracting opportunities to prime contractors at pre-bid conferences and in the bid documents. Examine specifications to identify special subcontracting opportunities and strongly encourage prime contractors to solicit bids for subcontracts from minority businesses.
3. Hold meetings with contractors and designers to provide information on this Outreach Plan and G.S. 143-129 requirements.
4. Assess the effectiveness of this Outreach Plan by monitoring minority business participation and reviewing the “good faith efforts” of contractors.
5. At least 10 days prior to the scheduled day of bid opening, notify minority businesses that have requested notices from Randolph County for public construction or repair work and minority businesses that otherwise indicated to the Office of Historically Underutilized Businesses an interest in the type of work being bid or the potential contracting opportunities listed in the proposal. The notification shall include the following:
  - a. A description of the work for which the bid is being solicited
  - b. The date, time, and location where bids are to be submitted
  - c. The name of the individual within Randolph County who will be available to answer questions about the project
  - d. Where bid documents may be reviewed
  - e. Any special requirements that may exist
6. Utilize other media, as appropriate, likely to inform potential minority businesses of the bid being sought and advertise bid opportunities in such minority-focused media.
7. Build new business relationships through networking with other North Carolina cities and counties and sharing ideas to improve the Outreach Plan.
8. Offer training sessions to educate the County’s Outreach Plan with interested businesses and organizations.
9. Post the Outreach Plan on the County’s website listing good faith efforts and creating links to minority business resources.
10. Maintain a database specifically for minority businesses to ensure those businesses are notified when bid opportunities become available. The database shall also record minority business participation in Randolph County bids/proposals.



## **DESIGNER RESPONSIBILITIES**

Under the single-prime bidding, separate prime bidding, dual bidding, Construction Manager-at-Risk, or alternative contracting method, the designer shall do all of the following:

- a. Attend scheduled prebid conferences to explain minority business requirements to the prospective bidders.
- b. Assist the owner to identify and notify prospective minority businesses of potential contracting opportunities.
- c. Maintain documentation of contacts, correspondence, and/or conversations with minority businesses.
- d. Review jointly with the owner, requirements of G.S. 143-128.2(c) and G.S. 143-128.2(f).
- e. During the construction phase of the project, review pay applications and forward copies to Randolph County.

## **CONTRACTOR RESPONSIBILITIES**

Pursuant to NCGS 143-128.2(c), each bidder, which shall mean first-tier subcontractor for construction manager at risk projects, on a project bid under any of the methods authorized under G.S. 143-128(a1) shall identify on its bid the minority businesses that it will use on the project and an affidavit listing the good faith efforts it has made and the total dollar value of the bid that will be performed by the minority businesses. A contractor, including a first-tier subcontractor on a construction manager at risk project, that performs all of the work under a contract with its own workforce may submit an affidavit to that effect in lieu of the affidavit otherwise required under this subsection. The apparent lowest responsible, responsive bidder shall also file the following:

- 1) Within the time specified in the bid documents, either:
  - a. An affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal. An affidavit under this sub-subdivision shall give rise to a presumption that the bidder has made the required good faith effort; or
  - b. Documentation of its good faith effort to meet the goal. The documentation must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations, and evidence of other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.
- 2) Within 30 days after award of the contract, a list of all identified subcontractors that the contractor will use on the project.

Failure to file a required affidavit or documentation that demonstrates that the contractor made the required good faith effort is grounds for rejection of the bid.

No subcontractor who is identified and listed pursuant to this section may be replaced with a different subcontractor except:

- 1) If the subcontractor's bid is later determined by the contractor or construction manager at risk to be nonresponsible or nonresponsive, or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or
- 2) With the approval of Randolph County for good cause.

Good faith efforts as set forth in G.S. 143-131(b) shall apply to the selection of a substitute subcontractor. Prior to substituting a subcontractor, the contractor shall identify the substitute subcontractor and inform the public entity of its good faith efforts.

### **MINORITY BUSINESS RESPONSIBILITIES**

Randolph County does not certify minority businesses. Any business which desires to participate as a minority business in Randolph County contracts will be required to become certified by at least one of the following agencies:

- a. North Carolina Administration Department Historically Underutilized Business (HUB) certification.
- b. North Carolina Department of Transportation Minority/Disadvantage/Woman-owned Business certification.
- c. Small Business Administration 8(a) certification.
- d. Other governmental agencies on a case-by-case basis.

## MINIMUM COMPLIANCE REQUIREMENTS

Bidders must earn at least 50 points from the good faith efforts listed below in order for their bids to be considered responsive.

- (1) Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed. **Value = 10 points.**
- (2) Making the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due. **Value = 10 points.**
- (3) Breaking down or combining elements of work into economically feasible units to facilitate minority participation. **Value = 15 points.**
- (4) Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses. **Value = 10 points.**
- (5) Attending any prebid meetings scheduled by the public owner. **Value = 10 points.**
- (6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors. **Value = 20 points.**
- (7) Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing. **Value = 15 points.**
- (8) Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. **Value = 25 points.**
- (9) Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible. **Value = 20 points.**
- (10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. **Value = 20 points.**

*Approved April 5, 2004  
Revised 10-26-2023 To include Employee Stock Ownership Plan*



# State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of \_\_\_\_\_  
(Name of Bidder)

Affidavit of \_\_\_\_\_

I have made a good faith effort to comply under the following areas checked:

**Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive.** (1 NC Administrative Code 30 I.0101)

- 1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- 2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- 3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- 4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- 5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- 6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- 7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- 8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- 9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- 10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

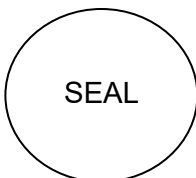
The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

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

My commission expires \_\_\_\_\_

**State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.**

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_

(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the \_\_\_\_\_

\_\_\_\_\_ contract.

(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

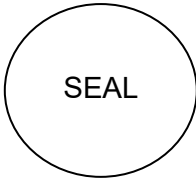
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

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

My commission expires \_\_\_\_\_

# State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses

County of \_\_\_\_\_

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.  
 This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of \_\_\_\_\_ I do hereby certify that on the \_\_\_\_\_  
 (Name of Bidder)

\_\_\_\_\_ (Project Name)  
 Project ID# \_\_\_\_\_ Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_ % of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

Attach additional sheets if required

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

\*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

\*\* **HUB Certification with the state HUB Office required to be counted toward state participation goals.**

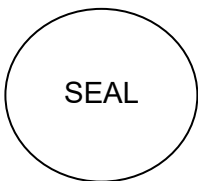
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_  
 Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
 Notary Public \_\_\_\_\_  
 My commission expires \_\_\_\_\_

# State of North Carolina AFFIDAVIT D – Good Faith Efforts

County of \_\_\_\_\_

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of \_\_\_\_\_ I do hereby certify that on the \_\_\_\_\_  
 (Name of Bidder)

Project ID# \_\_\_\_\_ (Project Name) Amount of Bid \$ \_\_\_\_\_

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with HUB certified/ minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

\*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

\*\* **HUB Certification with the state HUB Office required to be counted toward state participation goals.**

**Examples** of documentation that **will** be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

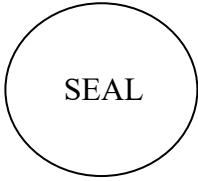


The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

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

My commission expires \_\_\_\_\_

## E-Verify Compliance Requirements

Provide with the bid.

Each bidder shall provide with its bid proposal written assurance that it does now and will throughout the duration of the project fully comply with the requirements of Article 2, Chapter 64 North Carolina General Statutes and that it will throughout the duration of the project maintain records of verification of legal work status for all employees including records of verification on terminated employees for one year following the termination of employment status.

Each bidder shall also provide written assurance that it will require and monitor compliance with Article 2, Chapter 64 for each subcontractor awarded portions of work on the project by bidder unless the subcontractor documents that it has fewer than 25 employees at the time the subcontract is awarded and throughout the duration of the subcontract.

All E-Verify records of the successful bidder and its subcontractors shall be available for inspection by the OWNER or its designee at reasonable times and after reasonable notice throughout the duration of the project.

I, \_\_\_\_\_ (print name), hereby state and declare that I am the  
\_\_\_\_\_ (title of entity official) of \_\_\_\_\_ (name of entity),

and hereby certify to the OWNER, that, as to any construction contract subsequently entered into  
with the OWNER, that \_\_\_\_\_ (name of entity) intends to comply with

E-Verify requirements required under North Carolina General Statutes and as indicated above.

Further, I declare that \_\_\_\_\_ (name of entity) shall similarly require all subcontractors  
and/or material suppliers that contract with said entity for the contract be required to  
meet these same requirements.

Name of Authorized Officer: \_\_\_\_\_

Title: \_\_\_\_\_

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

Date: \_\_\_\_\_

**SCNA - BID BOND - 2011**

**(Important! AIA A-310 Bid Bond As Indicated In AIA-A701 Instructions To Bidders Is NOT Acceptable)**

Date of Execution of this Bond: \_\_\_\_\_

Name and Address of Principal (Bidder): \_\_\_\_\_

\_\_\_\_\_

Name and Address of Surety: \_\_\_\_\_

\_\_\_\_\_

Name and Address of Owner/Obligee: \_\_\_\_\_

\_\_\_\_\_

Amount of Bond: \_\_\_\_\_

\_\_\_\_\_

Bid and Proposal Date: \_\_\_\_\_ for \_\_\_\_\_

\_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and the above named and SURETY above named, who is duly licensed to act as surety in the State of North Carolina, are held and firmly bound unto (Owner/Obligee) \_\_\_\_\_, a body corporate and politic of the State of North Carolina as Obligee, in the penal sum of FIVE PERCENT (5%) of the amount bid in the bid and proposal above described in lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

NOW, THEREFORE, THE CONDITION OF OBLIGATION is such, that if the Principal shall be awarded the contract for which the bid and proposal above described is submitted and shall execute the contract, give bond for the faithful performance of the contract, and give bond for the payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, within ten (10) days after the award of the same to the Principal above named, then this obligation shall be null and void; but if the Principal above named fails to so execute such contract and give performance bond and payment bond as required by Section 129 of Chapter 143 of the General Statutes of North Carolina, as amended and Article 3 of Chapter 44-A of the General Statutes of North Carolina, as amended, the Surety shall, upon demand, forthwith pay to the Obligee the amount of this bond set forth above.

IN WITNESS WHEREOF, the Principal above named and the Surety above named have executed this instrument under their several seals on the date set forth.

WITNESS:

\_\_\_\_\_  
Principal (name of individual, individual and trade name, partnership, corporation, or joint venture)

\_\_\_\_\_  
(Proprietorship or Partnership)

BY \_\_\_\_\_

Title: \_\_\_\_\_  
(Owner, Partner, Office held in corporation, joint venture)

ATTEST: (Corporation)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corporate Secretary or Assistant Secretary Only)

\_\_\_\_\_  
Surety (Name of Surety Company)

WITNESS:

By \_\_\_\_\_

Title: Attorney in fact

\_\_\_\_\_

(Corporate Seal of Surety)

\_\_\_\_\_  
(Address of Attorney in Fact)

COUNTERSIGNED:

\_\_\_\_\_  
N.C. Licensed Resident

IMPORTANT- Surety Companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of North Carolina.

EXAMPLE

IF BOND IS EXECUTED BY ATTORNEY-IN-FACT  
THEN THERE MUST BE ATTACHED TO THIS ACKNOWLEDGEMENT,  
A CERTIFIED COPY OF THIS POWER-OF-ATTORNEY

ACKNOWLEDGEMENT FOR A SURETY COMPANY  
OR OTHER CORPORATION

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

before me a Notary Public in and for said County and State personally appeared  
\_\_\_\_\_ to me personally known, who being by me duly sworn says that

he is the \_\_\_\_\_

of \_\_\_\_\_

and that the seal affixed to the foregoing instrument in writing is the corporate seal of the company and  
that said writing was signed and sealed by him in behalf of said corporation by its authority duly given by  
its Board of Directors, and the said \_\_\_\_\_

as such \_\_\_\_\_

duly acknowledged said instrument to be the free act and deed of said corporation.

\_\_\_\_\_  
AFFIANT

SWORN TO BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC

MY COMMISSION EXPIRES THE \_\_\_\_\_ DAY OF \_\_\_\_\_, \_\_\_\_\_

(AFFIX NOTARY SEAL)

## **CONTRACT AND BOND REQUIREMENTS**

### **CONTRACT**

The Successful Bidder shall sign a Contract with the Owner on the Form of Agreement Between Owner And Contractor, Randolph County Construction Contract and Federal Contract Provisions.

### **PERFORMANCE BOND**

The Contractor shall attach to the Contract an executed Form of Performance Bond, included in the Construction Contract.

### **LABOR AND MATERIAL PAYMENT BOND**

The Contractor shall attach to the Contract an executed Form of Payment Bond, included in the Construction Contract.

**IRAN DIVESTMENT ACT CERTIFICATION**  
**REQUIRED BY N.C.G.S. 147-86.59**

Name of Bidder or Vendor: \_\_\_\_\_

As of the date listed below, the bidder or vendor listed above is not listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 147-86.58. The bidder or vendor listed above also agrees not to utilize, in the performance of any contract with the Orange Rural Fire Department, any subcontractor that is listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 147-86.58

The undersigned hereby certifies that he or she is authorized by the vendor or bidder listed above to make the foregoing statement.

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Printed Name Title

**NOTE THAT:**

N.C.G.S. 147-86.59 requires this certification for bids or contracts with the State of North Carolina, a North Carolina local government, or any other political subdivision of the State of North Carolina. The certification is required at the following times:

- When a bid is submitted
- When a contract is entered into (if the certification was not already made when the vendor made its bid)
- When a contract is renewed or assigned

N.C.G.S.147-86.59 also requires that contractors with the State, a North Carolina local government, or any other political subdivision of the State of North Carolina must not utilize any subcontractor found on the State Treasurer's Final Divestment List.

The State Treasurer's Final Divestment List can be found on the State Treasurer's website at the address [www.nctreasurer.com/Iran](http://www.nctreasurer.com/Iran) and will be updated every 180 days. The current list can be found on the reverse of this document.

TO OWNER: PROJECT: \_\_\_\_\_

FROM CONTRACTOR: VIA ARCHITECT: \_\_\_\_\_

APPLICATION NO.: \_\_\_\_\_ Distribution to:  
 PERIOD TO:  OWNER  
 PROJECT NOS.:  ARCHITECT  
 CONTRACTOR

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

CONTRACT FOR: \_\_\_\_\_

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

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

By: \_\_\_\_\_ State of: \_\_\_\_\_  
 County of: \_\_\_\_\_  
 Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public: \_\_\_\_\_  
 My Commission expires: \_\_\_\_\_

**CONTRACTOR'S APPLICATION FOR PAYMENT**

Application is made for payment, as shown below, in connection with the Contract Continuation Sheet, AIA Document G703, is attached.

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

**ARCHITECT'S CERTIFICATE FOR PAYMENT**

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

AMOUNT CERTIFIED ..... \$ \_\_\_\_\_  
*(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount certified.)*

ARCHITECT: \_\_\_\_\_ Date: \_\_\_\_\_

By: \_\_\_\_\_

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		
<b>TOTALS</b>		
NET CHANGES by Change Order		

CAUTION: You should use an original AIA document which has this caution printed in red. An original assures that changes will not be obscured as may occur when documents are reproduced.



# CONTINUATION SHEET

AIA DOCUMENT G703 (Instructions on reverse side)

PAGE OF PAGES

AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT,

containing Contractor's signed Certification, is attached.

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

Use Column 1 on Contracts where variable retainage for line items may apply.

APPLICATION NO.:

APPLICATION DATE:

PERIOD TO:

ARCHITECT'S PROJECT NO.:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		E THIS PERIOD	F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED AND STORED TO DATE (D+E+F)	H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE) RATE)
			FROM PREVIOUS APPLICATION (D + E)						

AIA DOCUMENT G703 • CONTINUATION SHEET FOR G702 • 1992 EDITION • AIA® • ©1992 • THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 NEW YORK AVENUE, N.W., WASHINGTON, D.C. 20006-5292 • WARNING: Unauthorized photocopying violates U.S. copyright laws and will subject the violator to legal prosecution.

G703-1992



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## STATE OF NORTH CAROLINA COUNTY SALES AND USE TAX REPORT SUMMARY TOTALS AND CERTIFICATION

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

Page 1 of \_\_\_\_\_

PROJECT: \_\_\_\_\_

FOR PERIOD: \_\_\_\_\_

	TOTAL FOR COUNTY OF:	TOTAL FOR COUNTY OF:	TOTAL FOR COUNTY OF:	TOTAL FOR COUNTY OF:	TOTAL FOR COUNTY OF:	TOTAL FOR STATE OF NC:	TOTAL ALL COUNTIES
CONTRACTOR							
SUBCONTRACTOR(S)*							
COUNTY TOTAL							

- \* Attach subcontractor(s) report(s)
- \*\* Must balance with Detail Sheet(s)

I certify that the above figures do not include any tax paid on supplies, tools and equipment which were used to perform this contract and only includes those building materials, supplies, fixtures and equipment which actually became a part of or annexed to the building or structure. I certify that, to the best of my knowledge, the information provided here is true, correct, and complete.

Sworn to and subscribed before me,

This the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Signed

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

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Print or Type Name of Above

Seal

NOTE:  
This certified statement may be subject to audit.





**To be completed and submitted prior to final payment being made**

**AFFIDAVIT OF PAYMENT TO  
M/WBE SUBCONTRACTORS**

The undersigned certifies that \_\_\_\_\_ has made payment to all M/WBE subcontractors listed below in accordance with the contract requirements for construction of \_\_\_\_\_.

Your goal for this project was 10 % MWBE.

**Subcontractor**

**Amount Paid**

<b><u>Subcontractor</u></b>	<b><u>Amount Paid</u></b>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

\_\_\_\_\_ On this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,  
Authorized Signature before me \_\_\_\_\_ (name) to me  
personally known, being duly sworn, did execute the  
\_\_\_\_\_ foregoing affidavit, and did so state that he/she was properly  
Name of Firm properly authorized by \_\_\_\_\_  
(name of firm) to execute the affidavit and did so on his/her  
free act and deed.

\_\_\_\_\_ Title **SEAL**

\_\_\_\_\_ Notary Public \_\_\_\_\_  
Date My Commission Expires \_\_\_\_\_

**TO BE COMPLETED BY CITY**

**MWBE SPENDING**

Project \_\_\_\_\_  
Goals: MWBE \_\_\_\_\_ %  
Final Construction Cost: \$ \_\_\_\_\_  
Subcontract Spending: MWBE \_\_\_\_\_ %

Verified this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
By \_\_\_\_\_



# AIA® Document G706™ – 1994

## Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)* ARCHITECT'S PROJECT NUMBER: OWNER:   
 ARCHITECT:   
 CONTRACTOR:   
 SURETY:   
 OTHER:

TO OWNER: *(Name and address)* CONTRACT FOR: General Construction  
 CONTRACT DATED:

STATE OF:  
 COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment  Yes  No

CONTRACTOR: *(Name and address)*

BY: \_\_\_\_\_  
*(Signature of authorized representative)*

\_\_\_\_\_  
*(Printed name and title)*

*The following supporting documents should be attached hereto if required by the Owner:*

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

Subscribed and sworn to before me on this date:

Notary Public:  
 My Commission Expires:



# AIA<sup>®</sup> Document G706A<sup>™</sup> – 1994

## Contractor's Affidavit of Release of Liens

PROJECT: <i>(Name and address)</i>	ARCHITECT'S PROJECT NUMBER:	OWNER: <input type="checkbox"/>
		ARCHITECT: <input type="checkbox"/>
	CONTRACT FOR: General Construction	CONTRACTOR: <input type="checkbox"/>
TO OWNER: <i>(Name and address)</i>	CONTRACT DATED:	SURETY: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

STATE OF:  
COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

BY:

\_\_\_\_\_  
*(Signature of authorized representative)*

\_\_\_\_\_  
*(Printed name and title)*

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:

GENERAL CONTRACTOR  
AFFIDAVIT, AGREEMENT, RELEASE AND WAIVER OF LIEN  
FINAL PAYMENT

PROJECT \_\_\_\_\_

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, says that he/she is  
the \_\_\_\_\_ of \_\_\_\_\_ (the "Company")  
and is authorized to bind the Company to this instrument.

He/She is familiar with the Company's performance in connection with the Contract dated  
\_\_\_\_\_ between the Company and \_\_\_\_\_.

To the best of his/her knowledge, the Company has properly and completely performed all services and  
has furnished all materials required by such Contract, and on behalf of the Company warrants that it has  
done so.

He/She warrants that no one has any right as of the date of submission of this document to file or to  
enforce a lien on account of furnishing such services or material. On behalf of the Company, he/she  
agrees that upon final payment of \$ \_\_\_\_\_ under the Contract which represents the full  
amount due to the Company, the Company does hereby waive and release any and all claims against the  
Owner and that if such claim is asserted or lien is filed or enforced, the Company will indemnify and save  
harmless the Owner from any loss, damage, or expense arising therefrom.

Acceptance of this form and payment shall not be deemed to release the Company from any obligations  
including those to the Owner.

BY \_\_\_\_\_  
(Signature of Affiant)

TITLE \_\_\_\_\_

Sworn to and subscribed to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public My Commission Expires \_\_\_\_\_

S E A L



SUBCONTRACTORS / MATERIAL SUPPLIERS  
AFFIDAVIT, AGREEMENT, RELEASE AND WAIVER OF LIEN  
FINAL PAYMENT

PROJECT \_\_\_\_\_

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, says that he/she is  
the \_\_\_\_\_ of \_\_\_\_\_ (the "Company")  
and is authorized to bind the Company to this instrument.

He/She is familiar with the Company's performance in connection with the Contract dated  
\_\_\_\_\_ between the Company and \_\_\_\_\_.

(GENERAL CONTRACTOR NAME)

To the best of his/her knowledge, the Company has properly and completely performed all services and  
has furnished all materials required by such Contract, and on behalf of the Company warrants that it has  
done so.

He/She warrants that no one has any right as of the date of submission of this document to file or to  
enforce a lien on account of furnishing such services or material. On behalf of the Company, he/she  
agrees that upon final payment of \$ \_\_\_\_\_ under the Contract which represents the full  
amount due to the Company, the Company does hereby waive and release any and all claims against the  
Owner and that if such claim is asserted or lien is filed or enforced, the Company will indemnify and save  
harmless the Owner from any loss, damage, or expense arising therefrom.

Acceptance of this form and payment shall not be deemed to release the Company from any obligations  
including those to the Owner.

BY \_\_\_\_\_  
(Signature of Affiant)

TITLE \_\_\_\_\_

Sworn to and subscribed to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public My Commission Expires \_\_\_\_\_

S E A L

**CONSTRUCTION COMPLIANCE AFFIDAVIT**

PROJECT: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

OWNER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED HEREBY CERTIFIES THAT THE ABOVE PROJECT WAS CONSTRUCTED FULLY IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AS ISSUED BY STEWARTCOOPER-NEWELL-ARCHITECTS, P.A., AND ALSO ALL AUTHORIZED CHANGES.

FIRM: \_\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

SWORN TO AND SUBSCRIBED TO  
BEFORE ME THIS THE \_\_\_\_\_  
DAY OF \_\_\_\_\_, 20\_\_.

NOTARY PUBLIC

MY COMMISSION EXPIRES: \_\_\_\_\_

CONTRACTORS ASBESTOS FREE CERTIFICATION & WARRANTY

DATE: \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

PROJECT: \_\_\_\_\_

PROJECT OWNER: \_\_\_\_\_

PROJECT LOCATION: \_\_\_\_\_

WE: COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, & ZIP: \_\_\_\_\_

do hereby certify to the Owner that to the best of our knowledge no materials containing asbestos fiber were incorporated into the work of the project by either our Company, our Subcontractors, or Material Suppliers.

COMPANY: \_\_\_\_\_

SIGNED: \_\_\_\_\_

TITLE: \_\_\_\_\_

SUBSCRIBED AND SWORN TO BEFORE ME THIS

\_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

MY COMMISSION EXPIRES: \_\_\_\_\_

START DATE OF GUARANTEE \_\_\_\_\_

G U A R A N T E E

\_\_\_\_\_ guarantees all materials  
(Name Of Contractor)

and workmanship in the \_\_\_\_\_  
(Name Of Job)

\_\_\_\_\_ against defect due to faulty  
(Location)

materials or faulty workmanship or negligence for a period of **12** months for the General Guarantee or for such longer periods and specified coverages as may be designated by specific divisions of the specifications.

This guarantee is binding where defects occur due to normal usage conditions and does not cover willful or malicious damage, damage caused by acts of God or other casualty.

SWORN TO AND SUBSCRIBED TO BEFORE

ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_

20 \_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

MY COMMISSION EXPIRES:

BY: \_\_\_\_\_

TITLE : \_\_\_\_\_

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

**DIVISION 1**

**GENERAL REQUIREMENTS**

**SECTION 1A - GENERAL CONDITIONS**

**-01 STANDARD FORMS:**

- A. "The General Conditions Of The Contract For Construction", A.I.A. Document A-201 – 2017, of The American Institute Of Architects, Articles 1 through 15, inclusive, accompany and are hereby made a part of these specifications, except as modified and supplemented by the paragraphs herein.

## SECTION 011000 – SUMMARY

## 1.1 GENERAL

- A. Project Identification: The Project consists of the complete reroofing and HVAC replacement of the Backup 911 Facility in Asheboro, NC.
1. The site contains no work to be completed, except tie-in of new roof downspouts to existing storm drain on adjacent site owned by the same Owner.
  2. The Work consists of the complete demolition and disposal of the existing roofing and installation of a complete new membrane roofing system.
  3. The Work includes demolition, disposal and replacement of portion of the HVAC system.
  4. Project Location: 152 N Fayetteville St, Asheboro, NC 27203.
  5. Owner: Randolph County, 725 McDowell Road, Asheboro, NC 27205.
- B. Architect Identification: The Contract Documents, dated **11.07.2024** were prepared for Project by Stewart-Cooper-Newell-Architects, 719 East Second Avenue, Gastonia, North Carolina.

## 1.2 CONTRACTS: Single construction contract (single prime contractor)

- A. These documents form the contract documents form a separate contract with the Owner as follows:
1. Bidding Documents; All Addenda; Contract; General Conditions of the Contract; The Agreement; Specifications; Drawings.

## 1.3 USE OF PREMISES:

- A. The Contractor shall have limited use of premises for construction operations, including limited use of Project site, during construction period. Contractor's use of premises is limited to those areas as agreed upon with the Owner.
- B. The Contractor will be responsible for keeping vehicle access open to the adjacent properties.

## 1.4 SPECIFICATION FORMAT: The Specifications are organized into Divisions and Sections using the CSI/CSC's "Master Format" numbering system.

## 1.5 SPECIFICATION CONTENT: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

- A. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
- B. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
1. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

## 1.6 PRODUCTS (Not Used)

## 1.7 EXECUTION (Not Used)

END OF SECTION 011000

## SECTION 012100 - ALLOWANCES

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Contingency allowances.

## 1.2 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit as specified under section 012600 Contract Modification Procedures.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

## 1.3 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
  - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
  - 2. Provide explanation and documentation to substantiate distribution of overhead costs and other markups.
  - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
  - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
  - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
  - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

## 3.1 SCHEDULE OF ALLOWANCES

Owner's Contingency Allowance: \$ 10,000 Dollars.

END OF SECTION 012100

## SECTION 012300 - ALTERNATES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

## 1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

- 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

## 1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

## 3.1 SCHEDULE OF ALTERNATES

## ALTERNATES:

The undersigned further agrees to perform all work in the Alternates for the sums stated herein resulting in Additions or Deletions to the Base Bid. Additions or Deletions shall include any modifications of work or additional work that may reasonably be included as part of the Alternates.

- A-1: State Change in Base Bid Sum to provide all General Construction work to provide Fully Adhered 60 mil TPO membrane roofing, as detailed in the drawings (Sheet 4.30 Roof Assembly Alternate). This would be in lieu of the PVC membrane roofing assembly.

END OF SECTION 012300



## SECTION 012500 - SUBSTITUTION PROCEDURES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  1. Section 012100 "Allowances" for products selected under an allowance.
  2. Section 012300 "Alternates" for products selected under an alternate.
  3. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

## 1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

## 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
    - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. Certificates and qualification data, where applicable or requested.
    - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
    - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
    - i. Research reports evidencing compliance with building code in effect for Project.
    - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's

letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.

- k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within **seven** days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within **15** days of receipt of request, or **seven** days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.
- 1.5 QUALITY ASSURANCE
- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.
- 1.6 PROCEDURES
- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.
  - B. **SUBSTITUTION REQUESTS SUBMITTED BY AN ENTITY OTHER THAN A PROSPECTIVE PRIME BIDDER WILL NOT BE EVALUATED.**
  - C. See Part 2 for forms required to be submitted with substitution requests.
- 1.7 SUBSTITUTIONS
- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than **15** days prior to time required for preparation and review of related submittals.
    - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
      - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
      - b. Substitution request is fully documented and properly submitted.
      - c. Requested substitution will not adversely affect Contractor's construction schedule.
      - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
      - e. Requested substitution is compatible with other portions of the Work.
      - f. Requested substitution has been coordinated with other portions of the Work.
      - g. Requested substitution provides specified warranty.
      - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
  - B. Substitutions for Convenience: Not Allowed, except with all of the following conditions being met:
    - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect

will return requests without action, except to record noncompliance with these requirements:

- a. ***Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume.*** Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
- b. Requested substitution does not require extensive revisions to the Contract Documents.
- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Substitution request is fully documented and properly submitted.
- e. Requested substitution will not adversely affect Contractor's construction schedule.
- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.
- i. Requested substitution provides specified warranty.
- j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 2 - REQUIRED FORMS (ATTACHED)

2.1 PRIOR APPROVAL/SUBSTITUTION REQUEST FROM

- A. Submit the form to request Substitution.

PART 3 - (Not Used)

PART 4 - EXECUTION (Not Used)

END OF SECTION 012500

**Stewart-Cooper-Newell Architects**  
**PRIOR APPROVAL / SUBSTITUTION REQUEST FORM**

Date: \_\_\_\_\_ Architects Project # \_\_\_\_\_

Company Submitting Request: \_\_\_\_\_  
(Name and Address)

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_

E-Mail: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

SPECIFIED ITEM: \_\_\_\_\_  
(Section) (Page) (Description)

The undersigned requests consideration of the following product substitution:

**PROPOSED SUBSTITUTION:** \_\_\_\_\_  
Provide Product Name / Model /Manufacturer

1. Attached data includes:  Product Description  Performance and Test Data  Drawings  
 Specifications  Photographs  Point by Point Comparison  
(Reqd)

2. \_\_\_\_\_ **Yes / No** changes will be required to the Contract Documents for the proper installation of proposed product substitution. If yes, then attach data that includes description of changes.

3. Reason for Proposed Substitution \_\_\_\_\_

4. Cost Savings to the Owner for accepting Substitution (Provide Supporting Data) \_\_\_\_\_

**The undersigned states that the following paragraphs, unless modified by attachments, are correct:**

1. Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
2. The proposed substitution does not affect dimensions shown on the drawings.
3. No changes to the building design, engineering design, or detailing are required by the proposed substitution.
4. The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.
5. No maintenance is required by the proposed substitution other than that required for originally specified product.
6. Cost data as stated above is complete. Claims for additional costs related to accepted substitutions which may subsequently become apparent are to be waived.
7. Other Information

**The undersigned further states that they have read the corresponding specification section in the project manual and confirms that the function, appearance and quality of the proposed substitution are equivalent or superior to the originally specified product. \_\_\_\_\_ (initial)**

Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_

For Architect's Use:

- Accepted  Accepted As Noted  Incomplete Information  
 Not Accepted  Received Too Late  No Substitutions Accepted For This Product

Reviewed By / Date \_\_\_\_\_

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

## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
  1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

## 1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.

## 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
  2. Within 10 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
    - e. Quotation Form: Use form substantially similar to sample form included in this Specification Section.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
  1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  4. Include costs of labor and supervision directly attributable to the change.
  5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
  7. Proposal Request Form: Use form substantially similar to sample form included in this Specification Section.
- 1.5 ADMINISTRATIVE CHANGE ORDERS
- A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
  - B. Unit-Price Adjustment: See Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.
- 1.6 CHANGE ORDER PROCEDURES
- A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.
- 1.7 CHANGE ORDER OVERHEAD AND PROFIT LIMITATIONS AND PROCEDURES
- A. For Changes in the Work, Overhead and Profit shall not exceed 15% of the value of labor and material for work performed by any Contractor or Subcontractor. If the work is performed by a subcontractor, the Contractor's Overhead and Profit shall not exceed 7-1/2%.
  - B. All changes in the work shall be submitted in the following manner:

For Work Done By The Contractor:

<u>(Type Of Work)</u>	<u>Contract Work.</u>
1. Materials (Itemized Breakdown)	\$ _____
2. Labor (Itemized Breakdown with Documentation)	\$ _____
3. Equipment Rental (List Separately With Documentation)	\$ _____
<u>SUB TOTAL:</u>	\$ _____
* 4. Contractor's Overhead, Bond, Supervision, General Expenses, and Profit. Limited to 15% of Items #1, #2, & #3	\$ _____
5. All Sales and Other Applicable Taxes	\$ _____
6. <u>Total quotation:</u> (Includes Items #1, #2, #3, #4, & #5)	\$ _____

\*In case of deductible changes, this figure will be 10%.

For Work Done By Subcontractors:

<u>Type of Work</u>	<u>Contract Work.</u>
1. Subcontract Work (Itemized Breakdown With Documentation As Follows):	
A. Materials (Itemized Breakdown With Documentation)	\$ _____
B. Labor (Itemized Breakdown With Documentation)	\$ _____
C. Equipment Rental (List Separately With Documentation)	\$ _____
D. All Sales And Other Applicable Taxes	
<u>SUB TOTAL:</u>	\$ _____
* 2. Contractor's Overhead, Bond, Supervision, General Expenses, & Profits, Limited To 7-1/2% Of Sub-Contract Work Shown In Item #1	\$ _____
3. <u>Total quotation:</u> (Includes Item #1 and #2)	\$ _____
* In case of deductible changes, this figure will be 5%.	

## 1.8 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)  
PART 3 - EXECUTION (Not Used)  
END OF SECTION 012600

## SECTION 012900 - PAYMENT PROCEDURES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
  1. Section 012100 "Allowances" for procedural requirements governing the handling and processing of allowances.
  2. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
  3. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
  4. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

## 1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

## 1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
  1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
  2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
  3. Sub-schedules for Phased Work: Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values coordinated with each phase of payment.
  4. Sub-schedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide sub-schedules showing values coordinated with each element.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
  1. Identification: Include the following Project identification on the schedule of values:
    - a. Project name and location.
    - b. Name of Architect.
    - c. Architect's Project number.
    - d. Contractor's name and address.
    - e. Date of submittal.
  2. Arrange schedule of values consistent with format of AIA Document G703.
  3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
  4. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site.



5. Provide a separate line item in the schedule of values for labor/installation and materials for each division of work. Breakdown divisions of work where appropriate to provide appropriate detail in the Schedule of Values. For example, if the project includes grading, show costs breakdown between Clearing and Grubbing, Rough Grading, Fine Grading, etc.
6. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
7. Overhead Costs: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items equally distributed across the duration of the contract time.
8. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
9. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

#### 1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
  1. Submit draft copy of Application for Payment seven days prior to due date for review by Architect.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
  1. Other Application for Payment forms proposed by the Contractor shall be acceptable to Architect and Owner if they are substantially similar to the forms above. Submit forms for approval with initial submittal of schedule of values.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
  1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
  2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
  3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
  4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored on-site, but not yet installed. Payment for materials stored off-site will not be allowed unless prior approval has been received from the Owner and the Architect. Differentiate between items stored on-site and items stored off-site.
  1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.

2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
3. Provide summary documentation for stored materials indicating the following:
  - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
  - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
  - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. Taxes: When the owner is tax exempt, the Contractor shall submit to the Owner, statements of all sales tax paid such that necessary forms can be filed to recover tax. Statements shall be in such a manner and in a form as approved by the owner. The sales tax report must be completed, notarized and included with each monthly Application for Payment.
- G. Transmittal: Submit four (4) signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
  1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
  1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
  2. When an application shows completion of an item, submit conditional final or full waivers.
  3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
  5. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.
- I. **Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:**
  1. **Approved List of subcontractors.**
  2. **Approved Schedule of values.**
  3. **Contractor's construction schedule (preliminary if not final).**
  4. **Schedule of unit prices.**
  5. **Submittal schedule (preliminary if not final).**
  6. **List of Contractor's staff assignments.**
  7. **List of Contractor's principal consultants.**
  8. **Copies of building permits.**
  9. **Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.**
  10. **Initial progress report.**
  11. **Report of preconstruction conference.**
  12. **Certificates of insurance and insurance policies.**
  13. **Performance and payment bonds.**
  14. **Installation and successful operation of construction camera, if specified.**

- J. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- K. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  3. Updated final statement, accounting for final changes to the Contract Sum.
  4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
  5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
  6. AIA Document G707, "Consent of Surety to Final Payment."
  7. Evidence that claims have been settled.
  8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
  9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)  
PART 3 - EXECUTION (Not Used)  
END OF SECTION 012900

## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  1. General coordination procedures.
  2. Coordination drawings.
  3. Requests for Information (RFIs).
  4. Digital project management procedures.
  5. Project meetings.
- B. Related Requirements:
  1. Section 011200 "Multiple Contract Summary" for a description of the division of work among separate contracts and responsibility for coordination activities not in this Section.
  2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  3. Section 019113 "General Commissioning Requirements" for coordinating the Work with Owner's Commissioning Authority.

## 1.3 DEFINITIONS

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

## 1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
  1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
  2. Number and title of related Specification Section(s) covered by subcontract.
  3. Drawing number and detail references, as appropriate, covered by subcontract.

## 1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
  1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  1. Preparation of Contractor's construction schedule.
  2. Preparation of the schedule of values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Preinstallation conferences.

7. Project closeout activities.
  8. Startup and adjustment of systems.
- 1.6 COORDINATION DRAWINGS
- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
    1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
      - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
      - b. Indicate dimensions shown on Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
  - B. Coordination Drawing Organization: Organize coordination drawings as follows:
    1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
    2. Plenum Space: Indicate sub-framing for support of ceiling, raised access floor, and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
    3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
    4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
    5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
    6. Review: Architect will review coordination drawings to confirm that in general the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility.
- 1.7 REQUEST FOR INFORMATION (RFI)
- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
    1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
    2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
  - B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
    1. Project name.
    2. Project number.
    3. Date.

4. Name of Contractor.
  5. Name of Architect.
  6. RFI number, numbered sequentially.
  7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.
  13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- C. RFI Forms: Submit electronically through the electronic submittal system under section 013301. When hardcopy forms are required, submit using AIA Document G716 or a Software-generated form with substantially the same content as indicated above, acceptable to Architect.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within seven (7) days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log monthly. Use software log that is part of web-based Project software. Include the following:
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

- 1.8 DIGITAL PROJECT MANAGEMENT PROCEDURES
- A. Architect's Data Files Not Available: Architect will not provide Architect's or Architect's Consultants digital data files for Contractor's use during construction.
  - B. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
    - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
    - 2. Name file with submittal number or other unique identifier, including revision identifier.
    - 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.
- 1.9 PROJECT MEETINGS
- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.  
**NOTE: General Contractor shall be responsible for recording, typing and distributing meeting minutes.**
    - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
    - 2. Agenda: Prepare the meeting agenda one (1) week in advance of the meeting. Distribute the agenda to all invited attendees.
    - 3. Minutes: Responsible entity will record significant discussions and agreements achieved. Distribute meeting minutes to everyone concerned, including Owner and Architect, within three (3) days of the meeting. Upload a copy of the minutes in the Submittal Exchange.
  - B. Preconstruction Conference: Architect will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect.
    - 1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; special inspectors and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
    - 2. Agenda: Discuss items of significance that could affect progress, including the following:
      - a. Responsibilities and personnel assignments.
      - b. Tentative construction schedule.
      - c. Phasing.
      - d. Critical work sequencing and long lead items.
      - e. Designation of key personnel and their duties.
      - f. Lines of communications.
      - g. Use of web-based Project software.
      - h. Procedures for processing field decisions and Change Orders.
      - i. Procedures for RFIs.
      - j. Procedures for testing and inspecting.
      - k. Procedures for processing Applications for Payment.
      - l. Distribution of the Contract Documents.
      - m. Submittal procedures.
      - n. Sustainable design requirements, if required.
      - o. Preparation of Record Documents.
      - p. Use of the premises.
      - q. Work restrictions.
      - r. Working hours.
      - s. Owner's occupancy requirements.

- t. Responsibility for temporary facilities and controls.
  - u. Procedures for moisture and mold control.
  - v. Procedures for disruptions and shutdowns.
  - w. Construction waste management and recycling.
  - x. Parking availability.
  - y. Office, work, and storage areas.
  - z. Equipment deliveries and priorities.
  - aa. First aid.
  - bb. Security.
  - cc. Progress cleaning.
3. Minutes: Contractor will record and distribute preconstruction conference meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other sections and when required for coordination with other construction.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect and owner of scheduled meeting dates.
  - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Contract Documents.
    - b. Options.
    - c. Related RFIs.
    - d. Related Change Orders.
    - e. Purchases.
    - f. Deliveries.
    - g. Submittals.
    - h. Sustainable design requirements.
    - i. Review of mockups.
    - j. Possible conflicts.
    - k. Compatibility requirements.
    - l. Time schedules.
    - m. Weather limitations.
    - n. Manufacturer's written instructions.
    - o. Warranty requirements.
    - p. Compatibility of materials.
    - q. Acceptability of substrates.
    - r. Temporary facilities and controls.
    - s. Space and access limitations.
    - t. Regulations of authorities having jurisdiction.
    - u. Testing and inspecting requirements.
    - v. Installation procedures.
    - w. Coordination with other work.
    - x. Required performance results.
    - y. Protection of adjacent work.
    - z. Protection of construction and personnel.
  - 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  - 4. Reporting: Contractor shall record meeting and distribute minutes of the meeting to each party present and to other parties requiring information.



5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at monthly or at regular intervals as may be agreed upon by the owner and architect.
1. Coordinate dates of meetings with preparation of payment requests.
  2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Sequence of operations.
      - 3) Status of submittals.
      - 4) Status of sustainable design documentation, if required.
      - 5) Deliveries.
      - 6) Off-site fabrication.
      - 7) Access.
      - 8) Site use.
      - 9) Temporary facilities and controls.
      - 10) Progress cleaning.
      - 11) Quality and work standards.
      - 12) Status of correction of deficient items.
      - 13) Field observations.
      - 14) Status of RFIs.
      - 15) Status of Proposal Requests.
      - 16) Pending changes.
      - 17) Status of Change Orders.
      - 18) Pending claims and disputes.
      - 19) Documentation of information for payment requests.
  4. Minutes: Contractor will record and distribute the meeting minutes to each party present and to parties requiring information.
    - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  1. Contractor's Construction Schedule.
  2. Construction schedule updating reports.
  3. Daily construction reports.
  4. Site condition reports.
- B. Related Requirements:
  1. Section 011200 "Multiple Contract Summary" for preparing a combined Contractor's Construction Schedule.
  2. Section 013233 "Photographic Documentation" for submitting photographic documentation for construction progress.

### 1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
  1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
  2. Predecessor Activity: An activity that precedes another activity in the network.
  3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
  1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
  2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

### 1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
  1. Working electronic copy of schedule file, where indicated.
  2. PDF file.
  3. Four (4) paper copies, of sufficient size to display entire period or schedule, as required.
- B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
  1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- C. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
  1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.

2. Logic Report: List of preceding and succeeding activities for each activity, sorted in ascending order by activity number and then by early start date, or actual start date if known.
  3. Total Float Report: List of activities sorted in ascending order of total float.
  - D. Construction Schedule Updating Reports: Submit with Applications for Payment.
  - E. Daily Construction Reports: Submit at monthly intervals.
  - F. Site Condition Reports: Submit at time of discovery of differing conditions.
- 1.4 COORDINATION
- A. Coordinate Contractor's Construction Schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
    1. Secure time commitments for performing critical elements of the Work from entities involved.
    2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.
- 1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL
- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
  - B. Time Frame: Extend schedule from date established for Notice to Proceed to date of final completion.
    1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
  - C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
    1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by Architect.
    2. Procurement Activities: Include procurement process activities for any long lead items and major items, requiring a cycle of more than sixty (60) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
    3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
    4. Startup and Testing Time: Include no fewer than fifteen (15) days for startup and testing.
    5. Commissioning Time: Include no fewer than fifteen (15) days for commissioning.
    6. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
    7. Punch List and Final Completion: Include not more than thirty (30) days for completion of punch list items and final completion.
  - D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
    1. Phasing: Arrange list of activities on schedule by phase.
    2. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
    3. Work Restrictions: Show the effect of the following items on the schedule:
      - a. Coordination with existing construction.
      - b. Limitations of continued occupancies.
      - c. Uninterruptible services.
      - d. Partial occupancy before Substantial Completion.

- e. Use-of-premises restrictions.
  - f. Provisions for future construction.
  - g. Seasonal variations.
  - h. Environmental control.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion, and the following interim milestones:
1. Temporary enclosure and space conditioning.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
  2. Unanswered Requests for Information.
  3. Rejected or unreturned submittals.
  4. Notations on returned submittals.
  5. Pending modifications affecting the Work and the Contract Time.
- G. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one (1) week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  3. As the Work progresses, indicate final completion percentage for each activity.
- H. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- I. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
  2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.
- 1.6 CPM SCHEDULE REQUIREMENTS
- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. CPM Schedule: Prepare Contractor's Construction Schedule using a time-scaled CPM network analysis diagram for the Work.
1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 30 days after date established for the Notice to Proceed and no later than the Application for Payment.
    - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
  2. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
  3. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule to coordinate with the Contract Time.

- C. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.
    - b. Mobilization and demobilization.
    - c. Purchase of materials.
    - d. Delivery.
    - e. Fabrication.
    - f. Utility interruptions.
    - g. Installation.
    - h. Work by Owner that may affect or be affected by Contractor's activities.
    - i. Testing and inspection.
    - j. Commissioning.
    - k. Punch list and final completion.
    - l. Activities occurring following final completion.
  2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
  3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
  4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
    - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- D. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
- E. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
  2. Description of activity.
  3. Main events of activity.
  4. Immediately preceding and succeeding activities.
  5. Early and late start dates.
  6. Early and late finish dates.
  7. Activity duration in workdays.
  8. Total float or slack time.
  9. Average size of workforce.
- F. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
  2. Changes in early and late start dates.
  3. Changes in early and late finish dates.
  4. Changes in activity durations in workdays.
  5. Changes in the critical path.
  6. Changes in total float or slack time.
  7. Changes in the Contract Time.

## 1.7 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site.
  2. List of separate contractors at Project site.
  3. Approximate count of personnel at Project site.
  4. Equipment at Project site.
  5. Material deliveries.
  6. High and low temperatures and general weather conditions, including presence of rain or snow.
  7. Testing and inspection.
  8. Accidents.
  9. Meetings and significant decisions.
  10. Stoppages, delays, shortages, and losses.
  11. Meter readings and similar recordings.
  12. Emergency procedures.
  13. Orders and requests of authorities having jurisdiction.
  14. Change Orders received and implemented.
  15. Construction or Work Change Directives received and implemented.
  16. Services connected and disconnected.
  17. Equipment or system tests and startups.
  18. Partial completions and occupancies.
  19. Substantial Completions authorized.
  20. Include photos of all construction processes in production to include site conditions. Photos should be automatically marked with time and date photo was taken.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  1. Submittal schedule requirements.
  2. Administrative and procedural requirements for submittals.
- B. Shop drawing, RFI's and product data submittals shall be transmitted to Architect in electronic (PDF) format using Web-Based Project Software (Submittal Exchange or Procore), a website service designed specifically for transmitting submittals between construction team members.
- C. The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.
- D. The electronic submittal process is not intended for color samples, color charts, or physical material samples.

#### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "Action Submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "Informational Submittals."

#### 1.3 COSTS

- A. General Contractor shall include the full cost of Web-Based Project Software project subscription (Submittal Exchange or Procore) in their proposal. This cost shall be included in the Contract Amount.
  1. Submittal Exchange:
    - a. Contact Submittal Exchange at 1-800-714-0024 to verify cost prior to bid.
    - b. At Contractor's option, training is available from Submittal Exchange regarding use of website and PDF submittals.

#### 1.4 INTERNET SERVICE AND EQUIPMENT REQUIREMENTS

- A. Email address and Internet access at Contractor's main office and jobsite.
- B. Adobe Acrobat ([www.adobe.com](http://www.adobe.com)), Bluebeam PDF Revu ([www.bluebeam.com](http://www.bluebeam.com)), or other similar PDF review software for applying electronic stamps and comments.

#### 1.5 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

#### 1.6 SUBMITTAL FORMATS

- A. Submittal Information: Include the following information in each submittal:
  1. Project name.
  2. Date.
  3. Name of Architect.
  4. Name of Contractor.
  5. Name of firm or entity that prepared submittal.
  6. Names of subcontractor, manufacturer, and supplier.
  7. Category and type of submittal.
  8. Submittal purpose and description.
  9. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.

10. Drawing number and detail references, as appropriate.
  11. Indication of full or partial submittal.
  12. Location(s) where product is to be installed, as appropriate.
  13. Other necessary identification.
  14. Remarks.
  15. Signature of transmitter.
- B. Options: Identify options requiring selection by Architect.
- C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.
- D. Submittals for Web-Based Project Software (Submittal Exchange or Procore): Prepare submittals as PDF files, or other format indicated by Project software website.
- 1.7 SUBMITTAL PROCEDURES
- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Web-Based Project Software (Submittal Exchange or Procore): Prepare submittals in PDF form, and upload to Web-Based Project Software website. Enter required data in web-based software site to fully identify submittal.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's stamp.
- 1.8 SUBMITTAL REQUIREMENTS
- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.



- c. Standard color charts.
  - d. Statement of compliance with specified referenced standards.
  - e. Testing by recognized testing agency.
  - f. Application of testing agency labels and seals.
  - g. Notation of coordination requirements.
  - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
    - a. Wiring diagrams that show factory-installed wiring.
    - b. Printed performance curves.
    - c. Operational range diagrams.
    - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
  5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
    - a. Project name and submittal number.
    - b. Generic description of Sample.
    - c. Product name and name of manufacturer.
    - d. Sample source.
    - e. Number and title of applicable Specification Section.
    - f. Specification paragraph number and generic name of each item.
  3. Web-Based Project Software (Submittal Exchange or Procure): Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
  4. Paper Transmittal: Include paper transmittal including complete submittal information indicated with physical samples.
  5. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  6. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

- a. Number of Samples: Submit two (2) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- 7. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  - a. Number of Samples: Submit three (3) sets of Samples. Architect will retain two (2) Sample sets; remainder will be returned.
    - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
    - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
  - 1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
  - 2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
  - 3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
  - 4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
  - 5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
  - 6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- H. Test and Research Reports:
  - 1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests

performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  - a. Name of evaluation organization.
  - b. Date of evaluation.
  - c. Time period when report is in effect.
  - d. Product and manufacturers' names.
  - e. Description of product.
  - f. Test procedures and results.
  - g. Limitations of use.

#### 1.9 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file and no paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

#### 1.10 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp bearing a statement certifying that *“Submittal and/or Shop Drawing(s) complies with the requirements of the Contract Documents and has been reviewed, checked and verified with respect to manufacturer, product and dimensions, and information contained within has been coordinated with other parts of the work.”* before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp within the pdf submittal and indication in web-based Project software. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.11 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.
  1. Paper Submittals: Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
  2. Submittals by Web-Based Project Software: Architect will indicate, on Project software website, the appropriate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will return without review submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

## SECTION 014000 - QUALITY REQUIREMENTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
  - 2. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

## 1.2 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
  - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- D. Mockups: Full-size physical assemblies that are constructed on-site either as freestanding temporary built elements or as part of permanent construction. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
  - 1. Laboratory Mockups: Full-size physical assemblies constructed and tested at testing facility to verify performance characteristics.
  - 2. Integrated Exterior Mockups: Mockups of the exterior envelope constructed on-site as freestanding temporary built elements consisting of multiple products, assemblies, and subassemblies.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- G. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

- I. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
  - J. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Architect.
- 1.3 DELEGATED-DESIGN SERVICES
- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
- 1.4 CONFLICTING REQUIREMENTS
- A. Conflicting Specifications, Standards and Other Requirements: If compliance with two or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.
  - B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.
  - C. Where parts of the work are indicated, the balance of similar parts shall be considered as a repetition; where any detail is shown and the components there fully described by notation and material designation similar details shall be construed to require equal materials whether fully noted or not, and shall in each case be considered to be called for the full length of the part and similar parts it indicates.
  - D. Materials, equipment or items obviously required for a complete job which are shown on the drawings, but not mentioned in the specifications or required by the specifications, but not shown on the drawings, shall be furnished and installed the same as though both shown on the drawings and required by specifications. This material, equipment or item shall conform to the character and quality of the other work.
  - E. Should the specifications fail to particularly describe the material or kind of goods to be used in any place, then it shall be the duty of the Contractor to make inquiry of the Architect as to what is best suited. The material that would normally be used in this place to give a first quality finished job shall be considered a part of the contract.
- 1.5 ACTION SUBMITTALS
- A. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.
- 1.6 INFORMATIONAL SUBMITTALS
- A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems:
    - 1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.

2. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
  - C. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.
- 1.7 REPORTS AND DOCUMENTS
- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
    1. Date of issue.
    2. Project title and number.
    3. Name, address, telephone number, and email address of testing agency.
    4. Dates and locations of samples and tests or inspections.
    5. Names of individuals making tests and inspections.
    6. Description of the Work and test and inspection method.
    7. Identification of product and Specification Section.
    8. Complete test or inspection data.
    9. Test and inspection results and an interpretation of test results.
    10. Record of temperature and weather conditions at time of sample taking and testing and inspection.
    11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
    12. Name and signature of laboratory inspector.
    13. Recommendations on retesting and re-inspecting.
  - B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
    1. Statement on condition of substrates and their acceptability for installation of product.
    2. Statement that products at Project site comply with requirements.
    3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
    4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
    5. Other required items indicated in individual Specification Sections.
  - C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
    1. Statement that equipment complies with requirements.
    2. Results of operational and other tests and a statement of whether observed performance complies with requirements.
    3. Other required items indicated in individual Specification Sections.
- 1.8 QUALITY ASSURANCE
- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
  - B. All material shall be new and of quality specified. Workmanship shall be of a grade accepted as the best practice of the particular trade involved. Also, except as exceeded or qualified by the Specifications, workmanship shall be as stipulated in written standards of recognized organizations or institutes of the respective trades.

- C. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- D. **Fabricator Qualifications:** A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. **Installer Qualifications:** A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- F. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- G. **Specialists:** Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- H. **Testing Agency Qualifications:** An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- I. **Manufacturer's Technical Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. **Factory-Authorized Service Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- K. **Preconstruction Testing:** Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
  - 1. **Contractor responsibilities include the following:**
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
    - d. When testing is complete, remove test specimens, test assemblies, and mockups; do not reuse products on Project.
  - 2. **Testing Agency Responsibilities:** Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- L. **Mockups:** Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:



1. Build mockups of size indicated.
  2. Build mockups in location indicated or, if not indicated, as directed by Architect.
  3. Notify Architect seven (7) days in advance of dates and times when mockups will be constructed.
  4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
  5. Demonstrate the proposed range of aesthetic effects and workmanship.
  6. Obtain Architect's approval of mockups before starting corresponding work, fabrication, or construction.
    - a. Allow seven (7) days for initial review and each re-review of each mockup.
  7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  8. Demolish and remove mockups when directed unless otherwise indicated.
- M. Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Specification Sections.
- 1.9 QUALITY CONTROL
- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
    1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
    2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
  - B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
    1. Engage a qualified testing agency to perform quality-control services.
      - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
    2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
    3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
    4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
    5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
  - C. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
  - D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
  - E. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

- F. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspection equipment at Project site.
- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- 1.10 SPECIAL TESTS AND INSPECTIONS
- A. Special Tests and Inspections: Owner will engage a qualified testing agency and/or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, as indicated in Section 014003 "Special Inspections", and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
  2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
  4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
  5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
  6. Retesting and re-inspecting corrected work.
  7. Cost for retesting and re-inspection along with additional trips due to the work not being ready for inspection after and inspection was scheduled will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
  2. Description of the Work tested or inspected.
  3. Date test or inspection results were transmitted to Architect.
  4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.
1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
    - B. Protect construction exposed by or for quality-control service activities.
    - C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.
- END OF SECTION 014000

## SECTION 014200 - REFERENCES

### PART 1 - GENERAL

#### 1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": 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.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

#### 1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

#### 1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

AA	Aluminum Association, Inc. (The)
AAADM	American Association of Automatic Door Manufacturers
AABC	Associated Air Balance Council
AAMA	American Architectural Manufacturers Association

AASHTO	American Association of State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ABAA	Air Barrier Association of America
ABMA	American Bearing Manufacturers Association
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AEIC	Association of Edison Illuminating Companies, Inc. (The)
AF&PA	American Forest & Paper Association
AGA	American Gas Association
AGC	Associated General Contractors of America (The)
AHAM	Association of Home Appliance Manufacturers
AHRI	Air-Conditioning, Heating, and Refrigeration Institute
AI	Asphalt Institute
AIA	American Institute of Architects (The)
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standard Committee, Incorporated
AMCA	Air Movement and Control Association International, Inc.
ANSI	American National Standards Institute
AOSA	Association of Official Seed Analysts, Inc.
APA	Architectural Precast Association
APA	APA - The Engineered Wood Association
API	American Petroleum Institute
ARI	Air-Conditioning & Refrigeration Institute (Now AHRI)

ARMA	Asphalt Roofing Manufacturers Association
ASCE	American Society of Civil Engineers
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute (See ASCE)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASME	ASME International (American Society of Mechanical Engineers International)
ASSE	American Society of Safety Engineers
ASSE	American Society of Sanitary Engineering
ASTM	ASTM International (American Society for Testing and Materials International)
ATIS	Alliance for Telecommunications Industry Solutions
AWCI	Association of the Wall and Ceiling Industry
AWCMA	American Window Covering Manufacturers Association (Now WCMA)
AWI	Architectural Woodwork Institute
AWPA	American Wood Protection Association (Formerly: American Wood Preservers' Association)
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association
BIA	Brick Industry Association (The)
BICSI	BICSI, Inc.
BIFMA	BIFMA International (Business and Institutional Furniture Manufacturer's Association International)
BISSC	Baking Industry Sanitation Standards Committee
BWF	Badminton World Federation (Formerly: IBF - International Badminton Federation)
CCC	Carpet Cushion Council

CDA	Copper Development Association
CEA	Canadian Electricity Association
CEA	Consumer Electronics Association
CFFA	Chemical Fabrics & Film Association, Inc.
CGA	Compressed Gas Association
CIMA	Cellulose Insulation Manufacturers Association
CISCA	Ceilings & Interior Systems Construction Association
CISPI	Cast Iron Soil Pipe Institute
CLFMI	Chain Link Fence Manufacturers Institute
CRRC	Cool Roof Rating Council
CPA	Composite Panel Association
CPPA	Corrugated Polyethylene Pipe Association
CRI	Carpet and Rug Institute (The)
CRSI	Concrete Reinforcing Steel Institute
CSA	Canadian Standards Association
CSA	CSA International (Formerly: IAS - International Approval Services)
CSI	Cast Stone Institute
CSI	Construction Specifications Institute (The)
CSSB	Cedar Shake & Shingle Bureau
CTI	Cooling Technology Institute (Formerly: Cooling Tower Institute)
DHI	Door and Hardware Institute
ECA	Electronic Components Association
EIA	Electronic Industries Alliance
EIMA	EIFS Industry Members Association

EJCDC	Engineers Joint Contract Documents Committee
EJMA	Expansion Joint Manufacturers Association, Inc.
ESD	ESD Association (Electrostatic Discharge Association)
ETL SEMCO	Intertek ETL SEMCO
FIBA	Federation Internationale de Basketball (The International Basketball Federation)
FIVB	Federation Internationale de Volleyball (The International Volleyball Federation)
FM Approvals	FM Approvals LLC
FM Global	FM Global (Formerly: FMG - FM Global)
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc.
FSA	Fluid Sealing Association
FSC	Forest Stewardship Council
GA	Gypsum Association
GANA	Glass Association of North America
GRI	(Part of GSI)
GS	Green Seal
GSI	Geosynthetic Institute
HI	Hydraulic Institute
HI	Hydronics Institute
HMMA	Hollow Metal Manufacturers Association (Part of NAAMM)
HPVA	Hardwood Plywood & Veneer Association
HPW	H. P. White Laboratory, Inc.
IAS	International Approval Services (Now CSA International)
IBF	International Badminton Federation



(Now BWF)

ICEA	Insulated Cable Engineers Association, Inc.
ICRI	International Concrete Repair Institute, Inc.
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The)
IES	Illuminating Engineering Society
IESNA	Illuminating Engineering Society of North America (Now IES)
IEST	Institute of Environmental Sciences and Technology
IGCC	Insulating Glass Certification Council
IGMA	Insulating Glass Manufacturers Alliance
ILI	Indiana Limestone Institute of America, Inc.
ISO	International Organization for Standardization Available from ANSI
ISSFA	International Solid Surface Fabricators Association
ITS	Intertek Testing Service NA (Now ETL SEMCO)
ITU	International Telecommunication Union
KCMA	Kitchen Cabinet Manufacturers Association
LPI	Lightning Protection Institute
MBMA	Metal Building Manufacturers Association
MFMA	Maple Flooring Manufacturers Association, Inc.
MFMA	Metal Framing Manufacturers Association, Inc.
MH	Material Handling (Now MHIA)
MHIA	Material Handling Industry of America
MIA	Marble Institute of America
MPI	Master Painters Institute

MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc.
NAAMM	National Association of Architectural Metal Manufacturers
NACE	NACE International (National Association of Corrosion Engineers International)
NADCA	National Air Duct Cleaners Association
NAGWS	National Association for Girls and Women in Sport
NAIMA	North American Insulation Manufacturers Association
NBGQA	National Building Granite Quarries Association, Inc.
NCAA	National Collegiate Athletic Association (The)
NCMA	National Concrete Masonry Association
NCPI	National Clay Pipe Institute
NCTA	National Cable & Telecommunications Association
NEBB	National Environmental Balancing Bureau
NECA	National Electrical Contractors Association
NeLMA	Northeastern Lumber Manufacturers' Association
NEMA	National Electrical Manufacturers Association
NETA	InterNational Electrical Testing Association
NFHS	National Federation of State High School Associations
NFPA	NFPA (National Fire Protection Association)
NFRC	National Fenestration Rating Council
NGA	National Glass Association
NHLA	National Hardwood Lumber Association
NLGA	National Lumber Grades Authority
NOFMA	NOFMA: The Wood Flooring Manufacturers Association (Formerly: National Oak Flooring Manufacturers Association)
NOMMA	National Ornamental & Miscellaneous Metals Association

NRCA	National Roofing Contractors Association
NRMCA	National Ready Mixed Concrete Association
NSF	NSF International (National Sanitation Foundation International)
NSSGA	National Stone, Sand & Gravel Association
NTMA	National Terrazzo & Mosaic Association, Inc. (The)
NTRMA	National Tile Roofing Manufacturers Association (Now TRI)
NWFA	National Wood Flooring Association
NWWDA	National Wood Window and Door Association (Now WDMA)
PCI	Precast/Prestressed Concrete Institute
PDCA	Painting & Decorating Contractors of America
PDI	Plumbing & Drainage Institute
PGI	PVC Geomembrane Institute
PLANET	Professional Landcare Network
PTI	Post-Tensioning Institute
RCSC	Research Council on Structural Connections
RFCI	Resilient Floor Covering Institute
RIS	Redwood Inspection Service
SAE	SAE International
SCTE	Society of Cable Telecommunications Engineers
SDI	Steel Deck Institute
SDI	Steel Door Institute
SEFA	Scientific Equipment and Furniture Association
SEI/ASCE	Structural Engineering Institute/American Society of Civil Engineers (See ASCE)

SGCC	Safety Glazing Certification Council
SIA	Security Industry Association
SJI	Steel Joist Institute
SMA	Screen Manufacturers Association
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SMPTE	Society of Motion Picture and Television Engineers
SPFA	Spray Polyurethane Foam Alliance
SPIB	Southern Pine Inspection Bureau
SPRI	Single Ply Roofing Industry
SSINA	Specialty Steel Industry of North America
SSPC	SSPC: The Society for Protective Coatings
STI	Steel Tank Institute
SWI	Steel Window Institute
SWRI	Sealant, Waterproofing, & Restoration Institute
TCNA	Tile Council of North America, Inc.
TIA/EIA	Telecommunications Industry Association/Electronic Industries Alliance
TMS	The Masonry Society
TPI	Truss Plate Institute, Inc.
TPI	Turfgrass Producers International
TRI	Tile Roofing Institute
UL	Underwriters Laboratories Inc.
UNI	Uni-Bell PVC Pipe Association
USAV	USA Volleyball
USGBC	U.S. Green Building Council
USITT	United States Institute for Theatre Technology, Inc.

WASTE	Waste Equipment Technology Association
WCLIB	West Coast Lumber Inspection Bureau
WCMA	Window Covering Manufacturers Association
WCSC	Window Covering Safety Council
WDMA	Window & Door Manufacturers Association
WI	Woodwork Institute (Formerly: WIC - Woodwork Institute of California)
WIC	Woodwork Institute of California (Now WI)
WMMPA	Wood Moulding & Millwork Producers Association
WSRCA	Western States Roofing Contractors Association
WWPA	Western Wood Products Association

C. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

DIN	Deutsches Institut für Normung e.V.
IAPMO	International Association of Plumbing and Mechanical Officials
ICC	International Code Council
ICC-ES	ICC Evaluation Service, Inc.
UBC	Uniform Building Code (See ICC)

D. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE	Army Corps of Engineers
CPSC	Consumer Product Safety Commission
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration

FCC	Federal Communications Commission
FDA	Food and Drug Administration
GSA	General Services Administration
HUD	Department of Housing and Urban Development
LBL	Lawrence Berkeley National Laboratory
NCHRP	National Cooperative Highway Research Program (See TRB)
NIST	National Institute of Standards and Technology
OSHA	Occupational Safety & Health Administration
PBS	Public Buildings Service (See GSA)
PHS	Office of Public Health and Science
RUS	Rural Utilities Service (See USDA)
SD	State Department
TRB	Transportation Research Board
USDA	Department of Agriculture
USPS	Postal Service

E. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities Available from U.S. Access Board
CFR	Code of Federal Regulations Available from Government Printing Office
DOD	Department of Defense Military Specifications and Standards Available from Department of Defense Single Stock Point
DSCC	Defense Supply Center Columbus (See FS)

- FED-STD Federal Standard  
(See FS)
- FS Federal Specification  
Available from Department of Defense Single Stock Point  
  
Available from Defense Standardization Program  
  
Available from General Services Administration  
  
Available from National Institute of Building Sciences
- FTMS Federal Test Method Standard  
(See FS)
- MIL (See MILSPEC)
- MIL-STD (See MILSPEC)
- MILSPEC Military Specification and Standards  
Available from Department of Defense Single Stock Point

UFAS Uniform Federal Accessibility Standards  
Available from Access Board

F. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

- CBHF State of California, Department of Consumer Affairs Bureau of Home Furnishings and Thermal Insulation
- CCR California Code of Regulations
- CDHS California Department of Health Services  
(See CDPH)
- CDPH California Department of Public Health, Indoor Air Quality Section
- CPUC California Public Utilities Commission
- TFS Texas Forest Service  
Forest Resource Development

PART 2 - PRODUCTS (Not Used)  
PART 3 - EXECUTION (Not Used)  
END OF SECTION S-014200

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Section:
  - 1. Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.

#### 1.2 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Water from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

#### 1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

#### 1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
  - 1. Keep temporary services and facilities clean and neat.
  - 2. Relocate temporary services and facilities as required by progress of the Work.

### PART 2 - PRODUCTS

#### 2.1 TEMPORARY FACILITIES

- A. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations. When applicable, interior space within construction scope may be utilized for storage. Coordinate w/ Owner to identify area on site for locating sheds and other storage facilities.

#### 2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.



1. Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."
  - B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
  - C. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
- 3.2 TEMPORARY UTILITY INSTALLATION
- A. General: Install temporary service or connect to existing service.
    1. Coordinate with utility company, Owner, and existing users when service can be interrupted, if necessary, to make connections for temporary services or cut-overs to new equipment.
  - B. Sewers and Drainage: Not allowed for Contractor's use.
  - C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
  - D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Sanitary facilities shall be secured during after hours.
  - E. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
  - F. Lighting: Existing lighting may be used for construction operations, observations, inspections, and traffic conditions.
    1. Operate existing lighting that fulfills security and protection requirements without operating the entire system. Provide temporary lighting as needed when/if existing is not available.
- 3.3 SUPPORT FACILITIES INSTALLATION
- A. Temporary Use of Permanent Roads and Paved Areas: Identify roads and paved areas to be used for construction operations.
  - B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
    1. Protect existing site improvements to remain including curbs, pavement, and utilities.
    2. Maintain access for fire-fighting equipment and access to fire hydrants.
  - C. Parking: Coordinate with Owner for use of Owner's existing parking areas for construction personnel.
  - D. Storage and Staging: Use designated areas of Project site for storage and staging needs
  - E. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
    1. Temporary Signs: Provide signs as indicated and as required to inform public and individuals seeking entrance to Project.
      - a. Provide temporary, directional signs for construction personnel and visitors.
    2. Maintain and touchup signs so they are legible at all times.
  - F. Waste Disposal Facilities: Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."
  - G. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 01 Section "Execution" for progress cleaning requirements.
  - H. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
    1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
  - I. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.

1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.
- 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION
- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
    1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
  - B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
  - C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
  - D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
  - E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
    1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
  - F. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner and tenants from fumes and noise.
    1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant plywood on construction operations side.
    2. Construct dustproof partitions with two layers of 6-mil (0.14-mm) polyethylene sheet on each side. Cover floor with two layers of 6-mil (0.14-mm) polyethylene sheet, extending sheets 18 inches (460 mm) up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant treated plywood.
      - a. Construct vestibule and airlock at each entrance through temporary partition with not less than 48 inches (1219 mm) between doors. Maintain water-dampened foot mats in vestibule.
    3. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
    4. Insulate partitions to control noise transmission to occupied areas.
    5. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.
    6. Protect air-handling equipment.
    7. Provide walk-off mats at each entrance through temporary partition.
  - G. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
    1. Prohibit smoking in construction areas.
    2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
    3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect materials from water damage and keep porous and organic materials from coming into prolonged contact with concrete.

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
  1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
  2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section 017700 "Closeout Procedures."

END OF SECTION 015000

## SECTION 016000 - PRODUCT REQUIREMENTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
  - 1. Section 012500 "Substitution Procedures" for requests for substitutions.

## 1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved by Architect through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.

## 1.3 ACTION SUBMITTALS

- A. Comparable Product Request Submittal: Submit request for consideration of each comparable product. Identify basis-of-design product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
  - 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
    - a. Form of Architect's Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
    - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

## 1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

## 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
  1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
  1. Store products to allow for inspection and measurement of quantity or counting of units.
  2. Store materials in a manner that will not endanger Project structure.
  3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
  5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  6. Protect stored products from damage and liquids from freezing.

## 1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
  1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
  1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
  3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
  1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.

3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:
1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
    - a. Sole product may be indicated by the phrase: "Subject to compliance with requirements, provide the following: ..."
  2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
    - a. Sole manufacturer/source may be indicated by the phrase: "Subject to compliance with requirements, provide products by the following: ..."
  3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.
    - a. Limited list of products may be indicated by the phrase: "Subject to compliance with requirements, provide one of the following: ..."
  4. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product with prior approval as per section 012500 "Substitution Procedures", which complies with requirements.
    - a. Non-limited list of products is indicated by the phrase: "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following: ..."
  5. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.
    - a. Limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, provide products by one of the following: ..."
  6. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer with prior approval as per section 12500 - Substitutions, which complies with requirements.
    - a. Non-limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following: ..."
  7. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

- a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
  - C. Visual Matching Specification: Where Specifications require "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
    - 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
  - D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
- 2.2 COMPARABLE PRODUCTS
- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
    - 1. Specified products are not available or the specified product is available but there is a verifiable cost savings to the owner to use a comparable product.
    - 2. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
    - 3. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant product qualities include attributes such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
    - 4. Evidence that proposed product provides specified warranty.
    - 5. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
    - 6. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

## SECTION 017300 - EXECUTION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
  1. Construction layout.
  2. Field engineering and surveying.
  3. Installation of the Work.
  4. Cutting and patching.
  5. Coordination of Owner-installed products.
  6. Progress cleaning.
  7. Starting and adjusting.
  8. Protection of installed construction.
  9. Correction of the Work.
- B. Related Requirements:
  1. Section 011000 "Summary" for limits on use of Project site.

## 1.2 INFORMATIONAL SUBMITTALS

- A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

## 1.3 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
  2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
  3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
  4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

## PART 2 - PRODUCTS

## 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
  1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.



## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems (if applicable), and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services; and other utilities.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility and/or Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. The drawings have been prepared on the basis of surveys and inspections of the site and are intended to present an essentially accurate general indication of the physical conditions at the site. This, however, shall not relieve the Contractor(s) of the necessity for familiarizing himself with physical conditions at the site. Any discrepancies found in the drawings shall be reported to the Architect.
- E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. The contractor shall exercise proper precautions to verify figures shown on drawings before laying out work and will be responsible for any error resulting from his failure to exercise such precaution. All measurements and dimensions on shop drawings shall be verified at the job

- C. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
    1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
    2. Establish limits on use of Project site.
    3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
    4. Inform installers of lines and levels to which they must comply.
    5. Check the location, level and plumb, of every major element as the Work progresses.
    6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
    7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
  - D. Site Improvements: Locate and lay out site improvements.
- 3.4 INSTALLATION
- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
    1. Make vertical work plumb and make horizontal work level.
    2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
    3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  - B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
  - C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
  - D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
  - E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
  - F. Tools and Equipment: Where possible, select tools or equipment that minimize production of excessive noise levels.
  - G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
  - H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
    1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
    2. Allow for building movement, including thermal expansion and contraction.
    3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
  - I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
  - J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.
  - K. Remove and replace damaged, defective, or non-conforming Work.

### 3.5 CUTTING AND PATCHING

1. Cutting and Patching, General: It is the general intent of the drawings and specifications that the cutting and patching of walls, floors, partitions, roofs, or other materials, necessary and required to affect the completion of work as intended for general construction; or required to install work by the Plumbing, Mechanical, Electrical, or other specialty contractors. The repair of all damages made by cutting shall include restoring those surfaces to their original state of finish including surface texture, design, color, etc., unless new finishes are called for. All such repairs shall be performed by personnel trained and proficient in the particular trades involved, i.e., plaster repairs by plasterers, masonry repairs by masons, tile repairs by tile setters, etc. Any cutting which affects the structural part of the building must be approved by the Architect before cutting is started. To illustrate further, where small areas of a wall are cut and patched and painting is required, the entire wall shall be painted to obtain a uniform color. Masonry repairs shall be toothed to maintain bond. It is the intent of this specification that all areas requiring repairs shall be restored to a completely finished condition, acceptable to the Architect
- B. Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- C. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- D. Temporary Support: Provide temporary support of work to be cut.
- E. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- F. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary."
- G. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize and/or prevent interruption to occupied areas.
- H. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  1. General: All cutting of existing structures shall be held to an absolute minimum and shall be executed in a clean and neat manner. All cutting for removal, relocating, or installation of new materials for electrical systems shall be done by the Electrical Contractor, and cutting for plumbing shall be by the Plumbing Contractor, and cutting for mechanical work shall be by the Mechanical Contractor, and cutting for general construction work shall be done by the General Contractor. The use of air hammers will not be permitted. All cutting of floors, walls, and ceilings shall be done with either silent diamond drills for cutting concrete cores or with masonry saws for tile and plaster. All openings shall be cut to clear by 1" insulation on piping and other items.
  2. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  3. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.

4. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  5. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
  6. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  7. Proceed with patching after construction operations requiring cutting are complete.
- I. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
  3. Floors and Walls: Where walls or partitions that are removed, cut or bored, extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance over the entire wall or surface. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Masonry: Masonry repairs shall be toothed to maintain bond.
  5. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  6. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- J. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.
- 3.6 PROGRESS CLEANING
- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
  3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.7 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 019113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

### 3.8 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.9 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

## SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  1. Salvaging nonhazardous demolition and construction waste.
  2. Recycling nonhazardous demolition and construction waste.
  3. Disposing of nonhazardous demolition and construction waste.
- B. Related Sections:
  1. Division 02 Section "Structure Demolition" for disposition of waste resulting from demolition of buildings, structures, and site improvements, and for disposition of hazardous waste.
  2. Division 02 Section "Selective Structure Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements, and for disposition of hazardous waste.
  3. Division 04 Section "Unit Masonry" for disposal requirements for masonry waste.
  4. Division 04 Section "Stone Masonry" for disposal requirements for excess stone and stone waste.
  5. Division 31 Section "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

## 1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

## 1.3 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for salvage/recycling of 50 percent by weight of total non-hazardous solid waste generated by the Work. Facilitate recycling and salvage of materials.

## 1.4 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within 7 days of date established for commencement of the Work.

## 1.5 INFORMATIONAL SUBMITTALS

- A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Include the following information:
  1. Material category.
  2. Generation point of waste.
  3. Total quantity of waste in tons (tonnes).
  4. Quantity of waste salvaged, both estimated and actual in tons (tonnes).
  5. Quantity of waste recycled, both estimated and actual in tons (tonnes).
  6. Total quantity of waste recovered (salvaged plus recycled) in tons (tonnes).
  7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.

- B. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
  - C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
  - D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
  - E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
  - F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
  - G. LEED Submittal (If Required): LEED letter template for Credit MR 2.1 and 2.2, signed by Contractor, tabulating total waste material, quantities diverted and means by which it is diverted, and statement that requirements for the credit have been met.
  - H. Qualification Data: For waste management coordinator and refrigerant recovery technician.
  - I. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- 1.6 QUALITY ASSURANCE
- A. Waste Management Coordinator Qualifications (If Required): LEED Accredited Professional, certified by USGBC. Waste management coordinator may also serve as LEED coordinator.
  - B. Refrigerant Recovery Technician Qualifications (If Required): Certified by EPA-approved certification program.
  - C. Waste Management Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."
- 1.7 WASTE MANAGEMENT PLAN
- A. General: Develop a waste management plan according to ASTM E 1609 and requirements of this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Distinguish between demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
  - B. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
  - C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
    - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
    - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
    - 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
    - 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.

5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Waste Management Coordinator (If Required): Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
  1. Distribute waste management plan to everyone concerned within three days of submittal return.
  2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
  2. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work:
  1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers.
  3. Store items in a secure area until installation.
  4. Protect items from damage during transport and storage.
  5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Salvaged Items for Owner's Use:
  1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers.
  3. Store items in a secure area until delivery to Owner.
  4. Transport items to Owner's storage area designated by Owner.
  5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.



1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
  - a. Inspect containers and bins for contamination and remove contaminated materials if found.
2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

### 3.4 RECYCLING DEMOLITION WASTE

- A. Asphaltic Concrete Paving: Grind asphalt to maximum 1-1/2-inch (38-mm) size.
- B. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.
- C. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
  1. Pulverize concrete to maximum 4-inch (100-mm) size.
- D. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
  1. Pulverize masonry to maximum 1-inch (25-mm) size.
  2. Clean and stack undamaged, whole masonry units on wood pallets.
- E. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- F. Metals: Separate metals by type.
  1. Structural Steel: Stack members according to size, type of member, and length.
  2. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- G. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- H. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- I. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- J. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.
- K. Carpet[ and Pad]: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
  1. Store clean, dry carpe and pad in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- L. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- M. Conduit: Reduce conduit to straight lengths and store by type and size.

### 3.5 RECYCLING CONSTRUCTION WASTE

- A. Packaging:
  1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
  2. Polystyrene Packaging: Separate and bag materials.
  3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
  4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

- B. Site-Clearing Wastes: Chip brush, branches, and trees at landfill facility.
- C. Wood Materials:
  1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
  2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
- D. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.
  1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

### 3.6 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
  1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- D. Disposal: Transport waste materials and dispose of at designated spoil areas on Owner's property.
- E. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 017419

## SECTION 017700 - CLOSEOUT PROCEDURES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  1. Substantial Completion procedures.
  2. Final completion procedures.
  3. Warranties.
  4. Final cleaning.
  5. Repair of the Work.
- B. Related Requirements:
  1. Section 013200 "Construction Progress Documentation" for submitting open wall construction photographic documentation.
  2. Section 017823 "Operation and Maintenance Data" for additional operation and maintenance manual requirements.
  3. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
  4. Section 017900 "Demonstration and Training" for requirements to train the Owner's maintenance personnel to adjust, operate, and maintain products, equipment, and systems.

## 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at final completion.

## 1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

## 1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

## 1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.

4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect/Owner. Label with manufacturer's name and model number.
    - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's or Owner's signature for receipt of submittals.
  5. Submit testing, adjusting, and balancing records.
  6. Submit certified bacteriological test report.
  7. Submit sustainable design submittals not previously submitted.
  8. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
  2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  3. Complete startup and testing of systems and equipment.
  4. Perform preventive maintenance on equipment used prior to Substantial Completion.
  5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
  6. Advise Owner of changeover in utility services.
  7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Complete final cleaning requirements.
  10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of ten (10) days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Results of completed inspection will form the basis of requirements for final completion.
- E. Contractor shall complete, correct or otherwise address all items to the satisfaction of the Architect within thirty (30) days of the Architect's distribution of the inspection results. Delaying correction of the inspection lists past thirty (30) days may result in additional costs to the Owner from the Architect. Any such additional costs incurred due to the Contractor not completing the work within thirty (30) days will be charged to the contractor by the owner through a change order.
- 1.7 FINAL COMPLETION PROCEDURES
- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Section 012900 "Payment Procedures".

2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list). Certified copy of the list with each item initialed by either the project superintendent or project manager shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Submit pest-control final inspection report and warranty.
  5. Submit final completion photographic documentation.
  6. Submit As-Built Survey – See Section 017300 "Execution"
- B. Contractor shall provide to the architect all required closeout documents within thirty (30) days of the Final Inspection. Architect shall review and provide contractor with a list of missing or incomplete items. Contractor shall make corrections and re-submit to the Architect within thirty (30) days. Delaying re-submitting of the corrected documents past thirty (30) days may result in additional costs to the Owner from the Architect. Any such additional costs incurred due to the Contractor not completing the corrections and re-submitting within thirty (30) days will be charged to the contractor by the owner through a change order.
- C. Final Completion Re-Inspection: Submit a written request for final inspection to determine acceptance a minimum of ten (10) days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- D. Additional Inspections required due to the contractor not having completed items indicated on the Final Completion Re-Inspection will be charged to the contractor by the owner through a change order.
- 1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)
- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
  2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.
  4. Submit list of incomplete items in the following format:
    - a. PDF electronic file.
- 1.9 SUBMITTAL OF PROJECT WARRANTIES
- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.

- B. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- D. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
  - 1. Submit on digital media acceptable to Architect or by uploading to web-based project software site.
- E. Warranties in Paper Form: Submit paper copies as requested (maximum of 3) after initial review and approval of electronic file.
  - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark 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 Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- F. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
  - 1. If project will is specified to be a LEED project use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are not planted, mulched, or paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.

- f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
  - h. Sweep concrete floors broom clean in unoccupied spaces.
  - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
  - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
  - k. Remove labels that are not permanent.
  - l. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - o. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
    - 1) Clean HVAC system in compliance with NADCA ACR. Provide written report on completion of cleaning.
  - p. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
  - q. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.
  - D. Construction Waste Disposal: Comply with waste disposal requirements specified elsewhere.
- 3.2 REPAIR OF THE WORK
- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
  - B. Repair, or remove and replace, defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
    - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
    - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
      - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
    - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
    - 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700

## SECTION 017823 - OPERATION AND MAINTENANCE DATA

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
  1. Operation and maintenance documentation directory manuals.
  2. Emergency manuals.
  3. Systems and equipment operation manuals.
  4. Systems and equipment maintenance manuals.
  5. Product maintenance manuals.

## 1.2 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
  1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
  2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operation and maintenance manuals in the following format:
  1. Submit on digital media acceptable to Architect or by uploading to web-based project software site. Enable reviewer comments on draft submittals.
  2. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of Architect's comments and prior to commencing demonstration and training
  3. If requested by Owner or Architect, submit paper copies (maximum of 3) after initial review and approval of digital copies. Enclose title pages and directories in clear plastic sleeves.
- C. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

## 1.3 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
  1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
  2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- B. Manuals, Paper Copy: Submit manuals in the form of hard-copy, bound and labeled volumes.
  1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
    - a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project Title or name and subject matter of contents. Indicate volume number for multiple-volume sets.



2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section of each divider, cross-referenced to Specification Section number and title of Project Manual.
  3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
  4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
    - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.
- 1.4 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS
- A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
    1. Title page.
    2. Table of contents.
    3. Manual contents.
  - B. Title Page: Include the following information:
    1. Subject matter included in manual.
    2. Name and address of Project.
    3. Name and address of Owner.
    4. Date of submittal.
    5. Name and contact information for Contractor.
    6. Name and contact information for Construction Manager.
    7. Name and contact information for Architect.
    8. Name and contact information for Commissioning Authority.
    9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
    10. Cross-reference to related systems in other operation and maintenance manuals.
  - C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
  - D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
  - E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."
- 1.5 EMERGENCY MANUALS
- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
  - B. Content: Organize manual into a separate section for each of the following:
    1. Type of emergency.
    2. Emergency instructions.
    3. Emergency procedures.

- C. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
    1. Fire.
    2. Flood.
    3. Gas leak.
    4. Water leak.
    5. Power failure.
    6. Water outage.
    7. System, subsystem, or equipment failure.
    8. Chemical release or spill.
  - D. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
  - E. Emergency Procedures: Include the following, as applicable:
    1. Instructions on stopping.
    2. Shutdown instructions for each type of emergency.
    3. Operating instructions for conditions outside normal operating limits.
    4. Required sequences for electric or electronic systems.
    5. Special operating instructions and procedures.
- 1.6 SYSTEMS AND EQUIPMENT OPERATION MANUALS
- A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.
  - B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
    1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
    2. Performance and design criteria if Contractor has delegated design responsibility.
    3. Operating standards.
    4. Operating procedures.
    5. Operating logs.
    6. Wiring diagrams.
    7. Control diagrams.
    8. Piped system diagrams.
    9. Precautions against improper use.
    10. License requirements including inspection and renewal dates.
  - C. Descriptions: Include the following:
    1. Product name and model number. Use designations for products indicated on Contract Documents.
    2. Manufacturer's name.
    3. Equipment identification with serial number of each component.
    4. Equipment function.
    5. Operating characteristics.
    6. Limiting conditions.
    7. Performance curves.
    8. Engineering data and tests.
    9. Complete nomenclature and number of replacement parts.
  - D. Operating Procedures: Include the following, as applicable:
    1. Startup procedures.
    2. Equipment or system break-in procedures.

3. Routine and normal operating instructions.
  4. Regulation and control procedures.
  5. Instructions on stopping.
  6. Normal shutdown instructions.
  7. Seasonal and weekend operating instructions.
  8. Required sequences for electric or electronic systems.
  9. Special operating instructions and procedures.
- E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- F. Piped Systems: Diagram piping as installed, and identify color coding where required for identification.
- 1.7 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS
- A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.
- B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranties and bonds, as described below.
- C. Source Information: For each system, subsystem, and piece of equipment included in the manual, list name, address, and telephone number of Installer or supplier and maintenance service agent.
- D. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:
1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
    - a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
  2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  3. Identification and nomenclature of parts and components.
  4. List of items recommended to be stocked as spare parts.
- E. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
1. Test and inspection instructions.
  2. Troubleshooting guide.
  3. Precautions against improper maintenance.
  4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  5. Aligning, adjusting, and checking instructions.
  6. Demonstration and training video recording, if available.
- F. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- G. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

- H. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
  - I. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
    - 1. Include procedures to follow and required notifications for warranty claims.
  - J. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
- 1.8 PRODUCT MAINTENANCE MANUALS
- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
  - B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
  - C. Source Information: For each product included in manual, list name, address, and telephone number of Installer or supplier and maintenance service agent.
  - D. Product Information: Include the following, as applicable:
    - 1. Product name and model number.
    - 2. Manufacturer's name.
    - 3. Color, pattern, and texture.
    - 4. Material and chemical composition.
    - 5. Reordering information for specially manufactured products.
  - E. Maintenance Procedures: Include manufacturer's written recommendations and the following:
    - 1. Inspection procedures.
    - 2. Types of cleaning agents to be used and methods of cleaning.
    - 3. List of cleaning agents and methods of cleaning detrimental to product.
    - 4. Schedule for routine cleaning and maintenance.
    - 5. Repair instructions.
  - F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
  - G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
    - 1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

## SECTION 017839 - PROJECT RECORD DOCUMENTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
  - 1. Record Drawings.
  - 2. Record Specifications.
  - 3. Record Product Data.
- B. Related Requirements:
  - 1. Section 017300 "Execution" for final property survey.
  - 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

## 1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit copies of record Drawings as follows:
    - a. Initial Submittal:
      - 1) Submit PDF electronic files of scanned record prints and one (1) of file prints.
      - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
    - b. Final Submittal:
      - 1) Submit PDF electronic files of scanned record prints and one (1) set of prints.
      - 2) Print each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit one paper copy and annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one (1) paper copy and annotated PDF electronic files and directories of each submittal.
  - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

## 1.3 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
  - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an acceptable drawing technique.
    - c. Record data as soon as possible after obtaining it.
    - d. Record and check the markup before enclosing concealed installations.
    - e. Cross-reference record prints to corresponding photographic documentation.
  - 2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Depths of foundations.
    - d. Locations and depths of underground utilities.
    - e. Revisions to routing of piping and conduits.
    - f. Revisions to electrical circuitry.

- g. Actual equipment locations.
  - h. Duct size and routing.
  - i. Locations of concealed internal utilities.
  - j. Changes made by Change Order or Construction Change Directive.
  - k. Changes made following Architect's written orders.
  - l. Details not on the original Contract Drawings.
  - m. Field records for variable and concealed conditions.
  - n. Record information on the Work that is shown only schematically.
3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
  4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  2. Format: Annotated PDF electronic file with comment function enabled.
  3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
  4. Identification: As follows:
    - a. Project name.
    - b. Date.
    - c. Designation "PROJECT RECORD DRAWINGS."
    - d. Name of Architect.
    - e. Name of Contractor.
- 1.4 RECORD SPECIFICATIONS
- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
  3. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as scanned PDF electronic file(s) of marked-up paper copy of Specifications.
- 1.5 RECORD PRODUCT DATA
- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.

3. Note related Change Orders, record Specifications, and record Drawings where applicable.
  - C. Format: Submit record Product Data as annotated PDF electronic file or scanned PDF electronic file(s) of marked-up paper copy of Product Data.
    1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.
- 1.6 MAINTENANCE OF RECORD DOCUMENTS
- A. Maintenance of Record Documents: Store record documents in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

PART 2 - PRODUCTS (Not used)  
PART 3 - EXECUTION (Not used)  
END OF SECTION 017839

## DIVISION 2

### EXISTING CONDITIONS

-01 **GENERAL:**

The requirements of the conditions of the Contract and the General Requirements shall be a part of this Contract. Furnish all materials, labor, transportation, equipment and plant necessary to complete requirements for Existing Conditions as specified in this Division and shown on the drawings.

-02 **STANDARDS AND CODES:**

All work under this Division shall comply with all local, state, regional and/or national building codes or whichever building code that governs construction in that particular area. All reference specifications, standards, and codes referred to herein shall refer to the latest edition. In case of conflict between the reference specifications, standards, or codes, the reference having the more stringent requirements shall govern.

-03 **SHOP DRAWINGS, MANUFACTURER'S LITERATURE, SCHEDULES, AND SAMPLES:**

See Division 1 Section 013300 – Electronic Submittal Procedures.

Shop Drawings, Manufacturer's Literature, and Schedules shall be submitted electronically unless permitted otherwise by the Architect.

Samples: Submit three (3) samples of items called for by the Architect and Owner. One sample will be returned and one sample will be retained by the Architect for his records and one will be provided to the Owner.

All samples shall be clearly labeled with Manufacturer's Name, Address, Identifying Number, Finish and Color. Improperly identified samples will be rejected.

Additional Submittals: The Architect may require additional supporting shop drawings, manufacturer's literature, schedules and samples to be furnished as required by the General Contractor, Subcontractors, and Materials Suppliers.

-04 **CERTIFICATION:**

If required, furnish affidavits from the manufacturers certifying that the materials or products delivered to the project meet the requirements as specified herein. Certification shall not relieve the responsibility of complying with any additional requirements as specified herein.

-05 **PROJECT COMPLETION:**

Remove all unused material, equipment, trash, etc., and leave all areas clean. Repair or remove and replace any damaged or improperly installed, defective or improperly finished items as directed by the Architect at no additional expense to the Owner. Project shall be complete and ready for use by Owner.

**IMPORTANT NOTE:**

**REFER TO DIVISION-1 FOR APPLICABLE ALLOWANCES  
REQUIRED FOR WORK UNDER THIS DIVISION.**



## SECTION 024119 - SELECTIVE DEMOLITION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. The Work of this Section Includes:
  1. Demolition and removal of selected portions of exterior or interior of building or structure and site elements.
  2. Removal and salvage of existing items for delivery to Owner and removal of existing items for reinstallation.

## 1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

## 1.3 PRE-DEMOLITION MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site.

## 1.4 SUBMITTALS

- A. Proposed Protection Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate. Include measures for the following:
  1. Environmental protection.
  2. Dust control.
  3. Noise control.
  4. Disposal
- B. Schedule of Building Demolition Activities: Indicate detailed sequence of demolition and removal work, with starting and ending dates for each activity, interruption of utility services, and locations of temporary protection and means of egress.
- C. Pre-demolition Photographs or Video: Submit before Work begins.
- D. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician.
- E. Landfill Records: Indicate receipt and acceptance of hazardous waste by a landfill facility licensed to accept hazardous wastes.

## 1.5 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

## 1.6 FIELD CONDITIONS

- A. Owner may occupy portions of building immediately adjacent to selective demolition area.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
  1. Before construction, Owner will remove the following items:
    - a. Shrubs on plan north of building.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
  - E. On-site sale of removed items or materials is not permitted.
  - F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
    1. Maintain fire-protection facilities in service during selective demolition operations.
- 1.7 WARRANTY
- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.
- PART 2 - PRODUCTS
- 2.1 PERFORMANCE REQUIREMENTS
- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
  - B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.
- PART 3 - EXECUTION
- 3.1 EXAMINATION
- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
  - B. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or video and measured drawings.
    1. Inventory and record the condition of items to be removed for salvage or reinstallation. Photograph or video conditions that might be misconstrued as damage caused by removal.
  - C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
  - D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
  - E. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
  - F. Survey of Existing Conditions: Record existing conditions by use of measured drawings and preconstruction photographs.
- 3.2 PREPARATION
- A. Temporary Shoring: Design, provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
  - B. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain
  - C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location and cleaned and reinstalled in their original locations after selective demolition operations are complete.
  - D. Refrigerant: Before starting demolition, remove refrigerant from mechanical equipment to be selectively demolished in accordance with 40 CFR 82 and regulations of authorities having jurisdiction.

### 3.3 UTILITY SERVICES AND BUILDING SYSTEMS

- A. Existing Services/Systems to Remain: Maintain utilities and building systems and equipment indicated to remain and protect them against damage during selective demolition operations.
  - 1. Comply with requirements for existing services/systems interruptions specified in Division 01 Section "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utilities and building systems serving areas to be selectively demolished.
  - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
  - 2. Arrange to shut off indicated utilities with utility companies.
  - 3. If disconnection of utilities and building systems will affect adjacent occupied parts of the building, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to those parts of the building
  - 4. Disconnect, demolish, and remove existing building systems, equipment, and components indicated to be removed.
    - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
    - b. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
    - c. Equipment to Be Removed: Disconnect and cap services and remove equipment and components.
  - 5. Abandon existing building systems, equipment, and components indicated on Drawings to be abandoned in place.
    - a. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
    - b. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.
  - 6. Remove and reinstall/salvage existing building systems, equipment, and components indicated on drawings to be removed and reinstalled or removed and salvaged:
    - a. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment and components; when appropriate, reinstall, reconnect, and make equipment operational.
    - b. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and components and deliver to Owner.

### 3.4 REINSTALL

- A. Removed and Reinstalled Items:
  - 1. Clean and repair items to functional condition adequate for intended reuse.
  - 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
  - 3. Protect items from damage during transport and storage.
  - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

### 3.5 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
  4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  5. Dispose of demolished items and materials promptly.
- B. Reuse of Building Elements: Project has been designed to result in reuse of building elements. Do not demolish building elements beyond what is indicated on Drawings without Architect's approval.
- C. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."
- 3.6 DISPOSAL OF DEMOLISHED MATERIALS
- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolition waste materials from Project site and legally dispose of them in an EPA-approved construction and demolition waste landfill.
1. Do not allow demolished materials to accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- 3.7 CLEANING
- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.
- END OF SECTION 024119

## DIVISION 6

### WOOD, PLASTICS AND COMPOSITES

-01 **GENERAL:**

The requirements of the conditions of the Contract and the General Requirements shall be a part of this Contract. Furnish all materials, labor, transportation, equipment and plant necessary to complete and install all carpentry work as specified in this Division and shown on the drawings.

-02 **STANDARDS AND CODES:**

All work under this Division shall comply with all local, state, regional and/or national building codes or whichever building code that governs construction in that particular area. All reference specifications, standards, and codes referred to herein shall refer to the latest edition. In case of conflict between the reference specifications, standards, or codes, the reference having the more stringent requirements shall govern.

-03 **SHOP DRAWINGS, MANUFACTURER'S LITERATURE, SCHEDULES, AND SAMPLES:**

See Division 1 Section 013300 – Submittal Procedures.

Shop Drawings, Manufacturer's Literature, and Schedules shall be submitted electronically unless permitted otherwise by the Architect.

Samples: Submit three (3) samples of items called for by the Architect and Owner. One sample will be returned and one sample will be retained by the Architect for his records and one will be provided to the Owner.

All samples shall be clearly labeled with Manufacturer's Name, Address, Identifying Number, Finish and Color. Improperly identified samples will be rejected.

Additional Submittals: The Architect may require additional supporting shop drawings, manufacturer's literature, schedules and samples to be furnished as required by the General Contractor, Subcontractors, and Materials Suppliers.

-04 **CERTIFICATION:**

If required, furnish affidavits from the manufacturers certifying that the materials or products delivered to the project meet the requirements as specified herein. Certification shall not relieve the responsibility of complying with any additional requirements as specified herein.

-05 **PROJECT COMPLETION:**

Remove all unused material, equipment, trash, etc., and leave all areas clean. Repair or remove and replace any damaged or improperly installed, defective or improperly finished items as directed by the Architect at no additional expense to the Owner. Project shall be complete and ready for use by Owner.

**IMPORTANT NOTE:**

**REFER TO DIVISION-1 FOR APPLICABLE ALLOWANCES  
REQUIRED FOR WORK UNDER THIS DIVISION.**

## SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section Includes:
1. Framing with dimension lumber.
  2. Rooftop equipment bases and support curbs.
  3. Wood blocking, cants, and nailers.
  4. Wood furring and grounds.
  5. Wood sleepers.
  6. Utility shelving.
  7. Plywood backing panels.

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: For the following, from ICC-ES:
1. Preservative-treated wood.
  2. Fire-retardant-treated wood.
  3. Power-driven fasteners.

## PART 2 - PRODUCTS

## 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
1. Factory mark each piece of lumber with grade stamp of grading agency.
  2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.
  3. Dress lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 15 percent unless otherwise indicated.

## 2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.
1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
  2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
  3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
  4. Wood framing members that are less than 18 inches (460 mm) above the ground in crawlspaces or unexcavated areas.
  5. Wood floor plates that are installed over concrete slabs-on-grade.

### 2.3 FIRE-RETARDANT-TREATED MATERIALS – WHERE INDICATED

- A. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.
  - 1. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D2898. Use for exterior locations and where indicated.
  - 2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D3201 at 92 percent relative humidity. Use where exterior type is not indicated.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.
- C. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.
- D. Application: Treat items indicated on Drawings, and the following:
  - 1. Framing for raised platforms.
  - 2. Concealed blocking.
  - 3. Roof framing and blocking.
  - 4. Wood cants, nailers, curbs, equipment support bases, blocking, and similar members in connection with roofing.
  - 5. Plywood backing panels.

### 2.4 DIMENSION LUMBER FRAMING

- A. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade of any species.
- B. Other Framing: Construction or No. 2 grade of any of the following species:
  - 1. Hem-fir (north); NLGA.
  - 2. Southern pine; SPIB.
  - 3. Douglas fir-larch; WCLIB or WWPA.

### 2.5 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
  - 1. Blocking.
  - 2. Nailers.
  - 3. Rooftop equipment bases and support curbs.
  - 4. Cants.
  - 5. Furring.
  - 6. Grounds.
  - 7. Utility shelving.
- B. Dimension Lumber Items: Construction or No. 2 grade lumber of any species.
- C. Utility Shelving: Lumber with 15 percent maximum moisture content of eastern white pine, Idaho white, lodgepole, ponderosa, or sugar pine; Premium or No. 2 Common (Sterling) grade; NeLMA, NLGA, WCLIB, or WWPA.
- D. Concealed Boards: 15 percent maximum moisture content of any of the following species and grades:
  - 1. Mixed southern pine or southern pine, No. 2 grade; SPIB.
  - 2. Eastern softwoods, No. 2 Common grade; NELMA.
  - 3. Northern species, No. 2 Common grade; NLGA.
  - 4. Western woods, Construction or No. 2 Common grade; WCLIB or WWPA.

## 2.6 PLYWOOD BACKING PANELS

- A. Equipment Backing Panels: Plywood, DOC PS 1, Exterior, A-C in thickness indicated or, if not indicated, not less than 3/4-inch (19-mm) nominal thickness.

## 2.7 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
  - 1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.
- B. Screws for Fastening to Metal Framing: ASTM C1002 ASTM C954, length as recommended by screw manufacturer for material being fastened.
- C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

## 2.8 METAL FRAMING ANCHORS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Cleveland Steel Specialty Co.
  - 2. KC Metals Products, Inc.
  - 3. Phoenix Metal Products, Inc.
  - 4. Simpson Strong-Tie Co., Inc.
  - 5. USP Structural Connectors.
- B. Allowable Design Loads, as published by manufacturer, are to meet or exceed those of products of manufacturers listed. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors are to be punched for fasteners adequate to withstand same loads as framing anchors.
- C. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 (Z180) coating designation.
  - 1. Use for interior locations unless otherwise indicated.
- D. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A653/A653M; structural steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 (Z550) coating designation; and not less than 0.036 inch (0.9 mm) thick.
  - 1. Use for wood-preservative-treated lumber and where indicated.

## 2.9 MISCELLANEOUS MATERIALS

- A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch (0.6 mm).
- B. Adhesives for Gluing Furring and Sleepers to Concrete or Masonry: Formulation complying with ASTM D3498 that is approved for use indicated by adhesive manufacturer.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
- C. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry accurately to other construction. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
- D. Install shear wall panels to comply with manufacturer's written instructions.
- E. Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.



- F. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels. Install fire-retardant-treated plywood backing panels with classification marking of testing agency exposed to view.
  - G. Do not splice structural members between supports unless otherwise indicated.
  - H. Comply with AWWA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
  - I. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
  - J. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
    - 1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
    - 2. ICC-ES evaluation report for fastener.
  - K. Provide washers under bolt heads and nuts in contact with wood. Countersink fastener heads where detailed on Drawings
- 3.2 PROTECTION
- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- END OF SECTION 061053

## DIVISION 7

### THERMAL AND MOISTURE PROTECTION

-01 **GENERAL:**

The requirements of the conditions of the Contract and the General Requirements shall be a part of this Contract. Furnish all materials, labor, transportation, equipment and plant necessary to complete and install all moisture protection as specified in this Division and shown on the drawings.

-02 **STANDARDS AND CODES:**

All work under this Division shall comply with all local, state, regional and/or national building codes or whichever building code that governs construction in that particular area. All reference specifications, standards, and codes referred to herein shall refer to the latest edition. In case of conflict between the reference specifications, standards, or codes, the reference having the more stringent requirements shall govern.

-03 **SHOP DRAWINGS, MANUFACTURER'S LITERATURE, SCHEDULES, AND SAMPLES:**

See Division 1 Section 013300 – Submittal Procedures.

Shop Drawings, Manufacturer's Literature, and Schedules shall be submitted electronically unless permitted otherwise by the Architect.

Samples: Submit three (3) samples of items called for by the Architect and Owner. One sample will be returned and one sample will be retained by the Architect for his records and one will be provided to the Owner.

All samples shall be clearly labeled with Manufacturer's Name, Address, Identifying Number, Finish and Color. Improperly identified samples will be rejected.

Additional Submittals: The Architect may require additional supporting shop drawings, manufacturer's literature, schedules and samples to be furnished as required by the General Contractor, Subcontractors, and Materials Suppliers.

-04 **CERTIFICATION:**

If required, furnish affidavits from the manufacturers certifying that the materials or products delivered to the project meet the requirements as specified herein. Certification shall not relieve the responsibility of complying with any additional requirements as specified herein.

-05 **PROJECT COMPLETION:**

Remove all unused material, equipment, trash, etc., and leave all areas clean. Repair or remove and replace any damaged or improperly installed, defective or improperly finished items as directed by the Architect at no additional expense to the Owner. Project shall be complete and ready for use by Owner.

**IMPORTANT NOTE:**

**REFER TO DIVISION-1 FOR APPLICABLE ALLOWANCES  
REQUIRED FOR WORK UNDER THIS DIVISION.**

## SECTION 070150.19 - PREPARATION FOR REROOFING

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section Includes:
  1. Full tear-off of entire roof system.
  2. Removal of flashings and counterflashings.

## 1.2 PREINSTALLATION MEETINGS

- A. Preliminary Roofing Conference: Before starting removal Work, conduct conference at Project site.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations.
  1. Submit before Work begins.

## 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Approved by warrantor of existing roofing system to work on existing roofing.

## 1.5 FIELD CONDITIONS

- A. Existing Roofing System: Built-up asphalt roofing.
- B. Owner may occupy portions of building immediately below reroofing area.
  1. Conduct reroofing so Owner's operations are not disrupted.
  2. Provide Owner with not less than 72 hours' written notice of activities that may affect Owner's operations.
  3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
- C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- E. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
  1. The results of test cores from existing roofing system are available for Contractor's reference. See PART 4 for photos.
- F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
  1. Remove only as much roofing in one day as can be made watertight in the same day.

## PART 2 - PRODUCTS

## 2.1 AUXILIARY REROOFING MATERIALS

- A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of new roofing system.

## PART 3 - EXECUTION

## 3.1 PREPARATION

- A. Seal or isolate windows that may be exposed to airborne substances created in removal of existing materials.
- B. Shut off rooftop utilities and service piping before beginning the Work.
- C. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work.
  1. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

- D. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
  - E. Maintain roof drainage in functioning condition to ensure roof drainage at end of each workday.
- 3.2 ROOF TEAR-OFF
- A. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.
  - B. Full Roof Tear-off: Remove existing roofing and other roofing system components down to the existing roof deck.
    - 1. Remove substrate board.
    - 2. Remove base flashings and counter flashings.
    - 3. Remove perimeter edge flashing.
    - 4. Remove copings.
    - 5. Remove expansion-joint covers.
    - 6. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
    - 7. Remove roof drains.
    - 8. Remove wood blocking, curbs, and nailers.
    - 9. Remove fasteners from deck or cut fasteners off flush with deck surface.
- 3.3 DECK PREPARATION
- A. Inspect deck after tear-off of roofing system.
  - B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect.
    - 1. Do not proceed with installation until directed by Architect.
  - C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect.
    - 1. Do not proceed with installation until directed by Architect.
- 3.4 BASE FLASHING REMOVAL
- A. Remove existing base flashings.
    - 1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.
  - B. Remove existing counterflashings.
    - 1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.
    - 2. Fill masonry joints with mortar where removed flashings leave gaps in masonry.
  - C. Remove existing parapet wood blocking, curbs or nailers and replace with new to comply with Section 061053 "Miscellaneous Rough Carpentry."

PART 4 - EXISTING ROOF TEST CORE PHOTOS

4.1 SAMPLE FROM MAIN ROOF



4.2 TEST CORES FROM SECONDARY ROOF



END OF SECTION 070150.19

SECTION 075419 - POLYVINYL-CHLORIDE (60 MIL-PVC) MEMBRANE ROOFING  
(FULLY ADHERED)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Fully Adhered PVC membrane roofing system.
2. Roof insulation.

B. Related Sections:

1. Division 06 Section "Rough Carpentry" or "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
2. Division 07 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings, and counterflashings.
3. Division 07 Section "Manufactured Roof Expansion Joints" for proprietary manufactured roof expansion-joint assemblies.
4. Division 07 Section "Joint Sealants" for joint sealants, joint fillers, and joint preparation.

1.3 DEFINITIONS

- A. Roofing Terminology: See ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.4 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Provide membrane roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7.
  1. Corner Uplift Pressure:
  2. Perimeter Uplift Pressure:
  3. Field-of-Roof Uplift Pressure:
- D. FM Approvals Listing: Provide membrane roofing, base flashings, and component materials that comply with requirements in FM Approvals 4450 and FM Approvals 4470 as part of a membrane roofing system, and that are listed in FM Approvals' "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals markings.
  1. Fire/Windstorm Classification: Class 1A-90
  2. Hail Resistance: SH.
- E. Energy Performance: Provide roofing system with initial Solar Reflectance Index not less than 78 when calculated according to ASTM E 1980, based on testing identical products by a qualified testing agency.

- F. Energy Performance: Provide roofing system that is listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for low-slope roof products.
- G. Energy Performance: Provide roofing system with initial solar reflectance not less than 0.70 and emissivity not less than 0.75 when tested according to CRRC-1.

#### 1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.
  - 1. Complete engineering design of roof system with calculations sealed by an engineer licensed in the state where the project is located.  
Design shall be based on the wind loads as indicated on the drawings or based on the building code requirement where the project is located or whichever is greater of the two requirements.
  - 2. Base flashings and membrane terminations.
  - 3. Tapered insulation, including slopes.
  - 4. Roof plan showing orientation of steel roof deck and orientation of membrane roofing and fastening spacings and patterns for mechanically fastened membrane roofing.
  - 5. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
  - 1. Sheet roofing, of color specified, including T-shaped side and end lap seam.
  - 2. Roof insulation.
  - 3. Walkway pads or rolls.
  - 4. Metal termination bars.
  - 5. Battens.
  - 6. Six insulation fasteners of each type, length, and finish.
  - 7. Six roof cover fasteners of each type, length, and finish.
- D. Qualification Data: For qualified Installer and manufacturer.
- E. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
  - 1. Submit evidence of compliance with performance requirements.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of membrane roofing system.
- G. Research/Evaluation Reports: For components of membrane roofing system, from the ICC-ES.
- H. Field quality-control reports.
- I. Maintenance Data: For roofing system to include in maintenance manuals.
- J. Warranties: Sample of special warranties.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed with FM Approvals approved for membrane roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

- C. Source Limitations: Obtain components including roof insulation and fasteners for membrane roofing system from same manufacturer as membrane roofing or as approved by membrane roofing manufacturer.
- D. Exterior Fire-Test Exposure: ASTM E 108, Class A; for application and roof slopes indicated, as determined by testing identical membrane roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency.
- E. Fire-Resistance Ratings: Where indicated, provide fire-resistance-rated roof assemblies identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- F. Preinstallation Roofing Conference: Conduct conference at Project site.
  - 1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
  - 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
  - 5. Review structural loading limitations of roof deck during and after roofing.
  - 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
  - 7. Review governing regulations and requirements for insurance and certificates if applicable.
  - 8. Review temporary protection requirements for roofing system during and after installation.
  - 9. Review roof observation and repair procedures after roofing installation.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
  - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.



## 1.8 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

## 1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to inspect the installation and warrant the materials and workmanship of the roofing system against leakage. Manufacturer shall repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period.
  - 1. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, cover boards, substrate board, roofing accessories, roof pavers, and all other components of membrane roofing system.
  - 2. Warranty Period: 20 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering the roofing System against leakage and against defects due to faulty materials or installation, including all components of membrane roofing system such as membrane roofing, base flashing, roof insulation, fasteners, vapor retarders, roof pavers, and walkway products, for the following warranty period:
  - 1. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

## 2.1 PVC MEMBRANE ROOFING

- A. PVC Sheet: ASTM D 4434, Type II, Grade I, glass fiber reinforced, as follows:
  - 1. Products: Subject to compliance with requirements, provide products by the following manufacturer:
    - a. SIKA Sarnafil Inc.; SIKA Sarnafil G410.
  - 2. Thickness: 60 mils (1.524 mm), minimum – certified.
  - 3. Exposed Face Color: As indicated on Drawings.

## 2.2 AUXILIARY MEMBRANE ROOFING MATERIALS

- A. General: Auxiliary membrane roofing materials recommended and furnished by roofing system manufacturer for intended use, and compatible with membrane roofing.
  - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
  - 2. Adhesives and sealants that are not on the exterior side of weather barrier shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
    - a. Plastic Foam Adhesives: 50 g/L.
    - b. Multipurpose Construction Adhesives: 70 g/L.
    - c. Fiberglass Adhesives: 80 g/L.
    - d. Contact Adhesive: 80 g/L.
    - e. Other Adhesives: 250 g/L.
    - f. PVC Welding Compounds: 510 g/L.
    - g. Adhesive Primer for Plastic: 650 g/L.
    - h. Single-Ply Roof Membrane Sealants: 450 g/L.

- i. Nonmembrane Roof Sealants: 300 g/L.
    - j. Sealant Primers for Nonporous Substrates: 250 g/L.
    - k. Sealant Primers for Porous Substrates: 775 g/L.
  - B. Sheet Flashing: Manufacturer's standard sheet flashing of same material, type, reinforcement, thickness, and color as PVC sheet membrane.
  - C. Bonding Adhesive: Manufacturer's standard.
  - D. Slip Sheet: Manufacturer's standard, of thickness required for application.
  - E. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
  - F. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch (25 mm wide by 1.3 mm) thick, prepunched.
  - G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer.
  - H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.
- 2.3 ROOF INSULATION
- A. General: Preformed roof insulation boards manufactured or approved by PVC membrane roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Approvals-approved roof insulation.
  - B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2 or glass-fiber mat facer on both major surfaces.
    - 1. Sarnatherm Isocyanurate Insulation
  - C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches (1:48) unless otherwise indicated.
  - D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- 2.4 INSULATION ACCESSORIES
- A. General: Furnish roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with membrane roofing.
  - B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
  - C. Full-Spread Applied Insulation Adhesive: Insulation manufacturer's recommended spray-applied, low-rise, two-component urethane adhesive formulated to attach roof insulation to substrate or to another insulation layer.
- 2.5 WALKWAYS
- A. Flexible Walkways: Factory-formed, polyester-reinforced PVC membrane, nonporous, heavy-duty, slip-resisting, surface-embossed walkway rolls, approximately 0.096 inch (96 mil/2.4 mm) thick.
    - 1. Sarnatred S380 Walkway

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
  1. Verify that roof openings and penetrations are in place and curbs are set and braced and that roof drain bodies are securely clamped in place.
  2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
  3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Division 05 Section "Steel Decking."
  4. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
  5. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
  6. Verify that concrete curing compounds that will impair adhesion of roofing components to roof deck have been removed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

### 3.3 INSULATION INSTALLATION

- A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches (68 mm) or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.
- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
  1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- G. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:

1. Prime surface of concrete deck with asphalt primer at rate of 3/4 gal./100 sq. ft. (0.3 L/sq. m) and allow primer to dry.
  2. Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F (14 deg C) of equiviscous temperature.
  3. Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
  4. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- H. Mechanically Fastened Insulation: Install each layer of insulation and secure to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
1. Fasten insulation according to requirements in FM Approvals' "RoofNav" for specified Windstorm Resistance Classification.
  2. Fasten insulation to resist uplift pressure at corners, perimeter, and field of roof.
- I. Mechanically Fastened and Adhered Insulation: Install each layer of insulation and secure first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
1. Fasten first layer of insulation according to requirements in FM Approvals' "RoofNav" for specified Windstorm Resistance Classification.
  2. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
  3. Set each subsequent layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F (14 deg C) of equiviscous temperature.
  4. Set each subsequent layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
  5. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- 3.4 ADHERED MEMBRANE ROOFING INSTALLATION
- A. Adhere membrane roofing over area to receive roofing and install according to membrane roofing system manufacturer's written instructions.
    1. Install sheet according to ASTM D 5036.
  - B. Start installation of membrane roofing in presence of membrane roofing system manufacturer's technical personnel.
  - C. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
  - D. Bonding Adhesive: Apply to substrate and underside of membrane roofing at rate required by manufacturer and allow to partially dry before installing membrane roofing. Do not apply to splice area of membrane roofing.
  - E. In addition to adhering, mechanically fasten membrane roofing securely at terminations, penetrations, and perimeter of roofing.
  - F. Apply membrane roofing with side laps shingled with slope of roof deck where possible.
  - G. Seams: Clean seam areas, overlap membrane roofing, and hot-air weld side and end laps of membrane roofing and sheet flashings according to manufacturer's written instructions to ensure a watertight seam installation.

1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet membrane.
  2. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
  3. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.
- H. Spread sealant bed over deck drain flange at roof drains and securely seal membrane roofing in place with clamping ring.

### 3.5 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

### 3.6 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

### 3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- C. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.
- D. Additional inspections, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

### 3.8 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements; repair substrates; and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

### 3.9 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS <Insert name> of <Insert address>, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
  1. Owner:

2. Address:
  3. Building Name/Type:
  4. Address:
  5. Area of Work:
  6. Acceptance Date:
  7. Warranty Period:
  8. Expiration Date:
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
    - a. Lightning;
    - b. Peak gust wind speed exceeding <Insert wind speed> mph (m/sec);
    - c. Fire;
    - d. Failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
    - e. Faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
    - f. Vapor condensation on bottom of roofing; and
    - g. Activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
  2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
  3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
  4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.

5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
  6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
  7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.
- E. IN WITNESS THEREOF, this instrument has been duly executed this **<Insert day>** day of **<Insert month>**, **<Insert year>**.
1. Authorized Signature: **<Insert signature>**.
  2. Name: **<Insert name>**.
  3. Title: **<Insert title>**.

END OF SECTION 075419

SECTION 075423 – THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING - ALTERNATE  
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Adhered thermoplastic polyolefin (TPO) roofing system.
2. Roof insulation.
3. Walkways

- B. Section includes the installation of acoustical roof deck rib insulation strips furnished under Division 05 Section "Steel Decking."

C. Related Sections:

1. Division 06 Section "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
2. Division 07 Section "Thermal Insulation" for insulation beneath the roof deck.
3. Division 07 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings, and counterflashings.
4. Division 07 Section "Roof Specialties" for manufactured copings & roof edge flashings.
5. Division 07 Section "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
6. Division 22 Section "Storm Drainage Piping Specialties" for roof drains.

1.3 DEFINITIONS

- A. TPO: Thermoplastic polyolefin.
- B. Roofing Terminology: See ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to roofing work in this Section.

1.4 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Provide membrane roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7.
1. Corner Uplift Pressure:
  2. Perimeter Uplift Pressure:
  3. Field-of-Roof Uplift Pressure:
- D. FM Approvals Listing: Provide membrane roofing, base flashings, and component materials that comply with requirements in FM Approvals 4450 and FM Approvals 4470 as part of a membrane roofing system, and that are listed in FM Approvals' "RoofNav" for Class 1 or non-combustible construction, as applicable. Identify materials with FM Approvals markings.
1. Fire/Windstorm Classification: Class 1A-90
  2. Hail Resistance: SH.
- E. Energy Performance: Provide roofing system with initial Solar Reflectance Index not less than 78 when calculated according to ASTM E 1980, based on testing identical products by a qualified testing agency.
- F. Energy Performance: Provide roofing system that is listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for low-slope roof products.



- G. Energy Performance: Provide roofing system with initial solar reflectance not less than 0.70 and emissivity not less than 0.75 when tested according to CRRC-1.
- 1.5 SUBMITTALS
- A. Product Data: For each type of product indicated.
  - B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.
    - 1. Complete engineering design of roof system with calculations sealed by an engineer licensed in the state where the project is located.  
Design shall be based on the wind loads as indicated on the drawings or based on the building code requirement where the project is located or whichever is greater of the two requirements.
    - 2. Base flashings and membrane terminations.
    - 3. Flashing details at penetrations.
    - 4. Tapered insulation, including slopes.
    - 5. Roof plan showing orientation of steel roof deck and orientation of membrane roofing and fastening spacings and patterns for mechanically fastened membrane roofing.
    - 6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
  - C. Samples for Verification: For the following products:
    - 1. Sheet roofing, of color specified, including T-shaped side and end lap seam.
    - 2. Roof insulation.
    - 3. Walkway rolls, of available colors.
    - 4. Metal termination bars.
    - 5. Battens.
    - 6. Six insulation fasteners of each type, length, and finish.
    - 7. Six roof cover fasteners of each type, length, and finish.
  - D. Qualification Data: For qualified Installer and manufacturer.
  - E. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
    - 1. Submit evidence of compliance with performance requirements.
  - F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of membrane roofing system.
  - G. Research/Evaluation Reports: For components of membrane roofing system, from the ICC-ES.
  - H. Field quality-control reports.
  - I. Maintenance Data: For roofing system to include in maintenance manuals.
  - J. Warranties: Sample of special warranties.
- 1.6 QUALITY ASSURANCE
- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed, with FM Approvals approved for membrane roofing system identical to that used for this Project.
  - B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.
  - C. Source Limitations: Obtain components including roof insulation and fasteners for membrane roofing system from same manufacturer as membrane roofing or as approved by membrane roofing manufacturer.
  - D. Exterior Fire-Test Exposure: ASTM E 108, Class A for application and roof slopes indicated, as determined by testing identical membrane roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency.
  - E. Fire-Resistance Ratings: Where indicated, provide fire-resistance-rated roof assemblies identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - F. Pre-installation Roofing Conference: Conduct conference at Project site.

1. Meet with Owner, Architect, Construction Manager, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
  2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
  3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
  5. Review structural loading limitations of roof deck during and after roofing.
  6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
  7. Review governing regulations and requirements for insurance and certificates if applicable.
  8. Review temporary protection requirements for roofing system during and after installation.
  9. Review roof observation and repair procedures after roofing installation.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
  - B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
    1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
  - C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
  - D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.
- 1.8 PROJECT CONDITIONS
- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.
- 1.9 WARRANTY
- A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to inspect the installation and warrant the materials and workmanship of the roofing system against leakage. Manufacturer shall repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period.
    1. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, cover boards, substrate board, roofing accessories, roof pavers, and all other components of membrane roofing system.
    2. Warranty Period: 20 years from date of Substantial Completion.
  - B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering the roofing system against leakage and against defects due to faulty materials or installation, including all components of membrane roofing system such as membrane roofing, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period:

1. Warranty Period: 5 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 TPO MEMBRANE ROOFING

- A. Fabric-Reinforced Thermoplastic Polyolefin Sheet: ASTM D 6878/D 6878M, internally fabric or scrim-reinforced, uniform, flexible TPO sheet.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Carlisle SynTec Incorporated.
    - b. Custom Seal Roofing.
    - c. Firestone Building Products Company.
    - d. GAF Materials Corporation.
    - e. GenFlex Roofing Systems.
    - f. Johns Manville.
    - g. Mule-Hide Products Co., Inc.
    - h. Stevens Roofing Systems; Division of JPS Elastomerics.
    - i. Versico Incorporated.
  2. Thickness: 60 mils (1.5 mm) nominal.
  3. Exposed Face Color: As indicated on drawings.

### 2.2 AUXILIARY MEMBRANE ROOFING MATERIALS

- A. General: Auxiliary membrane roofing materials recommended by roofing system manufacturer for intended use, and compatible with membrane roofing.
  1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
  2. Adhesives and sealants that are not on the exterior side of weather barrier shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
    - a. Plastic Foam Adhesives: 50 g/L.
    - b. Multipurpose Construction Adhesives: 70 g/L.
    - c. Fiberglass Adhesives: 80 g/L.
    - d. Contact Adhesive: 80 g/L.
    - e. Other Adhesives: 250 g/L.
    - f. PVC Welding Compounds: 510 g/L.
    - g. Adhesive Primer for Plastic: 650 g/L.
    - h. Single-Ply Roof Membrane Sealants: 450 g/L.
    - i. Non-membrane Roof Sealants: 300 g/L.
    - j. Sealant Primers for Nonporous Substrates: 250 g/L.
    - k. Sealant Primers for Porous Substrates: 775 g/L.
- B. Sheet Flashing: Manufacturer's standard sheet flashing, of same material, type, reinforcement, thickness, and color as sheet membrane.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Slip Sheet: Manufacturer's standard, of thickness required for application.
- E. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
- F. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch thick (25 mm wide by 1.3 mm thick), pre-punched.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer.
- H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

## 2.3 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by TPO membrane roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Approvals-approved roof insulation.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2 felt or glass-fiber mat facer on both major surfaces.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches (1:48) unless otherwise indicated.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

## 2.4 INSULATION ACCESSORIES

- A. General: Furnish roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with membrane roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Full-Spread Applied Insulation Adhesive: Insulation manufacturer's recommended spray-applied, low-rise, two-component urethane adhesive formulated to attach roof insulation to substrate or to another insulation layer.

## 2.5 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-embossed walkway rolls, approximately 125 mil thick, and acceptable to membrane roofing system manufacturer.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
  1. Verify that roof openings and penetrations are in place and curbs are set and braced and that roof drain bodies are securely clamped in place.
  2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
  3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Division 05 Section "Steel Decking."
  4. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
  5. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
  6. Verify that concrete curing compounds that will impair adhesion of roofing components to roof deck have been removed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

- D. Install acoustical roof deck rib insulation strips, specified in Division 05 Section "Steel Decking," according to acoustical roof deck manufacturer's written instructions, immediately before installation of overlying construction and to remain dry.

### 3.3 INSULATION INSTALLATION

- A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches (68 mm) or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.
  - 1. Where installing composite and non-composite insulation in two or more layers, install non-composite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.
- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
  - 1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- G. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:
  - 1. Prime surface of concrete deck with asphalt primer at rate of 3/4 gal./100 sq. ft. (0.3 L/sq. m) and allow primer to dry.
  - 2. Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F (14 deg C) of equiviscous temperature.
  - 3. Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
  - 4. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- H. Mechanically Fastened Insulation: Install each layer of insulation and secure to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
  - 1. Fasten insulation according to requirements in FM Approvals' "RoofNav" for specified Windstorm Resistance Classification.
  - 2. Fasten insulation to resist uplift pressure at corners, perimeter, and field of roof.
- I. Mechanically Fastened and Adhered Insulation: Install each layer of insulation and secure first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
  - 1. Fasten first layer of insulation according to requirements in FM Approvals' "RoofNav" for specified Windstorm Resistance Classification.
  - 2. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
  - 3. Set each subsequent layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F (14 deg C) of equiviscous temperature.
  - 4. Set each subsequent layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
  - 5. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- J. Install slip sheet over insulation and immediately beneath membrane roofing.

### 3.4 ADHERED MEMBRANE ROOFING INSTALLATION

- A. Adhere membrane roofing over area to receive roofing and install according to membrane roofing system manufacturer's written instructions.
- B. Start installation of membrane roofing in presence of membrane roofing system manufacturer's technical personnel.
- C. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of membrane roofing at rate required by manufacturer and allow to partially dry before installing membrane roofing. Do not apply to splice area of membrane roofing.
- E. In addition to adhering, mechanically fasten membrane roofing securely at terminations, penetrations, and perimeter of roofing.
- F. Apply membrane roofing with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap membrane roofing, and hot-air weld side and end laps of membrane roofing and sheet flashings according to manufacturer's written instructions to ensure a watertight seam installation.
  - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet membrane.
  - 2. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
  - 3. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.
- H. Spread sealant bed over deck drain flange at roof drains and securely seal membrane roofing in place with clamping ring.
- I. Install membrane roofing and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing membrane roofing system.

### 3.5 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

### 3.6 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

### 3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- C. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.
- D. Additional inspections, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

### 3.8 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for

deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements; repair substrates; and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

### 3.9 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS <Insert name> of <Insert address>, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
  - 1. Owner:
  - 2. Address:
  - 3. Building Name/Type:
  - 4. Address:
  - 5. Area of Work:
  - 6. Acceptance Date:
  - 7. Warranty Period:
  - 8. Expiration Date:
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
  - 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
    - a. Lightning
    - b. Peak gust wind speed exceeding <Insert wind speed> mph (m/sec);
    - c. Fire
    - d. Failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition
    - e. Faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work
    - f. Vapor condensation on bottom of roofing; and
    - g. Activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
  - 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
  - 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
  - 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing

Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.

5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
  6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
  7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.
- E. IN WITNESS THEREOF, this instrument has been duly executed this **<Insert day>** day of **<Insert month>**, **<Insert year>**.
1. Authorized Signature: **<Insert signature>**.
  2. Name: **<Insert name>**.
  3. Title: **<Insert title>**.

END OF SECTION 075423



## SECTION 076200 - SHEET METAL FLASHING AND TRIM

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 DESCRIPTION OF WORK

- A. Work Included This Section: Contract work of this Section shall include, but not be limited to providing following:
  1. All sheet metal work required for moisture control.
  2. Concealed flashing.
  3. Metal counter-flashing.
  4. Metal scuppers.
  5. Cap flashing.
  6. Coping.

## 1.3 QUALITY ASSURANCE

- A. Industry Standards: Workmanship and methods employed for forming, anchoring, cleating, and expansion and contraction of sheet metal work shall conform to application details and description as indicated in current edition of Architectural Sheet Metal Manual, published by Sheet Metal and Air Conditioning Contractors National Association, Inc. and hereinafter referred to as "SMACNA Manual", unless otherwise noted on Contract Drawings or specified herein.

## 1.4 SUBMITTALS

- A. Shop Drawings: Details and layout shall show weights, gauges or thicknesses of sheet metal, joints, expansion joint spacing, and procedures to be followed during installation. Indicate bolt size and spacing, nailers or blocking required to be furnished by others for securing work of this Section.

## 1.5 PRODUCT HANDLING

- A. Handling and Storage: Sheet metal items shall be carefully handled to prevent damage to the surfaces, edges, and ends, and shall be stored at the site above ground in a covered dry location.
- B. Replacement: Damaged items that cannot be restored to like-new condition shall be removed and replaced at no additional cost to the Owner

## PART 2 - PRODUCTS

## 2.1 SHEET METAL

- A. Base and Counter Flashing: SMACNA Plate as applicable or required, 22-Ga. Stainless Steel.
- B. Coping: Coping shall be "snap system" as manufactured by Petersen Aluminum, MM Systems, W. P. Hickman Co., or approved equal. Metal shall be .050" thick and finish shall have factory finish as approved by the Architect to match metal roof systems finish.
- C. Concealed Flashing: Concealed flashing shall be "DCF" 1501-B thru-wall flashing as manufactured by Dur-O-Wal, "Cop-A-Bond" 202 weight as manufactured by AFCO, Duplex "Cop-R-Flash" as manufactured by Phoenix, "Cop-R-Tex Duplex" as manufactured by York Manufacturing or an approved equal.

## 2.2 ACCESSORIES

- A. General: Provide all accessories or other items essential to completeness of sheet metal installation, though not specifically shown or specified. All such items shall be of same material or compatible to base material to which applied and gauges shall conform to SMACNA Manual recommendations.
- B. Fasteners: All nails, screws, bolts, rivets and other fastenings for sheet metal, unless otherwise noted, shall be type 304 or 305 stainless steel, galvanized steel or cadmium plated, and of size and type suitable for intended use. Nails shall be minimum 12 gauge, flat head annular-thread type, and of sufficient length to penetrate backing at least  $\frac{3}{4}$ ".
- C. Solder: Solder shall conform to ASTM Designation B 32T, 60-40 or 80-20 percent block tin and pig lead.

D. Flux: In accordance with FS 0-F-506.

E. Sealant: See Section 079200.

### PART 3 - EXECUTION

#### 3.1 CONDITION OF SURFACES

- A. Proper Surfaces: Surfaces to which sheet metal is applied shall be even, smooth, sound, thoroughly clean and dry and free from projecting nail heads or other defects that would affect the application. Defects shall be corrected by the trades involved before installation of sheet metal work.
- B. Other Work: Installation of other work that will be covered by or passed through sheet metal work shall be completed and approved before sheet metal work in that area.

#### 3.2 INSTALLATION (SHEET METAL)

- A. Fabricate and install sheet metal with lines, arrises, and angles sharpened true, and plane surfaces free from waves, warps or buckles. Exposed edges of sheet metal shall be folded back to form 1/2 inch wide hem on the side concealed from view. Finished work shall be free from water leakage under all weather conditions.
- B. Expansion Joints: Provisions for expansion and contraction shall be provided in sheet at intervals not exceeding forty (40) feet or as recommended by the metal manufacturer. Where the continuous run of sheet metal exceed the interval by more than 16 feet, one joint shall be provided at the center of the run. Joints shall be evenly spaced. Expansion and contraction joints shall be slip type, loose locked, and fabricated as indicated or in accordance with applicable details in the SMACNA Manual.
- C. Soldering: Except where other methods of jointing are indicated or specified, all joint seams and connections of sheet metal work shall be soldered.
- D. Welding: Welding may be used in lieu of soldering for sheet metal shop fabrication as approved. In exposed locations, dress weld beads smooth and finish to match and blend with adjacent parent material.
- E. Fastening: Unless otherwise indicated or specified, all fastenings shall be concealed. Nails where used to attach sheet metal shall be spaced on 6-inch centers unless otherwise specified herein or approved.
- F. Cleating: Generally cleats shall be continuous and formed of the same materials and the same thickness as the member being fastened. Secure cleats to wood nailers or blocking with nails; turn end of cleat back to cover nail heads. Lock other end of cleat into seam or the folded edge of member being fastened. Where seams are to be soldered, roughen and tin the cleats.

#### 3.3 INSTALLATION (FLASHING)

- A. Shape and Location: Provide in locations indicated on the Drawings. Form flashing in 8 or 10 foot length, except where shorter pieces are allowed by the Architect.
- B. Jointing: Concealed splice plate shall be 12" wide; do not solder or weld joints. Stagger joints with relation to base flashing joints. Make flashing continuous at angles.
- C. Width: Cap flashing shall overlap base flashing a minimum of 4 inches. Bottom edge of flashing shall be folded back 1/2 inch on underside.
- D. Fastening: Where cap or counter flashing terminates in raked joints or reglets, fasten flashing with lead or P.V.C. wedges every 12 inches. Fill reglets with sealing compound unless otherwise approved. Sealant shall be as specified in the Caulking Sealants Section.

#### 3.4 INSTALLATION OF CONCEALED FLASHING

- A. Location: Wall flashing shall be installed on top and bottom of spandrel beams, over all openings in exterior walls, continuous beneath all weephole locations, and elsewhere indicated on Drawings.
- B. Priming: Concrete and masonry surfaces shall be primed with asphalt primer prior to receiving any trowel mastic.
- C. Mastic: Bed flashing in coat of mastic 1/16" thick, troweled over all surfaces of concrete, masonry or steel to be treated.

- D. Jointing and Embedment: Press flashing tightly into contact with mastic without voids or air bubbles, bend sharply and fit closely into re-entrant angles, so that masonry laid on completed treatment shall neither puncture fabric nor disengage its upper edge from reglet or flashing receiver. Lap flashing across joints 4" in bed of mastic.
  - E. Lengths: Flashing at floor lines, Continuous lintels or sash angles, continuous sills, or other running members shall be continuous. Continuous treatments at sills and lintels of isolated openings shall extend 6 1' beyond jambs and be turned up at ends to form a pan.
  - F. Width: Flashing unless detailed otherwise, shall extend beyond the outside face of wall and lip down, carried through the wall to the interior face of wall, and turn up 8" and adhere thereto where covered by furred finishes.
- 3.5 CLEANING STAINLESS STEEL
- A. Flux Residue: Upon completion of soldering operations for each area or item all flux residue shall be removed from the stainless steel surfaces.
  - B. Cleaning Agent: Remove residue by swabbing areas with a solution of washing soda or ammonia, scrubbing and then rinsing with clear water. Use particular care to remove residue from any crevices.
- END OF SECTION 076200

## SECTION 077113 - MANUFACTURED ROOF SPECIALTIES-COPINGS

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. This Section includes the following manufactured roof specialties:
  - 1. Copings.

## 1.3 PERFORMANCE REQUIREMENTS

- A. General: Manufacture and install manufactured roof specialties to resist thermally induced movement and exposure to weather without failing, rattling, leaking, and fastener disengagement.
- B. FMG Listing: Manufacture and install copings that are listed in FMG's "Approval Guide" and approved for Windstorm Classification, Class 1-90 or as required by Code governing the area where the project is located. Identify materials with FMG markings.
- C. Thermal Movements: Provide manufactured roof specialties that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
  - 1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
- D. Water Infiltration: Provide manufactured roof specialties that do not allow water infiltration to building interior.

## 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Show layouts of manufactured roof specialties, including plans and elevations. Identify factory- vs. field-assembled work. Include the following:
  - 1. Details for fastening, joining, supporting, and anchoring manufactured roof specialties including fasteners, clips, cleats, and attachments to adjoining work.
  - 2. Details for expansion and contraction.
- C. Samples for Initial Selection: For each type of manufactured roof specialty indicated with factory-applied color finishes.
- D. Fabrication Samples: For copings made from 12-inch (300-mm) lengths of full-size components including fasteners, cover joints, accessories, and attachments.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, verifying compliance of copings with performance requirements.
- F. Warranty: Special warranty specified in this Section.

## 1.5 QUALITY ASSURANCE

- A. Product Options: Information on Drawings and in Specifications establishes requirements for system's aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, and in-service performance.
  - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

## 1.6 COORDINATION

- A. Coordinate installation of manufactured roof specialties with interfacing and adjoining construction to provide a leak proof, secure, and noncorrosive installation.

## 1.7 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace manufactured roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.
  1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
    - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  2. Finish Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
  1. Basis-of-Design Product: The designs for copings are based on the products named. Subject to compliance with requirements, provide either the named products or comparable products by one of the other manufacturers specified.

## 2.2 EXPOSED METALS

- A. Aluminum Sheet: ASTM B 209 (ASTM B 209M), alloy and temper recommended by manufacturer for use and finish indicated.
  1. Surface: Smooth, flat finish.
  2. **PROVIDE COPINGS WITH ONE OF THE FOLLOWING FINISHES AS INDICATED ON THE DRAWINGS.**
  3. High-Performance Organic Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    - a. Fluoropolymer 3-Coat System: Manufacturer's standard 3-coat, thermocured system consisting of specially formulated inhibitive primer, fluoropolymer color coat, and clear fluoropolymer topcoat, with both color coat and clear topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight, with a minimum total dry film thickness of 1.5 mil (0.038 mm); complying with AAMA 2605.
  4. Anodic Finish: Apply the following finish:
    - a. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.
    - Or:
    - b. Class II, Color Anodic Finish: AA-M12C22A34 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, electrolytically deposited color coating 0.010 mm or thicker) complying with AAMA 611.
  5. Mechanical Finish (Senior Center, match existing) :
    - a. AA-M12 Mill Finish

## 2.3 CONCEALED METALS

- A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 (Z275) coating designation; structural quality.

## 2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, separators, sealants, and other miscellaneous items required by manufacturer for a complete installation.
- B. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to withstand design loads.
  - 1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.
- C. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane, polysulfide, or silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Parapet Moisture Barrier: Provide membrane moisture barrier wrap over the entire parapet and beneath the coping. Membrane shall be the same as the roofing membrane.
- F. Bituminous Coating (If Required): Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil (0.4-mm) dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.
- G. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
  - 1. Slip Sheet: Rosin-sized paper, minimum 3 lb/100 sq. ft. (0.16 kg/sq. m).

## 2.5 COPINGS

- A. Copings: Manufactured coping system consisting of formed-metal coping cap in section lengths not exceeding 12 feet (3.6 m), concealed anchorage, concealed splice plates with same finish as coping caps, mitered corner units, and end cap units.
  - 1. Basis-of-Design Product: OMG Edge Systems (W. P. Hickman) – Permasnap Continuous Cleat and Coping System or a comparable product by one of the following:
  - 2. Manufacturers:
    - a. Architectural Products Co. – AP Snap-Tight Continuous Cleat and Coping System.
    - b. Cheney Flashing Company – Splice Lock Continuous Cleat and Coping Cover System.
    - c. Drexel Metals – Spring Tite Continuous Cleat Coping System.
    - d. Perimeter Systems, a division of Southern Aluminum Finishing Co. – Press-Loc Continuous Cleat and Coping System.
  - 3. Products:
    - a. OMG Edge Systems (W. P. Hickman) – Permasnap Continuous Cleat and Coping System.
  - 4. Coping Caps: Snap-on, fabricated from the following exposed metal:
    - a. Aluminum: 0.063 inch (1.6 mm) thick.
  - 5. Coping Cap Color: As indicated on the Drawings.
  - 6. Corners: Continuously welded.
  - 7. Special Fabrications (As indicated on the Drawings): Radiused sections, Arched sections, or Two-way sloped coping cap.
  - 8. Snap-on Coping Anchor Plates: Concealed, galvanized steel sheet, 12 inches (300 mm) wide, 0.028 inch (0.7 mm) thick, with integral cleats.
  - 9. Face Leg Cleats: Concealed, continuous galvanized steel sheet.
- B. Coping Size Verification: Contractor shall be responsible for job and field verification of the actual dimensions of the copings. Copings vertical faces shall be a minimum of 6 inches in the height or as detailed on the drawings.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of work.

1. Examine walls, roof edges, and parapets for suitable conditions for manufactured roof specialties.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
3. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. General: Install manufactured roof specialties according to manufacturer's written instructions. Anchor manufactured roof specialties securely in place and capable of resisting forces specified in performance requirements. Use fasteners, separators, sealants, and other miscellaneous items as required to complete manufactured roof specialty systems.
  1. Install manufactured roof specialties with provisions for thermal and structural movement.
  2. Torch cutting of manufactured roof specialties is not permitted.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
  1. Coat concealed side of uncoated aluminum manufactured roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
  2. Underlayment: Where installing exposed-to-view components of manufactured roof specialties directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet.
  3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.
- C. Install manufactured roof specialties level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil-canning, buckling, or tool marks.
- D. Install manufactured roof specialties to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
- E. Expansion Provisions: Provide for thermal expansion of exposed manufactured roof specialties. Space movement joints at a maximum of 12 feet (3.6 m) with no unplanned joints within 18 inches (450 mm) of corners or intersections.
- F. Fasteners: Use fasteners of type and size recommended by manufacturer but of sizes that will penetrate substrate not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for wood screws.
- G. Seal joints with elastomeric sealant as required by manufacturer of roofing specialties.

### 3.3 COPING INSTALLATION

- A. Over entire parapet install membrane moisture barrier wrap prior to installation of the coping. Install beginning at the low point and lapping each successive sheet a minimum of 4 inches over the lower sheet. Seams shall be heat welded together or fully adhered with manufacturers recommended adhesive.
  1. Install parapet moisture barrier wrap as detailed on the drawings or as directed by the Architect.
- B. Install cleats, anchor plates, anchor bars and other anchoring and attachment accessories and devices with concealed fasteners as recommended by the manufacturer.
- C. Anchor copings to resist uplift and outward forces according to performance requirements.
  1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at 24-inch (600-mm) centers or as required by Code governing the area where the project is located.

### 3.4 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

- B. Clean and neutralize flux materials. Clean off excess solder and sealants.
- C. Remove temporary protective coverings and strippable films as manufactured roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.
- D. Replace manufactured roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077113



## SECTION 077205 - ROOF ACCESSORIES

## PART 1 - GENERAL

## 1.1 SUMMARY

## 1.2 COORDINATION

- A. Coordinate installation of roof accessories with interfacing and adjoining construction to provide a leak proof, secure, and noncorrosive installation.

## 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of roof accessory.
- B. Shop Drawings: For roof accessories.
- C. Samples: For each exposed product and for each color and texture specified.

## 1.4 INFORMATIONAL SUBMITTALS

- A. Sample warranties.

## 1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

## 1.6 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes within 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

## 2.1 METAL MATERIALS

- A. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A 792/A 792M, AZ50 (AZM150) coated.
  1. Factory Prime Coating: Where field painting is indicated, apply pretreatment and white or light-colored, factory-applied, baked-on epoxy primer coat, with a minimum dry film thickness of 0.2 mil (0.005 mm).
  2. Exposed Coil-Coated Finish: Pre-painted by the coil-coating process to comply with ASTM A 755/A 755M. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    - a. Two-Coat Fluoropolymer Finish: AAMA 621. System consisting of primer and fluoropolymer color topcoat containing not less than 70 percent PVDF resin by weight.
  3. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester-backer finish consisting of prime coat and wash coat, with a minimum total dry film thickness of 0.5 mil (0.013 mm).
- B. Aluminum Extrusions and Tubes: ASTM B 221 (ASTM B 221M), manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.
- C. Stainless-Steel Sheet and Shapes: ASTM A 240/A 240M or ASTM A 666, Type 304.
- D. Steel Shapes: ASTM A 36/A 36M, hot-dip galvanized according to ASTM A 123/A 123M unless otherwise indicated.
- E. Steel Tube: ASTM A 500/A 500M, round tube.
- F. Galvanized-Steel Tube: ASTM A 500/A 500M, round tube, hot-dip galvanized according to ASTM A 123/A 123M.
- G. Steel Pipe: ASTM A 53/A 53M, galvanized.

## 2.2 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, thickness and thermal resistivity as indicated.
- C. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWWA C2; not less than 1-1/2 inches (38 mm) thick.

- D. Underlayment – As Required By Installation:
  1. Felt: ASTM D 226/D 226M, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
  2. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils (0.76 to 1.0 mm) thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or SBS-modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
- E. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide non-removable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:
- F. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, PVC, or silicone or a flat design of foam rubber, sponge neoprene, or cork.
- G. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant as recommended by roof accessory manufacturer for installation indicated; low modulus; of type, grade, class, and use classifications required to seal joints and remain watertight.
- H. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for expansion joints with limited movement.
- I. Asphalt Roofing Cement: ASTM D 4586/D 4586M, asbestos free, of consistency required for application.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. General: Verify dimensions of roof openings for roof accessories. Install roof accessories according to manufacturer's written instructions.
  1. Install roof accessories level; plumb; true to line and elevation; and without warping, jogs in alignment, buckling, or tool marks.
  2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.
  3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
  4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.
- B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
  1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
  2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of underlayment and cover with manufacturer's recommended slip sheet.
- C. Seal joints with elastomeric or butyl sealant as required by roof accessory manufacturer.

#### 3.2 REPAIR AND CLEANING

- A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A 780/A 780M.
- B. Touch up factory-primed surfaces with compatible primer ready for field painting according to Section 099113 "Exterior Painting."
- C. Clean exposed surfaces according to manufacturer's written instructions.
- D. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077205

## SECTION 079200 - JOINT SEALANTS

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

- A. Section Includes:
  1. Silicone joint sealants.
  2. Nonstaining silicone joint sealants.

## 1.3 PREINSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.

## 1.4 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- (13-mm-) wide joints formed between two 6-inch- (150-mm-) long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- D. Joint-Sealant Schedule: Include the following information:
  1. Joint-sealant application, joint location, and designation.
  2. Joint-sealant manufacturer and product name.
  3. Joint-sealant formulation.
  4. Joint-sealant color.

## 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified testing agency.
  - B. Product Test Reports: For each kind of joint sealant, for tests performed by manufacturer and witnessed by a qualified testing agency.
  - C. Preconstruction Laboratory Test Schedule: Include the following information for each joint sealant and substrate material to be tested:
    1. Joint-sealant location and designation.
    2. Manufacturer and product name.
    3. Type of substrate material.
    4. Proposed test.
    5. Number of samples required.
  - D. Preconstruction Laboratory Test Reports: From sealant manufacturer, indicating the following:
    1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
    2. Interpretation of test results and written recommendations for primers and substrate preparation are needed for adhesion.
  - E. Preconstruction Field-Adhesion-Test Reports: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on testing specified in "Preconstruction Testing" Article.
  - F. Field-Adhesion-Test Reports: For each sealant application tested.
  - G. Sample Warranties: For special warranties.
- 1.6 QUALITY ASSURANCE
- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.
  - B. Product Testing: Test joint sealants using a qualified testing agency.
    1. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.

- C. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

#### 1.7 PRECONSTRUCTION TESTING

- A. Preconstruction Laboratory Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.
  1. Adhesion Testing: Use ASTM C 794 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
  2. Compatibility Testing: Use ASTM C 1087 to determine sealant compatibility when in contact with glazing and gasket materials.
  3. Stain Testing: Use ASTM C 1248 to determine stain potential of sealant when in contact with stone and masonry substrates.
  4. Submit manufacturer's recommended number of pieces of each type of material, including joint substrates, joint-sealant backings, and miscellaneous materials.
  5. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
  6. For materials failing tests, obtain joint-sealant manufacturer's written instructions for corrective measures, including use of specially formulated primers.
  7. Testing will not be required if joint-sealant manufacturers submit data that are based on previous testing, not older than 24 months, of sealant products for adhesion to, staining of, and compatibility with joint substrates and other materials matching those submitted.
- B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates as follows:
  1. Locate test joints where indicated on Project or, if not indicated, as directed by Architect.
  2. Conduct field tests for each kind of sealant and joint substrate.
  3. Notify Architect seven days in advance of dates and times when test joints will be erected.
  4. Arrange for tests to take place with joint-sealant manufacturer's technical representative present.
    - a. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1.1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
      - 1) For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
  5. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
  6. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

#### 1.8 FIELD CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
  1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
  2. When joint substrates are wet.
  3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
  4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

## 1.9 WARRANTY

- A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: **Two years** from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: **Five years** from date of Substantial Completion.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
  - 1. Movement of the structure caused by stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
  - 2. Disintegration of joint substrates from causes exceeding design specifications.
  - 3. Mechanical damage caused by individuals, tools, or other outside agents.
  - 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

## PART 2 - PRODUCTS

## 2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

## 2.2 SILICONE JOINT SEALANTS

- A. Silicone, S, NS, 100/50, NT: Single-component, nonsag, plus 100 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. GE Construction Sealants; Momentive Performance Materials Inc.
    - b. Sika Corporation; Joint Sealants.
- B. Silicone, S, NS, 50, NT: Single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Dow Corning Corporation.
    - b. GE Construction Sealants; Momentive Performance Materials Inc.
    - c. Pecora Corporation.
    - d. Sika Corporation; Joint Sealants.
- C. Silicone, S, NS, 100/50, T, NT: Single-component, nonsag, plus 100 percent and minus 50 percent movement capability, traffic- and nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 100/50, Uses T and NT.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Dow Corning Corporation.
    - b. May National Associates, Inc.; a subsidiary of Sika Corporation.
    - c. Sika Corporation; Joint Sealants.

## 2.3 NONSTAINING SILICONE JOINT SEALANTS

- A. Nonstaining Joint Sealants: No staining of substrates when tested according to ASTM C 1248.

- B. Silicone, Nonstaining, S, NS, 100/50, NT: Nonstaining, single-component, nonsag, plus 100 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.
    - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - a. May National Associates, Inc.; a subsidiary of Sika Corporation.
      - b. Pecora Corporation.
      - c. Tremco Incorporated.
  - C. Silicone, Nonstaining, S, NS, 50, NT: Nonstaining, single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.
    - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - a. Dow Corning Corporation.
      - b. GE Construction Sealants; Momentive Performance Materials Inc.
      - c. May National Associates, Inc.; a subsidiary of Sika Corporation.
      - d. Pecora Corporation.
      - e. Sika Corporation; Joint Sealants.
      - f. Tremco Incorporated.
  - D. Silicone, Nonstaining, S, NS, 100/50, T, NT: Nonstaining, single-component, nonsag, plus 100 percent and minus 50 percent movement capability, traffic- and nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 100/50, Uses T and NT.
    - 1. Manufacturers: Subject to compliance with requirements, provide products by the following:
      - a. Dow Corning Corporation.
  - E. Silicone, Nonstaining, M, NS, 50, NT: Nonstaining, multicomponent, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type M, Grade NS, Class 50, Use NT.
    - 1. Manufacturers: Subject to compliance with requirements, provide products by the following:
      - a. Tremco Incorporated.
- 2.4 MILDEW-RESISTANT JOINT SEALANTS
- A. Mildew-Resistant Joint Sealants: Formulated for prolonged exposure to humidity with fungicide to prevent mold and mildew growth.
  - B. Silicone, Mildew Resistant, Acid Curing, S, NS, 25, NT: Mildew-resistant, single-component, nonsag, plus 25 percent and minus 25 percent movement capability, nontraffic-use, acid-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 25, Use NT.
    - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - a. Dow Corning Corporation.
      - b. GE Construction Sealants; Momentive Performance Materials Inc.
      - c. May National Associates, Inc.; a subsidiary of Sika Corporation.
      - d. Soudal USA.
      - e. Tremco Incorporated.
- 2.5 JOINT-SEALANT BACKING
- A. Sealant Backing Material, General: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
    - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - a. BASF Corporation; Construction Systems.

- b. Construction Foam Products; a division of Nomaco, Inc.
  - B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), Type O (open-cell material), Type B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
  - C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.
- 2.6 MISCELLANEOUS MATERIALS
- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
  - B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
  - C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
  1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
  2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:
    - a. Concrete.
    - b. Masonry.
    - c. Unglazed surfaces of ceramic tile.
    - d. Exterior insulation and finish systems.
    - e. Stone.
  3. Remove laitance and form-release agents from concrete.
  4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
    - a. Metal.
    - b. Glass.
    - c. Porcelain enamel.
    - d. Glazed surfaces of ceramic tile.

- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

### 3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
  - 1. Do not leave gaps between ends of sealant backings.
  - 2. Do not stretch, twist, puncture, or tear sealant backings.
  - 3. Remove absorbent sealant backings that have become wet before sealant application, and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses in each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
  - 1. Remove excess sealant from surfaces adjacent to joints.
  - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  - 3. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.
  - 4. Provide flush joint profile at locations indicated on Drawings according to Figure 8B in ASTM C 1193.
  - 5. Provide recessed joint configuration of recess depth and at locations indicated on Drawings according to Figure 8C in ASTM C 1193.
    - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

### 3.4 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
  - 1. Extent of Testing: Test completed and cured sealant joints as follows:
    - a. Perform 10 tests for the first 1000 feet (300 m) of joint length for each kind of sealant and joint substrate.
    - b. Perform one test for each 1000 feet (300 m) of joint length thereafter or one test per each floor per elevation.
  - 2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.



- a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
  - 3. Inspect tested joints and report on the following:
    - a. Whether sealants filled joint cavities and are free of voids.
    - b. Whether sealant dimensions and configurations comply with specified requirements.
    - c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion complies with sealant manufacturer's field-adhesion hand-pull test criteria.
  - 4. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant material, sealant configuration, and sealant dimensions.
  - 5. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.
- B. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.
- 3.5 CLEANING
- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.
- 3.6 PROTECTION
- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.
- END OF SECTION 079200